

Men's 400m Hurdles Touchdown Times - by athlete

LAST UPDATE: 11-Oct-24

														Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
														Run-In						
Abakar, Ismail Doudai (QAT) (2004)																				
Heat 5 - 2024 Olympic Games (Paris, FRA)														Paris 2024 Olympic Games - Results Book (2024)						
date	05-Aug-24	time	5.79	9.45	13.24	17.07									dnf	8 / --				
reaction time	0.177	interval		3.66	3.79	3.83												11.28		
		velocity	7.77	9.56	9.23	9.14												9.31		
H1 lead leg	L	strides	20	13	13	13										59				
FINAL - 2024 London Athletics Meet (London, GBR)														Omega Timing (2024) - diamond league race analysis						
date	20-Jul-24	time	5.78	9.36	13.00	16.68	20.55	24.66	28.77	33.05	37.51	42.15			47.72	8 / 3				
reaction time	0.198	interval		3.58	3.64	3.68	3.87	4.11	4.11	4.28	4.46	4.64	5.57	PB				10.90	12.09	13.38
		velocity	7.79	9.78	9.62	9.51	9.04	8.52	8.52	8.18	7.85	7.54	7.18		8.38			9.63	8.68	7.85
H1 lead leg	L	strides	20	13	13	13	13			13	13	14	17.2		129.2					
FINAL - 2024 Meeting de Paris (Paris, FRA)														Omega Timing (2024) - diamond league race analysis						
date	07-Jul-24	time	5.75	9.49	13.34	17.23	21.10	25.18	29.44	33.82	38.31	42.98			48.79	1 / 7				
reaction time	0.192	interval		3.74	3.85	3.89	3.87	4.08	4.26	4.38	4.49	4.67	5.81					11.48	12.21	13.54
		velocity	7.83	9.36	9.09	9.00	9.04	8.58	8.22	7.99	7.80	7.49	6.88		8.20			9.15	8.60	7.75
H1 lead leg	L	strides	20	13	13	13	13			13	13	15	17.2		130.2					
FINAL - 2024 Seashore Doha Meeting (Doha, QAT)														Omega Timing (2024) - diamond league race analysis						
date	10-May-24	time	5.97	9.89	14.00	18.18	22.52	26.95	31.34	35.78	40.33	44.95			50.34	3 / 7				
reaction time	0.167	interval		3.92	4.11	4.18	4.34	4.43	4.39	4.44	4.55	4.62	5.39					12.21	13.16	13.61
		velocity	7.54	8.93	8.52	8.37	8.06	7.90	7.97	7.88	7.69	7.58	7.42	7.95				8.60	7.98	7.71
H1 lead leg	L	strides	20	13	13	13	13	13		13	13	13	16.5		140.5					
Abdalmujied, Amor Ebed (QAT) (200)																				
B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)														Henson (2021) - Athlete First: 2021 year end hurdle report						
date	28-May-21	time	6.10	9.93	14.00	18.20	22.53	24.5	26.97	31.70	36.37	41.17	45.97		51.40	3 / 3				
reaction time	0.168	interval		3.83	4.07	4.20	4.33		4.44	4.73	4.67	4.80	4.80	5.43	PB			12.10	13.50	14.27
		velocity	7.38	9.14	8.60	8.33	8.08	8.16	7.88	7.40	7.49	7.29	7.29	7.37	7.78			8.68	7.78	7.36
H1 lead leg	L	strides	22	14	14	14	14		14		15	15	15	18.7	155.7					
Abe, Takatoshi (JPN) (1991)																				
FINAL - 2021 Japanese National Championships (Osaka, JPN)														Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season						
date	26-Jun-21	time	5.93	9.57	13.36	17.15	21.02	25.04	29.33	33.77	38.40	43.21			48.87	5 / 2				
reaction time	0.173	interval		3.64	3.79	3.79	3.87	4.02	4.29	4.44	4.63	4.81	5.66					11.22	12.18	13.88
		velocity	7.59	9.62	9.23	9.23	9.04	8.71	8.16	7.88	7.56	7.28	7.07	8.18				9.36	8.62	7.56
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162						
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)														Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season						
date	09-May-21	time	5.96	9.61	13.36	17.25	21.25	25.48	29.96	34.47	39.14	43.94			49.45	5 / 4				
reaction time	0.164	interval		3.65	3.75	3.89	4.00	4.23	4.48	4.51	4.67	4.80	5.51					11.29	12.71	13.98
		velocity	7.55	9.59	9.33	9.00	8.75	8.27	7.81	7.76	7.49	7.29	7.26	8.09				9.30	8.26	7.51
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123						
FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)														Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season						
date	03-May-21	time	6.02	9.66	13.46	17.33	21.29	25.49	29.85	34.40	39.16	44.09			50.35	4 / 3				
reaction time	0.166	interval		3.64	3.80	3.87	3.96	4.20	4.36	4.55	4.76	4.93	6.26					11.31	12.52	14.24
		velocity	7.48	9.62	9.21	9.04	8.84	8.33	8.03	7.69	7.35	7.10	6.39	7.94				9.28	8.39	7.37
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19.2	165.2						
FINAL - 2020 Japanese National Championships (Niigata, JPN)														Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season						
date	02-Oct-20	time	6.01	9.59	13.35	17.17	21.10	25.28	29.68	34.23	39.01	43.94			49.73	5 / 1				
reaction time	0.170	interval		3.58	3.76	3.82	3.93	4.18	4.40	4.55	4.78	4.93	5.79					11.16	12.51	14.26
		velocity	7.49	9.78	9.31	9.16	8.91	8.37	7.95	7.69	7.32	7.10	6.91	8.04				9.41	8.39	7.36
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	19	163						
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)														Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season						
date	20-Sep-20	time	6.04	9.71	13.48	17.32	21.25	25.34	29.73	34.23	38.92	43.69			49.38	6 / 1				
reaction time	0.196	interval		3.67	3.77	3.84	3.93	4.09	4.39	4.50	4.69	4.77	5.69					11.28	12.41	13.96
		velocity	7.45	9.54	9.28	9.11	8.91	8.56	7.97	7.78	7.46	7.34	7.03	8.10				9.31	8.46	7.52
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123						
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)														Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season						
date	23-Aug-20	time	5.96	9.64	13.36	17.20	21.12	25.23	29.58	34.08	38.79	43.66			49.31	6 / 1				
reaction time	0.150	interval		3.68	3.72	3.84	3.92	4.11	4.35	4.50	4.71	4.87	5.65					11.24	12.38	14.08
		velocity	7.55	9.51	9.41	9.11	8.93	8.52	8.05	7.78	7.43	7.19	7.08	8.11				9.34	8.48	7.46
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123						
Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)														Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships						
date	28-Sep-19	time	5.90	9.63	13.42	17.28	21.31	25.44	29.82	34.30	38.88	43.53			48.97	4 / 3				
reaction time	0.161	interval		3.73	3.79	3.86	4.03	4.13	4.38	4.48	4.58	4.65	5.44					11.38	12.54	13.71
		velocity	7.63	9.38	9.23	9.07	8.68	8.47	7.99	7.81	7.64	7.53	7.35	8.17				9.23	8.37	7.66
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162						

FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	18-Aug-19	time	5.96	9.72	13.56	17.44	21.44	23.2	25.52	29.96	34.68	39.48	44.48	50.36	2 / 6			
reaction time	0.148	interval		3.76	3.84	3.88	4.00		4.08	4.44	4.72	4.80	5.00	5.88		11.48	12.52	14.52
		velocity	7.55	9.31	9.11	9.02	8.75	8.62	8.58	7.88	7.42	7.29	7.00	6.80	7.94	9.15	8.39	7.23
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	18	162			

FINAL - 2019 Japanese National Championships (Fukuoka, JPN)*Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date	29-Jun-19	time	5.96	9.63	13.45	17.26	21.15		25.19	29.53	33.95	38.51	43.23	48.80	8 / 1			
reaction time	0.140	interval		3.67	3.82	3.81	3.89		4.04	4.34	4.42	4.56	4.72	5.57		11.30	12.27	13.70
		velocity	7.55	9.54	9.16	9.19	9.00		8.66	8.06	7.92	7.68	7.42	7.18	8.20	9.29	8.56	7.66
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	18.2	162.2			

FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	13-Jun-19	time	6.02	9.78	13.68	17.58	21.72	23.5	25.92	30.29	34.83	39.54	44.31	49.78	8 / 5			
reaction time	0.188	interval		3.76	3.90	3.90	4.14		4.20	4.37	4.54	4.71	4.77	5.47		11.56	12.71	14.02
		velocity	7.48	9.31	8.97	8.97	8.45	8.51	8.33	8.01	7.71	7.43	7.34	7.31	8.04	9.08	8.26	7.49
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	17.5	161.5			

FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	06-Jun-19	time	5.87	9.62	13.49	17.56	21.66		25.88	30.19	34.79	39.40	44.09	49.57	7 / 3			
reaction time	0.164	interval		3.75	3.87	4.07	4.10		4.22	4.31	4.60	4.61	4.69	5.48		11.69	12.63	13.90
		velocity	7.67	9.33	9.04	8.60	8.54		8.29	8.12	7.61	7.59	7.46	7.30	8.07	8.98	8.31	7.55
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	15	17.5	159.5			

FINAL - 2019 Asian Athletics Championships (Doha, QAT)*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	22-Apr-19	time	5.97	9.64	13.33	17.10	21.04		25.19	29.66	34.27	39.06	43.93	49.74	7 / 5			
reaction time	0.189	interval		3.67	3.69	3.77	3.94		4.15	4.47	4.61	4.79	4.87	5.81		11.13	12.56	14.27
		velocity	7.54	9.54	9.49	9.28	8.88		8.43	7.83	7.59	7.31	7.19	6.88	8.04	9.43	8.36	7.36
H1 lead leg		strides		13	13	13	13		13	14	14	15	15	123				

FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)*Henson (2021) - Athlete First: 2018 year end hurdle report*

date	08-Sep-18	time	5.92	9.60	13.40	17.32	21.36		25.52	29.96	34.52	39.32	44.16	49.80	7 / 6			
reaction time	0.192	interval		3.68	3.80	3.92	4.04		4.16	4.44	4.56	4.80	4.84	5.64		11.40	12.64	14.20
		velocity	7.60	9.51	9.21	8.93	8.66		8.41	7.88	7.68	7.29	7.23	7.09	8.03	9.21	8.31	7.39
H1 lead leg	R	strides	20	13	13	13	13			14	14	15	15	17.5	147.5			

FINAL - 2018 Japanese National Championships (Yamaguchi, JPN)*Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018*

date	23-Jun-18	time	5.98	9.65	13.39	17.24	21.21		25.33	29.80	34.40	39.10	43.87	49.44	7 / 2			
reaction time	0.201	interval		3.67	3.74	3.85	3.97		4.12	4.47	4.60	4.70	4.77	5.57		11.26	12.56	14.07
		velocity	7.53	9.54	9.36	9.09	8.82		8.50	7.83	7.61	7.45	7.34	7.18	8.09	9.33	8.36	7.46
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161			

FINAL - 2018 Seiko Golden Grand Prix (Osaka, JPN)*Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018*

date	20-May-18	time	5.91	9.51	13.16	16.90	20.74		24.74	29.03	33.60	38.47	43.41	48.97	7 / 1			
reaction time	0.194	interval		3.60	3.65	3.74	3.84		4.00	4.29	4.57	4.87	4.94	5.56		10.99	12.13	14.38
		velocity	7.61	9.72	9.59	9.36	9.11		8.75	8.16	7.66	7.19	7.09	7.19	8.17	9.55	8.66	7.30
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	16	15	18	161			

A FINAL - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018*

date	03-May-18	time	5.97	9.64	13.38	17.15	20.99		24.96	29.20	33.67	38.27	43.06	48.68	6 / 1			
reaction time	0.222	interval		3.67	3.74	3.77	3.84		3.97	4.24	4.47	4.60	4.79	5.62	PB	11.18	12.05	13.86
		velocity	7.54	9.54	9.36	9.28	9.11		8.82	8.25	7.83	7.61	7.31	7.12	8.22	9.39	8.71	7.58
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161			

Semi-Final 2 - 2017 IAAF World Championships (London, GBR)*Morioka (2018) - Analysis of the race patterns of the top 400m hurdlers in Japan*

date	07-Aug-17	time	5.98	9.65	13.39	17.16	21.06		25.10	29.50	34.20	39.10	44.07	49.93	4 / 5			
reaction time	0.212	interval		3.67	3.74	3.77	3.90		4.04	4.40	4.70	4.90	4.97	5.86		11.18	12.34	14.57
		velocity	7.53	9.54	9.36	9.28	8.97		8.66	7.95	7.45	7.14	7.04	6.83	8.01	9.39	8.51	7.21
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161			

Heat 1 - 2017 IAAF World Championships (London, GBR)*Morioka (2018) - Analysis of the race patterns of the top 400m hurdlers in Japan*

date	06-Aug-17	time	6.22	9.89	13.66	17.46	21.36		25.46	29.86	34.40	39.00	43.90	49.65	3 / 2			
reaction time	0.316	interval		3.67	3.77	3.80	3.90		4.10	4.40	4.54	4.60	4.90	5.75		11.24	12.40	14.04
		velocity	7.23	9.54	9.28	9.21	8.97		8.54	7.95	7.71	7.61	7.14	6.96	8.06	9.34	8.47	7.48
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161			

FINAL - 2017 Japanese National Championships (Osaka, JPN)*Morioka (2018) - Analysis of the race patterns of the top 400m hurdlers in Japan*

date	24-Jun-17	time	6.01	9.71	13.53	17.37	21.39		25.54	29.98	34.50	39.17	43.91	49.32	1 / 1			
reaction time	0.193	interval		3.70	3.82	3.84	4.02		4.15	4.44	4.52	4.67	4.74	5.41		11.36	12.61	13.93
		velocity	7.49	9.46	9.16	9.11	8.71		8.43	7.88	7.74	7.49	7.38	7.39	8.11	9.24	8.33	7.54
H1 lead leg		strides		13	13	13	13		13	14	14	15	15	123				

FINAL - 2017 Seiko Golden Grand Prix (Kawasaki, JPN)*Morioka (2018) - Analysis of the race patterns of the top 400m hurdlers in Japan*

date	21-May-17	time	5.97	9.67	13.49	17.34	21.31		25.38	29.75	34.22	38.89	43.66	49.20	2 / 2			
reaction time	0.191	interval		3.70	3.82	3.85	3.97		4.07	4.37	4.47	4.67	4.77	5.54		11.37	12.41	13.91
		velocity	7.54	9.46	9.16	9.09	8.82		8.60	8.01	7.83	7.49	7.34	7.22	8.13	9.23	8.46	7.55
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161			

B FINAL - 2017 Shizuoka International Athletics Meeting (Fukuroi, JPN)

							<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>										
date	03-May-17	time	6.04	9.78	13.58	17.45	21.42	25.56	30.01	34.81	39.66	44.56	50.15	/ 1			
reaction time		interval		3.74	3.80	3.87	3.97	4.14	4.45	4.80	4.85	4.90	5.59	11.41	12.56	14.55	
		velocity	7.45	9.36	9.21	9.04	8.82	8.45	7.87	7.29	7.22	7.14	7.16	7.98	9.20	8.36	7.22
H1 lead leg		strides		13	13	13	13	13	14	16	15	15	125				

FINAL - 2014 Seiko Golden Grand Prix (Tokyo, JPN)

							<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>										
date	11-May-14	time	6.14	9.94	13.78	17.70	21.74	25.84	30.28	34.87	39.82	44.94	51.14	/ 7			
reaction time		interval		3.80	3.84	3.92	4.04	4.10	4.44	4.59	4.95	5.12	6.20	11.56	12.58	14.66	
		velocity	7.33	9.21	9.11	8.93	8.66	8.54	7.88	7.63	7.07	6.84	6.45	7.82	9.08	8.35	7.16
H1 lead leg		strides		13	13	13	13	14	14	14	15	16	125				

A FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)

							<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>										
date	03-May-14	time	6.19	10.04	13.96	18.03	22.12	26.42	30.77	35.26	39.91	44.68	50.32	/ 3			
reaction time		interval		3.85	3.92	4.07	4.09	4.30	4.35	4.49	4.65	4.77	5.64	11.84	12.74	13.91	
		velocity	7.27	9.09	8.93	8.60	8.56	8.14	8.05	7.80	7.53	7.34	7.09	7.95	8.87	8.24	7.55
H1 lead leg		strides		13	13	13	13	14	14	14	14	15	123				

FINAL - 2012 Japanese National Championships (Osaka, JPN)

							<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>										
date	09-Jun-12	time	6.02	9.79	13.57	17.42	21.46	25.66	29.93	34.45	39.15	43.99	49.57	4 / 5			
reaction time		interval		3.77	3.78	3.85	4.04	4.20	4.27	4.52	4.70	4.84	5.58	11.40	12.51	14.06	
		velocity	7.48	9.28	9.26	9.09	8.66	8.33	8.20	7.74	7.45	7.23	7.17	8.07	9.21	8.39	7.47
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18.2	163			

FINAL - 2011 Asian Championships (Kobe, JPN)

							<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>										
date	09-Jul-11	time	6.03	9.75	13.55	17.44	21.39	25.56	29.86	34.38	39.20	44.05	49.64	/ 1			
reaction time	0.168	interval		3.72	3.80	3.89	3.95	4.17	4.30	4.52	4.82	4.85	5.59	11.41	12.42	14.19	
		velocity	7.46	9.41	9.21	9.00	8.86	8.39	8.14	7.74	7.26	7.22	7.16	8.06	9.20	8.45	7.40
H1 lead leg		strides		13	13	13	13	14	14	14	16	15	125				

FINAL - 2011 Japanese National Championships (Kumagaya, JPN)

							<i>Yasunori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>										
date	11-Jun-11	time	6.19	10.08	14.02	18.02	22.14	26.41	30.71	35.20	39.74	44.41	49.81	/ 3			
reaction time		interval		3.89	3.94	4.00	4.12	4.27	4.30	4.49	4.54	4.67	5.40	11.83	12.69	13.70	
		velocity	7.27	9.00	8.88	8.75	8.50	8.20	8.14	7.80	7.71	7.49	7.41	8.03	8.88	8.27	7.66
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				

FINAL - 2009 Japanese National High School Championships (Nara, JPN)

							<i>Matsuo (2009) - 62nd high school championships: JAF scientific committee- biomechanics</i>										
date	31-Jul-09	time	6.11	10.05	14.17	18.39	22.76	27.15	31.62	36.22	40.96	45.76	51.04	/ 1			
reaction time		interval		3.94	4.12	4.22	4.37	4.39	4.47	4.60	4.74	4.80	5.28	12.28	13.23	14.14	
		velocity	7.36	8.88	8.50	8.29	8.01	7.97	7.83	7.61	7.38	7.29	7.58	7.84	8.55	7.94	7.43
H1 lead leg		strides		13	13	13	14	14	15	15	15	15	127				

FINAL - 2008 Japanese National High School Championships (Kumagaya, JPN)

							<i>Abe (2008) - 61st high school championships: JAF scientific committee- biomechanics data</i>										
date	31-Jul-08	time	6.42	10.57	14.76	19.00	23.25	27.56	32.01	36.57	41.37	46.41	52.16	/ 3			
reaction time		interval		4.15	4.19	4.24	4.25	4.31	4.45	4.56	4.80	5.04	5.75	12.58	13.01	14.40	
		velocity	7.01	8.43	8.35	8.25	8.24	8.12	7.87	7.68	7.29	6.94	6.96	7.67	8.35	8.07	7.29
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131				

Aberkan, Saïd (MOR) (1963)

							H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>Veney - split times from PJ</i>																								
date	28-Jun-92	time	6.44	10.38	14.32	18.36	22.42	26.64	31.04	35.56	40.22	45.36	51.27	/ 3										
reaction time		interval		3.94	3.94	4.04	4.06	4.22	4.40	4.52	4.66	5.14	5.91	11.92	12.68	14.32								
		velocity	6.99	8.88	8.88	8.66	8.62	8.29	7.95	7.74	7.51	6.81	6.77	7.80	8.81	8.28	7.33							
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	16	19	171										

Abuaku, Joshua (GER) (1996)

							H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																								
date	07-Aug-24	time	5.83	9.54	13.34	17.17	21.16	25.35	29.76	34.39	39.23	44.22	50.19	3 / 8										
reaction time	0.186	interval		3.71	3.80	3.83	3.99	4.19	4.41	4.63	4.84	4.99	5.97	11.34	12.59	14.46								
		velocity	7.72	9.43	9.21	9.14	8.77	8.35	7.94	7.56	7.23	7.01	6.70	7.97	9.26	8.34	7.26							
H1 lead leg	L	strides	20			13	13	13	14	14	15	15	117											
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																								
date	06-Aug-24	time	5.74	9.38	13.10	16.88	20.83	25.06	29.40	33.96	38.63	43.36	48.87	6 / 2										
reaction time	0.159	interval		3.64	3.72	3.78	3.95	4.23	4.34	4.56	4.67	4.73	5.51	11.14	12.52	13.96								
		velocity	7.84	9.62	9.41	9.26	8.86	8.27	8.06	7.68	7.49	7.40	7.26	8.18	9.43	8.39	7.52							
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18.5	161.5										
<i>Paris 2024 Olympc Games - Results Book (2024)</i>																								
date	05-Aug-24	time	5.77	9.42	13.14	16.94	20.90	25.06	29.42	33.98	38.67	43.49	49.00	7 / 4										
reaction time	0.151	interval		3.65	3.72	3.80	3.96	4.16	4.36	4.56	4.69	4.82	5.51	11.17	12.48	14.07								
		velocity	7.80	9.59	9.41	9.21	8.84	8.41	8.03	7.68	7.46	7.26	7.26	8.16	9.40	8.41	7.46							
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159										

Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)

							<i>European Athletics (2024) - 2024 european athletics championships - results book</i>									
date	10-Jun-24	time	5.82	9.55	13.38	17.24	21.26	25.56	29.87	34.32	39.14	43.80	49.13	5 / 4		

reaction time	0.170	interval	3.73	3.83	3.86	4.02	4.30	4.31	4.45	4.82	4.66	5.33	11.42	12.63	13.93			
		velocity	7.73	9.38	9.14	9.07	8.71	8.14	8.12	7.87	7.26	7.51	7.50	8.14	9.19	8.31	7.54	
H1 lead leg		strides												0				
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	30-May-24	time	5.91	9.58	13.38	17.25	21.32	25.52	34.40	39.14	43.95	49.37	3 / 5					
reaction time	0.173	interval		3.67	3.80	3.87	4.07	4.20	8.88	4.74	4.81	5.42		11.34				
		velocity	7.61	9.54	9.21	9.04	8.60	8.33	7.88	7.38	7.28	7.38	8.10	9.26				
H1 lead leg	L	strides	20	13	13	13	13	13		15	15	115						
FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	23-Aug-23	time	5.97	9.83	13.45	17.22	21.13	29.56	34.03	38.64	43.34	48.53	2 / 8					
reaction time	0.156	interval		3.86	3.62	3.77	3.91	8.43	4.47	4.61	4.70	5.19		11.25	12.34	13.78		
		velocity	7.54	9.07	9.67	9.28	8.95	8.30	7.83	7.59	7.45	7.71	8.24	9.33	8.51	7.62		
H1 lead leg	L	strides	20	13		13	13		14	14	14	18	119					
Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.90	9.68	13.31	16.92	20.79	24.83	29.19	33.63	43.01	48.39	8 / 4					
reaction time	0.179	interval		3.78	3.63	3.61	3.87	4.04	4.36	4.44	9.38	5.38		11.02	12.27	13.82		
		velocity	7.63	9.26	9.64	9.70	9.04	8.66	8.03	7.88	7.46	7.43	8.27	9.53	8.56	7.60		
H1 lead leg	L	strides	20	13	13	13	13	13	14	14		18	131					
Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	6.03	9.83	13.50	17.27	21.03	25.10	33.77	38.36	43.03	48.32	5 / 1					
reaction time	0.207	interval		3.80	3.67	3.77	3.76	4.07	8.67	4.59	4.67	5.29	PB	11.24				
		velocity	7.46	9.21	9.54	9.28	9.31	8.60	8.07	7.63	7.49	7.56	8.28	9.34				
H1 lead leg	L	strides	20	13	13	13	13	13		14	14	18	131					
FINAL - 2023 FBK Games (Hengelo, NED)													<i>Omega Timing (2023) - continental tour race analysis</i>					
date	04-Jun-23	time	5.83	9.51	13.27	17.07	21.02	25.23	29.62	34.17	38.87	43.70	49.23	8 / 3				
reaction time	0.207	interval		3.68	3.76	3.80	3.95	4.21	4.39	4.55	4.70	4.83	5.53		11.24	12.55	14.08	
		velocity	7.72	9.51	9.31	9.21	8.86	8.31	7.97	7.69	7.45	7.25	7.23	8.13	9.34	8.37	7.46	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161				
FINAL - 2022 ISTAF (Berlin, GER) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	04-Sep-22	time	5.96			20.92	25.04	29.44	33.92	38.52	43.24	48.55	5 / 3					
reaction time	0.174	interval			14.96	4.12	4.40	4.48	4.60	4.72	5.31	PB				13.80		
		velocity	7.55		9.36	8.50	7.95	7.81	7.61	7.42	7.53	8.24				7.61		
H1 lead leg	R	strides	20			13	14	14	15	15	18	109						
FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	19-Aug-22	time	5.85	9.54		17.08	20.98	22.62	25.11	29.52	33.97	38.58	43.36	48.79	7 / 5			
reaction time	0.168	interval		3.69		7.54	3.90		4.13	4.41	4.45	4.61	4.78	5.43	PB	11.23	12.44	13.84
		velocity	7.69	9.49		9.28	8.97	8.84	8.47	7.94	7.87	7.59	7.32	7.37	8.20	9.35	8.44	7.59
H1 lead leg	L	strides	20	13		13	13	14	14	15	15	18	135					
Ackermann, Uwe (GDR) (1960)																		
FINAL - 1982 European Championships (Athens, GRE)													<i>(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982</i>					
date	08-Sep-82	time	5.9	9.7	13.5	17.3	21.3	25.6	30.0	34.2	38.7	43.3	48.64	6 / 3				
reaction time		interval		3.80	3.80	3.80	4.00	4.30	4.40	4.20	4.50	4.60	5.34		11.40	12.70	13.30	
		velocity	7.63	9.21	9.21	9.21	8.75	8.14	7.95	8.33	7.78	7.61	7.49	8.22	9.21	8.27	7.89	
H1 lead leg	L	strides	20	13	13	13	13	15	15	15	15	15	18.2	165.2				
Semi-Final 2 - 1982 European Championships (Athens, GRE)													<i>(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982</i>					
date	07-Sep-82	time				21.5						49.32	1 / 1					
reaction time		interval																
		velocity				8.62							8.11					
H1 lead leg		strides																
FINAL - 1982 GDR vs. USA (Karl-Marx-Stadt, GDR)													<i>Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84</i>					
date	09-Jul-82	time	5.97			21.67						43.34	48.50	1 / 1				
reaction time		interval				15.70						21.67	5.16	PB				
		velocity	7.54			8.92						8.08	7.75	8.25				
H1 lead leg		strides																
Adkins, Derrick (USA) (1970)																		
FINAL - 1996 Olympic Games (Atlanta, GA)													<i>McFarlane (2000) - the science of hurdling and speed</i>					
date	01-Aug-96	time	5.83	9.59	13.40	17.16	21.12	25.12	29.21	33.44	37.74	42.25	47.54	6 / 1				
reaction time	0.294	interval		3.76	3.81	3.76	3.96	4.00	4.09	4.23	4.30	4.51	5.29	=PB	11.33	12.05	13.04	
		velocity	7.72	9.31	9.19	9.31	8.84	8.75	8.56	8.27	8.14	7.76	7.56	8.41	9.27	8.71	8.05	
H1 lead leg		strides	20	13	13	13	13	13	14	14	14	14	141					
FINAL - 1996 USA Olympic Trials (Atlanta, GA)													<i>McNichols - Hurdle technique study through video analysis</i>					
date	16-Jun-96	time	5.77	9.45	13.17	16.88	20.76	21.43	24.82	29.07	33.47	37.98	42.65	48.18	5 / 2			
reaction time		interval		3.68	3.72	3.71	3.88	4.06	4.25	4.40	4.51	4.67	5.53		11.11	12.19	13.58	
		velocity	7.80	9.51	9.41	9.43	9.02	9.33	8.62	8.24	7.95	7.76	7.49	7.23	8.30	9.45	8.61	7.73
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	141					

Semi-Final 1 - 1996 USA Olympic Trials (Atlanta, GA)

date	15-Jun-96	time	5.51	9.32	13.24	17.09	21.11	25.18	29.42	33.96	38.44	42.81	48.33	<i>Lyle - miscellaneous coaching notes</i>			
reaction time		interval		3.81	3.92	3.85	4.02	4.07	4.24	4.54	4.48	4.37	5.52	/ 1	11.58	12.33	13.39
H1 lead leg		velocity	8.17	9.19	8.93	9.09	8.71	8.60	8.25	7.71	7.81	8.01	7.25	8.28	9.07	8.52	7.84
		strides															

FINAL - 1995 IAAF World Championships (Göteborg, SWE)

date	10-Aug-95	time											20.8	47.98	<i>Behm (1999) - Les chiffres: Les podiums de tous le championnats</i>			
reaction time		interval													4 / 1			
H1 lead leg	L	velocity											8.89	8.34				
		strides	20	13	13	13	13	13	14	14	14	14	14	18.7	160			

Agyekum, Emil (GER) (1999)**Semi-Final 2 - 2024 Olympic Games (Paris, FRA)**

date	07-Aug-24	time	6.00	9.73	13.52	17.32	21.21	25.24	29.47	33.94	38.58	43.27	48.78	<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
reaction time	0.219	interval		3.73	3.79	3.80	3.89	4.03	4.23	4.47	4.64	4.69	5.51	3 / 5	11.32	12.15	13.80
H1 lead leg	L	velocity	7.50	9.38	9.23	9.21	9.00	8.68	8.27	7.83	7.54	7.46	7.26	8.20	9.28	8.64	7.61
		strides	20			13	13	13	14	14	15	15	18	135			

Repechage 1 - 2024 Olympic Games (Paris, FRA)

date	07-Aug-24	time	5.95	9.65	13.36	17.13	20.97	24.98	29.20	33.78	38.48	43.26	48.67	<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
reaction time	0.194	interval		3.70	3.71	3.77	3.84	4.01	4.22	4.58	4.70	4.78	5.41	4 / 2	11.18	12.07	14.06
H1 lead leg	L	velocity	7.56	9.46	9.43	9.28	9.11	8.73	8.29	7.64	7.45	7.32	7.39	8.22	9.39	8.70	7.47
		strides	20	13	13	13	13	13	13	15	15	15	18	161			

Heat 3 - 2024 Olympic Games (Paris, FRA)

date	05-Aug-24	time	6.07	9.84	13.59	17.42	21.36	25.50	29.86	34.51	39.23	44.08	49.38	<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
reaction time	0.207	interval		3.77	3.75	3.83	3.94	4.14	4.36	4.65	4.72	4.85	5.30	9 / 4	11.35	12.44	14.22
H1 lead leg	L	velocity	7.41	9.28	9.33	9.14	8.88	8.45	8.03	7.53	7.42	7.22	7.55	8.10	9.25	8.44	7.38
		strides	20	13	13	13	13	13	13			15	17.7	130.7			

FINAL - 2024 European Athletics Championships (Roma, ITA)

date	11-Jun-24	time	5.93	9.60	13.34	17.23	21.15	25.19	29.34	33.74	38.40	43.05	48.42	<i>European Athletics (2024) - 2024 european athletics championships - results book</i>			
reaction time	0.179	interval		3.67	3.74	3.89	3.92	4.04	4.15	4.40	4.66	4.65	5.37	3 / 6	11.30	12.11	13.71
H1 lead leg	L	velocity	7.59	9.54	9.36	9.00	8.93	8.66	8.43	7.95	7.51	7.53	7.45	8.26	9.29	8.67	7.66
		strides	20	13	13		13	13	13	14	14	15	17.5	145.5			

Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)

date	10-Jun-24	time	5.97	9.68	13.53	17.35	21.24	25.26	29.33	33.67	38.27	42.94	48.36	<i>European Athletics (2024) - 2024 european athletics championships - results book</i>			
reaction time	0.197	interval		3.71	3.85	3.82	3.89	4.02	4.07	4.34	4.60	4.67	5.42	6 / 4	11.38	11.98	13.61
H1 lead leg		velocity	7.54	9.43	9.09	9.16	9.00	8.71	8.60	8.06	7.61	7.49	7.38	8.27	9.23	8.76	7.71
		strides											0				

Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	21-Aug-23	time	6.10	9.98	13.68	17.28	21.12	29.56	34.06	38.70	43.41	48.71	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
reaction time	0.196	interval		3.88	3.70	3.60	3.84	8.44	4.50	4.64	4.71	5.30	48.71	3 / 5	11.18	12.28	13.85
H1 lead leg	L	velocity	7.38	9.02	9.46	9.72	9.11	8.29	7.78	7.54	7.43	7.55	8.21	8.21	9.39	8.55	7.58
		strides	21	13	13	13	13		14	15	15	18	135				

Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	20-Aug-23	time	6.16	13.83			21.43	29.86	34.33	39.03	43.76	49.00	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
reaction time	0.232	interval		7.67			7.60	8.43	4.47	4.70	4.73	5.24		1 / 6			13.90	
H1 lead leg	R	velocity	7.31	9.13			9.21	8.30	7.83	7.45	7.40	7.63	8.16					7.55
		strides	20					13	14	15	15	18	95					

Akubusi, Kriss (GBR) (1958)**FINAL - 1992 Olympic Games (Barcelona, ESP)**

date	06-Aug-92	time	6.0	9.7	13.6	17.4	21.3	23.1	25.4	29.5	33.8	38.2	42.7	47.82	<i>Arnold (1992) - Hurdling</i>			
reaction time		interval		3.70	3.90	3.80	3.90		4.10	4.10	4.30	4.40	4.50	5.12	NR	11.40	12.10	13.20
H1 lead leg	R	velocity	7.50	9.46	8.97	9.21	8.97	8.66	8.54	8.54	8.14	7.95	7.78	7.81	8.36	9.21	8.68	7.95
		strides	20	13	13	13	13		13	13	14	14	15	18	159			

FINAL - 1991 IAAF World Championships (Tokyo, JPN)

date	27-Aug-91	time	6.0	9.7	13.4	17.2	21.1	25.1	29.1	33.4	37.8	42.3	47.86	<i>Behm (1995) - la tactique du 400 haies</i>			
reaction time		interval		3.70	3.70	3.80	3.90	4.00	4.00	4.30	4.40	4.50	5.56	4 / 3	11.20	11.90	13.20
H1 lead leg	R	velocity	7.50	9.46	9.46	9.21	8.97	8.75	8.75	8.14	7.95	7.78	7.19	8.36	9.38	8.82	7.95
		strides	21	13	13	13	13	13	13	14	14	14	19	160			

FINAL - 1991 European Cup (Frankfurt, GER)

date	29-Jun-91	time	6.13	9.90	13.73	17.52	21.41	25.43	29.53	33.85	38.41	43.04	48.39	<i>Federle (2003) - http://www.fgs.uni-halle.de</i>			
reaction time		interval		3.77	3.83	3.79	3.89	4.02	4.10	4.32	4.56	4.63	5.35	/ 1	11.39	12.01	13.51
H1 lead leg		velocity	7.34	9.28	9.14	9.23	9.00	8.71	8.54	8.10	7.68	7.56	7.48	8.27	9.22	8.74	7.77
		strides															

FINAL - 1990 European Championships (Split, CRO)

date	29-Aug-90	time	6.0	9.7	13.6	17.4	21.3	23.1	25.4	29.5	33.8	38.2	42.7	47.92	<i>Arnold (1992) - Hurdling</i>		
														5 / 1			

reaction time	interval	3.70	3.90	3.80	3.90		4.10	4.10	4.30	4.40	4.50	5.22	NR	11.40	12.10	13.20		
	velocity	7.50	9.46	8.97	9.21	8.97	8.66	8.54	8.54	8.14	7.95	7.78	7.66	8.35	9.21	8.68	7.95	
H1 lead leg	R	strides	20	13	13	13		13	13	14	14	15	16	157				
FINAL - 1988 Olympic Games (Seoul, KOR)																		
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																		
date	25-Sep-88	time	6.08	9.80	13.57	17.41	21.41	25.62	29.82	34.22	38.75	43.47	48.69	7 / 6				
reaction time	0.223	interval	3.72	3.77	3.84	4.00		4.21	4.20	4.40	4.53	4.72	5.22		11.33	12.41	13.65	
		velocity	7.40	9.41	9.28	9.11	8.75		8.31	8.33	7.95	7.73	7.42	7.66	8.22	9.27	8.46	7.69
H1 lead leg	R	strides	20	13	13	13		14	14	14	14	15	18	161				
Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)																		
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																		
date	24-Sep-88	time	6.14	9.93	13.81	17.74	21.78	25.87	30.11	34.49	39.20	43.92	49.22	6 / 4				
reaction time		interval	3.79	3.88	3.93	4.04		4.09	4.24	4.38	4.71	4.72	5.30		11.60	12.37	13.81	
		velocity	7.33	9.23	9.02	8.91	8.66		8.56	8.25	7.99	7.43	7.42	7.55	8.13	9.05	8.49	7.60
H1 lead leg		strides	20	13	13	13		14	14	14	15	15	18	162				
Akçam, Berke (TUR) (2002)																		
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																		
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)																		
<i>Omega Timing (2023) - diamond league race analysis</i>																		
date	25-Aug-24	time	5.96	9.72	13.50	17.36	21.34	25.41	29.72	34.06	38.56	43.21	48.58	3 / 7				
reaction time	0.162	interval	3.76	3.78	3.86	3.98		4.07	4.31	4.34	4.50	4.65	5.37		11.62	12.36	13.49	
		velocity	7.55	9.31	9.26	9.07	8.79		8.60	8.12	8.06	7.78	7.53	7.45	8.23	9.04	8.50	7.78
H1 lead leg	L	strides	21	13	13	13		13	14	14	15	15	18.5	162.5				
Semi-Final 2 - 2024 Olympic Games (Paris, FRA)																		
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																		
date	07-Aug-24	time	5.83	9.48	13.21	17.01	20.88	24.91	29.23	33.78	38.50	43.32	49.12	2 / 8				
reaction time	0.158	interval	3.65	3.73	3.80	3.87		4.03	4.32	4.55	4.72	4.82	5.80		11.18	12.22	14.09	
		velocity	7.72	9.59	9.38	9.21	9.04		8.68	8.10	7.69	7.42	7.26	6.90	8.14	9.39	8.59	7.45
H1 lead leg	L	strides	21			13	13		13	14	14	15	15	19	137			
Repechage 3 - 2024 Olympic Games (Paris, FRA)																		
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																		
date	06-Aug-24	time	5.79	9.43	13.14	16.92	20.83	24.92	29.21	33.71	38.43	43.20	48.72	5 / 1				
reaction time	0.146	interval	3.64	3.71	3.78	3.91		4.09	4.29	4.50	4.72	4.77	5.52		11.13	12.29	13.99	
		velocity	7.77	9.62	9.43	9.26	8.95		8.56	8.16	7.78	7.42	7.34	7.25	8.21	9.43	8.54	7.51
H1 lead leg	L	strides	21	13	13	13		13	14	14	15	15	18.5	162.5				
Heat 5 - 2024 Olympic Games (Paris, FRA)																		
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																		
date	05-Aug-24	time	5.92	9.67	13.50	17.38	21.36	25.51	29.95	34.46	39.22	43.96	49.48	3 / 5				
reaction time	0.143	interval	3.75	3.83	3.88	3.98		4.15	4.44	4.51	4.76	4.74	5.52		11.46	12.57	14.01	
		velocity	7.60	9.33	9.14	9.02	8.79		8.43	7.88	7.76	7.35	7.38	7.25	8.08	9.16	8.35	7.49
H1 lead leg	L	strides	21	13	13	13		13	14	14	15	15	18.2	162.2				
FINAL - 2024 Meeting de Paris (Paris, FRA)																		
<i>Omega Timing (2024) - diamond league race analysis</i>																		
date	07-Jul-24	time	5.84	9.80	13.82	17.74	21.82	26.00	30.31	34.69	39.25	43.81	49.23	8 / 8				
reaction time	0.144	interval	3.96	4.02	3.92	4.08		4.18	4.31	4.38	4.56	4.56	5.42		11.90	12.57	13.50	
		velocity	7.71	8.84	8.71	8.93	8.58		8.37	8.12	7.99	7.68	7.68	7.38	8.13	8.82	8.35	7.78
H1 lead leg	L	strides	21	13	13	13		14	14	15	15	15	146					
FINAL - 2024 European Athletics Championships (Roma, ITA)																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	11-Jun-24	time	5.84	9.56	13.43	17.25	21.21	25.26	29.38	33.72	38.23	42.82	48.17	6 / 5				
reaction time	0.172	interval	3.72	3.87	3.82	3.96		4.05	4.12	4.34	4.51	4.59	5.35		11.41	12.13	13.44	
		velocity	7.71	9.41	9.04	9.16	8.84		8.64	8.50	8.06	7.76	7.63	7.48	8.30	9.20	8.66	7.81
H1 lead leg	L	strides	21	13	13		13		13	14	14	15	15	19	150			
Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	10-Jun-24	time	5.87	9.66	13.50	17.36	21.28	25.36	29.60	33.89	38.40	42.93	48.14	4 / 2				
reaction time	0.160	interval	3.79	3.84	3.86	3.92		4.08	4.24	4.29	4.51	4.53	5.21		11.49	12.24	13.33	
		velocity	7.67	9.23	9.11	9.07	8.93		8.58	8.25	8.16	7.76	7.73	7.68	8.31	9.14	8.58	7.88
H1 lead leg		strides												0				
Heat 2 - 2024 European Athletics Championships (Roma, ITA)																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	09-Jun-24	time	5.84	9.63	13.47	17.38	21.39	25.52	29.86	34.47	39.20	43.91	49.32	4 / 1				
reaction time	0.161	interval	3.79	3.84	3.91	4.01		4.13	4.34	4.61	4.73	4.71	5.41		11.54	12.48	14.05	
		velocity	7.71	9.23	9.11	8.95	8.73		8.47	8.06	7.59	7.40	7.43	7.39	8.11	9.10	8.41	7.47
H1 lead leg		strides												0				
Akii-Bua, John (UGA) (1949)																		
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																		
FINAL - 1972 Olympic Games (Munich, FRG)																		
<i>McFarlane (1981) - understanding the 400m hurdles (in Jarver (ed) - the hurdles, 1981)</i>																		
date	03-Sep-72	time	6.1	9.8	13.6	17.4	21.3	23.0	25.4	29.5	33.7	38.1	42.6	47.82	1 / 1			
reaction time		interval	3.70	3.80	3.80	3.90		4.10	4.10	4.20	4.40	4.50	5.22	WR		11.30	12.10	13.10
		velocity	7.38	9.46	9.21	9.21	8.97	8.70	8.54	8.54	8.33	7.95	7.78	7.66	8.36	9.29	8.68	8.02
H1 lead leg	R	strides	21	13	13	13		14	14	14	15	15	18	163				
Semi-Final 1 - 1972 Olympic Games (Munich, FRG)																		
<i>Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden</i>																		
date	02-Sep-72	time				21.0			29.9			43.6	49.25	2 / 1				
reaction time		interval							8.90			13.70	5.65				13.70	
		velocity				8.81			7.87			7.66	7.08	8.12			7.66	
H1 lead leg		strides																

Heat 3 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.68	9.39	13.17	17.06	21.02	25.06	29.23	33.63	38.23	43.05	48.64	6 / 2				
reaction time	0.144	interval	3.71	3.78	3.89	3.96	4.04	4.17	4.40	4.60	4.82	5.59			11.38	12.17	13.82	
		velocity	7.92	9.43	9.26	9.00	8.84	8.66	8.39	7.95	7.61	7.26	7.16	8.22	9.23	8.63	7.60	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	15	17.7	159.7				
FINAL - 2024 London Athletics Meet (London, GBR)														<i>Omega Timing (2024) - diamond league race analysis</i>				
date	20-Jul-24	time	5.74	9.37	13.11	16.95	20.86	24.90	29.11	33.42	38.03	42.78	48.49	7 / 6				
reaction time	0.146	interval	3.63	3.74	3.84	3.91	4.04	4.21	4.31	4.61	4.75	5.71			11.21	12.16	13.67	
		velocity	7.84	9.64	9.36	9.11	8.95	8.66	8.31	8.12	7.59	7.37	7.01	8.25	9.37	8.63	7.68	
H1 lead leg	L	strides	20	13	13	13	13			14		18	104					
FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)														<i>Omega Timing (2024) - diamond league race analysis</i>				
date	12-Jul-24	time	5.77	9.48	13.28	17.11	21.03	25.09	29.26	33.61	38.10	42.80	48.28	2 / 6				
reaction time	0.160	interval	3.71	3.80	3.83	3.92	4.06	4.17	4.35	4.49	4.70	5.48			11.34	12.15	13.54	
		velocity	7.80	9.43	9.21	9.14	8.93	8.62	8.39	8.05	7.80	7.45	7.30	8.29	9.26	8.64	7.75	
H1 lead leg	L	strides	20	13	13	13	13	13		14	15	15	17.7	146.7				
FINAL - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	30-Jun-24	time	5.66	9.33	13.17	17.08	20.96	22.65	24.84	28.84	33.15	37.63	42.24	47.81	8 / 2			
reaction time		interval	3.67	3.84	3.91	3.88	3.88	4.00	4.31	4.48	4.61	5.57			11.42	11.76	13.40	
		velocity	7.95	9.54	9.11	8.95	9.02	8.83	9.02	8.75	8.12	7.81	7.59	7.18	8.37	9.19	8.93	7.84
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159				
Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	28-Jun-24	time	5.86	9.46	13.10	16.92	20.83	22.61	24.77	28.92	33.34	37.89	42.52	48.16	5 / 2			
reaction time		interval	3.60	3.64	3.82	3.91	3.94	4.15	4.42	4.55	4.63	5.64			11.06	12.00	13.60	
		velocity	7.68	9.72	9.62	9.16	8.95	8.85	8.88	8.43	7.92	7.69	7.56	7.09	8.31	9.49	8.75	7.72
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.2	158.2				
Heat 5 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	27-Jun-24	time	5.67	9.36	13.33	17.36	21.43	23.17	25.42	29.69	34.18	38.93	43.79	50.08	8 / 1			
reaction time		interval	3.69	3.97	4.03	4.07	3.99	4.27	4.49	4.75	4.86	6.29			11.69	12.33	14.10	
		velocity	7.94	9.49	8.82	8.68	8.60	8.63	8.77	8.20	7.80	7.37	7.20	6.36	7.99	8.98	8.52	7.45
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18	159				
FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	02-Jun-24	time	5.84	9.56	13.46	17.36	21.33	25.37	29.53	33.86	38.25	42.87	48.12	4 / 3				
reaction time	0.135	interval	3.72	3.90	3.90	3.97	4.04	4.16	4.33	4.39	4.62	5.25			11.52	12.17	13.34	
		velocity	7.71	9.41	8.97	8.97	8.82	8.66	8.41	8.08	7.97	7.58	7.62	8.31	9.11	8.63	7.87	
H1 lead leg	L	strides	13	13	13	13	13	13	13	14	14	15	17.5	151.5				
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	30-May-24	time	5.84	9.51	13.18	16.98	20.95	25.12	29.33	33.87	38.60	43.51	49.42	4 / 6				
reaction time	0.154	interval	3.67	3.67	3.80	3.97	4.17	4.21	4.54	4.73	4.91	5.91			11.14	12.35	14.18	
		velocity	7.71	9.54	9.54	9.21	8.82	8.39	8.31	7.71	7.40	7.13	6.77	8.09	9.43	8.50	7.40	
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	146					
FINAL - 2024 Prefontaine Classic (Eugene, OR)														<i>Omega Timing (2024) - diamond league race analysis</i>				
date	25-May-24	time	5.70	9.45	13.40	17.31	21.24	25.24	29.38	33.76	38.41	43.24	48.99	6 / 3				
reaction time	0.114	interval	3.75	3.95	3.91	3.93	4.00	4.14	4.38	4.65	4.83	5.75			11.61	12.07	13.86	
		velocity	7.89	9.33	8.86	8.95	8.91	8.75	8.45	7.99	7.53	7.25	6.96	8.16	9.04	8.70	7.58	
H1 lead leg		strides			13	13	13	13	13	14	15	15	109					
FINAL - 2024 Seashore Doha Meeting (Doha, QAT)														<i>Omega Timing (2024) - diamond league race analysis</i>				
date	10-May-24	time	5.63	9.27	12.97	16.79	20.72	24.73	28.87	33.28	37.87	42.66	48.39	6 / 2				
reaction time	0.139	interval	3.64	3.70	3.82	3.93	4.01	4.14	4.41	4.59	4.79	5.73			11.16	12.08	13.79	
		velocity	7.99	9.62	9.46	9.16	8.91	8.73	8.45	7.94	7.63	7.31	6.98	8.27	9.41	8.69	7.61	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.5	158.5				
FINAL - 2023 Prefontaine Classic (Eugene, OR)														<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.70	9.33	13.05	16.85	20.75	24.77	28.94	33.31	37.93	42.73	48.62	2 / 9				
reaction time	0.137	interval	3.63	3.72	3.80	3.90	4.02	4.17	4.37	4.62	4.80	5.89			11.15	12.09	13.79	
		velocity	7.89	9.64	9.41	9.21	8.97	8.71	8.39	8.01	7.58	7.29	6.79	8.23	9.42	8.68	7.61	
H1 lead leg	L	strides	20		13	13	13	13	14	14	14	14	115					
FINAL - 2023 Weltklasse (Zürich, SU)														<i>Omega Timing (2023) - diamond league race analysis</i>				
date	31-Aug-23	time	5.64	9.23	12.94	16.74	20.64	24.63	28.73	33.07	37.63	42.36	48.28	3 / 4				
reaction time	0.141	interval	3.59	3.71	3.80	3.90	3.99	4.10	4.34	4.56	4.73	5.92			11.10	11.99	13.63	
		velocity	7.98	9.75	9.43	9.21	8.97	8.77	8.54	8.06	7.68	7.40	6.76	8.29	9.46	8.76	7.70	
H1 lead leg	L	strides	20	13		13	13	13	13	13		14	18	104				
Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.83	9.73	13.43	17.07	20.93	25.00	29.23	33.56	38.17	42.96	48.44	6 / 3				
reaction time	0.152	interval	3.90	3.70	3.64	3.86	4.07	4.23	4.33	4.61	4.79	5.48			11.24	12.16	13.73	
		velocity	7.72	8.97	9.46	9.62	9.07	8.60	8.27	8.08	7.59	7.31	7.30	8.26	9.34	8.63	7.65	

H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17.2	158.2			
Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																	
date	20-Aug-23	time	5.90	9.73	13.50	17.36	21.13	25.17	33.70	38.23	42.90				<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
reaction time	0.167	interval	3.83	3.77	3.86	3.77	4.04	4.04	8.53	4.53	4.67	5.46			48.36	9 / 2	11.46
		velocity	7.63	9.14	9.28	9.07	9.28	8.66	8.21	7.73	7.49	7.33			8.27		9.16
H1 lead leg	L	strides	20	13	13	13	13	13		14	14	17			130		
FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)																	
date	21-Jul-23	time	5.64	9.25	12.92	16.67	20.54	24.53	28.66	32.99	37.55	42.29			<i>Omega Timing (2023) - diamond league race analysis</i>		
reaction time	0.148	interval	3.61	3.67	3.75	3.87	3.99	4.13	4.33	4.56	4.74	5.55			47.84	5 / 3	11.03 11.99 13.63
		velocity	7.98	9.70	9.54	9.33	9.04	8.77	8.47	8.08	7.68	7.38	7.21		8.36		9.52 8.76 7.70
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15			115			
FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)																	
date	09-Jul-23	time	5.87	9.54	13.24	17.01	20.82	24.79	28.86	33.23	37.80	42.54			<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
reaction time		interval	3.67	3.70	3.77	3.81	3.97	4.07	4.37	4.57	4.74	5.64			48.18	4 / 2	11.14 11.85 13.68
		velocity	7.67	9.54	9.46	9.28	9.19	8.82	8.60	8.01	7.66	7.38	7.09		8.30		9.43 8.86 7.68
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.7		156.7		
FINAL - 2023 Bislett Games (Oslo, NOR)																	
date	15-Jun-23	time	5.64	9.28	12.99	16.80	20.68	24.64	28.75	33.09	37.50	42.06			<i>Omega Timing (2023) - diamond league race analysis</i>		
reaction time	0.170	interval	3.64	3.71	3.81	3.88	3.96	4.11	4.34	4.41	4.56	5.52			47.58	6 / 2	11.16 11.95 13.31
		velocity	7.98	9.62	9.43	9.19	9.02	8.84	8.52	8.06	7.94	7.68	7.25		8.41		9.41 8.79 7.89
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	14	14	17		160		
FINAL - 2023 Meeting de Paris (Paris, FRA)																	
date	09-Jun-23	time	5.72	9.43	13.27	17.20	21.14	25.08	29.10	33.34	37.78	42.36			<i>Omega Timing (2023) - diamond league race analysis</i>		
reaction time	0.138	interval	3.71	3.84	3.93	3.94	3.94	4.02	4.24	4.44	4.58	5.56			47.92	7 / 1	11.48 11.90 13.26
		velocity	7.87	9.43	9.11	8.91	8.88	8.88	8.71	8.25	7.88	7.64	7.19		8.35		9.15 8.82 7.92
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17		157		
FINAL - 2023 FBK Games (Hengelo, NED)																	
date	04-Jun-23	time	5.75	9.46	13.29	17.17	21.12	25.14	29.27	33.59	38.10	42.73			<i>Omega Timing (2023) - continental tour race analysis</i>		
reaction time	0.166	interval	3.71	3.83	3.88	3.95	4.02	4.13	4.32	4.51	4.63	5.51			48.24	6 / 1	11.42 12.10 13.46
		velocity	7.83	9.43	9.14	9.02	8.86	8.71	8.47	8.10	7.76	7.56	7.26		8.29		9.19 8.68 7.80
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17		158		
FINAL - 2023 Doha Diamond League (Doha, QAT)																	
date	05-May-23	time	5.66	9.29	13.06	16.93	20.89	24.94	29.12	33.47	37.96	42.49			<i>Omega Timing (2023) - diamond league race analysis</i>		
reaction time	0.144	interval	3.63	3.77	3.87	3.96	4.05	4.18	4.35	4.49	4.53	5.44			47.93	3 / 2	11.27 12.19 13.37
		velocity	7.95	9.64	9.28	9.04	8.84	8.64	8.37	8.05	7.80	7.73	7.35		8.35		9.32 8.61 7.85
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17		157		
FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)																	
date	08-Sep-22	time	5.74	9.41	17.05	20.92	22.43	24.89	28.96	33.30	37.80	42.64			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
reaction time	0.159	interval	3.67	3.76	3.87	3.97	3.97	4.07	4.34	4.50	4.84	5.57			48.21	3 / 3	11.31 11.91 13.68
		velocity	7.84	9.54	9.16	9.04	8.92	8.82	8.60	8.06	7.78	7.23	7.18		8.30		9.28 8.82 7.68
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.5		132.5		
FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)																	
date	02-Sep-22	time	5.80	9.47	13.28	21.12	22.77	25.19	29.29	33.56	38.04	42.61			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
reaction time	0.178	interval	3.67	3.81	7.84	2.42	4.10	4.27	4.48	4.57	5.35			47.96	2 / 3	13.32	
		velocity	7.76	9.54	9.19	8.93	8.78	14.46	8.54	8.20	7.81	7.66	7.48		8.34		7.88
H1 lead leg	L	strides	20	13	13			13	13	13	14	14	17		130		
FINAL - 2022 NACAC Championships (Freeport, BAH) (TV Analysis)																	
date	21-Aug-22	time	5.73	9.50	13.36	17.20	21.16	25.23	29.33	33.60	38.00			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
reaction time		interval	3.77	3.86	3.84	3.96	4.07	4.10	4.27	4.40				48.23	3 / 3	11.47 12.13	
		velocity	7.85	9.28	9.07	9.11	8.84	8.60	8.54	8.20	7.95			8.29		9.15 8.66	
H1 lead leg	L	strides	13	13	13	13	13	13	13	14	14			93			
FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)																	
date	06-Aug-22	time	5.86	9.56	13.50	17.46	21.53	23.21	25.66	29.93	34.30	38.83	43.53		<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
reaction time	0.152	interval	3.70	3.94	3.96	4.07	4.13	4.27	4.37	4.53	4.70	5.48			49.01	7 / 6	11.60 12.47 13.60
		velocity	7.68	9.46	8.88	8.84	8.60	8.62	8.47	8.20	8.01	7.73	7.45	7.30	8.16		9.05 8.42 7.72
H1 lead leg	L	strides	20	13	13	13	13	13	14	14		15	18		146		
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																	
date	30-Jun-22	time	5.86	9.64	13.46	17.38	21.34	22.98	25.38	29.54	33.84	38.22	42.86		<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
reaction time	0.138	interval	3.78	3.82	3.92	3.96	4.04	4.16	4.30	4.38	4.64	5.42			48.28	3 / 2	11.52 12.16 13.32
		velocity	7.68	9.26	9.16	8.93	8.84	8.70	8.66	8.41	8.14	7.99	7.54	7.38	8.29		9.11 8.63 7.88
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.5		158.5		
FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)																	
date	26-Jun-22	time	6.04	9.77	13.61	17.51	21.52	23.15	25.55	29.76	34.03	38.44	42.94		<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
reaction time		interval	3.73	3.84	3.90	4.01	4.03	4.21	4.27	4.41	4.50	5.23			48.17	8 / 4	11.47 12.25 13.18

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	L	velocity	7.45	9.38	9.11	8.97	8.73	8.64	8.68	8.31	8.20	7.94	7.78	7.65	8.30	9.15	8.57	7.97	
		strides	20	13	13	13	13		13	14	14	14	14	17.5	158.5				
FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	28-May-22	time	5.70	9.36	13.13	17.00	21.00	22.74	25.10	29.33	33.70	38.33	43.13		48.76	5 / 6			
reaction time	0.156	interval		3.66	3.77	3.87	4.00		4.10	4.23	4.37	4.63	4.80	5.63			11.30	12.33	13.80
		velocity	7.89	9.56	9.28	9.04	8.75	8.80	8.54	8.27	8.01	7.56	7.29	7.10	8.20		9.29	8.52	7.61
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	15	15	142					
Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	25-Jun-21	time	6.10	10.00	13.90	17.87	21.97		26.10	30.47	34.93	39.50	44.30		49.72	3 / 4			
reaction time	0.225	interval		3.90	3.90	3.97	4.10		4.13	4.37	4.46	4.57	4.80	5.42			11.77	12.60	13.83
		velocity	7.38	8.97	8.97	8.82	8.54		8.47	8.01	7.85	7.66	7.29	7.38	8.05		8.92	8.33	7.59
H1 lead leg	L	strides	19	13	13	13	13		13	14	15	15	18.2	146.2					
Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	24-Jun-21	time	5.94	9.71	13.54	17.55	21.65		25.89	30.30	34.67	39.26	43.91		49.45	4 / 4			
reaction time	0.235	interval		3.77	3.83	4.01	4.10		4.24	4.41	4.37	4.59	4.65	5.54			11.61	12.75	13.61
		velocity	7.58	9.28	9.14	8.73	8.54		8.25	7.94	8.01	7.63	7.53	7.22	8.09		9.04	8.24	7.71
H1 lead leg	L	strides		13	13	13	13			14	14	15	15	18	128				
Alonso, José (ESP) (1957)																			
Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)															<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>				
date	24-Sep-88	time	6.05	9.89	13.77	17.70	21.74		25.95	30.26	34.71	39.40	44.20		49.57	8 / 6			
reaction time		interval		3.84	3.88	3.93	4.04		4.21	4.31	4.45	4.69	4.80	5.37			11.65	12.56	13.94
		velocity	7.44	9.11	9.02	8.91	8.66		8.31	8.12	7.87	7.46	7.29	7.45	8.07		9.01	8.36	7.53
H1 lead leg		strides	21	14	14	14	14		14	14	15	15	15	18	168				
Alozidis, Minás (GRE) (1984)																			
FINAL - 2006 European Championships (Göteborg, SWE)															<i>Behm (2006) - Göteborg 2006: Le quatrache</i>				
date	10-Aug-06	time	5.9	9.5	13.4	17.4	21.4		25.5	29.7	34.3	38.9	43.8		49.61	1 / 7			
reaction time		interval		3.60	3.90	4.00	4.00		4.10	4.20	4.60	4.60	4.90	5.81			11.50	12.30	14.10
		velocity	7.63	9.72	8.97	8.75	8.75		8.54	8.33	7.61	7.61	7.14	6.88	8.06		9.13	8.54	7.45
H1 lead leg	L	strides	21	13	13	13	14		14	15	15	15	16	149					
Andersson, Isak (SWE) (1996)																			
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	18-Jun-17	time	6.08	9.96		18.16	22.36		26.64	31.12	35.64	40.24	44.92		50.50	1 / 7			
reaction time	0.202	interval		3.88		8.20	4.20		4.28	4.48	4.52	4.60	4.68	5.58	PB		12.08	12.96	13.80
		velocity	7.40	9.02		8.54	8.33		8.18	7.81	7.74	7.61	7.48	7.17	7.92		8.69	8.10	7.61
H1 lead leg	R	strides	23	15		15	15		15	15	15	15	15	113					
Anderson, Jeshua (USA) (1989)																			
FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	10-Jul-16	time	6.00	9.67	13.45	17.35	21.39		25.49	29.73	34.13	38.74	43.58		49.42	8 / 6			
reaction time	0.191	interval		3.67	3.78	3.90	4.04		4.10	4.24	4.40	4.61	4.84	5.84	DQ		11.35	12.38	13.85
		velocity	7.50	9.54	9.26	8.97	8.66		8.54	8.25	7.95	7.59	7.23	6.85	8.09		9.25	8.48	7.58
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17	156				
Angela, Ramsey (NED) (1999)																			
FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	06-Aug-22	time	6.03	9.73	13.70	17.73	21.90	29.90					40.03		50.98	1 / 9			
reaction time	0.188	interval		3.70	3.97	4.03	4.17					18.13					11.70		
		velocity	7.46	9.46	8.82	8.68	8.39	6.69				7.72			7.85		8.97		
H1 lead leg	R	strides	22	15	15	14	14							66					
Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	5.90	9.70	13.57	17.56	21.67	23.51	25.90	30.17	34.67	39.40	44.23		49.77	4 / 4			
reaction time	0.155	interval		3.80	3.87	3.99	4.11		4.23	4.27	4.50	4.73	4.83	5.54			11.66	12.61	14.06
		velocity	7.63	9.21	9.04	8.77	8.52	8.51	8.27	8.20	7.78	7.40	7.25	7.22	8.04		9.01	8.33	7.47
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	6.17	10.13	14.13	18.16	22.33	24.10		30.77	35.17	39.70	44.26		49.62	3 / 2			
reaction time	0.182	interval		3.96	4.00	4.03	4.17		8.44	4.40	4.53	4.56	5.36				11.99	12.61	13.49
		velocity	7.29	8.84	8.75	8.68	8.39	8.30	8.29	7.95	7.73	7.68	7.46	8.06			8.76	8.33	7.78
H1 lead leg	R	strides	22	14	14	14	14			15	15	15	18	141					
FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jun-22	time	5.92	9.68	13.52	17.52	21.84	23.62	26.18	30.58	34.78	39.68	44.52		50.21	2 / 8			
reaction time	0.184	interval		3.76	3.84	4.00	4.32		4.34	4.40	4.20	4.90	4.84	5.69			11.60	13.06	13.94
		velocity	7.60	9.31	9.11	8.75	8.10	8.47	8.06	7.95	8.33	7.14	7.23	7.03	7.97		9.05	8.04	7.53
H1 lead leg	R	strides	22	14	14	14	16		15		15	15	15	18.5	158.5				
FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-Sep-21	time	6.04				21.72	23.4	25.92	30.24		39.28	44.00		49.39	2 / 6			
reaction time	0.167	interval					15.68		4.20	4.32		9.04	4.72	5.39				13.76	

H1 lead leg	R	velocity	7.45			8.93	8.55	8.33	8.10		7.74	7.42	7.42	8.10		7.63			
		strides	22					15	15				18	70					
FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	03-Sep-21	time	6.08	9.96	13.80	17.84	21.92	23.7	26.12	30.44	34.88	39.48	44.24	49.53	2 / 6				
reaction time	0.197	interval		3.88	3.84	4.04	4.08		4.20	4.32	4.44	4.60	4.76	5.29		11.76	12.60	13.80	
		velocity	7.40	9.02	9.11	8.66	8.58	8.44	8.33	8.10	7.88	7.61	7.35	7.56		8.93	8.33	7.61	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18	171				
FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	01-Jul-21	time	6.08	9.96		18.02	22.16		26.44		35.26	39.90	44.54	49.81	1 / 6				
reaction time	0.199	interval		3.88		8.06	4.14		4.28		8.82	4.64	4.64	5.27		11.94			
		velocity	7.40	9.02		8.68	8.45		8.18		7.94	7.54	7.54	7.59		8.03			
H1 lead leg	R	strides	22	14					15		15	15	15	81		8.79			
FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)														<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
date	13-Sep-20	time	5.96	9.84	13.68	17.72	22.00		26.36	30.88	35.52	40.36		51.25	8 / 7				
reaction time	0.195	interval		3.88	3.84	4.04	4.28		4.36	4.52	4.64	4.84				11.76	13.16		
		velocity	7.55	9.02	9.11	8.66	8.18		8.03	7.74	7.54	7.23		7.80		8.93	7.98		
H1 lead leg	R	strides	22	14	14	14	14		15	15		14		122					
FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)														<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
date	23-Aug-20	time	6.16		13.90	17.94	22.12	24.0	26.44		35.58	40.42	45.50	51.90	1 / 8				
reaction time	0.210	interval			7.74	4.04	4.18		4.32		9.14	4.84	5.08	6.40		11.78			
		velocity	7.31		9.04	8.66	8.37	8.33	8.10		7.66	7.23	6.89	6.25	7.71		8.91		
H1 lead leg	R	strides	21	14		14	14		15		15	16		109					
Arisaka, Tomotaka (JPN) (1999)																			
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)																			
<i>Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data</i>																			
date	31-Jul-17	time	6.26	10.36	14.56	18.94	23.47		28.13	32.75	37.49	42.29	47.13	52.58	4 / 5				
reaction time	0.200	interval		4.10	4.20	4.38	4.53		4.66	4.62	4.74	4.80	4.84	5.45		12.68	13.81	14.38	
		velocity	7.19	8.54	8.33	7.99	7.73		7.51	7.58	7.38	7.29	7.23	7.34	7.61		8.28	7.60	7.30
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
FINAL - 2016 Japanese National High School Championships (Okayama, JPN)																			
<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>																			
date	31-Jul-16	time	6.21	10.23	14.48	18.85	23.17		27.71	32.33	37.07	41.81	46.48	51.81	2 / 2				
reaction time	0.147	interval		4.02	4.25	4.37	4.32		4.54	4.62	4.74	4.74	4.67	5.33		12.64	13.48	14.15	
		velocity	7.25	8.71	8.24	8.01	8.10		7.71	7.58	7.38	7.38	7.49	7.50	7.72		8.31	7.79	7.42
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
Arkhipenko, Vasily (URS) (1957)																			
FINAL - 1980 Olympic Games (Moscow, URS)																			
<i>Behm (1999) - Les chiffres: Les podiums de tous les championnats</i>																			
		time					21.5							48.86	2 / 2				
reaction time	0.137	interval					8.60							8.19					
H1 lead leg		strides		15	15	15	15		15	15	15	15	15	135					
Armstrong, Sherman (USA) (1978)																			
FINAL - 2003 USATF National Championships (Palo Alto, CA)																			
<i>USATF Women's Sprint Development (2003)</i>																			
date	22-Jun-03	time	5.97	9.81	13.71	17.62	21.71		26.01	30.40	34.87	39.49	44.33	49.89	7 / 5-4				
reaction time		interval		3.84	3.90	3.91	4.09		4.30	4.39	4.47	4.62	4.84	5.56		11.65	12.78	13.93	
		velocity	7.54	9.11	8.97	8.95	8.56		8.14	7.97	7.83	7.58	7.23	7.19	8.02		9.01	8.22	7.54
H1 lead leg		strides																	
Babineaux, Ricky (USA) (1990)																			
FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																			
date	10-Jul-16	time	6.00	9.84	13.68	17.62	21.59		25.66	30.03	34.53	39.10	43.74	48.88	4 / 4				
reaction time	0.187	interval		3.84	3.84	3.94	3.97		4.07	4.37	4.50	4.57	4.64	5.14	PB		11.62	12.41	13.71
		velocity	7.50	9.11	9.11	8.88	8.82		8.60	8.01	7.78	7.66	7.54	7.78	8.18		9.04	8.46	7.66
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.5	158.5				
Bäckman, Mattias (SWE) (1991)																			
FINAL - 2011 Fridrott (Stockholm, SWE)																			
<i>Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx</i>																			
date	07-Jun-11	time	6.72	11.00	15.44	19.78	24.34		29.02	33.90	38.66	43.90	49.04	54.66	1 / 1				
reaction time		interval		4.28	4.44	4.34	4.56		4.68	4.88	4.76	5.24	5.14	5.62		13.06	14.12	15.14	
		velocity	6.70	8.18	7.88	8.06	7.68		7.48	7.17	7.35	6.68	6.81	7.12	7.32		8.04	7.44	6.94
H1 lead leg	L	strides		15	15	15	15		15	15	15	15	15	19	154				
Bai Jiarui (CHN) (1995)																			
Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)																			
<i>CAA Hurdle Development (2021)</i>																			
date	26-Jun-21	time	6.63	10.87	15.15	19.53	24.00		28.74	33.65	38.52			54.19	8 / 5				
reaction time	0.299	interval		4.24	4.28	4.38	4.47		4.74	4.91	4.87					12.90	14.12		
		velocity	6.79	8.25	8.18	7.99	7.83		7.38	7.13	7.19			7.38		8.14	7.44		
H1 lead leg	L	strides	22	14	14	14	14		14	14	15			121					
FINAL - 2021 East China District Meeting (Zhaoqing, CHN)																			
<i>CAA Hurdle Development (2021)</i>																			
date	25-Apr-21	time	6.51	10.76	15.09	19.56	24.10		28.75	33.50	38.40	43.38	48.40	53.92	8 / 7				

reaction time	0.279	interval	4.25	4.33	4.47	4.54	4.65	4.75	4.90	4.98	5.02	5.52			13.05	13.94	14.90	
		velocity	6.91	8.24	8.08	7.83	7.71	7.53	7.37	7.14	7.03	6.97	7.25	7.42	8.05	7.53	7.05	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17	168				
Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN)														CAA Hurdle Development (2021)				
date	25-Apr-21	time	6.41	10.58	14.83	19.13	23.49	27.93	32.51	37.17	42.04	46.96		52.34	5 / 3			
reaction time	0.233	interval		4.17	4.25	4.30	4.36	4.44	4.58	4.66	4.87	4.92	5.38		12.72	13.38	14.45	
		velocity	7.02	8.39	8.24	8.14	8.03	7.88	7.64	7.51	7.19	7.11	7.43	7.64	8.25	7.85	7.27	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17	168				
Bailey, Aldrich (USA) (1994)																		
FINAL - 2024 USA Olympic Trials (Eugene, OR)														USATF and Karmarush (2024) - USA Olympic trials results and race analysis				
date	30-Jun-24	time	5.75	9.47	13.28	17.15	21.05	22.86	25.20	29.52	34.29	39.12	43.83	49.73	3 / 6			
reaction time		interval		3.72	3.81	3.87	3.90	4.15	4.32	4.77	4.83	4.71	5.90		11.40	12.37	14.31	
		velocity	7.83	9.41	9.19	9.04	8.97	8.75	8.43	8.10	7.34	7.25	7.43	6.78	8.04	9.21	8.49	7.34
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17.5	159.5				
Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)														USATF and Karmarush (2024) - USA Olympic trials results and race analysis				
date	28-Jun-24	time	5.87	9.58	13.32	17.09	21.01	22.79	25.01	29.26	33.83	38.63	43.20	48.69	6 / 3			
reaction time		interval		3.71	3.74	3.77	3.92	4.00	4.25	4.57	4.80	4.57	5.49		11.22	12.17	13.94	
		velocity	7.67	9.43	9.36	9.28	8.93	8.78	8.75	8.24	7.66	7.29	7.66	7.29	8.22	9.36	8.63	7.53
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	158				
Heat 4 - 2024 USA Olympic Trials (Eugene, OR)														USATF and Karmarush (2024) - USA Olympic trials results and race analysis				
date	27-Jun-24	time	5.98	9.72	13.59	17.55	21.53	23.37	25.70	30.10	34.89	39.71	44.72	50.41	3 / 2			
reaction time		interval		3.74	3.87	3.96	3.98	4.17	4.40	4.79	4.82	5.01	5.69		11.57	12.55	14.62	
		velocity	7.53	9.36	9.04	8.84	8.79	8.56	8.39	7.95	7.31	7.26	6.99	7.03	7.93	9.08	8.37	7.18
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17	158				
FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)														Henson (2022) - Athlete First: 2022 year end hurdle report				
date	26-Jun-22	time	6.00	9.71	13.48	17.25	21.12	22.83	25.22	29.79	34.40	39.14	43.91	49.43	9 / 7			
reaction time		interval		3.71	3.77	3.77	3.87	4.10	4.57	4.61	4.74	4.77	5.52		11.25	12.54	14.12	
		velocity	7.50	9.43	9.28	9.28	9.04	8.76	8.54	7.66	7.59	7.38	7.34	7.25	8.09	9.33	8.37	7.44
H1 lead leg	L	strides	21	13	13	12	12	13	14	13	14	14	139					
FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)														Henson (2021) - Athlete First: 2021 year end hurdle report				
date	09-Jul-21	time	5.94	9.64	13.44	17.31	21.33	23.4	25.52	29.96	34.40			dnf	8 / --			
reaction time	0.225	interval		3.70	3.80	3.87	4.02	4.19	4.44	4.44					11.37	12.65		
		velocity	7.58	9.46	9.21	9.04	8.71	8.55	8.35	7.88	7.88				9.23	8.30		
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14			114				
FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)														Henson (2021) - Athlete First: 2021 year end hurdle report				
date	26-Jun-21	time	5.80	9.61	13.48	17.35	21.32	25.42	29.79	34.20	38.64	43.17	48.55	48.55	3 / 4			
reaction time	0.228	interval		3.81	3.87	3.87	3.97	4.10	4.37	4.41	4.44	4.53	5.38	PB	11.55	12.44	13.38	
		velocity	7.76	9.19	9.04	9.04	8.82	8.54	8.01	7.94	7.88	7.73	7.43	8.24	9.09	8.44	7.85	
H1 lead leg	L	strides		13	13	13	13		14	14	14	14	17.2	125.2				
Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)														Henson (2021) - Athlete First: 2021 year end hurdle report				
date	25-Jun-21	time	6.10	9.94	13.84	17.71	21.84	25.99	30.46	34.92	39.50	44.11	49.20	49.20	2 / 4			
reaction time	0.188	interval		3.84	3.90	3.87	4.13	4.15	4.47	4.46	4.58	4.61	5.09	PB	11.61	12.75	13.65	
		velocity	7.38	9.11	8.97	9.04	8.47	8.43	7.83	7.85	7.64	7.59	7.86	8.13	9.04	8.24	7.69	
H1 lead leg	L	strides		13	13	13	13		14	14	14	14	17	125				
Bakketun, Andreas Haara (NOR) (200)																		
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)														Henson (2024) - Athlete First: 2024 year end hurdle report				
date	30-May-24	time	5.87	9.57	13.41	17.38	25.99			35.53	40.54			51.32	1 / 7			
reaction time	0.174	interval		3.70	3.84	3.97	8.61			9.54	5.01				11.51			
		velocity	7.67	9.46	9.11	8.82	8.13			7.34	6.99			7.79	9.12			
H1 lead leg	R	strides	21	14	14	14					15			78				
FINAL - 2024 Trond Mohn Games (Bergen, NOR) (300m Hurdles) (TV Analysis)														Henson (2024) - Athlete First: 2024 year end hurdle report				
date	22-May-24	time	6.42	10.10	14.00	18.03	26.43	30.70						35.42	6 / 2			
reaction time		interval		3.68	3.90	4.03	8.40	4.27					4.72	PB	11.61	12.67		
		velocity	7.01	9.51	8.97	8.68	8.33	8.20					8.47	8.47	9.04	8.29		
H1 lead leg	R	strides	24	13	14	14		15					17.7	97.7				
Baluch, Matej (SVK) (2000)																		
Heat 2 - 2024 European Athletics Championships (Roma, ITA)														European Athletics (2024) - 2024 european athletics championships - results book				
date	09-Jun-24	time	5.91	9.69	13.56	17.59	21.73	25.96	30.38	35.07	40.80	46.01	52.17	52.17	6 / 8			
reaction time	0.216	interval		3.78	3.87	4.03	4.14	4.23	4.42	4.69	5.73	5.21	6.16		11.68	12.79	15.63	
		velocity	7.61	9.26	9.04	8.68	8.45	8.27	7.92	7.46	6.11	6.72	6.49	7.67	8.99	8.21	6.72	
H1 lead leg		strides											0					
FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)														Henson (2020) - Athlete First: 2020 year end hurdle report				
date	08-Sep-20	time	6.00	9.78	17.55	21.55	30.26	35.13	40.07	45.14	50.74	50.74	50.74	50.74	4 / 4			
reaction time	0.154	interval		3.78	7.77	4.00	8.71	4.87	4.94	5.07	5.60	=PB		11.55	12.71	14.88		
		velocity	7.50	9.26	9.01	8.75	8.04	7.19	7.09	6.90	7.14	7.88		9.09	8.26	7.06		

date	29-Aug-19	time	5.98	9.76	17.60	21.62	23.3	25.72	30.06	39.16	43.84	49.17	1 / 6				
reaction time	0.127	interval		3.78	7.84	4.02		4.10	4.34	9.10	4.68	5.33			11.62	12.46	13.78
		velocity	7.53	9.26	8.93	8.71	8.58	8.54	8.06	7.69	7.48	7.50	8.14		9.04	8.43	7.62
H1 lead leg	L	strides	21	13		13		13	14		14	18	88				

FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)

date	24-Aug-19	time	5.92	9.68	13.52	17.42	21.40	23.1	25.58	30.04	34.58	39.34	44.04	49.32	1 / 7			
reaction time	0.148	interval		3.76	3.84	3.90	3.98		4.18	4.46	4.54	4.76	5.28			11.50	12.62	14.00
		velocity	7.60	9.31	9.11	8.97	8.79	8.66	8.37	7.85	7.71	7.35	7.45	7.58	8.11	9.13	8.32	7.50
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162			

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)

date	18-Aug-19	time	6.08	9.96	13.84	17.80	21.88	23.7	26.12	30.68	35.28	39.92	50.16	8 / 5				
reaction time	0.171	interval		3.88	3.88	3.96	4.08		4.24	4.56	4.60	4.64				11.72	12.88	
		velocity	7.40	9.02	9.02	8.84	8.58	8.44	8.25	7.68	7.61	7.54	7.97			8.96	8.15	
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	129					

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)

date	13-Jun-19	time	5.98	9.71	13.53	21.45	23.2	25.68	29.99	34.43	39.00	43.73	49.11	3 / 2				
reaction time	0.175	interval		3.73	3.82	7.92		4.23	4.31	4.44	4.57	4.73	5.38			29.99	13.74	
		velocity	7.53	9.38	9.16	8.84	8.62	8.27	8.12	7.88	7.66	7.40	7.43	8.14		3.50	7.64	
H1 lead leg	L	strides	21	13	13			13	14	14	14	15	18	135				

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

date	06-Jun-19	time	5.93	9.70	13.63	17.68	21.78	25.98	30.28	34.75	39.48	44.28	49.65	5 / 4				
reaction time	0.194	interval		3.77	3.93	4.05	4.10	4.20	4.30	4.47	4.73	4.80	5.37			11.75	12.60	14.00
		velocity	7.59	9.28	8.91	8.64	8.54	8.33	8.14	7.83	7.40	7.29	7.45	8.06		8.94	8.33	7.50
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	15	18	160				

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)

date	30-May-19	time	6.06	9.85	13.96	18.00	22.00	23.7	26.36	30.76	35.33	40.26	44.93	50.28	5 / 3				
reaction time	0.196	interval		3.79	4.11	4.04	4.00		4.36	4.40	4.57	4.93	4.67	5.35			11.94	12.76	14.17
		velocity	7.43	9.23	8.52	8.66	8.75	8.44	8.03	7.95	7.66	7.10	7.49	7.48	7.96		8.79	8.23	7.41
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	16	15	18	164				

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)

date	21-Jul-18	time	6.04	9.84	13.76	17.76	21.80	25.96	30.40	34.80	39.28	43.80	48.99	8 / 3				
reaction time	0.186	interval		3.80	3.92	4.00	4.04	4.16	4.44	4.40	4.48	4.52	5.19			11.72	12.64	13.40
		velocity	7.45	9.21	8.93	8.75	8.66	8.41	7.88	7.95	7.81	7.74	7.71	8.16		8.96	8.31	7.84
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	18	160				

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)

date	07-Jun-18	time	5.96	9.72	21.52	23.4	25.84	30.24	34.80	39.48	44.16	49.53	1 / 8					
reaction time	0.197	interval		3.76	11.80		4.32	4.40	4.56	4.68	4.68	5.37				13.92		
		velocity	7.55	9.31	8.90	8.55	8.10	7.95	7.68	7.48	7.48	7.45	8.08			7.54		
H1 lead leg	L	strides	21	13			14	14	14	14	15	18	123					

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)

date	15-Jun-17	time	6.13	9.83	13.60	25.83	30.23	34.70	39.26	43.80	48.95	1 / 3						
reaction time	0.193	interval		3.70	3.77	12.23	4.40	4.47	4.56	4.54	5.15					13.57		
		velocity	7.34	9.46	9.28	8.59	7.95	7.83	7.68	7.71	7.77	8.17			7.74			
H1 lead leg	L	strides	22	13	13		14	14	14	14	15	18.5	123.5					

Henson (2020) - Athlete First: 2017 year end hurdle report

FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)

date	01-Sep-16	time	6.04	9.80	13.68	17.60	21.72	25.84	30.20	34.64	39.28	44.00	49.34	4 / 6				
reaction time	0.174	interval		3.76	3.88	3.92	4.12	4.12	4.36	4.44	4.64	4.72	5.34			11.56	12.60	13.80
		velocity	7.45	9.31	9.02	8.93	8.50	8.50	8.03	7.88	7.54	7.42	7.49	8.11		9.08	8.33	7.61
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162				

Henson (2020) - Athlete First: 2016 year end hurdle report

Bassitt, Trevor (USA) (1998)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 1 - 2024 Olympic Games (Paris, FRA)																		
Paris 2024 Olympic Games - Results Book (2024)																		
date	07-Aug-24	time	5.87	9.59	13.38	17.14	21.04	25.08	29.25	33.57	38.19	42.88	48.29	2 / 4				
reaction time	0.182	interval		3.72	3.79	3.76	3.90	4.04	4.17	4.32	4.62	4.69	5.41			11.27	12.11	13.63
		velocity	7.67	9.41	9.23	9.31	8.97	8.66	8.39	8.10	7.58	7.46	7.39	8.28		9.32	8.67	7.70
H1 lead leg	R	strides	20			13	13	13	13	13	14	14	16.5	129.5				

Repechage 1 - 2024 Olympic Games (Paris, FRA)

date	07-Aug-24	time	5.83	9.49	13.26	17.13	21.05	25.09	29.30	33.71	38.35	43.20	48.64	6 / 1				
reaction time	0.177	interval		3.66	3.77	3.87	3.92	4.04	4.21	4.41	4.64	4.85	5.44			11.30	12.17	13.90
		velocity	7.72	9.56	9.28	9.04	8.93	8.66	8.31	7.94	7.54	7.22	7.35	8.22		9.29	8.63	7.55
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	16	155				

Paris 2024 Olympic Games - Results Book (2024)

Heat 2 - 2024 Olympic Games (Paris, FRA)

date	05-Aug-24	time	5.90	9.64	13.49	17.41	21.40	25.52	29.77	34.25	39.02	43.77	49.38	4 / 5				
reaction time	0.185	interval		3.74	3.85	3.92	3.99	4.12	4.25	4.48	4.77	4.75	5.61			11.51	12.36	14.00
		velocity	7.63	9.36	9.09	8.93	8.77	8.50	8.24	7.81	7.34	7.37	7.13	8.10		9.12	8.50	7.50
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	16.5	155.5				

Paris 2024 Olympic Games - Results Book (2024)

FINAL - 2024 USA Olympic Trials (Eugene, OR)															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	30-Jun-24	time	5.79	9.47	13.21	17.07	21.00	22.70	24.89	29.03	33.38	37.91	42.49	47.82	6 / 3					
reaction time		interval	3.68 3.74 3.86 3.93				3.89	4.14	4.35	4.53	4.58	5.33	11.28 11.96 13.46							
		velocity	7.77	9.51	9.36	9.07	8.91	8.81	9.00	8.45	8.05	7.73	7.64	7.50	8.36	9.31 8.78 7.80				
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	14	17	156					
Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	28-Jun-24	time	5.91	9.62	13.40	17.27	21.26	23.03	25.26	29.47	33.88	38.58	43.38	49.02	8 / 1					
reaction time		interval	3.71 3.78 3.87 3.99				4.00	4.21	4.41	4.70	4.80	5.64	11.36 12.20 13.91							
		velocity	7.61	9.43	9.26	9.04	8.77	8.68	8.75	8.31	7.94	7.45	7.29	7.09	8.16	9.24 8.61 7.55				
H1 lead leg	R	strides	13 13 13			13	13	13	13	13	14	14	16	135						
Heat 4 - 2024 USA Olympic Trials (Eugene, OR)															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	5.96	9.67	13.62	17.60	21.61	23.38	25.72	30.11	34.72	39.63	44.49	50.29	7 / 1					
reaction time		interval	3.71 3.95 3.98 4.01				4.11	4.39	4.61	4.91	4.86	5.80	11.64 12.51 14.38							
		velocity	7.55	9.43	8.86	8.79	8.73	8.55	8.52	7.97	7.59	7.13	7.20	6.90	7.95	9.02 8.39 7.30				
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	16.2	156.2						
FINAL - 2024 Prefontaine Classic (Eugene, OR)															<i>Omega Timing (2024) - diamond league race analysis</i>					
date	25-May-24	time	5.96	9.87	13.92	17.93	21.97	26.11	30.36	34.78	39.40	44.16	49.62	4 / 6						
reaction time	0.187	interval	3.91 4.05 4.01 4.04				4.14	4.25	4.42	4.62	4.76	5.46	11.97 12.43 13.80							
		velocity	7.55	8.95	8.64	8.73	8.66	8.45	8.24	7.92	7.58	7.35	7.33	8.06	8.77 8.45 7.61					
H1 lead leg	R	strides	21	14	13	13	13	13	13	13	14	14	141							
FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)															<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	18-May-24	time	6.03	9.84	13.64	17.51	21.58	29.99	34.46	39.07	43.84	49.01	8 / 5							
reaction time	0.218	interval	3.81 3.80 3.87 4.07				4.14	4.47	4.61	4.77	5.17	11.48 12.48 13.85								
		velocity	7.46	9.19	9.21	9.04	8.60	8.32	7.83	7.59	7.34	7.74	8.16	9.15 8.41 7.58						
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	16.5	130.5							
FINAL - 2023 Prefontaine Classic (Eugene, OR)															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	16-Sep-23	time	5.89	9.70	13.54	17.53	21.61	25.76	29.99	34.34	38.81	43.29	48.42	8 / 8						
reaction time	0.154	interval	3.81 3.84 3.99 4.08				4.15	4.23	4.35	4.47	4.48	5.13	11.64 12.46 13.30							
		velocity	7.64	9.19	9.11	8.77	8.58	8.43	8.27	8.05	7.83	7.81	7.80	8.26	9.02 8.43 7.89					
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	111									
FINAL - 2023 Weltklasse (Zürich, SUI)															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	31-Aug-23	time	5.83	9.55	13.33	17.13	21.09	25.27	29.55	34.02	38.72	43.62	49.39	8 / 6						
reaction time	0.171	interval	3.72 3.78 3.80 3.96				4.18	4.28	4.47	4.70	4.90	5.77	11.30 12.42 14.07							
		velocity	7.72	9.41	9.26	9.21	8.84	8.37	8.18	7.83	7.45	7.14	6.93	8.10	9.29 8.45 7.46					
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	111									
FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	23-Aug-23	time	5.93	9.78	13.33	17.05	20.92	29.16	33.56	38.20	42.98	48.22	3 / 6							
reaction time	0.164	interval	3.85 3.55 3.72 3.87				4.14	4.40	4.64	4.78	5.24	11.12 12.11 13.82								
		velocity	7.59	9.09	9.86	9.41	9.04	8.50	7.95	7.54	7.32	7.63	8.30	9.44 8.67 7.60						
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	17	129							
Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.87	9.71	13.41	17.08	20.92	24.87	29.00	33.28	42.37	47.38	9 / 3							
reaction time	0.187	interval	3.84 3.70 3.67 3.84				3.95	4.13	4.28	4.90	5.01	PB	11.21 11.92 13.37							
		velocity	7.67	9.11	9.46	9.54	9.11	8.86	8.47	8.18	7.70	7.98	8.44	9.37 8.81 7.85						
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	17	128								
Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	5.97	9.73	17.23		21.13	25.23	29.47	33.90	38.60	43.43	48.73	8 / 3						
reaction time	0.164	interval	3.76 7.50 3.90				4.10	4.24	4.43	4.70	4.83	5.30	11.26 12.24 13.96							
		velocity	7.54	9.31	9.33		8.97	8.54	8.25	7.90	7.45	7.25	7.55	8.21	9.33 8.58 7.52					
H1 lead leg	R	strides	20	13	13		13	13	13	13	14	14	16.2	129.2						
FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jul-23	time	5.94	9.64	13.38	17.18	21.15	25.25	29.49	33.80	38.30	43.01	48.26	6 / 3						
reaction time		interval	3.70 3.74 3.80 3.97				4.10	4.24	4.31	4.50	4.71	5.25	11.24 12.31 13.52							
		velocity	7.58	9.46	9.36	9.21	8.82	8.54	8.25	8.12	7.78	7.43	7.62	8.29	9.34 8.53 7.77					
H1 lead leg	R	strides	20	13	13	12	12	13	13	13	14	14	17	154						
FINAL - 2023 Bislett Games (Oslo, NOR)															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	15-Jun-23	time	5.72	9.40	13.20	17.04	21.00	25.07	29.27	33.60	38.31	43.05	48.63	4 / 5						
reaction time	0.185	interval	3.68 3.80 3.84 3.96				4.07	4.20	4.33	4.71	4.74	5.58	11.32 12.23 13.78							
		velocity	7.87	9.51	9.21	9.11	8.84	8.60	8.33	8.08	7.43	7.38	7.17	8.23	9.28 8.59 7.62					
H1 lead leg	R	strides	20			13	13	13	13	14		13	86							
FINAL - 2023 Meeting de Paris (Paris, FRA)															<i>Omega Timing (2023) - diamond league race analysis</i>					
date	09-Jun-23	time	5.69	9.35	13.18	17.09	21.13	25.19	29.34	33.69	38.22	42.87	48.28	4 / 3						
reaction time	0.164	interval	3.66 3.83 3.91 4.04				4.06	4.15	4.35	4.53	4.65	5.41	11.40 12.25 13.53							
		velocity	7.91	9.56	9.14	8.95	8.66	8.62	8.43	8.05	7.73	7.53	7.39	8.29	9.21 8.57 7.76					

H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	17	155									
FINAL - 2023 Doha Diamond League (Doha, QAT)																			<i>Omega Timing (2023) - diamond league race analysis</i>				
date	05-May-23	time	5.89	9.67	13.54	17.50	21.57		25.77	30.13	34.61	39.32	43.99		49.52	7 / 5							
reaction time	0.158	interval	3.78	3.87	3.96	4.07		4.20	4.36	4.48	4.71	4.67	5.53				11.61	12.63	13.86				
		velocity	7.64	9.26	9.04	8.84	8.60		8.33	8.03	7.81	7.43	7.49	7.23	8.08		9.04	8.31	7.58				
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	20	158									
FINAL - 2022 World Athletics Championships (Eugene, OR)																			<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	19-Jul-22	time	5.86	9.54	13.21	16.90	20.69	22.28	24.72	28.98	33.30	37.77	42.33		47.39	8 / 3							
reaction time	0.147	interval	3.68	3.67	3.69	3.79		4.03	4.26	4.32	4.47	4.56	5.06		PB		11.04	12.08	13.35				
		velocity	7.68	9.51	9.54	9.49	9.23	8.98	8.68	8.22	8.10	7.83	7.68	7.91	8.44		9.51	8.69	7.87				
H1 lead leg	R	strides	20	13	13	12	12		13	13	13	13	13	16.2	151.2								
Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	5.83	9.63	13.37	17.13	21.10	22.80	25.17	29.43	33.83	38.30	42.83		48.17	7 / 2							
reaction time	0.144	interval	3.80	3.74	3.76	3.97		4.07	4.26	4.40	4.47	4.53	5.34				11.30	12.30	13.40				
		velocity	7.72	9.21	9.36	9.31	8.82	8.77	8.60	8.22	7.95	7.83	7.73	7.49	8.30		9.29	8.54	7.84				
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153								
Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	6.03	9.93	13.86	17.76	21.80	23.45		30.16	34.66	39.26	43.90		49.17	3 / 4							
reaction time	0.146	interval	3.90	3.93	3.90	4.04			8.36	4.50	4.60	4.64	5.27				11.73	12.40	13.74				
		velocity	7.46	8.97	8.91	8.97	8.66	8.53		8.37	7.78	7.61	7.54	7.59	8.14		8.95	8.47	7.64				
H1 lead leg	R	strides	20	13	13	13	13			13	13	13	16	127									
FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)																			<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	26-Jun-22	time	5.97	9.67	13.44	17.25	21.19	22.78	25.22	29.43	33.70	38.10	42.54		47.47	5 / 2							
reaction time		interval	3.70	3.77	3.81	3.94		4.03	4.21	4.27	4.40	4.44	4.93		PB		11.28	12.18	13.11				
		velocity	7.54	9.46	9.28	9.19	8.88	8.78	8.68	8.31	8.20	7.95	7.88	8.11	8.43		9.31	8.62	8.01				
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	16	153									
FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																			<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	26-Jun-21	time	5.88	9.64	13.51	17.45	21.55		25.76	30.20	34.87	39.54	44.38		50.03	2 / 8							
reaction time	0.206	interval	3.76	3.87	3.94	4.10		4.21	4.44	4.67	4.67	4.84	5.65				11.57	12.75	14.18				
		velocity	7.65	9.31	9.04	8.88	8.54		8.31	7.88	7.49	7.49	7.23	7.08	8.00		9.08	8.24	7.40				
H1 lead leg	R	strides		13	13	13	13			14	14	14	14	108									
Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																			<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	25-Jun-21	time	6.00	9.81	13.68	17.62	21.82		26.09	30.56	35.10	39.60	44.21		49.37	3 / 5							
reaction time	0.176	interval	3.81	3.87	3.94	4.20		4.27	4.47	4.54	4.50	4.61	5.16				11.62	12.94	13.65				
		velocity	7.50	9.19	9.04	8.88	8.33		8.20	7.83	7.71	7.78	7.59	7.75	8.10		9.04	8.11	7.69				
H1 lead leg	R	strides		13	13	13	13			13	14	13	14	17	123								
Beck, Volker (GDR) (1956)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10				
FINAL - 1981 USSR vs. GDR (Tbilisi, URS)																			<i>Breizer (1982) - in the distance: volker beck</i>				
date	26-Jun-81	time	6.27	9.95	13.83	17.68	21.92		25.91	30.27	34.70	39.13	44.01		49.14	1 / 1							
reaction time		interval	3.68	3.88	3.85	4.24		3.99	4.36	4.43	4.43	4.88	5.13				11.41	12.59	13.74				
		velocity	7.18	9.51	9.02	9.09	8.25		8.77	8.03	7.90	7.90	7.17	7.80	8.14		9.20	8.34	7.64				
H1 lead leg		strides	20	13	13	13	13		13	13	14	14	14	18	158								
FINAL - 1980 Olympic Games (Moscow, URS)																			<i>Lamare (1980) - resultats complets et commentaires- Moscow 1980</i>				
date	26-Jul-80	time	6.2	10.1	13.8	17.7	21.7		25.8	30.1	34.5	39.0	43.6		48.70	8 / 1							
reaction time	0.161	interval	3.90	3.70	3.90	4.00		4.10	4.30	4.40	4.50	4.60	5.10				11.50	12.40	13.50				
		velocity	7.26	8.97	9.46	8.97	8.75		8.54	8.14	7.95	7.78	7.61	7.84	8.21		9.13	8.47	7.78				
H1 lead leg		strides		13	13	13	13		13	13	15	15	15	123									
Beckenham, Matt (AUS) (1976)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10				
Heat 6 - 2000 Olympic Games (Sydney, AUS)																			<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.18	10.10	14.26	18.42	22.74		27.30	31.86	36.38			51.27	8 / 7								
reaction time	0.176	interval	3.92	4.16	4.16	4.32		4.56	4.56	4.52							12.24	13.44					
		velocity	7.28	8.93	8.41	8.41	8.10		7.68	7.68	7.74			7.80			8.58	7.81					
H1 lead leg		strides	21	14	14	14	14		15	15	15			122									
Bédi, Tibor (HUN) (1974)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10				
Heat 5 - 2000 Olympic Games (Sydney, AUS)																			<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	5.92	9.68	13.64	17.64	21.80		26.00	30.36	35.04	40.24	45.48		51.54	7 / 3							
reaction time	0.169	interval	3.76	3.96	4.00	4.16		4.20	4.36	4.68	5.20	5.24	6.06				11.72	12.72	15.12				
		velocity	7.60	9.31	8.84	8.75	8.41		8.33	8.03	7.48	6.73	6.68	6.60	7.76		8.96	8.25	6.94				
H1 lead leg		strides	21.00	13.00	14.00	14.00	14.00		14.00	15.00	15.00	17.00	17.00	20.90	174.90								
Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)																			<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>				
date	25-Aug-99	time	5.65	9.53	13.57	17.62	21.72		25.93	30.16	34.50	38.85	43.28		49.00	8 / 6							
reaction time	0.215	interval	3.88	4.04	4.05	4.10		4.21	4.23	4.34	4.35	4.43	5.72		PB		11.97	12.54	13.12				
		velocity	7.96	9.02	8.66	8.64	8.54		8.31	8.27	8.06	8.05	7.90	6.99	8.16		8.77	8.37	8.00				
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	19.5	171.5								

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

															17 of 196	M400H athlete	
Bekrić, Emir (SRB) (1991)																	
FINAL - 2014 European Championships (Zurich, SUI)																<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>	
date	15-Aug-14	time	6.00	9.78	13.58	17.46	21.42		25.46	29.78	34.30	39.06	44.06		49.90	Lane / Place	1 / 6
reaction time	0.233	interval		3.78	3.80	3.88	3.96		4.04	4.32	4.52	4.76	5.00	5.84			11.46 12.32 14.28
		velocity	7.50	9.26	9.21	9.02	8.84		8.66	8.10	7.74	7.35	7.00	6.85	8.02		9.16 8.52 7.35
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	14	121		
FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)																<i>Henson (2021) - Athlete First: major championships report</i>	
date	15-Aug-13	time	5.90	9.50	13.20	17.00	20.87		24.93	29.23	33.63	38.20	42.73		48.05	Lane / Place	8 / 3
reaction time	0.202	interval		3.60	3.70	3.80	3.87		4.06	4.30	4.40	4.57	4.53	5.32	NR PB		11.10 12.23 13.50
		velocity	7.63	9.72	9.46	9.21	9.04		8.62	8.14	7.95	7.66	7.73	7.52	8.32		9.46 8.59 7.78
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	16.7	158.7		
Bellaabouss, Fadil (FRA) (1986)																	
FINAL - 2010 European Championships (Barcelona, ESP)																<i>Behm (2010) - les haies bases</i>	
date	31-Jul-10	time	6.2	10.3	14.5										62.94	Lane / Place	8 / 8
reaction time	0.180	interval		4.10	4.20										6.36		
		velocity	7.26	8.54	8.33										49		
H1 lead leg	L	strides	21	14	14												
Bencosme, José Reynaldo (ITA) (199)																	
FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>	
date	06-Jun-19	time	5.97	9.75	13.71	17.71	21.78		25.95	30.40	34.86	39.63	44.52		50.36	Lane / Place	2 / 7
reaction time	0.165	interval		3.78	3.96	4.00	4.07		4.17	4.45	4.46	4.77	4.89	5.84			11.74 12.69 14.12
		velocity	7.54	9.26	8.84	8.75	8.60		8.39	7.87	7.85	7.34	7.16	6.85	7.94		8.94 8.27 7.44
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18.5	161.5		
FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>	
date	30-Aug-18	time	6.04	9.88	13.76		21.96	23.8	26.12	30.48		39.52	44.32		50.01	Lane / Place	1 / 6
reaction time	0.151	interval		3.84	3.88		8.20		4.16	4.36		9.04	4.80	5.69			13.84
		velocity	7.45	9.11	9.02		8.54	8.40	8.41	8.03		7.74	7.29	7.03	8.00		7.59
H1 lead leg	L	strides	20	13	13				13	14			15		88		
FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>	
date	31-May-18	time	6.04	9.80	13.64	17.52	21.48		25.60	30.00	34.48	39.28	44.12		49.79	Lane / Place	2 / 7
reaction time	0.153	interval		3.76	3.84	3.88	3.96		4.12	4.40	4.48	4.80	4.84	5.67			11.48 12.48 14.12
		velocity	7.45	9.31	9.11	9.02	8.84		8.50	7.95	7.81	7.29	7.23	7.05	8.03		9.15 8.41 7.44
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	143			
FINAL - 2012 Italian National Championships (Napoli, ITA)																<i>FIDAL - Centro Studi & Ricerche (2012) - www.youtube.com/watch?v=Jmz79eerIOs</i>	
date	08-Jul-12	time	6.20	10.00	13.93	17.93	21.97		26.05	30.36	34.75	39.24	43.91		49.33	Lane / Place	6 / 1
reaction time		interval		3.80	3.93	4.00	4.04		4.08	4.31	4.39	4.49	4.67	5.42	PB		11.73 12.43 13.55
		velocity	7.26	9.21	8.91	8.75	8.66		8.58	8.12	7.97	7.80	7.49	7.38	8.11		8.95 8.45 7.75
H1 lead leg		strides															
Bengtström, Carl (SWE) (2000)																	
Semi-Final 3 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympic Games - Results Book (2024)</i>	
date	07-Aug-24	time	5.80	9.57	13.43	17.31	21.34		25.58	30.00	34.59	39.33	44.13		49.56	Lane / Place	3 / 6
reaction time	0.201	interval		3.77	3.86	3.88	4.03		4.24	4.42	4.59	4.74	4.80	5.43			11.51 12.69 14.13
		velocity	7.76	9.28	9.07	9.02	8.68		8.25	7.92	7.63	7.38	7.29	7.37	8.07		9.12 8.27 7.43
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.7	171.7		
Repechage 2 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympic Games - Results Book (2024)</i>	
date	07-Aug-24	time	5.78	9.53	13.38	17.31	21.37		25.54	29.80	34.11	38.66	43.32		48.63	Lane / Place	8 / 1
reaction time	0.171	interval		3.75	3.85	3.93	4.06		4.17	4.26	4.31	4.55	4.66	5.31			11.53 12.49 13.52
		velocity	7.79	9.33	9.09	8.91	8.62		8.39	8.22	8.12	7.69	7.51	7.53	8.23		9.11 8.41 7.77
H1 lead leg	L	strides	20	14	14	14	14		15	15	15	15	15	19	170		
Heat 1 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympic Games - Results Book (2024)</i>	
date	05-Aug-24	time	5.80	9.55	13.42	17.42	21.50		25.76	30.12	34.66	39.36	44.05		49.34	Lane / Place	4 / 4
reaction time	0.172	interval		3.75	3.87	4.00	4.08		4.26	4.36	4.54	4.70	4.69	5.29			11.62 12.70 13.93
		velocity	7.76	9.33	9.04	8.75	8.58		8.22	8.03	7.71	7.45	7.46	7.56	8.11		9.04 8.27 7.54
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19	172		
FINAL - 2024 Meeting de Paris (Paris, FRA)																<i>Omega Timing (2024) - diamond league race analysis</i>	
date	07-Jul-24	time	5.71	9.46	13.40	17.32	21.23		25.35	29.64	34.03	38.63	43.31		48.68	Lane / Place	4 / 6
reaction time	0.179	interval		3.75	3.94	3.92	3.91		4.12	4.29	4.39	4.60	4.68	5.37			11.61 12.32 13.67
		velocity	7.88	9.33	8.88	8.93	8.95		8.50	8.16	7.97	7.61	7.48	7.45	8.22		9.04 8.52 7.68
H1 lead leg	L	strides	22	14	14	14	14				15	15	15	19	142		
FINAL - 2024 European Athletics Championships (Roma, ITA)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>	
date	11-Jun-24	time	5.78	9.49	13.20	16.96	20.86		24.78	28.91	33.23	37.78	42.21		47.50	Lane / Place	7 / 2
reaction time	0.174	interval		3.71	3.71	3.76	3.90		3.92	4.13	4.32	4.55	4.43	5.29	NR PB		11.18 11.95 13.30
		velocity	7.79	9.43	9.43	9.31	8.97		8.93	8.47	8.10	7.69	7.90	7.56	8.42		9.39 8.79 7.89
H1 lead leg	R	strides	21	13	13				13	14	14	15	15	18	136		
Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>	

date	10-Jun-24	time	5.80	9.50	13.40	17.35	21.47		25.65	29.91	34.16	38.74	43.36		48.51	8 / 2			
reaction time	0.182	interval		3.70	3.90	3.95	4.12		4.18	4.26	4.25	4.58	4.62	5.15			11.55	12.56	13.45
H1 lead leg		velocity	7.76	9.46	8.97	8.86	8.50		8.37	8.22	8.24	7.64	7.58	7.77	8.25		9.09	8.36	7.81
		strides													0				
FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>			
date	02-Jun-24	time	5.96	9.77	13.53	17.30	21.26		25.47	29.76	34.19	38.76	43.47		48.72	6 / 4			
reaction time	0.182	interval		3.81	3.76	3.77	3.96		4.21	4.29	4.43	4.57	4.71	5.25			11.34	12.46	13.71
H1 lead leg	L	velocity	7.55	9.19	9.31	9.28	8.84		8.31	8.16	7.90	7.66	7.43	7.62	8.21		9.26	8.43	7.66
		strides	24	14	14	14	14		15	15	15	15	15	19	174				
Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	17-Jul-22	time	5.83	9.67	13.63	17.63	21.68	23.48	25.93	30.23	34.63	39.10	43.70		48.75	8 / 4			
reaction time	0.161	interval		3.84	3.96	4.00	4.05		4.25	4.30	4.40	4.47	4.60	5.05			11.80	12.60	13.47
H1 lead leg	L	velocity	7.72	9.11	8.84	8.75	8.64	8.52	8.24	8.14	7.95	7.83	7.61	7.92	8.21		8.90	8.33	7.80
		strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	16-Jul-22	time	5.93	9.73	13.77	17.83	21.93	23.68		30.46	34.86	39.56	44.26		49.64	8 / 3			
reaction time	0.169	interval		3.80	4.04	4.06	4.10		4.28	4.36	4.40	4.68	4.84	5.59			11.90	12.63	13.80
H1 lead leg	L	velocity	7.59	9.21	8.66	8.62	8.54	8.45	8.21	7.95	7.45	7.45	7.43	8.06			8.82	8.31	7.61
		strides	22	14	14	14	14		15	15	15	15	18	141					
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	30-Jun-22	time	5.82	9.58	13.38	17.32	21.36	23.06	25.58	29.90	34.32	38.92	43.70		48.97	7 / 5			
reaction time	0.178	interval		3.76	3.80	3.94	4.04		4.22	4.32	4.42	4.60	4.78	5.27			11.50	12.58	13.80
H1 lead leg	L	velocity	7.73	9.31	9.21	8.88	8.66	8.67	8.29	8.10	7.92	7.61	7.32	7.59	8.17		9.13	8.35	7.61
		strides	22	14	14	14	14		15	15	15	15	15	19	172				
FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	16-Jun-22	time	5.76	9.44	13.28	17.16	21.16	22.93	25.44	29.80	34.20	38.88	43.72		49.31	5 / 4			
reaction time	0.172	interval		3.68	3.84	3.88	4.00		4.28	4.36	4.40	4.68	4.84	5.59			11.40	12.64	13.92
H1 lead leg	L	velocity	7.81	9.51	9.11	9.02	8.75	8.72	8.18	8.03	7.95	7.48	7.23	7.16	8.11		9.21	8.31	7.54
		strides	22	14	14	14	14		15	15	15	15	15	19.2	172.2				
FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	28-May-22	time	5.70	9.46	13.27	17.17	21.17	23.02	25.33	29.58	33.93	38.53	43.26		48.52	9 / 4			
reaction time	0.172	interval		3.76	3.81	3.90	4.00		4.16	4.25	4.35	4.60	4.73	5.26	PB		11.47	12.41	13.68
H1 lead leg	L	velocity	7.89	9.31	9.19	8.97	8.75	8.69	8.41	8.24	8.05	7.61	7.40	7.60	8.24		9.15	8.46	7.68
		strides	22	14	14	14	14		15	15	15	15	15	153					
FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	23-Aug-20	time	5.82		13.90	17.96	22.18	24.0	26.50	30.92	35.50	40.20	44.94		50.21	6 / 7			
reaction time	0.187	interval			8.08	4.06	4.22		4.32	4.42	4.58	4.70	4.74	5.27			12.14	12.96	14.02
H1 lead leg	L	velocity	7.73		8.66	8.62	8.29	8.33	8.10	7.92	7.64	7.45	7.38	7.59	7.97		8.65	8.10	7.49
		strides	21	14		14	14		15		15	15	15		123				
FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	30-May-19	time	5.93	9.83	14.00	18.13	22.43	24.2	26.86		35.96	40.90	45.76		51.35	8 / 7			
reaction time	0.190	interval		3.90	4.17	4.13	4.30		4.43		9.10	4.94	4.86	5.59			12.20		
H1 lead leg	L	velocity	7.59	8.97	8.39	8.47	8.14	8.26	7.90		7.69	7.09	7.20	7.16	7.79		8.61		
		strides	22	14	14	14	14		15			15	15		123				
Benjamin, Rai (USA) (1997)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-in	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	09-Aug-24	time	5.62	9.21	12.82	16.50	20.32		24.15	28.02	32.02	36.39	40.96		46.46	8 / 1			
reaction time	0.171	interval		3.59	3.61	3.68	3.82		3.83	3.87	4.00	4.37	4.57	5.50			10.88	11.52	12.94
H1 lead leg	R	velocity	8.01	9.75	9.70	9.51	9.16		9.14	9.04	8.75	8.01	7.66	7.27	8.61		9.65	9.11	8.11
		strides	20	13	13	13	13		13	13	13	13	14	17	155				
Semi-Final 3 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	07-Aug-24	time	5.68	9.31	12.97	16.64	20.48		24.42	28.46	32.67	37.23	42.08		47.85	5 / 1			
reaction time	0.155	interval		3.63	3.66	3.67	3.84		3.94	4.04	4.21	4.56	4.85	5.77			10.96	11.82	13.62
H1 lead leg	R	velocity	7.92	9.64	9.56	9.54	9.11		8.88	8.66	8.31	7.68	7.22	6.93	8.36		9.58	8.88	7.71
		strides	20	13	13	13	13		13	13	13	13	14	17	155				
Heat 1 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympc Games - Results Book (2024)</i>			
date	05-Aug-24	time	5.88	9.62	13.37	17.25	21.31		25.44	29.51	33.73	38.22	42.97		48.82	7 / 1			
reaction time	0.190	interval		3.74	3.75	3.88	4.06		4.13	4.07	4.22	4.49	4.75	5.85			11.37	12.26	13.46
H1 lead leg	R	velocity	7.65	9.36	9.33	9.02	8.62		8.47	8.60	8.29	7.80	7.37	6.84	8.19		9.23	8.56	7.80
		strides	20	13	13	13	13		13	13	13	14	14	17	156				
FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)																<i>Omega Timing (2024) - diamond league race analysis</i>			
date	12-Jul-24	time	5.68	9.25	12.88	16.55	20.33		24.40	28.55	32.71	37.00	41.45		46.67	5 / 1			
reaction time	0.188	interval		3.57	3.63	3.67	3.78		4.07	4.15	4.16	4.29	4.45	5.22			10.87	12.00	12.90
H1 lead leg	R	velocity	7.92	9.80	9.64	9.54	9.26		8.60	8.43	8.41	8.16	7.87	7.66	8.57		9.66	8.75	8.14
		strides	20	13	13	12	13		14	13	13	13	13	17	154				

FINAL - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	30-Jun-24	time	5.62	9.21	12.96	16.94	20.81	22.46	24.59	28.43	32.49	36.81	41.28	46.46	7 / 1			
reaction time		interval		3.59	3.75	3.98	3.87		3.78	3.84	4.06	4.32	4.47	5.18		11.32	11.49	12.85
		velocity	8.01	9.75	9.33	8.79	9.04	8.90	9.26	9.11	8.62	8.10	7.83	7.72	8.61	9.28	9.14	8.17
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.5	153.5			
Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	28-Jun-24	time	5.74	9.26	12.90	16.79	20.74	22.56	24.76	28.86	33.15	37.62	42.24	47.97	7 / 1			
reaction time		interval		3.52	3.64	3.89	3.95		4.02	4.10	4.29	4.47	4.62	5.73		11.05	12.07	13.38
		velocity	7.84	9.94	9.62	9.00	8.86	8.87	8.71	8.54	8.16	7.83	7.58	6.98	8.34	9.50	8.70	7.85
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154			
Heat 1 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	27-Jun-24	time	5.86	9.62	13.48	17.56	21.57	23.40	25.64	29.71	34.03	38.57	43.38	49.56	7 / 1			
reaction time		interval		3.76	3.86	4.08	4.01		4.07	4.07	4.32	4.54	4.81	6.18		11.70	12.15	13.67
		velocity	7.68	9.31	9.07	8.58	8.73	8.55	8.60	8.60	8.10	7.71	7.28	6.47	8.07	8.97	8.64	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17.5	155.5			
FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	18-May-24	time	5.84	9.51	13.18	16.95	20.75		28.56	32.60	36.87	41.41	46.64	5 / 1				
reaction time	0.207	interval		3.67	3.67	3.77	3.80		7.81	4.04	4.27	4.54	5.23		11.11	11.61	12.85	
		velocity	7.71	9.54	9.54	9.28	9.21		8.96	8.66	8.20	7.71	7.65	8.58	9.45	9.04	8.17	
H1 lead leg	R	strides	20	13	13	13	13			13	13	13	17	128				
FINAL - 2023 Prefontaine Classic (Eugene, OR)														<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.74	9.40	13.10	16.86	20.68		24.61	28.60	32.70	36.97	41.36	46.39	5 / 1			
reaction time	0.154	interval		3.66	3.70	3.76	3.82		3.93	3.99	4.10	4.27	4.39	5.03		11.12	11.74	12.76
		velocity	7.84	9.56	9.46	9.31	9.16		8.91	8.77	8.54	8.20	7.97	7.95	8.62	9.44	8.94	8.23
H1 lead leg	R	strides	20	13	13	12	12		13	13	13	13	13	17	152			
FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	23-Aug-23	time	5.64	9.37	12.81	16.42	20.29		24.26	28.31	32.59	37.13	41.98	47.56	6 / 3			
reaction time	0.168	interval		3.73	3.44	3.61	3.87		3.97	4.05	4.28	4.54	4.85	5.58		10.78	11.89	13.67
		velocity	7.98	9.38	10.17	9.70	9.04		8.82	8.64	8.18	7.71	7.22	7.17	8.41	9.74	8.83	7.68
H1 lead leg	R	strides	20	13	12	12	12		13	13	13	13	14	17	152			
Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	5.77	9.54	13.08	16.92	20.82		24.82	28.93	33.21	37.61	42.14	47.24	7 / 1			
reaction time	0.169	interval		3.77	3.54	3.84	3.90		4.00	4.11	4.28	4.40	4.53	5.10		11.15	12.01	13.21
		velocity	7.80	9.28	9.89	9.11	8.97		8.75	8.52	8.18	7.95	7.73	7.84	8.47	9.42	8.74	7.95
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.5	153.5			
Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	5.83	9.60	13.46	17.37	21.23		25.33	29.40	33.66	38.23	42.96	48.35	5 / 1			
reaction time	0.176	interval		3.77	3.86	3.91	3.86		4.10	4.07	4.26	4.57	4.73	5.39		11.54	12.03	13.56
		velocity	7.72	9.28	9.07	8.95	9.07		8.54	8.60	8.22	7.66	7.40	7.42	8.27	9.10	8.73	7.74
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.7	153.7			
FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	09-Jul-23	time	5.81	9.44	13.14	16.92	20.75		24.70	28.69	32.76	37.00	41.47	46.62	5 / 1			
reaction time		interval		3.63	3.70	3.78	3.83		3.95	3.99	4.07	4.24	4.47	5.15		11.11	11.77	12.78
		velocity	7.75	9.64	9.46	9.26	9.14		8.86	8.77	8.60	8.25	7.83	7.77	8.58	9.45	8.92	8.22
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154			
FINAL - 2023 Doha Diamond League (Doha, QAT)														<i>Omega Timing (2023) - diamond league race analysis</i>				
date	05-May-23	time	5.63	9.27	12.97	16.86	20.80		24.81	28.99	33.29	37.80	42.42	47.78	6 / 1			
reaction time	0.169	interval		3.64	3.70	3.89	3.94		4.01	4.18	4.30	4.51	4.62	5.36		11.23	12.13	13.43
		velocity	7.99	9.62	9.46	9.00	8.88		8.73	8.37	8.14	7.76	7.58	7.46	8.37	9.35	8.66	7.82
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154			
FINAL - 2022 World Athletics Championships (Eugene, OR)														<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	19-Jul-22	time	5.76	9.33	13.03	16.75	20.45	21.97	24.32	28.38	32.60	36.94	41.47	46.89	3 / 2			
reaction time	0.157	interval		3.57	3.70	3.72	3.70		3.87	4.06	4.22	4.34	4.53	5.42		10.99	11.63	13.09
		velocity	7.81	9.80	9.46	9.41	9.46	9.10	9.04	8.62	8.29	8.06	7.73	7.38	8.53	9.55	9.03	8.02
H1 lead leg	R	strides	20	13	13	13	12		12	13	13	13	13	16.5	151.5			
Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	5.73	9.40	13.35	17.33	21.47	23.22	25.56	29.73	33.97	38.33	42.87	48.44	6 / 1			
reaction time	0.181	interval		3.67	3.95	3.98	4.14		4.09	4.17	4.24	4.36	4.54	5.57		11.60	12.40	13.14
		velocity	7.85	9.54	8.86	8.79	8.45	8.61	8.56	8.39	8.25	8.03	7.71	7.18	8.26	9.05	8.47	7.99
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153			
Heat 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	6.00	9.77	13.66	17.60	21.67	23.39	25.77	29.87	34.17	38.63	43.33	49.06	4 / 1			
reaction time	0.156	interval		3.77	3.89	3.94	4.07		4.10	4.10	4.30	4.46	4.70	5.73		11.60	12.27	13.46
		velocity	7.50	9.28	9.00	8.88	8.60	8.55	8.54	8.54	8.14	7.85	7.45	6.98	8.15	9.05	8.56	7.80

H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	13	16.5	153.5						
FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)																					
date	26-Jun-22	time	5.84	9.51	13.34	17.34	21.35	22.97	25.36	29.43	33.60	37.80	42.14			Henson (2022) - Athlete First: 2022 year end hurdle report	47.04	7 / 1			
reaction time		interval		3.67	3.83	4.00	4.01		4.01	4.07	4.17	4.20	4.34	4.90					11.50	12.09	12.71
		velocity	7.71	9.54	9.14	8.75	8.73	8.71	8.73	8.60	8.39	8.33	8.06	8.16	8.50				9.13	8.68	8.26
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153						
FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)																					
date	13-May-22	time	5.60	9.18	13.01	16.98	21.12	22.8	25.24	29.30	33.56	37.87	42.27			Henson (2022) - Athlete First: 2022 year end hurdle report	47.49	6 / 2			
reaction time	0.206	interval		3.58	3.83	3.97	4.14		4.12	4.06	4.26	4.31	4.40	5.22					11.38	12.32	12.97
		velocity	8.04	9.78	9.14	8.82	8.45	8.77	8.50	8.62	8.22	8.12	7.95	7.66	8.42				9.23	8.52	8.10
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	137							
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)																					
date	08-May-22	time	5.89	9.56	13.25	17.02	20.89		24.91	29.08	33.63	38.39	43.23			Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season	48.60	6 / 1			
reaction time	0.219	interval		3.67	3.69	3.77	3.87		4.02	4.17	4.55	4.76	4.84	5.37					11.13	12.06	14.15
		velocity	7.64	9.54	9.49	9.28	9.04		8.71	8.39	7.69	7.35	7.23	7.45	8.23				9.43	8.71	7.42
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17	156						
FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)																					
date	03-Aug-21	time	5.64	9.20	12.84	16.52	20.28		24.16	28.16	32.24	36.44	40.80			Henson (2021) - Athlete First: 2021 year end hurdle report	46.17	5 / 2			
reaction time	0.168	interval		3.56	3.64	3.68	3.76		3.88	4.00	4.08	4.20	4.36	5.37			AR		10.88	11.64	12.64
		velocity	7.98	9.83	9.62	9.51	9.31		9.02	8.75	8.58	8.33	8.03	7.45	8.66				9.65	9.02	8.31
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154						
Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)																					
date	01-Aug-21	time	5.57	9.11	12.78	16.51	20.45		24.42	28.56	32.86	37.30	41.92			Henson (2021) - Athlete First: 2021 year end hurdle report	47.37	5 / 2			
reaction time	0.184	interval		3.54	3.67	3.73	3.94		3.97	4.14	4.30	4.44	4.62	5.45					10.94	12.05	13.36
		velocity	8.08	9.89	9.54	9.38	8.88		8.82	8.45	8.14	7.88	7.58	7.34	8.44				9.60	8.71	7.86
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.7	153.7						
FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																					
date	26-Jun-21	time	5.77	9.47	13.30	17.17	21.09		25.06	29.06	33.20	37.50	41.84			Henson (2021) - Athlete First: 2021 year end hurdle report	46.83	5 / 1			
reaction time	0.235	interval		3.70	3.83	3.87	3.92		3.97	4.00	4.14	4.30	4.34	4.99			PB		11.40	11.89	12.78
		velocity	7.80	9.46	9.14	9.04	8.93		8.82	8.75	8.45	8.14	8.06	8.02	8.54				9.21	8.83	8.22
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153						
Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																					
date	25-Jun-21	time	5.80	9.46	13.20	17.02	20.98		25.02	29.25	33.56	38.04	43.01			Henson (2021) - Athlete First: 2021 year end hurdle report	48.61	6 / 1			
reaction time	0.197	interval		3.66	3.74	3.82	3.96		4.04	4.23	4.31	4.48	4.97	5.60					11.22	12.23	13.76
		velocity	7.76	9.56	9.36	9.16	8.84		8.66	8.27	8.12	7.81	7.04	7.14	8.23				9.36	8.59	7.63
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155						
Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																					
date	24-Jun-21	time	5.80	9.51	13.31	17.38	21.45		25.69	30.03	34.37	38.80	43.61			Henson (2021) - Athlete First: 2021 year end hurdle report	49.12	6 / 1			
reaction time	0.252	interval		3.71	3.80	4.07	4.07		4.24	4.34	4.34	4.43	4.81	5.51					11.58	12.65	13.58
		velocity	7.76	9.43	9.21	8.60	8.60		8.25	8.06	8.06	7.90	7.28	7.26	8.14				9.07	8.30	7.73
H1 lead leg	R	strides	20	13	12	14	13		13	13	13	13	14	17	155						
FINAL - 2021 USATF Golden Games (Walnut, CA) (TV Analysis)																					
date	09-May-21	time	5.84	9.44	13.21	17.08	21.02		24.99	29.09	33.37	37.67	42.11			Henson (2021) - Athlete First: 2021 year end hurdle report	47.13	5 / 1			
reaction time		interval		3.60	3.77	3.87	3.94		3.97	4.10	4.28	4.30	4.44	5.02					11.24	12.01	13.02
		velocity	7.71	9.72	9.28	9.04	8.88		8.82	8.54	8.18	8.14	7.88	7.97	8.49				9.34	8.74	8.06
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153						
FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)																					
date	28-May-21	time	5.80	9.54	13.38	17.38	21.39	23.0	25.44	29.53	33.73	37.97	42.24			Henson (2021) - Athlete First: 2021 year end hurdle report	47.38	5 / 1			
reaction time	0.203	interval		3.74	3.84	4.00	4.01		4.05	4.09	4.20	4.24	4.27	5.14					11.58	12.15	12.71
		velocity	7.76	9.36	9.11	8.75	8.73	8.70	8.64	8.56	8.33	8.25	8.20	7.78	8.44				9.07	8.64	8.26
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.2	140.2						
FINAL - 2019 IAAF World Championships (Doha, QAT)																					
date	30-Sep-19	time	5.78	9.35	13.03	16.83	20.80		24.84	29.01	33.24	37.57	42.15			Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships	47.66	7 / 2			
reaction time	0.205	interval		3.57	3.68	3.80	3.97		4.04	4.17	4.23	4.33	4.58	5.51					11.05	12.18	13.14
		velocity	7.79	9.80	9.51	9.21	8.82		8.66	8.39	8.27	8.08	7.64	7.26	8.39				9.50	8.62	7.99
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	17	154						
Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)																					
date	28-Sep-19	time	5.82	9.47	13.24	17.17	21.24		25.38	29.56	33.88	38.32	42.93			Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships	48.52	6 / 1			
reaction time	0.215	interval		3.65	3.77	3.93	4.07		4.14	4.18	4.32	4.44	4.61	5.59					11.35	12.39	13.37
		velocity	7.73	9.59	9.28	8.91	8.60		8.45	8.37	8.10	7.88	7.59	7.16	8.24				9.25	8.47	7.85
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.7	153.7						
Heat 4 - 2019 IAAF World Championships (Doha, QAT) (TV Analysis)																					
date	27-Sep-19	time	5.92	9.64	13.40	17.40	21.40		25.56	29.92	34.48	39.32	44.28			Henson (2021) - Athlete First: 2021 year end hurdle report	49.62	4 / 1			
reaction time	0.217	interval		3.72	3.76	4.00	4.00		4.16	4.36	4.56	4.84	4.96	5.34					11.48	12.52	14.36

H1 lead leg	R	velocity	7.60	9.41	9.31	8.75	8.75		8.41	8.03	7.68	7.23	7.06	7.49	8.06		9.15	8.39	7.31	
		strides	20	13	13	13	13		13	13	13	15	14	16.5	157					
FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	29-Aug-19	time	5.74	9.34	12.98	16.74	20.62	22.2	24.54	28.61	32.80	37.18	41.84		46.98		5 / 2			
reaction time	0.173	interval		3.60	3.64	3.76	3.88		3.92	4.07	4.19	4.38	4.66	5.14	PB		11.00	11.87	13.23	
		velocity	7.84	9.72	9.62	9.31	9.02	9.01	8.93	8.60	8.35	7.99	7.51	7.78	8.51		9.55	8.85	7.94	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	30-Jun-19	time	5.83	9.53	13.33	17.30	21.33		25.33	29.43	33.63	37.85	42.10		47.16		5 / 1			
reaction time	0.216	interval		3.70	3.80	3.97	4.03		4.00	4.10	4.20	4.22	4.25	5.06			11.47	12.13	12.67	
		velocity	7.72	9.46	9.21	8.82	8.68		8.75	8.54	8.33	8.29	8.24	7.91	8.48		9.15	8.66	8.29	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.2	153.2					
FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	06-Jun-19	time	5.66	9.26	12.99	16.91	20.91		24.85	28.91	33.13	37.59	42.26		47.58		6 / 1			
reaction time	0.160	interval		3.60	3.73	3.92	4.00		3.94	4.06	4.22	4.46	4.67	5.32			11.25	12.00	13.35	
		velocity	7.95	9.72	9.38	8.93	8.75		8.88	8.62	8.29	7.85	7.49	7.52	8.41		9.33	8.75	7.87	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
FINAL - 2019 Shanghai Diamond League (Shanghai, CHN)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	18-May-19	time	5.73	9.36	13.16	17.03	21.16	23.0	25.26	29.40	33.50	37.73	42.33		47.80		5 / 2			
reaction time	0.155	interval		3.63	3.80	3.87	4.13		4.10	4.14	4.10	4.23	4.60	5.47			11.30	12.37	12.93	
		velocity	7.85	9.64	9.21	9.04	8.47	8.70	8.54	8.45	8.54	8.27	7.61	7.31	8.37		9.29	8.49	8.12	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	14	17	155					
Benjamin, Rai (ANT) (1997)																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	08-Jun-18	time	5.83	9.56	13.33	17.06	21.00		25.00	29.03	33.23	37.46	41.90		47.02		5 / 1			
reaction time		interval		3.73	3.77	3.73	3.94		4.00	4.03	4.20	4.23	4.44	5.12	AR PB		11.23	11.97	12.87	
		velocity	7.72	9.38	9.28	9.38	8.88		8.75	8.68	8.33	8.27	7.88	7.81	8.51		9.35	8.77	8.16	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16.2	153.2					
Bennett, LaRon (USA) (1982)																<i>USATF Hurdle Development (2008)</i>				
date	29-Jun-08	time	6.16	10.11	13.99	18.10	22.29		26.21	31.18	35.77	40.39	45.18		50.89		1 / 8			
reaction time		interval		3.95	3.88	4.11	4.19		3.92	4.97	4.59	4.62	4.79	5.71			11.94	13.08	14.00	
		velocity	7.31	8.86	9.02	8.52	8.35		8.93	7.04	7.63	7.58	7.31	7.01	7.86		8.79	8.03	7.50	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	153						
Heat 4 - 2007 USATF National Championships (Indianapolis, IN)																<i>USATF Men's Hurdle Development (2007)</i>				
date	21-Jun-07	time	6.25	10.23	14.11	18.20	22.31		26.59	30.89	35.25	39.76	44.23		49.46		7 / 3			
reaction time		interval		3.98	3.88	4.09	4.11		4.28	4.30	4.36	4.51	4.47	5.23			11.95	12.69	13.34	
		velocity	7.20	8.79	9.02	8.56	8.52		8.18	8.14	8.03	7.76	7.83	7.65	8.09		8.79	8.27	7.87	
H1 lead leg	R	strides	22	14	14	14	14		15	16	15	15	15	154						
Bertoncelli, Giacomo (ITA) (1999)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.95	9.80	13.86	17.94	22.09		26.31	30.65	35.07	39.70	44.44		49.83		3 / 7			
reaction time	0.158	interval		3.85	4.06	4.08	4.15		4.22	4.34	4.42	4.63	4.74	5.39			11.99	12.71	13.79	
		velocity	7.56	9.09	8.62	8.58	8.43		8.29	8.06	7.92	7.56	7.38	7.42	8.03		8.76	8.26	7.61	
H1 lead leg		strides												0						
Heat 1 - 2024 European Athletics Championships (Roma, ITA)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	09-Jun-24	time	5.91	9.76	13.80	18.00	22.22		26.50	30.73	35.18	39.73	44.19		49.41		4 / 3			
reaction time	0.155	interval		3.85	4.04	4.20	4.22		4.28	4.23	4.45	4.55	4.46	5.22			12.09	12.73	13.46	
		velocity	7.61	9.09	8.66	8.33	8.29		8.18	8.27	7.87	7.69	7.85	7.66	8.10		8.68	8.25	7.80	
H1 lead leg		strides												0						
Bett, Nicholas (KEN) (1990)																<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	31-May-18	time	5.96	9.68	13.48	17.40	21.52		25.76	30.12	34.76	39.52	44.36		49.95		8 / 8			
reaction time	0.180	interval		3.72	3.80	3.92	4.12		4.24	4.36	4.64	4.76	4.84	5.59			11.44	12.72	14.24	
		velocity	7.55	9.41	9.21	8.93	8.50		8.25	8.03	7.54	7.35	7.23	7.16	8.01		9.18	8.25	7.37	
H1 lead leg	R	strides	22	13	13	13	13		13	13	15	15	15	145						
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)																<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>				
date	13-May-17	time	6.04	9.72	13.52	17.40	21.40		25.52	30.00	34.64	39.52		49.09		5 / 8				
reaction time	0.189	interval		3.68	3.80	3.88	4.00		4.12	4.48	4.64	4.88					11.36	12.60		
		velocity	7.45	9.51	9.21	9.02	8.75		8.50	7.81	7.54	7.17		7.83			9.24	8.33		
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	15	15	142						
FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)																<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	05-May-17	time	6.23	9.96	13.70	17.63	21.63		25.83	30.13	34.53	39.16	44.16		49.70		5 / 4			
reaction time	0.168	interval		3.73	3.74	3.93	4.00		4.20	4.30	4.40	4.63	5.00	5.54			11.40	12.50	14.03	
		velocity	7.22	9.38	9.36	8.91	8.75		8.33	8.14	7.95	7.56	7.00	7.22	8.05		9.21	8.40	7.48	
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	13	15	17	157					

FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)

date	27-Aug-16	time	6.04	9.72	13.48	17.32	21.24	25.24	29.28	33.52	37.96	42.72	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.167	interval		3.68	3.76	3.84	3.92	4.00	4.04	4.24	4.44	4.76	5.29	48.01	7 / 1	11.28	11.96	13.44
		velocity	7.45	9.51	9.31	9.11	8.93	8.75	8.66	8.25	7.88	7.35	7.56	8.33		9.31	8.78	7.81
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	15	17	157				

FINAL - 2016 Athletissime (Laussane, SUI) (TV Analysis)

date	25-Aug-16	time	5.90	9.56	13.36	17.30	21.33	25.36	29.50	33.93	38.46	43.20	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.162	interval		3.66	3.80	3.94	4.03	4.03	4.14	4.43	4.53	4.74	5.48	48.68	6 / 2	11.40	12.20	13.70
		velocity	7.63	9.56	9.21	8.88	8.68	8.68	8.45	7.90	7.73	7.38	7.30	8.22		9.21	8.61	7.66
H1 lead leg	R	strides	20	13	13	13	13	13	13	15	15	15	17	160				

FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)

date	16-Jun-16	time	6.20	9.93	17.73	21.87	26.07	30.43	34.87	39.67	44.93	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
reaction time	0.159	interval		3.73	7.80	4.14	4.20	4.36	4.44	4.80	5.26	6.21		51.14	2 / 5	11.53	12.70	14.50
		velocity	7.26	9.38	8.97	8.45	8.33	8.03	7.88	7.29	6.65	6.44	7.82			9.11	8.27	7.24
H1 lead leg	R	strides	21	13		13	13	13	13	15	15	17.5	120.5					

FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)

date	09-Jun-16	time	6.08	9.72	13.48	17.40	21.52	25.72	30.00	34.44	39.04	44.00	<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.177	interval		3.64	3.76	3.92	4.12	4.20	4.28	4.44	4.60	4.96	5.85	49.85	4 / 6	11.32	12.60	14.00
		velocity	7.40	9.62	9.31	8.93	8.50	8.33	8.18	7.88	7.61	7.06	6.84	8.02		9.28	8.33	7.50
H1 lead leg	R	strides	21	13		13	13	13	13	13	15	15	17.2	146.2				

FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)

date	28-May-16	time	6.24	10.04	13.88	17.96	22.20	26.52	31.00	35.08	40.48	45.44	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time		interval		3.80	3.84	4.08	4.24	4.32	4.48	4.08	5.40	4.96	5.89	51.33	5 / 8	11.72	13.04	14.44
		velocity	7.21	9.21	9.11	8.58	8.25	8.10	7.81	7.35	7.41	7.06	6.79	7.79		8.96	8.05	7.27
H1 lead leg	R	strides	21	13	13	13	13	13		13	17	15	131					

FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)

date	14-May-16	time	5.96	9.76	13.56	17.56	21.68	25.88	30.12	34.40	39.00	43.64	<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
reaction time	0.150	interval		3.80	3.80	4.00	4.12	4.20	4.24	4.28	4.60	4.64	5.67	49.31	5 / 6	11.60	12.56	13.52
		velocity	7.55	9.21	9.21	8.75	8.50	8.33	8.25	8.18	7.61	7.54	7.05	8.11		9.05	8.36	7.77
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	15	13	17.2	157.2				

FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)

date	25-Aug-15	time	6.04	9.76	13.48	17.24	21.24	25.28	29.40	33.60	37.96	42.56	<i>Henson (2021) - Athlete First: major championships report</i>					
reaction time	0.162	interval		3.72	3.72	3.76	4.00	4.04	4.12	4.20	4.36	4.60	5.23	47.79	9 / 1	11.20	12.16	13.16
		velocity	7.45	9.41	9.41	9.31	8.75	8.66	8.50	8.33	8.03	7.61	7.65	8.37		9.38	8.63	7.98
H1 lead leg	R	strides		13	13	13	13	13	13	13	13	15	17	136				

Birchman, Jonathan (USA) (2001)

date	28-Jun-24	time	5.98	9.89	13.98	18.07	22.34	24.24	26.45	31.13	35.84	40.75	45.82	<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
reaction time		interval		3.91	4.09	4.09	4.27	4.11	4.68	4.71	4.91	5.07	6.04	51.86	9 / 7	12.09	13.06	14.69	
		velocity	7.53	8.95	8.56	8.56	8.20	8.25	8.52	7.48	7.43	7.13	6.90	6.62	7.71		8.68	8.04	7.15
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	169					

Heat 4 - 2024 USA Olympic Trials (Eugene, OR)

date	27-Jun-24	time	6.12	10.09	14.20	18.47	22.66	24.48	26.85	31.25	35.88	40.63	45.30	<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
reaction time		interval		3.97	4.11	4.27	4.19	4.19	4.40	4.63	4.75	4.67	5.38	50.68	6 / 3	12.35	12.78	14.05	
		velocity	7.35	8.82	8.52	8.20	8.35	8.17	8.35	7.95	7.56	7.37	7.49	7.43	7.89		8.50	8.22	7.47
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	169					

Blondel, Alain (FRA) (1962)

date	09-Aug-87	time	6.00	10.20	14.50	18.70	22.90	27.20	31.50	36.05	40.70	45.40	<i>Veney - split times from PJ</i>					
reaction time		interval		4.20	4.30	4.20	4.20	4.30	4.30	4.55	4.65	4.70	5.76	51.16	4 / 4	12.70	12.80	13.90
		velocity	7.50	8.33	8.14	8.33	8.33	8.14	8.14	7.69	7.53	7.45	6.94	7.82		8.27	8.20	7.55
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	15	135				

Boino, Mowen (PNG) (1979)

date	20-Sep-02	time	6.14	10.18	14.34	18.47	22.65	27.01	31.43	36.00	40.70	45.57	<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>					
reaction time	0.058	interval		4.04	4.16	4.13	4.18	4.36	4.42	4.57	4.70	4.87	6.09	51.66	9 / 9	12.33	12.96	14.14
		velocity	7.33	8.66	8.41	8.47	8.37	8.03	7.92	7.66	7.45	7.19	6.57	7.74		8.52	8.10	7.43
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	18	174				

Heat 7 - 2000 Olympic Games (Sydney, AUS)

date	24-Sep-00	time	6.16	10.28	14.52	18.76	23.04	27.52	32.08	36.48	<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>							
reaction time	0.406	interval		4.12	4.24	4.24	4.28	4.48	4.56	4.40			51.38	4 / 8	12.60	13.32		
		velocity	7.31	8.50	8.25	8.25	8.18	7.81	7.68	7.95			7.79		8.33	7.88		
H1 lead leg		strides	22	15	15	15	15	15	15	15			127					

Bonvin, Julien (SUI) (1999)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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FINAL - 2024 Weltklasse (Zürich, SUI)

date	05-Sep-24	time	5.84	9.51	13.24	17.11	21.10	25.27	29.69	34.33	39.19	44.17	50.04	1 / 7				
reaction time	0.176	interval		3.67	3.73	3.87	3.99	4.17	4.42	4.64	4.86	4.98	5.87		11.59	12.58	14.48	
		velocity	7.71	9.54	9.38	9.04	8.77	8.39	7.92	7.54	7.20	7.03	6.81	7.99	9.06	8.35	7.25	
H1 lead leg	L	strides	21	13			13	13	14	14	15	15	118					

Omega Timing (2023) - diamond league race analysis

Repechage 3 - 2024 Olympic Games (Paris, FRA)

date	06-Aug-24	time	5.76	9.43	13.20	17.07	21.01	25.15	29.50	34.01	38.69	43.45	49.08	3 / 3				
reaction time	0.165	interval		3.67	3.77	3.87	3.94	4.14	4.35	4.51	4.68	4.76	5.63		11.31	12.43	13.95	
		velocity	7.81	9.54	9.28	9.04	8.88	8.45	8.05	7.76	7.48	7.35	7.10	8.15	9.28	8.45	7.53	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18.5	162.5				

Paris 2024 Olympic Games - Results Book (2024)

Heat 3 - 2024 Olympic Games (Paris, FRA)

date	05-Aug-24	time	5.80	9.53	13.25	17.08	21.08	25.33	29.79	34.43	39.22	44.12	49.82	8 / 6				
reaction time	0.167	interval		3.73	3.72	3.83	4.00	4.25	4.46	4.64	4.79	4.90	5.70		11.28	12.71	14.33	
		velocity	7.76	9.38	9.41	9.14	8.75	8.24	7.85	7.54	7.31	7.14	7.02	8.03	9.31	8.26	7.33	
H1 lead leg	L	strides	21	13	13	13	13	14	14		15	18	134					

Paris 2024 Olympic Games - Results Book (2024)

Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)

date	10-Jun-24	time	5.75	9.38	13.12	16.92	20.91	25.17	29.85	34.56	39.47	44.29	49.95	3 / 5				
reaction time	0.170	interval		3.63	3.74	3.80	3.99	4.26	4.68	4.71	4.91	4.82	5.66		11.17	12.93	14.44	
		velocity	7.83	9.64	9.36	9.21	8.77	8.22	7.48	7.43	7.13	7.26	7.07	8.01	9.40	8.12	7.27	
H1 lead leg		strides											0					

European Athletics (2024) - 2024 european athletics championships - results book

Heat 2 - 2024 European Athletics Championships (Roma, ITA)

date	09-Jun-24	time	5.78	9.44	13.15	17.01	21.04	25.29	29.82	34.37	39.11	43.91	49.41	3 / 2				
reaction time	0.188	interval		3.66	3.71	3.86	4.03	4.25	4.53	4.55	4.74	4.80	5.50		11.23	12.81	14.09	
		velocity	7.79	9.56	9.43	9.07	8.68	8.24	7.73	7.69	7.38	7.29	7.27	8.10	9.35	8.20	7.45	
H1 lead leg		strides											0					

European Athletics (2024) - 2024 european athletics championships - results book

FINAL - 2023 Weltklasse (Zürich, SUI)

date	31-Aug-23	time	5.76	9.44	13.22	17.10	21.12	25.37	29.85	34.53	39.50	44.57	50.34	1 / 7				
reaction time	0.149	interval		3.68	3.78	3.88	4.02	4.25	4.48	4.68	4.97	5.07	5.77		11.34	12.75	14.72	
		velocity	7.81	9.51	9.26	9.02	8.71	8.24	7.81	7.48	7.04	6.90	6.93	7.95	9.26	8.24	7.13	
H1 lead leg	L	strides	21	13			13	14	14				75					

Omega Timing (2023) - diamond league race analysis

Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	21-Aug-23	time	5.90	9.67	13.38	17.05	20.99	25.29	29.66	34.30	39.11	44.08	49.75	4 / 8				
reaction time	0.175	interval		3.77	3.71	3.67	3.94	4.30	4.37	4.64	4.81	4.97	5.67		11.15	12.61	14.42	
		velocity	7.63	9.28	9.43	9.54	8.88	8.14	8.01	7.54	7.28	7.04	7.05	8.04	9.42	8.33	7.28	
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	18	148					

Henson (2023) - Athlete First: 2023 year end hurdle report

Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	20-Aug-23	time	5.96	9.73	13.46	17.13	21.13	25.40	29.73	34.23	38.97		49.19	5 / 3				
reaction time	0.188	interval		3.77	3.73	3.67	4.00	4.27	4.33	4.50	4.74		10.22		11.17	12.60		
		velocity	7.55	9.28	9.38	9.54	8.75	8.20	8.08	7.78	7.38		7.34	8.13	9.40	8.33		
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15		131					

Henson (2023) - Athlete First: 2023 year end hurdle report

FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)

date	08-Sep-22	time	5.77	9.34	16.95	20.89	22.46	24.99	29.43	34.04	38.80	43.84	49.63	2 / 7				
reaction time	0.154	interval		3.57	7.61	3.94		4.10	4.44	4.61	4.76	5.04	5.79		11.18	12.48	14.41	
		velocity	7.80	9.80	9.20	8.88	8.90	8.54	7.88	7.59	7.35	6.94	6.91	8.06	9.39	8.41	7.29	
H1 lead leg	L	strides	20	13			13	13	14	14	15	15	18.2	135.2				

Henson (2022) - Athlete First: 2022 year end hurdle report

FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)

date	19-Aug-22	time	5.77	9.38	17.05	21.10	22.74	25.43	29.88	34.57	39.47	44.52	50.24	1 / 7				
reaction time	0.216	interval		3.61	7.67	4.05		4.33	4.45	4.69	4.90	5.05	5.72		11.28	12.83	14.64	
		velocity	7.80	9.70	9.13	8.64	8.80	8.08	7.87	7.46	7.14	6.93	6.99	7.96	9.31	8.18	7.17	
H1 lead leg	L	strides	21	13			13	14	14	15	15	15	18	138				

Henson (2022) - Athlete First: 2022 year end hurdle report

Borsumato, Anthony (GBR) (1973)

Heat 2 - 2002 European Championships (Munich, GER)																		
date	07-Aug-02	time	6.09	9.87	13.73	17.69	21.69	25.81	30.13	34.65	39.46	44.32	49.93	/ 2				
reaction time		interval		3.78	3.86	3.96	4.00	4.12	4.32	4.52	4.81	4.86	5.61		11.60	12.44	14.19	
		velocity	7.39	9.26	9.07	8.84	8.75	8.50	8.10	7.74	7.28	7.20	7.13	8.01	9.05	8.44	7.40	
H1 lead leg		strides																

Graubner (2009) - <http://www.fgs.uni-halle.de>**Heat 6 - 2000 Olympic Games (Sydney, AUS)**

date	24-Sep-00	time	6.10	9.86	13.74	17.70	21.70	25.90	30.50	35.02	39.90		50.73	4 / 5				
reaction time	0.155	interval		3.76	3.88	3.96	4.00	4.20	4.60	4.52	4.88				11.60	12.80		
		velocity	7.38	9.31	9.02	8.84	8.75	8.33	7.61	7.74	7.17		7.88		9.05	8.20		
H1 lead leg		strides	21	13	13	13	13	14	15	15	16		133					

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

Brand, Dany (SUI) (1996)

Heat 3 - 2024 European Athletics Championships (Roma, ITA)																		
date	09-Jun-24	time	6.05	9.84	13.70	17.72	21.82	26.09	30.45	34.96	39.81	44.63	49.99	3 / 5				
reaction time	0.214	interval		3.79	3.86	4.02	4.10	4.27	4.36	4.51	4.85	4.82	5.36		11.67	12.73	14.18	

European Athletics (2024) - 2024 european athletics championships - results book

H1 lead leg	velocity	7.44	9.23	9.07	8.71	8.54		8.20	8.03	7.76	7.22	7.26	7.46	8.00		9.00	8.25	7.40
	strides													0				
Branker, Xavier (USA) (2005)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Heat 5 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	27-Jun-24	time	6.14	10.16	14.23	18.28	22.83	24.91	27.41	31.93	36.58	41.42	46.13	51.77	9 / 7			
reaction time	interval		4.02	4.07	4.05	4.55		4.58	4.52	4.65	4.84	4.71	5.64		12.14	13.65	14.20	
	velocity	7.33	8.71	8.60	8.64	7.69	8.03	7.64	7.74	7.53	7.23	7.43	7.09	7.73	8.65	7.69	7.39	
H1 lead leg	L	strides	13	13	13	15		15	15	15	15	15	17.2	146.2				
Brazell, Bennie (USA) (1982)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2005 NCAA Championships (Sacramento, CA)														<i>Shaver (2008) - hurdle training</i>				
date	11-Jun-05	time	6.06	9.76	13.60	17.45	21.34		25.37	29.59	33.85	38.23	42.64	47.67	5 / 2			
reaction time	interval		3.70	3.84	3.85	3.89		4.03	4.22	4.26	4.38	4.41	5.03	PB	11.39	12.14	13.05	
	velocity	7.43	9.46	9.11	9.09	9.00		8.68	8.29	8.22	7.99	7.94	7.95	8.39	9.22	8.65	8.05	
H1 lead leg	L	strides	22	13	13	13	13		13	15	15	15	16	19	167			
FINAL - 2004 Olympic Games (Athina, GRE)														<i>Behm (2005) - Athènes 2004: Les Haies Basses</i>				
date	26-Aug-04	time	6.0	9.6	13.3	17.1	21.1		25.2	29.4	33.7	38.3	43.1	49.51	8 / 8			
reaction time	0.390	interval		3.60	3.70	3.80	4.00		4.10	4.20	4.30	4.60	4.80	6.41	11.10	12.30	13.70	
	velocity	7.50	9.72	9.46	9.21	8.75		8.54	8.33	8.14	7.61	7.29	6.24	8.08	9.46	8.54	7.66	
H1 lead leg	L	strides	22	13	13	13	14		14	14	15	15	16	149				
Brinkley, Chris (USA) (2003)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	28-Jun-24	time	5.93	9.74	13.62	17.65	21.91	23.73	26.12	30.67	35.40	40.37	45.12	51.20	9 / 7			
reaction time	interval		3.81	3.88	4.03	4.26		4.21	4.55	4.73	4.97	4.75	6.08		11.72	13.02	14.45	
	velocity	7.59	9.19	9.02	8.68	8.22	8.43	8.31	7.69	7.40	7.04	7.37	6.58	7.81	8.96	8.06	7.27	
H1 lead leg	L	strides	13	13	14	14		15	15	15	15	15	19	148				
Heat 2 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	27-Jun-24	time	6.13	9.92	13.87	17.84	21.90	23.83	26.15	30.59	35.40	40.14	44.96	50.71	4 / 4			
reaction time	interval		3.79	3.95	3.97	4.06		4.25	4.44	4.81	4.74	4.82	5.75		11.71	12.75	14.37	
	velocity	7.34	9.23	8.86	8.82	8.62	8.39	8.24	7.88	7.28	7.38	7.26	6.96	7.89	8.97	8.24	7.31	
H1 lead leg	L	strides	22	13	13	13	14			15	15	15	19	139				
Brockman, Charles (USA) (1999)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	25-Jun-21	time	6.14	10.01	14.01	18.05	22.22		26.56	31.03	35.50	40.00	44.47	49.54	9 / 7			
reaction time	0.241	interval		3.87	4.00	4.04	4.17		4.34	4.47	4.47	4.50	4.47	5.07	11.91	12.98	13.44	
	velocity	7.33	9.04	8.75	8.66	8.39		8.06	7.83	7.83	7.78	7.83	7.89	8.07	8.82	8.09	7.81	
H1 lead leg	R	strides	14	14	14	14		15	15	15	15	15	18.7	149.7				
FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	11-Jun-21	time	6.03	9.77	13.60	17.50	21.53		25.77	30.27	34.83	39.50	44.33	49.92	5 / 8			
reaction time	0.190	interval		3.74	3.83	3.90	4.03		4.24	4.50	4.56	4.67	4.83	5.59	11.47	12.77	14.06	
	velocity	7.46	9.36	9.14	8.97	8.68		8.25	7.78	7.68	7.49	7.25	7.16	8.01	9.15	8.22	7.47	
H1 lead leg	R	strides	22	14	14	13	14		15	15	15	15	15	152				
Bronson, Bryan (USA) (1972)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 1997 IAAF World Championships (Athens, GRE)														<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>				
date	04-Aug-97	time	6.03	9.66	13.32	17.08	20.95		25.08	29.28	33.62	38.08	42.62	47.88	3 / 3			
reaction time	0.247	interval		3.63	3.66	3.76	3.87		4.13	4.20	4.34	4.46	4.54	5.26	11.05	12.20	13.34	
	velocity	7.46	9.64	9.56	9.31	9.04		8.47	8.33	8.06	7.85	7.71	7.60	8.35	9.50	8.61	7.87	
H1 lead leg		strides												148				
FINAL - 1996 USA Olympic Trials (Atlanta, GA)														<i>McNichols - Hurdle technique study through video analysis</i>				
date	16-Jun-96	time	6.01	9.69	13.37	17.03	20.97	22.78	25.23	29.39	33.67	38.11	42.67	47.98	8 / 1			
reaction time	interval		3.68	3.68	3.66	3.94		4.26	4.16	4.28	4.44	4.56	5.31	PB	11.02	12.36	13.28	
	velocity	7.49	9.51	9.51	9.56	8.88	8.78	8.22	8.41	8.18	7.88	7.68	7.53	8.34	9.53	8.50	7.91	
H1 lead leg	R	strides	21	13	13	13	13		15	15	15	15	15	148				
Buckley, Markino (JAM) (1986)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	13-Sep-08	time	6.29	10.11	13.99	17.87	21.90		26.09	30.49	34.94	39.48	44.11	49.52	1 / 4			
reaction time	0.276	interval		3.82	3.88	3.88	4.03		4.19	4.40	4.45	4.54	4.63	5.41	11.58	12.62	13.62	
	velocity	7.15	9.16	9.02	9.02	8.68		8.35	7.95	7.87	7.71	7.56	7.39	8.08	9.07	8.32	7.71	
H1 lead leg		strides																
FINAL - 2008 Olympic Games (Beijing, CHN)														<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>				
date	18-Aug-08	time	5.9	9.9	13.9	17.8	21.7		25.9	30.2	34.5	39.0	43.5	48.60	9 / 7			
reaction time	0.264	interval		4.00	4.00	3.90	3.90		4.20	4.30	4.30	4.50	4.50	5.10	11.90	12.40	13.30	
	velocity	7.63	8.75	8.75	8.97	8.97		8.33	8.14	8.14	7.78	7.78	7.84	8.23	8.82	8.47	7.89	
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	14	14	17	160			
Budko, Vladimir (RUS) (1965)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 1991 European Cup (Frankfurt, GER)														<i>Federle (2003) - http://www.fgs.uni-halle.de</i>				

date	29-Jun-91	time	6.31	10.15	14.07	18.03	22.05		26.17	30.49	34.89	39.51	44.35		49.96	/ 4			
reaction time		interval		3.84	3.92	3.96	4.02		4.12	4.32	4.40	4.62	4.84	5.61			11.72	12.46	13.86
		velocity	7.13	9.11	8.93	8.84	8.71		8.50	8.10	7.95	7.58	7.23	7.13	8.01		8.96	8.43	7.58
H1 lead leg		strides																	

Bultheel, Michaël (BEL) (1986) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10
FINAL - 2007 European Cup (Munich, GER) Graubner (2007) - <http://www.fgs.uni-halle.de>

date	23-Jun-07	time	6.16	10.03	13.99	17.99	22.10		26.42	30.92	35.61	40.40	45.30		50.87	/ 7			
reaction time	0.149	interval		3.87	3.96	4.00	4.11		4.32	4.50	4.69	4.79	4.90	5.57			11.83	12.93	14.38
		velocity	7.31	9.04	8.84	8.75	8.52		8.10	7.78	7.46	7.31	7.14	7.18	7.86		8.88	8.12	7.30
H1 lead leg		strides																	

Burrell, Sean (USA) (2002) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10
Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR) USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	28-Jun-24	time	5.97	9.81	13.78	17.84	21.87	23.77	26.11	30.55	35.16	39.80	44.44		50.26	4 / 6			
reaction time		interval		3.84	3.97	4.06	4.03		4.24	4.44	4.61	4.64	4.64	5.82			11.87	12.71	13.89
		velocity	7.54	9.11	8.82	8.62	8.68	8.41	8.25	7.88	7.59	7.54	7.54	6.87	7.96		8.85	8.26	7.56
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18	171				

Heat 3 - 2024 USA Olympic Trials (Eugene, OR) USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	27-Jun-24	time	6.18	10.05	14.02	18.22	22.54	24.51	27.01	31.50	36.29	41.06	45.63		50.90	5 / 4			
reaction time		interval		3.87	3.97	4.20	4.32		4.47	4.49	4.79	4.77	4.57	5.27			12.04	13.28	14.13
		velocity	7.28	9.04	8.82	8.33	8.10	8.16	7.83	7.80	7.31	7.34	7.66	7.59	7.86		8.72	7.91	7.43
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18	171				

FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis) Henson (2024) - Athlete First: 2024 year end hurdle report

date	07-Jun-24	time	6.00	9.66	13.45	17.40	21.40		25.64	30.11	34.71	39.61	44.76		51.17	4 / 8			
reaction time		interval		3.66	3.79	3.95	4.00		4.24	4.47	4.60	4.90	5.15	6.41			11.40	12.71	14.65
		velocity	7.50	9.56	9.23	8.86	8.75		8.25	7.83	7.61	7.14	6.80	6.24	7.82		9.21	8.26	7.17
H1 lead leg	R	strides	22	13	14	14	14		15	15	15	15	16	153					

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis) Henson (2021) - Athlete First: 2021 year end hurdle report

date	11-Jun-21	time	5.87	9.70		17.43	21.33		29.56	33.97	38.40	42.83		47.85	8 / 1				
reaction time	0.194	interval		3.83		7.73	3.90		8.23	4.41	4.43	4.43	5.02	WJR			11.56	12.13	13.27
		velocity	7.67	9.14		9.06	8.97		8.51	7.94	7.90	7.90	7.97	8.36			9.08	8.66	7.91
H1 lead leg	L	strides	22	14		14					15	15	15	18.2	113.2				

Burton, Jereme (USA) (1984) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10
FINAL - 2003 USATF National Junior Championships (Palo Alto, CA) USATF Women's Sprint Development (2003)

date	22-Jun-03	time	6.16	10.04	14.01	18.00	22.21		26.56	31.08	35.80	40.79	45.91		51.92	5 / 4			
reaction time		interval		3.88	3.97	3.99	4.21		4.35	4.52	4.72	4.99	5.12	6.01	PB		11.84	13.08	14.83
		velocity	7.31	9.02	8.82	8.77	8.31		8.05	7.74	7.42	7.01	6.84	6.66	7.70		8.87	8.03	7.08
H1 lead leg		strides																	

Büttner, Dieter (FRG) (1949) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10
Semi-Final 2 - 1972 Olympic Games (Munich, FRG) Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden

date	02-Sep-72	time				21.4			30.2				44.7		dnf	2 / --			
reaction time		interval							8.80				14.50						14.50
		velocity				8.64			7.95				7.24						7.24
H1 lead leg		strides																	

Heat 1 - 1972 Olympic Games (Munich, FRG) Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden

date	01-Sep-72	time				21.5			30.4						49.78	1 / 1			
reaction time		interval							8.90										
		velocity				8.60			7.87						8.04				
H1 lead leg		strides																	

Cai Jungi (CHN) (1996) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10
Heat 4 - 2021 Chinese National Championships (Chongqing, CHN) CAA Hurdle Development (2021)

date	26-Jun-21	time	6.32	10.31	14.38	18.59	22.94		27.39	31.85	36.37	40.99	45.73		51.60	3 / 3			
reaction time	0.229	interval		3.99	4.07	4.21	4.35		4.45	4.46	4.52	4.62	4.74	5.87			12.27	13.26	13.88
		velocity	7.12	8.77	8.60	8.31	8.05		7.87	7.85	7.74	7.58	7.38	6.81	7.75		8.56	7.92	7.56
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18.5	175.5				

FINAL - 2021 East China District Meeting (Zhaoqing, CHN) CAA Hurdle Development (2021)

date	25-Apr-21	time	6.26	10.34	14.50	18.70	23.03		27.38	31.80	36.27	40.80	45.33		50.64	7 / 1			
reaction time	0.178	interval		4.08	4.16	4.20	4.33		4.35	4.42	4.47	4.53	4.53	5.31			12.44	13.10	13.53
		velocity	7.19	8.58	8.41	8.33	8.08		8.05	7.92	7.83	7.73	7.73	7.53	7.90		8.44	8.02	7.76
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18.5	175.5				

Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN) CAA Hurdle Development (2021)

date	25-Apr-21	time	6.38	10.52	14.84	19.20	23.62		28.06	32.54	36.98	41.50	46.08		51.88	6 / 1			
reaction time	0.204	interval		4.14	4.32	4.36	4.42		4.44	4.48	4.44	4.52	4.58	5.80			12.82	13.34	13.54
		velocity	7.05	8.45	8.10	8.03	7.92		7.88	7.81	7.88	7.74	7.64	6.90	7.71		8.19	7.87	7.75
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				

FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN) CAA Hurdle Development (2019)

date	23-Aug-19	time	6.34	10.31	14.30	18.40	22.66	26.98	31.42	36.02	40.76	45.70	51.69	3 / 6				
reaction time	0.201	interval		3.97	3.99	4.10	4.26	4.32	4.44	4.60	4.74	4.94	5.99		12.06	13.02	14.28	
		velocity	7.10	8.82	8.77	8.54	8.22	8.10	7.88	7.61	7.38	7.09	6.68	7.74	8.71	8.06	7.35	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.5	176.5				

Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)

CAA Hurdle Development (2019)

date	22-Aug-19	time	6.39	10.53	14.80	19.17	23.54	27.99	32.57	37.17	41.91	46.76	52.42	6 / 3				
reaction time	0.199	interval		4.14	4.27	4.37	4.37	4.45	4.58	4.60	4.74	4.85	5.66		12.78	13.40	14.19	
		velocity	7.04	8.45	8.20	8.01	8.01	7.87	7.64	7.61	7.38	7.22	7.07	7.63	8.22	7.84	7.40	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176				

FINAL - 2019 Chinese National Championships (Shenyang, CHN)

CAA Hurdle Development (2019)

date	10-Jul-19	time	6.24	10.21	14.36	18.40	22.50	26.74	31.05	35.47	40.03	44.86	50.46	3 / 2				
reaction time	0.196	interval		3.97	4.15	4.04	4.10	4.24	4.31	4.42	4.56	4.83	5.60		12.16	12.65	13.81	
		velocity	7.21	8.82	8.43	8.66	8.54	8.25	8.12	7.92	7.68	7.25	7.14	7.93	8.63	8.30	7.60	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.5	176.5				

Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.35	10.41	14.49	18.69	22.90	27.21	31.60	36.06	40.62	45.36	51.22	6 / 2				
reaction time	0.189	interval		4.06	4.08	4.20	4.21	4.31	4.39	4.46	4.56	4.74	5.86		12.34	12.91	13.76	
		velocity	7.09	8.62	8.58	8.33	8.31	8.12	7.97	7.85	7.68	7.38	6.83	7.81	8.51	8.13	7.63	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19.5	176.5				

FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)

CAA Hurdle Development (2019)

date	08-Apr-19	time	6.22	10.30	14.50	18.68	22.94	27.20	31.56	36.04	40.56	45.18	50.56	5 / 1				
reaction time	0.179	interval		4.08	4.20	4.18	4.26	4.26	4.36	4.48	4.52	4.62	5.38		12.46	12.88	13.62	
		velocity	7.23	8.58	8.33	8.37	8.22	8.22	8.03	7.81	7.74	7.58	7.43	7.91	8.43	8.15	7.71	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176				

Campbell, Basil (USA) (1985)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)

USATF Women's Sprint Development (2003)

date	22-Jun-03	time	6.12	10.23	14.41	18.48	22.86	27.51	32.06	36.72	41.65	46.88	53.41	6 / 6				
reaction time		interval		4.11	4.18	4.07	4.38	4.65	4.55	4.66	4.93	5.23	6.53		12.36	13.58	14.82	
		velocity	7.35	8.52	8.37	8.60	7.99	7.53	7.69	7.51	7.10	6.69	6.13	7.49	8.50	7.73	7.09	
H1 lead leg		strides																

Campbell, Luke (GER) (1994)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)

Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships

date	28-Sep-19	time	5.82	9.47	13.17	17.00	21.02	25.25	29.66	34.27	39.00	44.01	50.00	3 / 6				
reaction time	0.146	interval		3.65	3.70	3.83	4.02	4.23	4.41	4.61	4.73	5.01	5.99		11.18	12.66	14.35	
		velocity	7.73	9.59	9.46	9.14	8.71	8.27	7.94	7.59	7.40	6.99	6.68	8.00	9.39	8.29	7.32	
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165				

Cao Xiong (CHN) (2001)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2020 Chinese National Championships (Shaoxing, CHN)

CAA Hurdle Development (2020)

date	17-Sep-20	time	6.05	10.17	14.37	18.66	23.12	27.79	32.62	37.62	42.88	48.08	53.96	8 / 8				
reaction time		interval		4.12	4.20	4.29	4.46	4.67	4.83	5.00	5.16	5.46	5.88		12.61	13.96	15.46	
		velocity	7.44	8.50	8.33	8.16	7.85	7.49	7.25	7.00	6.74	6.69	6.80	7.41	8.33	7.52	6.79	
H1 lead leg	L	strides		15	15	15	15	15	15	16	16	16	18.5	125				

U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.28	10.46	14.54	18.68	22.96	27.52	32.14	36.87	41.79	46.88	52.31	8 / 6				
reaction time	0.203	interval		4.18	4.08	4.14	4.28	4.56	4.62	4.73	4.92	5.09	5.43	PB	12.40	13.46	14.74	
		velocity	7.17	8.37	8.58	8.45	8.18	7.68	7.58	7.40	7.11	6.88	7.37	7.65	8.47	7.80	7.12	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	16	19	177				

U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.46	10.73	15.00	19.32	23.70	28.37	33.07	37.84	42.86	48.06	54.20	7 / 2				
reaction time	0.197	interval		4.27	4.27	4.32	4.38	4.67	4.70	4.77	5.02	5.20	6.14		12.86	13.75	14.99	
		velocity	6.97	8.20	8.20	8.10	7.99	7.49	7.45	7.34	6.97	6.73	6.51	7.38	8.16	7.64	7.00	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	16	19	177				

Carabelli, Gianni (ITA) (1979)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2006 European Championships (Göteborg, SWE)

Behm (2006) - Göteborg 2006: Le quatrache

date	10-Aug-06	time	5.9	9.7	13.5	17.3	21.3	25.4	29.7	34.3	38.8	43.6	49.60	/ 6				
reaction time		interval		3.80	3.80	3.80	4.00	4.10	4.30	4.60	4.50	4.80	6.00		11.40	12.40	13.90	
		velocity	7.63	9.21	9.21	9.21	8.75	8.54	8.14	7.61	7.78	7.29	6.67	8.06	9.21	8.47	7.55	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	15	18.5	160.5				

Carbe, Jonathan (SWE) (1990)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2011 Poks Memorial (Hässleholm, SWE)

Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx

date	12-Jun-11	time	6.44	10.58	14.84	19.26	23.70	28.42	33.16	37.94	42.94	47.94	53.59	/ 1				
reaction time		interval		4.14	4.26	4.42	4.44	4.72	4.74	4.78	5.00	5.00	5.65		12.82	13.90	14.78	
		velocity	6.99	8.45	8.22	7.92	7.88	7.42	7.38	7.32	7.00	7.00	7.08	7.46	8.19	7.55	7.10	
H1 lead leg	L	strides		14	14	14	14	15	15	15	15	15	19	150				

Cristan, Stéphane (FRA) (1964)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1992 Olympic Games (Barcelona, ESP)*Belloc (1992) - Diagona: 45.18 / 48.13 : 3" d'ecart; incompressibles?*

date	06-Aug-92	time	5.90	9.75	13.60	17.50	21.45	25.75	30.00	34.40	38.95	43.50	48.86	1 / 7				
reaction time		interval		3.85	3.85	3.90	3.95	4.30	4.25	4.40	4.55	4.55	5.36		PB	11.60	12.50	13.50
		velocity	7.63	9.09	9.09	8.97	8.86	8.14	8.24	7.95	7.69	7.69	7.46			9.05	8.40	7.78
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.1					

FINAL - 1991 European Cup (Frankfurt, GER)*Federle (2003) - http://www.fgs.uni-halle.de*

date	29-Jun-91	time	6.06	9.84	13.70	17.58	21.52	25.62	30.07	34.54	39.17	43.95	49.43	/ 2				
reaction time		interval		3.78	3.86	3.88	3.94	4.10	4.45	4.47	4.63	4.78	5.48			11.52	12.49	13.88
		velocity	7.43	9.26	9.07	9.02	8.88	8.54	7.87	7.83	7.56	7.32	7.30			9.11	8.41	7.56
H1 lead leg		strides																

Carne, Ben (GBR) (1986)**FINAL - 2007 European Cup (Munich, GER)***Graubner (2007) - http://www.fgs.uni-halle.de*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	23-Jun-07	time	6.15	10.13	14.06	18.10	22.30	26.56	30.93	35.50	40.17	45.06		50.74	/ 6			
reaction time	0.212	interval		3.98	3.93	4.04	4.20	4.26	4.37	4.57	4.67	4.89	5.68			11.95	12.83	14.13
		velocity	7.32	8.79	8.91	8.66	8.33	8.22	8.01	7.66	7.49	7.16	7.04	7.88		8.79	8.18	7.43
H1 lead leg		strides																

Carter, James (USA) (1978)**FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)***Graubner (2007) - http://www.fgs.uni-halle.de*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	22-Sep-07	time	6.00	9.52	13.35	17.14	21.18	25.30	29.54	33.92	38.52	43.16		48.36	5 / 3			
reaction time	0.132	interval		3.52	3.83	3.79	4.04	4.12	4.24	4.38	4.60	4.64	5.20			11.14	12.40	13.62
		velocity	7.50	9.94	9.14	9.23	8.66	8.50	8.25	7.99	7.61	7.54	7.69	8.27		9.43	8.47	7.71
H1 lead leg		strides																

FINAL - 2007 IAAF World Championships (Osaka, JPN)*Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers*

date	28-Aug-07	time	5.76	9.45	13.19	17.04	21.04	25.18	29.40	33.65	38.14	42.84		48.40	6 / 4			
reaction time	0.152	interval		3.69	3.74	3.85	4.00	4.14	4.22	4.25	4.49	4.70	5.56			11.28	12.36	13.44
		velocity	7.81	9.49	9.36	9.09	8.75	8.45	8.29	8.24	7.80	7.45	7.19	8.26		9.31	8.50	7.81
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.7	160				

Heat 2 - 2007 USATF National Championships (Indianapolis, IN)*USATF Men's Hurdle Development (2007)*

date	21-Jun-07	time	5.97	9.68	13.56	17.58	21.65	25.86	30.24	34.65	39.22	43.91		49.07	8 / 1			
reaction time		interval		3.71	3.88	4.02	4.07	4.21	4.38	4.41	4.57	4.69	5.16			11.61	12.66	13.67
		velocity	7.54	9.43	9.02	8.71	8.60	8.31	7.99	7.94	7.66	7.46	7.75	8.15		9.04	8.29	7.68
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	142					

FINAL - 2007 Osaka Grand Prix (Osaka, JPN)*Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers*

date	05-May-07	time	5.79	9.49	13.24	17.21	21.28	25.40	29.62	33.94	38.36	42.95		48.22	/ 2			
reaction time		interval		3.70	3.75	3.97	4.07	4.12	4.22	4.32	4.42	4.59	5.27			11.42	12.41	13.33
		velocity	7.77	9.46	9.33	8.82	8.60	8.50	8.29	8.10	7.92	7.63	7.59	8.30		9.19	8.46	7.88
H1 lead leg		strides		13	13	13	13	13	14	14	14	14	121					

FINAL - 2006 USATF National Championships (Indianapolis, IN)*USATF Men's Hurdle Development (2006)*

date	24-Jun-06	time	5.99	9.76	13.58	17.45	21.46	25.53	29.76	34.07	38.52	43.11		48.44	3 / 3			
reaction time		interval		3.77	3.82	3.87	4.01	4.07	4.23	4.31	4.45	4.59	5.33			11.46	12.31	13.35
		velocity	7.51	9.28	9.16	9.04	8.73	8.60	8.27	8.12	7.87	7.63	7.50	8.26		9.16	8.53	7.87
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159				

FINAL - 2005 Osaka Grand Prix (Osaka, JPN)*Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers*

date	07-May-05	time	5.77	9.47	13.21	17.13	21.23	25.48	29.82	34.26	38.71	43.25		48.42	/ 1			
reaction time		interval		3.70	3.74	3.92	4.10	4.25	4.34	4.44	4.45	4.54	5.17			11.36	12.69	13.43
		velocity	7.80	9.46	9.36	8.93	8.54	8.24	8.06	7.88	7.87	7.71	7.74	8.26		9.24	8.27	7.82
H1 lead leg		strides		13	13	13	13	14	14	14	14	14	122					

FINAL - 2004 Olympic Games (Athina, GRE)*Ruiz (2004) - las carreras con vallas de juegos olimpicos de atenas '04*

date	26-Aug-04	time	5.78	9.29	13.10	16.76	20.70	24.69	28.96	33.29	37.80	42.71		48.58	4 / 4			
reaction time	0.223	interval		3.51	3.81	3.66	3.94	3.99	4.27	4.33	4.51	4.91	5.87			10.98	12.20	13.75
		velocity	7.79	9.97	9.19	9.56	8.88	8.77	8.20	8.08	7.76	7.13	6.81	8.23		9.56	8.61	7.64
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18	161				

FINAL - 2003 USATF National Championships (Palo Alto, CA)*USATF Women's Sprint Development (2003)*

date	22-Jun-03	time	5.82	9.64	13.61	17.68	22.01	26.39	30.70	35.10	39.52	44.03		49.23	6 / 4-3			
reaction time		interval		3.82	3.97	4.07	4.33	4.38	4.31	4.40	4.42	4.51	5.20			11.86	13.02	13.33
		velocity	7.73	9.16	8.82	8.60	8.08	7.99	8.12	7.95	7.92	7.76	7.69	8.13		8.85	8.06	7.88
H1 lead leg		strides																

FINAL - 2002 IAAF World Cup (Madrid, ESP)*Sanchez (2002) - copa del mundo de Madrid '02: analisis de la carreras con villas*

date	20-Sep-02	time	5.65	9.42	13.23	17.04	21.00	25.09	29.36	33.68	38.27	42.89		48.27	6 / 1			
reaction time	0.131	interval		3.77	3.81	3.81	3.96	4.09	4.27	4.32	4.59	4.62	5.38			11.39	12.32	13.53
		velocity	7.96	9.28	9.19	9.19	8.84	8.56	8.20	8.10	7.63	7.58	7.43	8.29		9.22	8.52	7.76
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5	159.5				

FINAL - 2000 Olympic Games (Sydney, AUS)*Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	27-Sep-00	time	5.78	9.50	13.26	17.10	21.06	22.58	25.14	29.26	33.62	38.02	42.62		48.04	5 / 4		
reaction time	0.421	interval		3.72	3.76	3.84	3.96	4.08	4.12	4.36	4.40	4.60	5.42		PB	11.32	12.16	13.36

H1 lead leg	velocity	7.79	9.41	9.31	9.11	8.84	8.86	8.58	8.50	8.03	7.95	7.61	7.38	8.33	9.28	8.63	7.86	
	strides	21	13	13	13	13		13	14	14	14	14	17	159				
Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	25-Sep-00	time	5.70	9.46	13.14	16.90	20.86	22.38	24.90	29.14	33.54	38.10	42.96	48.48	3 / 1			
reaction time	0.202	interval	3.76	3.68	3.76	3.96			4.04	4.24	4.40	4.56	4.86	5.52		11.20	12.24	13.82
		velocity	7.89	9.31	9.51	9.31	8.84	8.94	8.66	8.25	7.95	7.68	7.20	7.25	8.25	9.38	8.58	7.60
H1 lead leg		strides	21	13	13	13			13	14	14	14	15	18	161			
Heat 6 - 2000 Olympic Games (Sydney, AUS)		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	24-Sep-00	time	5.74	9.50	13.46	17.38	21.46		25.70	30.26	34.78	39.30	43.94	49.41	7 / 2			
reaction time	0.174	interval	3.76	3.96	3.92	4.08			4.24	4.56	4.52	4.52	4.64	5.47		11.64	12.88	13.68
		velocity	7.84	9.31	8.84	8.93	8.58		8.25	7.68	7.74	7.74	7.54	7.31	8.10	9.02	8.15	7.68
H1 lead leg		strides	21	13	13	13			13	14	14	14	14	17.9	159.9			
Cato, Roxroy (JAM) (1988)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2016 Racers Grand Prix (Kingston, JAM) (TV Analysis)		<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	11-Jun-16	time	5.73	9.57	17.60	21.93		26.23	30.47	34.72	39.07			48.98	7 / 2			
reaction time		interval		3.84		8.03	4.33		4.30	4.24	4.25	4.35				11.87	12.87	
		velocity	7.85	9.11		8.72	8.08		8.14	8.25	8.24	8.05		8.17		8.85	8.16	
H1 lead leg	L	strides	22	14		14		15	15	15	15		110					
Cavanaugh, Caleb (USA) (2001)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)		<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																
date	28-Jun-24	time	5.87	9.67	13.62	17.68	21.75	23.85	26.14	30.87	35.78	41.12	46.38	53.06	2 / 9			
reaction time		interval		3.80	3.95	4.06	4.07		4.39	4.73	4.91	5.34	5.26	6.68		11.81	13.19	15.51
		velocity	7.67	9.21	8.86	8.62	8.60	8.39	7.97	7.40	7.13	6.55	6.65	5.99	7.54	8.89	7.96	6.77
H1 lead leg	R	strides	22	13	14	14	14		15	15	15	16	16	19	173			
Heat 3 - 2024 USA Olympic Trials (Eugene, OR)		<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																
date	27-Jun-24	time	6.02	9.87	13.92	18.01	22.15	24.04	26.56	31.07	35.84	40.76	45.65	51.50	3 / 5			
reaction time		interval		3.85	4.05	4.09	4.14		4.41	4.51	4.77	4.92	4.89	5.85		11.99	13.06	14.58
		velocity	7.48	9.09	8.64	8.56	8.45	8.32	7.94	7.76	7.34	7.11	7.16	6.84	7.77	8.76	8.04	7.20
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18	171			
FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)		<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
date	09-Jun-23	time	5.85	9.50	13.30	17.18	21.17		25.39	29.86	34.47	39.10	43.84	49.20	9 / 6			
reaction time		interval		3.65	3.80	3.88	3.99		4.22	4.47	4.61	4.63	4.74	5.36		11.33	12.68	13.98
		velocity	7.69	9.59	9.21	9.02	8.77		8.29	7.83	7.59	7.56	7.38	7.46	8.13	9.27	8.28	7.51
H1 lead leg	R	strides	20	13	13	13	13		13	15	15	15	15	17.7	162.7			
Cawley, Rex (USA) (1940)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1964 Olympic Games (Tokyo, JPN)		<i>Breitschaft (1965) - die leichtathletik wettkämpfe der 1964 olympischen sommerspielen - 400m hürdenlauf</i>																
date	16-Oct-64	time	5.9		13.8		21.8			30.3		38.9		49.6	6 / 1			
reaction time		interval			7.90		8.00			8.50		8.60		10.70				
		velocity	7.63		8.86		8.75			8.24		8.14		7.01	8.06			
H1 lead leg		strides																
Chalmers, Alastair (GBR) (2000)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 3 - 2024 Olympic Games (Paris, FRA)		<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	07-Aug-24	time	5.78	9.48	13.19	16.97	20.92		25.11	29.53	38.22	43.80	49.43	56.52	9 / 7			
reaction time	0.149	interval		3.70	3.71	3.78	3.95		4.19	4.42	8.69	5.58	5.63	7.09		11.19	12.56	19.90
		velocity	7.79	9.46	9.43	9.26	8.86		8.35	7.92	4.03	6.27	6.22	5.64	7.08	9.38	8.36	5.28
H1 lead leg	L	strides	20	13	13	13	13		14	15				101				
Heat 5 - 2024 Olympic Games (Paris, FRA)		<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	05-Aug-24	time	5.87	9.57	13.30	17.12	21.12		25.29	29.67	34.19	38.88	43.57	48.98	9 / 3			
reaction time	0.179	interval		3.70	3.73	3.82	4.00		4.17	4.38	4.52	4.69	4.69	5.41		11.25	12.55	13.90
		velocity	7.67	9.46	9.38	9.16	8.75		8.39	7.99	7.74	7.46	7.46	7.39	8.17	9.33	8.37	7.55
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163			
FINAL - 2024 London Athletics Meet (London, GBR)		<i>Omega Timing (2024) - diamond league race analysis</i>																
date	20-Jul-24	time	5.86	9.61	13.44	17.33	21.30		25.51	29.86	34.46	39.16	43.88	49.52	2 / 8			
reaction time	0.153	interval		3.75	3.83	3.89	3.97		4.21	4.35	4.60	4.70	4.72	5.64		11.47	12.53	14.02
		velocity	7.68	9.33	9.14	9.00	8.82		8.31	8.05	7.61	7.45	7.42	7.09	8.08	9.15	8.38	7.49
H1 lead leg	L	strides	20	13	13	13	13				15			18	105			
Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)		<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																
date	10-Jun-24	time	5.76	9.43	13.22	16.97	21.00		25.13	29.47	33.87	38.60	43.28	48.76	9 / 3			
reaction time	0.162	interval		3.67	3.79	3.75	4.03		4.13	4.34	4.40	4.73	4.68	5.48	PB	11.21	12.50	13.81
		velocity	7.81	9.54	9.23	9.33	8.68		8.47	8.06	7.95	7.40	7.48	7.30	8.20	9.37	8.40	7.60
H1 lead leg		strides												0				
Heat 2 - 2024 European Athletics Championships (Roma, ITA)		<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																
date	09-Jun-24	time	5.76	9.46	13.23	17.10	21.22		25.62	30.10	34.76	39.53	44.28	49.71	7 / 3			
reaction time	0.146	interval		3.70	3.77	3.87	4.12		4.40	4.48	4.66	4.77	4.75	5.43		11.34	13.00	14.18
		velocity	7.81	9.46	9.28	9.04	8.50		7.95	7.81	7.51	7.34	7.37	7.37	8.05	9.26	8.08	7.40

H1 lead leg strides 0

Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	5.77	9.57	13.60	17.60	21.87	23.76	26.20	30.67	35.20	40.07	44.90	50.54	1 / 6			
reaction time	0.157	interval		3.80	4.03	4.00	4.27		4.33	4.47	4.53	4.87	4.83	5.64		11.83	13.07	14.23
		velocity	7.80	9.21	8.68	8.75	8.20	8.42	8.08	7.83	7.73	7.19	7.25	7.09	7.91	8.88	8.03	7.38
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163			

Chaly, Timofey (RUS) (1994)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2014 European Championships (Zurich, SUI)***Green (2015) - twitter.com/jackpgreen (from Behm?)*

date	15-Aug-14	time	6.08	9.88	13.84	17.84	21.92		26.08	30.56	35.12	39.80	44.52	49.56	1 / 4			
reaction time	0.159	interval		3.80	3.96	4.00	4.08		4.16	4.48	4.56	4.68	4.72	5.04		11.76	12.72	13.96
		velocity	7.40	9.21	8.84	8.75	8.58		8.41	7.81	7.68	7.48	7.42	7.94	8.07	8.93	8.25	7.52
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	121				

Chen Chieh (TPE) (1992)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)***Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season*

date	21-May-23	time	6.01	9.76	13.61	17.62	21.72		26.09	30.53	35.04	39.79	44.63	50.13	7 / 7			
reaction time	0.163	interval		3.75	3.85	4.01	4.10		4.37	4.44	4.51	4.75	4.84	5.50		11.61	12.91	14.10
		velocity	7.49	9.33	9.09	8.73	8.54		8.01	7.88	7.76	7.37	7.23	7.27	7.98	9.04	8.13	7.45
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164			

FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	08-May-22	time	5.96	9.61	13.35	17.15	21.15		25.43	29.88	34.38	39.08	43.94	49.39	9 / 3			
reaction time	0.178	interval		3.65	3.74	3.80	4.00		4.28	4.45	4.50	4.70	4.86	5.45		11.19	12.73	14.06
		velocity	7.55	9.59	9.36	9.21	8.75		8.18	7.87	7.78	7.45	7.20	7.34	8.10	9.38	8.25	7.47
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164			

FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	01-May-22	time	5.97	9.64	13.41	17.27	21.22		25.51	29.93	34.47	39.16	43.96	49.31	7 / 2			
reaction time	0.171	interval		3.67	3.77	3.86	3.95		4.29	4.42	4.54	4.69	4.80	5.35		11.30	12.66	14.03
		velocity	7.54	9.54	9.28	9.07	8.86		8.16	7.92	7.71	7.46	7.29	7.48	8.11	9.29	8.29	7.48
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125				

FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)*Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	09-May-21	time	6.17	10.16	14.18	18.34	22.62		27.14	31.78	36.57	41.44	46.43	52.08	1 / 9			
reaction time	0.177	interval		3.99	4.02	4.16	4.28		4.52	4.64	4.79	4.87	4.99	5.65		12.17	13.44	14.65
		velocity	7.29	8.77	8.71	8.41	8.18		7.74	7.54	7.31	7.19	7.01	7.08	7.68	8.63	7.81	7.17
H1 lead leg		strides		13	13	13	13		14	14	15	15	15	125				

FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)*Hirokawa (2019) - research on athlete performance and technique- 2019 data book*

date	19-May-19	time	5.92	9.58	13.37	17.18	21.20		25.41	30.03	35.00	40.09	45.20	51.05	8 / 5			
reaction time	0.190	interval		3.66	3.79	3.81	4.02		4.21	4.62	4.97	5.09	5.11	5.85		11.26	12.85	15.17
		velocity	7.60	9.56	9.23	9.19	8.71		8.31	7.58	7.04	6.88	6.85	6.84	7.84	9.33	8.17	6.92
H1 lead leg	L	strides	21	13	13	13	13		13	14	15	16	15	19	165			

A FINAL - 2019 Kinami Memorial (Osaka, JPN)*Matsubayashi (2019) - research on athlete performance and technique- 2019 data book*

date	06-May-19	time	5.99	9.76	13.60	17.52	21.62		25.86	30.35	34.92	39.61	44.44	49.86	7 / 3			
reaction time		interval		3.77	3.84	3.92	4.10		4.24	4.49	4.57	4.69	4.83	5.42		11.53	12.83	14.09
		velocity	7.51	9.28	9.11	8.93	8.54		8.25	7.80	7.66	7.46	7.25	7.38	8.02	9.11	8.18	7.45
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.2	162.2			

A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Kobayashi (2019) - research on athlete performance and technique- 2019 data book*

date	03-May-19	time	5.96	9.58	13.28	17.13	21.10		25.26	29.76	34.35	39.24	44.33	50.05	7 / 2			
reaction time		interval		3.62	3.70	3.85	3.97		4.16	4.50	4.59	4.89	5.09	5.72		11.17	12.63	14.57
		velocity	7.55	9.67	9.46	9.09	8.82		8.41	7.78	7.63	7.16	6.88	6.99	7.99	9.40	8.31	7.21
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.5	162.5			

FINAL - 2019 Asian Athletics Championships (Doha, QAT)*CAA Hurdle Development (2019)*

date	22-Apr-19	time	5.84	9.49	13.19	16.98	20.92		25.00	29.41	33.92	38.57	43.37	48.92	6 / 2			
reaction time	0.195	interval		3.65	3.70	3.79	3.94		4.08	4.41	4.51	4.65	4.80	5.55	PB	11.14	12.43	13.96
		velocity	7.71	9.59	9.46	9.23	8.88		8.58	7.94	7.76	7.53	7.29	7.21	8.18	9.43	8.45	7.52
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	17.5	161.5			

Chen Tien-Wen (TPE) (1978)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	5.98	9.82	13.82	17.82	21.86	23.42	25.98	30.38	34.86	39.46		50.52	8 / 8			
reaction time	0.182	interval		3.84	4.00	4.00	4.04		4.12	4.40	4.48	4.60				11.84	12.56	
		velocity	7.53	9.11	8.75	8.75	8.66	8.54	8.50	7.95	7.81	7.61		7.92		8.87	8.36	
H1 lead leg		strides	22	14	14	14	14		14	14	15	15		136				

Heat 2 - 2000 Olympic Games (Sydney, AUS)*Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.10	9.90	13.82	17.86	21.94		26.26		34.98	39.54	44.34	49.93	2 / 5			
reaction time	0.180	interval		3.80	3.92	4.04	4.08		4.32		8.72	4.56	4.80	5.59	NR	11.76		
		velocity	7.38	9.21	8.93	8.66	8.58		8.10		8.03	7.68	7.29	7.16	8.01	8.93		
H1 lead leg		strides	21	14	14	14	14		14	14	15	15	15	19.1	169.1			

															30 of 196	M400H athlete															
Chevychalov, Georgiy (URS) (1935)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1961 Universiade (Sofia, BUL)																												<i>Bartusek (1969) - 400-meter training and technique</i>			
date	01-Sep-61	time	5.8	10.1	14.1	18.1	22.4	26.9	31.5	36.0	40.6	45.8		51.7	/ 2																
reaction time		interval	4.30	4.00	4.00	4.30	4.50	4.60	4.50	4.60	5.20	5.90				12.30	13.40	14.30													
		velocity	7.76	8.14	8.75	8.75	8.14	7.78	7.61	7.78	7.61	6.73	6.78	7.74		8.54	7.84	7.34													
H1 lead leg		strides																													
Chiba, Yoshihiro (JPN) (1979)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)																												<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>			
date	24-Sep-06	time	5.99	9.76	13.61	17.65	21.79	26.06	30.48	34.95	39.45	44.09		49.65	/ 5																
reaction time		interval	3.77	3.85	4.04	4.14	4.27	4.42	4.47	4.50	4.64	5.56				11.66	12.83	13.61													
		velocity	7.51	9.28	9.09	8.66	8.45	8.20	7.92	7.83	7.78	7.54	7.19	8.06		9.01	8.18	7.71													
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	15	130																	
FINAL - 2006 Osaka Grand Prix (Osaka, JPN)																												<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>			
date	06-May-06	time	6.04	9.79	13.56	17.45	21.40	25.46	29.61	33.95	38.47	43.22		48.83	/ 5																
reaction time		interval	3.75	3.77	3.89	3.95	4.06	4.15	4.34	4.52	4.75	5.61				11.41	12.16	13.61													
		velocity	7.45	9.33	9.28	9.00	8.86	8.62	8.43	8.06	7.74	7.37	7.13	8.19		9.20	8.63	7.71													
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	15	15	130																	
FINAL - 2004 Osaka Grand Prix (Osaka, JPN)																												<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>			
date	08-May-04	time	6.02	9.92	13.96	18.08	22.28	26.60	30.99	35.58	40.28	45.12		50.86	/ 9																
reaction time		interval	3.90	4.04	4.12	4.20	4.32	4.39	4.59	4.70	4.84	5.74				12.06	12.91	14.13													
		velocity	7.48	8.97	8.66	8.50	8.33	8.10	7.97	7.63	7.45	7.23	6.97	7.86		8.71	8.13	7.43													
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	15	15	131																	
Chiba, Yuto (JPN) (1992)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2010 Japanese National High School Championships (Okinawa, JPN)																												<i>Matsuo (2010) - 63rd high school championships: JAF scientific committee- biomechanics data</i>			
date	31-Jul-10	time	6.37	10.37	14.46	18.61	22.86	27.25	31.82	36.61	41.70	46.87		52.47	/ 3																
reaction time		interval	4.00	4.09	4.15	4.25	4.39	4.57	4.79	5.09	5.17	5.60				12.24	13.21	15.05													
		velocity	7.06	8.75	8.56	8.43	8.24	7.97	7.66	7.31	6.88	6.77	7.14	7.62		8.58	7.95	6.98													
H1 lead leg		strides	15	15	15	15	15	15	15	15	16	16	16	137																	
Christensson, Jim (SWE) (1989)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2011 Poks Memorial (Hässelholm, SWE)																												<i>Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx</i>			
date	12-Jun-11	time	6.60	10.90	15.36	19.80	24.28	28.84	33.44	38.16	43.16	48.16		53.73	/ 2																
reaction time		interval	4.30	4.46	4.44	4.48	4.56	4.60	4.72	5.00	5.00	5.57				13.20	13.64	14.72													
		velocity	6.82	8.14	7.85	7.88	7.81	7.68	7.61	7.42	7.00	7.00	7.18	7.44		7.95	7.70	7.13													
H1 lead leg	L	strides	15	15	15	15	15	15	15	15	16	16	19	156																	
Cisneros, Omar (CUB) (1989)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)																												<i>Henson (2021) - Athlete First: major championships report</i>			
date	15-Aug-13	time	5.80	9.33	13.03	16.87	20.77	24.83	29.07	33.43	38.00	42.63		48.12	5 / 4																
reaction time	0.219	interval	3.53	3.70	3.84	3.90	4.06	4.24	4.36	4.57	4.63	5.49				11.07	12.20	13.56													
		velocity	7.76	9.92	9.46	9.11	8.97	8.62	8.25	8.03	7.66	7.56	7.29	8.31		9.49	8.61	7.74													
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5	159.5																	
Clarke, Roshawn (JAM) (2004)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 Memorial van damme (Brussels, BEL)																												<i>Omega Timing (2023) - diamond league race analysis</i>			
date	14-Sep-24	time	5.59	9.20	12.96	16.75	20.67	24.78	29.03	33.39	38.25	43.07		49.08	5 / 5																
reaction time	0.176	interval	3.61	3.76	3.79	3.92	4.11	4.25	4.36	4.86	4.82	6.01				11.47	12.28	14.04													
		velocity	8.05	9.70	9.31	9.23	8.93	8.52	8.24	8.03	7.20	7.26	6.66	8.15		9.15	8.55	7.48													
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	16	15	18.7	165.7																	
FINAL - 2024 Weltklasse (Zürich, SUI)																												<i>Omega Timing (2023) - diamond league race analysis</i>			
date	05-Sep-24	time	5.67	9.31	12.99	16.73	20.55	24.53	28.65	32.92	37.39	42.02		47.49	3 / 1																
reaction time	0.177	interval	3.64	3.68	3.74	3.82	3.98	4.12	4.27	4.47	4.63	5.47				11.24	11.92	13.37													
		velocity	7.94	9.62	9.51	9.36	9.16	8.79	8.50	8.20	7.83	7.56	7.31	8.42		9.34	8.81	7.85													
H1 lead leg	R	strides	21	13		14		14	14	14	15	15	19	139																	
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)																												<i>Omega Timing (2023) - diamond league race analysis</i>			
date	25-Aug-24	time	5.64	9.31	13.04	16.77	20.84			33.52	37.92	42.43		47.74	6 / 4																
reaction time	0.188	interval	3.67	3.73	3.73	4.07			12.68	4.40	4.51	5.31				11.53															
		velocity	7.98	9.54	9.38	9.38	8.60			8.28	7.95	7.76	7.53	8.38		9.11															
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	15	18	162																	
FINAL - 2024 Olympic Games (Paris, FRA)																												<i>Paris 2024 Olympic Games - Results Book (2024)</i>			
date	09-Aug-24	time	5.54	9.13	12.77	16.46	20.30	24.31	28.42	32.73	37.25	42.03		dnf	9 / --																
reaction time	0.195	interval	3.59	3.64	3.69	3.84	4.01	4.11	4.31	4.52	4.78					10.92	11.96	13.61													
		velocity	8.12	9.75	9.62	9.49	9.11	8.73	8.52	8.12	7.74	7.32				9.62	8.78	7.71													
H1 lead leg	R	strides	21	14	13	13	13	14	14	15	15	15	18	147																	
Semi-Final 3 - 2024 Olympic Games (Paris, FRA)																												<i>Paris 2024 Olympic Games - Results Book (2024)</i>			
date	07-Aug-24	time	5.71	9.48	13.18	16.88	20.74	24.84	29.01	33.40	38.06	42.78		48.34	8 / 2																
reaction time	0.184	interval	3.77	3.70	3.70	3.86	4.10	4.17	4.39	4.66	4.72	5.56				11.17	12.13	13.77													
		velocity	7.88	9.28	9.46	9.46	9.07	8.54	8.39	7.97	7.51	7.42	7.19	8.27		9.40	8.66	7.63													
H1 lead leg	L	strides	22	13	13	13	13	14	14	15	15	15	18	165																	

Heat 4 - 2024 Olympic Games (Paris, FRA)

date	05-Aug-24	time	5.66	9.30	13.04	16.87	20.79	24.95	29.12	33.53	38.18	42.81	48.17	Paris 2024 Olympic Games - Results Book (2024)			
reaction time	0.191	interval		3.64	3.74	3.83	3.92	4.16	4.17	4.41	4.65	4.63	5.36	8 / 1	11.21	12.25	13.69
		velocity	7.95	9.62	9.36	9.14	8.93	8.41	8.39	7.94	7.53	7.56	7.46	8.30	9.37	8.57	7.67
H1 lead leg	R	strides	21	13	14	13	13	14	14	15	15	15	18	165			

FINAL - 2024 London Athletics Meet (London, GBR)

date	20-Jul-24	time	5.64	9.30	13.10	16.91	20.79	24.84	29.08	33.34	37.81	42.35	47.63	Omega Timing (2024) - diamond league race analysis			
reaction time	0.187	interval		3.66	3.80	3.81	3.88	4.05	4.24	4.26	4.47	4.54	5.28	3 / 2	11.27	12.17	13.27
		velocity	7.98	9.56	9.21	9.19	9.02	8.64	8.25	8.22	7.83	7.71	7.58	8.40	9.32	8.63	7.91
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	18	163			

FINAL - 2024 Prefontaine Classic (Eugene, OR)

date	25-May-24	time	5.63	9.33	13.19	16.99	20.96	24.99	29.13	33.54	38.28	43.16	49.07	Omega Timing (2024) - diamond league race analysis			
reaction time	0.186	interval		3.70	3.86	3.80	3.97	4.03	4.14	4.41	4.74	4.88	5.91	5 / 4	11.36	12.14	14.03
		velocity	7.99	9.46	9.07	9.21	8.82	8.68	8.45	7.94	7.38	7.17	6.77	8.15	9.24	8.65	7.48
H1 lead leg		strides			14	14	14	14	14	15	16	15	116				

FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)

date	18-May-24	time	5.84	9.51	13.18	16.98	20.98	29.29	33.60	38.10	42.74	48.11	Henson (2024) - Athlete First: 2024 year end hurdle report				
reaction time	0.245	interval		3.67	3.67	3.80	4.00	8.31	4.31	4.50	4.64	5.37	6 / 2	11.14	12.31	13.45	
		velocity	7.71	9.54	9.54	9.21	8.75	8.42	8.12	7.78	7.54	7.45	8.31	9.43	8.53	7.81	
H1 lead leg	R	strides	21	13	13	13	14			14	15	15	18.2	136.2			

FINAL - 2023 Weltklasse (Zürich, SUI)

date	31-Aug-23	time	5.70	9.48	13.31	17.18	21.21	26.79					dnf	Omega Timing (2023) - diamond league race analysis		
reaction time	0.175	interval		3.78	3.83	3.87	4.03	5.58					4 / --	11.48		
		velocity	7.89	9.26	9.14	9.04	8.68	6.27						9.15		
H1 lead leg	L	strides	22	14			14						50			

FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	23-Aug-23	time	5.71	9.46	12.97	16.65	20.52	28.96	33.40	37.97	42.68	48.07	Henson (2023) - Athlete First: 2023 year end hurdle report				
reaction time	0.164	interval		3.75	3.51	3.68	3.87	8.44	4.44	4.57	4.71	5.39	5 / 4	10.94	12.31	13.72	
		velocity	7.88	9.33	9.97	9.51	9.04	8.29	7.88	7.66	7.43	7.42	8.32	9.60	8.53	7.65	
H1 lead leg	R	strides	21	13	13	13	13	14		15	15	15	18.2	150.2			

Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	21-Aug-23	time	5.77	9.48	13.08	16.61	20.42	24.49	28.66	33.01	37.54	42.14	47.34	Henson (2023) - Athlete First: 2023 year end hurdle report			
reaction time	0.198	interval		3.71	3.60	3.53	3.81	4.07	4.17	4.35	4.53	4.60	5.20	7 / 2	10.84	12.05	13.48
		velocity	7.80	9.43	9.72	9.92	9.19	8.60	8.39	8.05	7.73	7.61	7.69	8.45	9.69	8.71	7.79
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5			

Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	20-Aug-23	time	5.83	9.70	13.53	17.53	21.43	25.46	29.67	33.90	38.36	43.06	48.39	Henson (2023) - Athlete First: 2023 year end hurdle report			
reaction time	0.183	interval		3.87	3.83	4.00	3.90	4.03	4.21	4.23	4.46	4.70	5.33	3 / 3	11.70	12.14	13.39
		velocity	7.72	9.04	9.14	8.75	8.97	8.68	8.31	8.27	7.85	7.45	7.50	8.27	8.97	8.65	7.84
H1 lead leg	L	strides	22	14	14	13	14	14	14	14	15	15	18.2	167.2			

Clement, Kerron (USA) (1985)

date	21-Jul-18	time	5.88	9.68				21.40	25.60	29.96	34.56	39.24	44.00	Henson (2020) - Athlete First: 2018 year end hurdle report				
reaction time	0.205	interval		3.80				11.72	4.20	4.36	4.60	4.68	4.76	5.43			14.04	
		velocity	7.65	9.21				8.96	8.33	8.03	7.61	7.48	7.35	7.37	8.09			7.48
H1 lead leg	R	strides	20	13					13	13	14	14	14	16.5	117.5			

FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)

date	30-Jun-18	time	5.92	9.64	13.32	17.16	21.16	22.9	25.44	29.80	34.28	38.80	43.48	48.83	Henson (2020) - Athlete First: 2018 year end hurdle report			
reaction time	0.233	interval		3.72	3.68	3.84	4.00		4.28	4.36	4.48	4.52	4.68	5.35			13.68	
		velocity	7.60	9.41	9.51	9.11	8.75	8.73	8.18	8.03	7.81	7.74	7.48	7.48	8.19	9.34	8.31	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153			

FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)

date	07-Jun-18	time	5.84	9.56	13.32	17.20	21.32	23.1	25.64	30.04	34.56	39.20	43.84	49.30	Henson (2020) - Athlete First: 2018 year end hurdle report			
reaction time	0.159	interval		3.72	3.76	3.88	4.12		4.32	4.40	4.52	4.64	4.64	5.46			13.80	
		velocity	7.71	9.41	9.31	9.02	8.50	8.66	8.10	7.95	7.74	7.54	7.54	7.33	8.11	9.24	8.18	7.61
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	13	13	16	153			

FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

date	31-May-18	time	5.88	9.64	13.44	17.40	21.44	25.68	30.04	34.52	39.08	43.96	49.48	Henson (2020) - Athlete First: 2018 year end hurdle report				
reaction time	0.159	interval		3.76	3.80	3.96	4.04		4.24	4.36	4.48	4.56	4.88	5.52			13.92	
		velocity	7.65	9.31	9.21	8.84	8.66		8.25	8.03	7.81	7.68	7.17	7.25	8.08	9.11	8.31	7.54
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	16.5	154.5				

FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)

date	04-May-18	time	6.16	10.00	13.88	17.88	22.08	26.40	30.76	35.24	39.96	44.76	50.19	Henson (2020) - Athlete First: 2018 year end hurdle report			
reaction time	0.276	interval		3.84	3.88	4.00	4.20		4.32	4.36	4.48	4.72	4.80	5.43			14.00

H1 lead leg	R	velocity	7.31	9.11	9.02	8.75	8.33	8.10	8.03	7.81	7.42	7.29	7.37	7.97	8.96	8.15	7.50
		strides	20	13	13	13	13	13	13	13	14	14		139			
FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	24-Aug-17	time	5.96	9.68	13.44	17.28	21.32	25.52	29.80	34.16	38.72	43.56	49.20	7 / 4			
reaction time	0.167	interval		3.72	3.76	3.84	4.04	4.20	4.28	4.36	4.56	4.84	5.64		11.32	12.52	13.76
		velocity	7.55	9.41	9.31	9.11	8.66	8.33	8.18	8.03	7.68	7.23	7.09	8.13	9.28	8.39	7.63
H1 lead leg	R	strides	20	13	13	13	13	13	13	13		15	17	143			
FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	09-Aug-17	time	5.92	9.72	13.52	17.28	21.20	25.32	29.52	33.84	38.32	43.12	48.52	4 / 3			
reaction time	0.153	interval		3.80	3.80	3.76	3.92	4.12	4.20	4.32	4.48	4.80	5.40		11.36	12.24	13.60
		velocity	7.60	9.21	9.21	9.31	8.93	8.50	8.33	8.10	7.81	7.29	7.41	8.24	9.24	8.58	7.72
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	17	155			
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	09-Jul-17	time	6.00	9.72	13.44	17.24	21.24	25.48	29.80	34.16	38.60	43.08	48.02	7 / 1			
reaction time	0.157	interval		3.72	3.72	3.80	4.00	4.24	4.32	4.36	4.44	4.48	4.94		11.24	12.56	13.28
		velocity	7.50	9.41	9.41	9.21	8.75	8.25	8.10	8.03	7.88	7.81	8.10	8.33	9.34	8.36	7.91
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16	153			
FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	25-Jun-17	time	6.07	9.90	13.69	17.48	21.41	25.55	29.86	34.21	38.79	43.45	48.91	5 / 7			
reaction time		interval		3.83	3.79	3.79	3.93	4.14	4.31	4.35	4.58	4.66	5.46		11.41	12.38	13.59
		velocity	7.41	9.14	9.23	9.23	8.91	8.45	8.12	8.05	7.64	7.51	7.33	8.18	9.20	8.48	7.73
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5			
FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	15-Jun-17	time	5.90	9.53	13.16	16.93	20.83	25.03	29.53	34.36	39.20	44.46	50.52	6 / 8			
reaction time	0.164	interval		3.63	3.63	3.77	3.90	4.20	4.50	4.83	4.84	5.26	6.06		11.03	12.60	14.93
		velocity	7.63	9.64	9.64	9.28	8.97	8.33	7.78	7.25	7.23	6.65	6.60	7.92	9.52	8.33	7.03
H1 lead leg	R	strides	20	13	13	13	13	13	15	15	14	16	145				
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)														<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>			
date	13-May-17	time	5.96	9.72	13.48	17.36	21.40	25.60	29.96	34.48	39.24	44.04	49.43	6 / 4			
reaction time	0.155	interval		3.76	3.76	3.88	4.04	4.20	4.36	4.52	4.76	4.80	5.39		11.40	12.60	14.08
		velocity	7.55	9.31	9.31	9.02	8.66	8.33	8.03	7.74	7.35	7.29	7.42	8.09	9.21	8.33	7.46
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	16.5	155.5			
FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	05-May-17	time	6.06	9.86	13.60	17.40	21.40	25.60	29.90	34.36	39.20	44.06	49.40	6 / 2			
reaction time	0.176	interval		3.80	3.74	3.80	4.00	4.20	4.30	4.46	4.84	4.86	5.34		11.34	12.50	14.16
		velocity	7.43	9.21	9.36	9.21	8.75	8.33	8.14	7.85	7.23	7.20	7.49	8.10	9.26	8.40	7.42
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	16	155			
FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>			
date	01-Sep-16	time	5.88	9.56	13.32	17.04	21.04	25.20	29.52	33.96	38.80	43.64	48.72	6 / 1			
reaction time	0.132	interval		3.68	3.76	3.72	4.00	4.16	4.32	4.44	4.84	4.84	5.08		11.16	12.48	14.12
		velocity	7.65	9.51	9.31	9.41	8.75	8.41	8.10	7.88	7.23	7.23	7.87	8.21	9.41	8.41	7.44
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	16.2	155.2			
FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>			
date	27-Aug-16	time	5.88	9.60	13.32	17.08	21.00	25.08	29.24	33.56	38.04	42.92	48.19	6 / 2			
reaction time	0.137	interval		3.72	3.72	3.76	3.92	4.08	4.16	4.32	4.48	4.88	5.27		11.20	12.16	13.68
		velocity	7.65	9.41	9.41	9.31	8.93	8.58	8.41	8.10	7.81	7.17	7.59	8.30	9.38	8.63	7.68
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	16.7	154.7			
FINAL - 2016 Olympic Games (Rio de Janeiro, BRA)														<i>Zhou (2020) - analysis of competitive performance characteristics of outstanding men's 400m hurdlers</i>			
date	18-Aug-16	time	5.6	9.2	12.8	16.6	20.5	24.4	28.7	32.9	37.4	41.9	47.73	5 / 1			
reaction time	0.227	interval		3.60	3.60	3.80	3.90	3.90	4.30	4.20	4.50	4.50	5.83		11.00	12.10	13.20
		velocity	8.04	9.72	9.72	9.21	8.97	8.97	8.14	8.33	7.78	7.78	6.86	8.38	9.55	8.68	7.95
H1 lead leg		strides	21	13	13	13	13	14	15	15	15	15	18	165			
FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>			
date	23-Jul-16	time	5.92	9.68	13.44	17.28	21.36	25.64	29.96	34.36	38.76	43.28	48.40	7 / 1			
reaction time	0.164	interval		3.76	3.76	3.84	4.08	4.28	4.32	4.40	4.40	4.52	5.12		11.36	12.68	13.32
		velocity	7.60	9.31	9.31	9.11	8.58	8.18	8.10	7.95	7.95	7.74	7.81	8.26	9.24	8.28	7.88
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16	153			
FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>			
date	10-Jul-16	time	6.00	9.71	13.34	17.18	21.15	25.26	29.53	33.93	38.50	43.24	48.50	7 / 1			
reaction time	0.180	interval		3.71	3.63	3.84	3.97	4.11	4.27	4.40	4.57	4.74	5.26		11.18	12.35	13.71
		velocity	7.50	9.43	9.64	9.11	8.82	8.52	8.20	7.95	7.66	7.38	7.60	8.25	9.39	8.50	7.66
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5			
FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>			
date	16-Jun-16	time	5.97	9.73	13.53	17.37	21.47	25.73	30.17	34.70	39.37	44.37	49.87	6 / 2			

reaction time	0.150	interval	3.76	3.80	3.84	4.10		4.26	4.44	4.53	4.67	5.00	5.50			11.40	12.80	14.20
		velocity	7.54	9.31	9.21	9.11	8.54	8.22	7.88	7.73	7.49	7.00	7.27	8.02		9.21	8.20	7.39
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	17.2	155.2				
FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)														<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>				
date	09-Jun-16	time	5.96	9.72	13.56	17.48	21.68	25.92	30.28	34.72	39.28	44.08	49.61	6 / 4				
reaction time	0.194	interval	3.76	3.84	3.92	4.20	4.24	4.36	4.44	4.56	4.80	5.53			11.52	12.80	13.80	
		velocity	7.55	9.31	9.11	8.93	8.33	8.25	8.03	7.88	7.68	7.29	7.23		9.11	8.20	7.61	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5				
FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	28-May-16	time	6.08	9.92	13.72	17.72	26.00	30.28	34.04	39.08	43.68	48.87	7 / 2					
reaction time		interval	3.84	3.80	4.00	8.28	4.28	3.76	5.04	4.60	5.19				11.64	12.56	13.40	
		velocity	7.40	9.11	9.21	8.75	8.45	8.18	7.98	7.94	7.61	7.71	8.18		9.02	8.36	7.84	
H1 lead leg	R	strides	20	13	13	13		13	13		15	17	117					
FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	14-May-16	time	6.00	9.76	13.64	17.48	21.48	25.72	30.08	34.60	39.28	44.08	49.56	3 / 7				
reaction time	0.180	interval	3.76	3.88	3.84	4.00	4.24	4.36	4.52	4.68	4.80	5.48			11.48	12.60	14.00	
		velocity	7.50	9.31	9.02	9.11	8.75	8.25	8.03	7.74	7.48	7.29	7.30	8.07	9.15	8.33	7.50	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.5	153.5				
FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)														<i>Henson (2021) - Athlete First: major championships report</i>				
date	25-Aug-15	time	5.96	9.68	13.40	17.16	21.12	25.20	29.32	33.60	38.16	42.96	48.18	8 / 4				
reaction time	0.174	interval	3.72	3.72	3.76	3.96	4.08	4.12	4.28	4.56	4.80	5.22			11.20	12.16	13.64	
		velocity	7.55	9.41	9.41	9.31	8.84	8.58	8.50	8.18	7.68	7.29	7.66	8.30	9.38	8.63	7.70	
H1 lead leg	R	strides		13	13	13	13	13	13	13	15	15	17	138				
FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)														<i>Henson (2021) - Athlete First: major championships report</i>				
date	15-Aug-13	time	5.93	9.70	13.53	17.33	21.27	25.37	29.50	34.03	38.70	43.50	49.08	1 / 8				
reaction time	0.165	interval	3.77	3.83	3.80	3.94	4.10	4.13	4.53	4.67	4.80	5.58			11.40	12.17	14.00	
		velocity	7.59	9.28	9.14	9.21	8.88	8.54	8.47	7.73	7.49	7.29	7.17	8.15	9.21	8.63	7.50	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	15	15	16.7	144.7				
FINAL - 2012 Olympic Games (London, GBR)														<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>				
date	06-Aug-12	time	5.87	9.54	13.10	16.86	20.78	22.58	24.89	29.20	33.78	38.56	43.44	49.15	2 / 8			
reaction time	0.148	interval	3.67	3.56	3.76	3.92	4.11	4.31	4.58	4.78	4.88	5.71			10.99	12.34	14.24	
		velocity	7.67	9.54	9.83	9.31	8.93	8.86	8.52	8.12	7.64	7.32	7.17	7.01	8.14	9.55	8.51	7.37
H1 lead leg	R	strides	21	13	13	13	13	13	13	15	15	15	144					
FINAL - 2009 IAAF World Championships (Berlin, GER)														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	18-Aug-09	time	5.92	9.60	13.32	17.15	21.09	25.26	29.49	33.85	38.35	42.90	47.91	3 / 1				
reaction time	0.176	interval	3.68	3.72	3.83	3.94	4.17	4.23	4.36	4.50	4.55	5.01			11.23	12.34	13.41	
		velocity	7.60	9.51	9.41	9.14	8.88	8.39	8.27	8.03	7.78	7.69	7.98	8.35	9.35	8.51	7.83	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	13	16.2	153.2				
Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	16-Aug-09	time	5.97	9.72	13.44	17.22	21.12	25.24	29.48	33.82	38.28	42.89	48.00	3 / 1				
reaction time	0.158	interval	3.75	3.72	3.78	3.90	4.12	4.24	4.34	4.46	4.61	5.11			11.25	12.26	13.41	
		velocity	7.54	9.33	9.41	9.26	8.97	8.50	8.25	8.06	7.85	7.59	7.83	8.33	9.33	8.56	7.83	
H1 lead leg		strides						13	13	13	13	13	16	81				
Heat 3 - 2009 IAAF World Championships (Berlin, GER)														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	15-Aug-09	time	6.07	9.83	13.64	17.49	21.47	25.63	29.89	34.17	38.71	43.33	48.39	5 / 1				
reaction time	0.169	interval	3.76	3.81	3.85	3.98	4.16	4.26	4.28	4.54	4.62	5.06			11.42	12.40	13.44	
		velocity	7.41	9.31	9.19	9.09	8.79	8.41	8.22	8.18	7.71	7.58	7.91	8.27	9.19	8.47	7.81	
H1 lead leg		strides																
FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	13-Sep-08	time	6.09	9.88	13.72	17.62	21.68	25.82	30.14	34.56	39.06	43.86	48.96	4 / 1				
reaction time	0.175	interval	3.79	3.84	3.90	4.06	4.14	4.32	4.42	4.50	4.80	5.10			11.53	12.52	13.72	
		velocity	7.39	9.23	9.11	8.97	8.62	8.45	8.10	7.92	7.78	7.29	7.84	8.17	9.11	8.39	7.65	
H1 lead leg		strides																
FINAL - 2008 Olympic Games (Beijing, CHN)														<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>				
date	18-Aug-08	time	5.9	9.5	13.1	16.9	20.7	24.7	28.9	33.2	37.7	42.5	47.98	4 / 2				
reaction time	0.265	interval	3.60	3.60	3.80	3.80	4.00	4.20	4.30	4.50	4.80	5.48			11.00	12.00	13.60	
		velocity	7.63	9.72	9.72	9.21	9.21	8.75	8.33	8.14	7.78	7.29	7.30	8.34	9.55	8.75	7.72	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17	156				
FINAL - 2008 USA Olympic Trials (Eugene, OR)														<i>USATF Hurdle Development (2008)</i>				
date	29-Jun-08	time	6.04	9.78	13.55	17.50	21.60	25.74	30.03	34.45	38.87	43.43	48.36	5 / 2				
reaction time		interval	3.74	3.77	3.95	4.10	4.14	4.29	4.42	4.42	4.56	4.93			11.46	12.53	13.40	
		velocity	7.45	9.36	9.28	8.86	8.54	8.45	8.16	7.92	7.92	7.68	8.11	8.27	9.16	8.38	7.84	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	15	139					
FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)														<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>				

date	22-Sep-07	time	6.26	9.80	13.54	17.36	21.32	25.44	29.85	34.43	38.96	43.57	48.35	6 / 2				
reaction time	0.178	interval		3.54	3.74	3.82	3.96	4.12	4.41	4.58	4.53	4.61	4.78		11.10	12.49	13.72	
H1 lead leg		velocity	7.19	9.89	9.36	9.16	8.84	8.50	7.94	7.64	7.73	7.59	8.37	8.27	9.46	8.41	7.65	
		strides																
FINAL - 2007 IAAF World Championships (Osaka, JPN)													<i>Ae (2008) - IAAF biomechanics team - a booklet of biomechanics data</i>					
date	28-Aug-07	time	5.92	9.60	13.30	16.98	20.80	24.82	28.98	33.28	37.86	42.52	47.61	4 / 1				
reaction time	0.169	interval		3.68	3.70	3.68	3.82	4.02	4.16	4.30	4.58	4.66	5.09		11.06	12.00	13.54	
H1 lead leg	R	velocity	7.60	9.51	9.46	9.51	9.16	8.71	8.41	8.14	7.64	7.51	7.86	8.40	9.49	8.75	7.75	
		strides	20	13	13	13	13	13	13	13	15	15	16.5	157.5				
Heat 1 - 2007 USATF National Championships (Indianapolis, IN)													<i>USATF Men's Hurdle Development (2007)</i>					
date	21-Jun-07	time	5.99	9.78	13.65	17.60	21.79	26.04	30.41	34.87	39.57	44.38	49.72	6 / 1				
reaction time		interval		3.79	3.87	3.95	4.19	4.25	4.37	4.46	4.70	4.81	5.34		11.61	12.81	13.97	
H1 lead leg	R	velocity	7.51	9.23	9.04	8.86	8.35	8.24	8.01	7.85	7.45	7.28	7.49	8.05	9.04	8.20	7.52	
		strides	20	13	13	13	13	13	13	13	15	15	141					
FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)													<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	24-Sep-06	time	6.01	9.83	13.67	17.51	21.55	25.70	29.94	34.26	38.68	43.24	48.36	/ 1				
reaction time		interval		3.82	3.84	3.84	4.04	4.15	4.24	4.32	4.42	4.56	5.12		11.50	12.43	13.30	
H1 lead leg		velocity	7.49	9.16	9.11	9.11	8.66	8.43	8.25	8.10	7.92	7.68	7.81	8.27	9.13	8.45	7.89	
		strides		13	13	13	13	13	13	13	13	13	117					
FINAL - 2006 USATF National Championships (Indianapolis, IN)													<i>USATF Men's Hurdle Development (2006)</i>					
date	24-Jun-06	time	5.97	9.65	13.38	17.15	21.05	25.06	29.19	33.40	37.80	42.41	47.39	4 / 1				
reaction time		interval		3.68	3.73	3.77	3.90	4.01	4.13	4.21	4.40	4.61	4.98		11.18	12.04	13.22	
H1 lead leg	R	velocity	7.54	9.51	9.38	9.28	8.97	8.73	8.47	8.31	7.95	7.59	8.03	8.44	9.39	8.72	7.94	
		strides	20	13	13	13	13	13	13	13	13	15	17	156				
FINAL - 2005 NCAA National Championships (Sacramento, CA)													<i>gh (2005) - trackandfieldnews.com forum</i>					
date	11-Jun-05	time	5.9	9.5	13.2	17.1	21.0	25.0	29.2	33.6	38.2	42.8	47.56	6 / 1				
reaction time		interval		3.60	3.70	3.90	3.90	4.00	4.20	4.40	4.60	4.60	4.76		11.20	12.10	13.60	
H1 lead leg	R	velocity	7.63	9.72	9.46	8.97	8.97	8.75	8.33	7.95	7.61	7.61	8.40	8.41	9.38	8.68	7.72	
		strides	22	13	13	13	13	13	13	15	15	15	16.7	162				
Cooper, John (GBR) (1940)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1964 Olympic Games (Tokyo, JPN)		<i>Breitschaft (1965) - die leichtathletik wettkampfe der 1964 olympischen sommerspielen - 400m hürdenlauf</i>																
date	16-Oct-64	time	5.8		13.8		22.0		30.8		40.0		50.1	4 / 2				
reaction time		interval			8.00		8.20		8.80		9.20		10.10					
H1 lead leg		velocity	7.76		8.75		8.54		7.95		7.61		7.43	7.98				
		strides																
Copello, Yasmani (TUR) (1987)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 3 - 2024 Olympic Games (Paris, FRA)		<i>Paris 2024 Olympic Games - Results Book (2024)</i>																
date	05-Aug-24	time	5.98	9.73	13.50	17.34	21.36	25.58	30.08	34.80	39.76	44.86	50.72	4 / 8				
reaction time	0.224	interval		3.75	3.77	3.84	4.02	4.22	4.50	4.72	4.96	5.10	5.86			11.36	12.74	14.78
H1 lead leg	R	velocity	7.53	9.33	9.28	9.11	8.71	8.29	7.78	7.42	7.06	6.86	6.83	7.89	9.24	8.24	7.10	
		strides	20	13	13	13	13	13	14	14	15	15	19	162				
Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)		<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																
date	10-Jun-24	time	6.00	9.71	13.61	17.54	21.61	25.91	30.44	34.94	39.88	44.83	50.57	6 / 8				
reaction time	0.244	interval		3.71	3.90	3.93	4.07	4.30	4.53	4.50	4.94	4.95	5.74			11.54	12.90	14.39
H1 lead leg		velocity	7.50	9.43	8.97	8.91	8.60	8.14	7.73	7.78	7.09	7.07	6.97	7.91	9.10	8.14	7.30	
		strides											0					
FINAL - 2024 Seashore Doha Meeting (Doha, QAT)		<i>Omega Timing (2024) - diamond league race analysis</i>																
date	10-May-24	time	5.98	9.82	13.80	17.81	22.01	26.40	30.92	35.93	40.47	45.26	50.97	2 / 8				
reaction time	0.222	interval		3.84	3.98	4.01	4.20	4.39	4.52	5.01	4.54	4.79	5.71			11.83	13.11	14.34
H1 lead leg	R	velocity	7.53	9.11	8.79	8.73	8.33	7.97	7.74	6.99	7.71	7.31	7.01	7.85	8.88	8.01	7.32	
		strides	20	13	13	13	13	13			15	15	18	133				
Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)		<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
date	21-Aug-23	time	5.97	9.77		17.23	21.12		29.57	34.03	38.64	43.25	48.66	3 / 6				
reaction time	0.220	interval		3.80		7.46	3.89		8.45	4.46	4.61	4.61	5.41			11.26	12.34	13.68
H1 lead leg	R	velocity	7.54	9.21		9.38	9.00		8.29	7.84	7.59	7.59	7.39	8.22	9.33	8.51	7.67	
		strides	20	13		13				14	14	14	17.5	105.5				
Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)		<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
date	20-Aug-23	time	6.00	9.83	13.66	17.56	21.50	25.63	29.96	34.40	38.93	43.56	48.92	6 / 5				
reaction time	0.244	interval		3.83	3.83	3.90	3.94	4.13	4.33	4.44	4.53	4.63	5.36			11.56	12.40	13.60
H1 lead leg	R	velocity	7.50	9.14	9.14	8.97	8.88	8.47	8.08	7.88	7.73	7.56	7.46	8.18	9.08	8.47	7.72	
		strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5				
FINAL - 2023 Bauhaus Galan (Stockholm, SWE)		<i>Omega Timing (2023) - diamond league race analysis</i>																
date	02-Jul-23	time	5.97	9.76	13.61	17.44	21.42	25.58	30.00	34.66	39.61	44.61	50.59	2 / 8				
reaction time	0.186	interval		3.79	3.85	3.83	3.98	4.16	4.42	4.66	4.95	5.00	5.98			11.47	12.56	14.61
H1 lead leg		velocity	7.54	9.23	9.09	9.14	8.79	8.41	7.92	7.51	7.07	7.00	6.69	7.91	9.15	8.36	7.19	

H1 lead leg	R	strides	20	13		13	13		13	14		15	15		116				
FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	08-Sep-22	time	5.90	9.54		17.28	21.29	22.88	25.42	29.86	34.29	38.94	43.61		49.10	4 / 6			
reaction time	0.172	interval		3.64		7.74	4.01		4.13	4.44	4.43	4.65	4.67	5.49			11.38	12.58	13.75
		velocity	7.63	9.62		9.04	8.73	8.74	8.47	7.88	7.90	7.53	7.49	7.29	8.15		9.23	8.35	7.64
H1 lead leg	R	strides	20	13		13		13	14	14	14	14	14	17.5	132.5				
FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	02-Sep-22	time	5.90	9.64	13.38		21.22	22.93	25.29	29.66	34.13	38.70	43.37		48.83	3 / 4 6			
reaction time	0.190	interval		3.74	3.74		7.84		2.36	4.37	4.47	4.57	4.67	5.46				13.71	
		velocity	7.63	9.36	9.36		8.93	8.72	14.83	8.01	7.83	7.66	7.49	7.33	8.19				7.66
H1 lead leg	R	strides	20	13	13			13	14	14	14	14	14	17.2	132.2				
FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	19-Aug-22	time	5.97	9.71	13.63	17.45	21.50	23.11	25.63	29.96	34.37	38.86	43.44		48.78	6 / 3			
reaction time	0.240	interval		3.74	3.92	3.82	4.05		4.13	4.33	4.41	4.49	4.58	5.34			11.48	12.51	13.48
		velocity	7.54	9.36	8.93	9.16	8.64	8.65	8.47	8.08	7.94	7.80	7.64	7.49	8.20		9.15	8.39	7.79
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2				
Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	17-Jul-22	time	5.93	9.80	13.80	17.77	22.00	23.97	26.40	30.97	35.56	40.48	45.46		51.49	2 / 7			
reaction time	0.166	interval		3.87	4.00	3.97	4.23		4.40	4.57	4.59	4.92	4.98	6.03			11.84	13.20	14.49
		velocity	7.59	9.04	8.75	8.82	8.27	8.34	7.95	7.66	7.63	7.11	7.03	6.63	7.77		8.87	7.95	7.25
H1 lead leg	L	strides	20	13	13	13	13		14	14	14	15	14	18	161				
FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	16-Jun-22	time	5.86	9.56	13.40	17.28	21.20	22.94	25.40	29.72	34.12	38.76	43.64		49.36	4 / 5			
reaction time	0.177	interval		3.70	3.84	3.88	3.92		4.20	4.32	4.40	4.64	4.88	5.72			11.42	12.44	13.92
		velocity	7.68	9.46	9.11	9.02	8.93	8.72	8.33	8.10	7.95	7.54	7.17	6.99	8.10		9.19	8.44	7.54
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159				
FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	05-Jun-22	time	5.87	9.60	13.30	17.20	21.17	22.89	25.27	29.67	34.17	38.87	43.67		49.29	5 / 4			
reaction time	0.177	interval		3.73	3.70	3.90	3.97		4.10	4.40	4.50	4.70	4.80	5.62			11.33	12.47	14.00
		velocity	7.67	9.38	9.46	8.97	8.82	8.74	8.54	7.95	7.78	7.45	7.29	7.12	8.12		9.27	8.42	7.50
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	141					
FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	13-May-22	time	5.97	9.84	13.91	18.15	22.35	24.2	26.73		35.87	40.51		50.30	5 / 6				
reaction time	0.191	interval		3.87	4.07	4.24	4.20		4.38		9.14	4.64					12.18		
		velocity	7.54	9.04	8.60	8.25	8.33	8.26	7.99		7.66	7.54		7.95		8.62			
H1 lead leg	R	strides	20	13	13	13	13		13		14		99						
FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	03-Sep-21	time	5.84	9.56	13.32	17.24	21.20		25.32	29.72	34.12	38.60	43.16		48.45	4 / 3			
reaction time	0.149	interval		3.72	3.76	3.92	3.96		4.12	4.40	4.40	4.48	4.56	5.29			11.40	12.48	13.44
		velocity	7.71	9.41	9.31	8.93	8.84		8.50	7.95	7.95	7.81	7.68	7.56	8.26		9.21	8.41	7.81
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.7	158.7				
FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	03-Aug-21	time	5.72	9.36	13.04	16.80	20.68		24.72	29.08	33.44	37.96	42.48		47.81	3 / 6			
reaction time	0.166	interval		3.64	3.68	3.76	3.88		4.04	4.36	4.36	4.52	4.52	5.33	=NR =PB		11.08	12.28	13.40
		velocity	7.87	9.62	9.51	9.31	9.02		8.66	8.03	8.03	7.74	7.74	7.50	8.37		9.48	8.55	7.84
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.2	158.2				
Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	01-Aug-21	time	5.77	9.41	13.14	16.95	20.89		24.92	29.23	33.57	38.04	42.54		47.88	4 / 3			
reaction time	0.183	interval		3.64	3.73	3.81	3.94		4.03	4.31	4.34	4.47	4.50	5.34			11.18	12.28	13.31
		velocity	7.80	9.62	9.38	9.19	8.88		8.68	8.12	8.06	7.83	7.78	7.49	8.35		9.39	8.55	7.89
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.2	144.2				
FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	04-Jul-21	time	5.76	9.48	13.36	17.24	21.20	22.9	25.20	29.52	33.88	38.36	42.88		48.19	4 / 2			
reaction time	0.167	interval		3.72	3.88	3.88	3.96		4.00	4.32	4.36	4.48	4.52	5.31			11.48	12.28	13.36
		velocity	7.81	9.41	9.02	9.02	8.84	8.73	8.75	8.10	8.03	7.81	7.74	7.53	8.30		9.15	8.55	7.86
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17.7	158.7				
FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	01-Jul-21	time	5.82	9.50	13.26	17.14	21.06		25.14		33.56	38.46	43.26		48.86	5 / 3			
reaction time	0.198	interval		3.68	3.76	3.88	3.92		4.08		8.42	4.90	4.80	5.60			11.32		
		velocity	7.73	9.51	9.31	9.02	8.93		8.58		8.31	7.14	7.29	7.14	8.19		9.28		
H1 lead leg	R	strides	20	13	13	13	13		13	13		14	15	114					
FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
date	28-May-21	time	5.84	9.54	13.45	17.52	21.69	23.4			34.77	39.30	43.81		49.11	2 / 6			
reaction time	0.203	interval		3.70	3.91	4.07	4.17				13.08	4.53	4.51	5.30			11.68		

		velocity	7.71	9.46	8.95	8.60	8.39	8.55		8.03	7.73	7.76	7.55	8.14	8.99			
H1 lead leg	R	strides	20	13	13	13					14	14	17.5	104.5				
FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)															<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	14-Aug-20	time	5.81	9.44	13.25	17.15	21.12		25.25	29.63	34.07	38.67	43.44	49.04	5 / 2			
reaction time	0.192	interval		3.63	3.81	3.90	3.97		4.13	4.38	4.44	4.60	4.77	5.60		11.34	12.48	13.81
		velocity	7.75	9.64	9.19	8.97	8.82		8.47	7.99	7.88	7.61	7.34	7.14	8.16	9.26	8.41	7.60
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	18	159			
FINAL - 2019 IAAF World Championships (Doha, QAT)															<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	30-Sep-19	time	5.87	9.50	13.17	16.94	20.82		24.84	29.08	33.50	37.98	42.75	48.25	6 / 6			
reaction time	0.177	interval		3.63	3.67	3.77	3.88		4.02	4.24	4.42	4.48	4.77	5.50		11.07	12.14	13.67
		velocity	7.67	9.64	9.54	9.28	9.02		8.71	8.25	7.92	7.81	7.34	7.27	8.29	9.49	8.65	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159			
Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)															<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	28-Sep-19	time	5.97	9.66	13.46	17.32	21.29		25.41	29.61	34.03	38.41	43.08	48.39	3 / 2			
reaction time	0.232	interval		3.69	3.80	3.86	3.97		4.12	4.20	4.42	4.38	4.67	5.31		11.35	12.29	13.47
		velocity	7.54	9.49	9.21	9.07	8.82		8.50	8.33	7.92	7.99	7.49	7.53	8.27	9.25	8.54	7.80
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18	161			
FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	29-Aug-19	time	5.80	9.46		17.10	21.08	22.7	25.16	29.38		38.42	43.20	48.58	4 / 4			
reaction time	0.167	interval		3.66		7.64	3.98		4.08	4.22		9.04	4.78	5.38		11.30	12.28	13.82
		velocity	7.76	9.56		9.16	8.79	8.81	8.58	8.29		7.74	7.32	7.43	8.23	9.29	8.55	7.60
H1 lead leg	R	strides	20	13		13	13		13	13		14	14	86				
FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	18-Aug-19	time	5.88	9.68	13.52	17.40	21.40	23.2	25.60	30.08	34.56	39.12	43.68	49.08	6 / 1			
reaction time	0.173	interval		3.80	3.84	3.88	4.00		4.20	4.48	4.48	4.56	4.56	5.40		11.52	12.68	13.60
		velocity	7.65	9.21	9.11	9.02	8.75	8.6207	8.33	7.81	7.81	7.68	7.68	7.41	8.15	9.11	8.28	7.72
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	18	159			
FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	24-Aug-19	time	5.78	9.42	13.18	17.04	21.00	22.7	25.08	29.32	33.74	38.28	43.00	48.47	4 / 4			
reaction time	0.192	interval		3.64	3.76	3.86	3.96		4.08	4.24	4.42	4.54	4.72	5.47		11.26	12.28	13.68
		velocity	7.79	9.62	9.31	9.07	8.84	8.81	8.58	8.25	7.92	7.71	7.42	7.31	8.25	9.33	8.55	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17.7	157.7			
FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	20-Jul-19	time	5.96	9.72	13.52	17.44	21.48	23.1	25.60		34.40	38.96	43.64	48.93	4 / 2			
reaction time	0.183	interval		3.76	3.80	3.92	4.04		4.12		8.80	4.56	4.68	5.29		11.48		
		velocity	7.55	9.31	9.21	8.93	8.66	8.66	8.50		7.95	7.68	7.48	7.56	8.17	9.15		
H1 lead leg	R	strides	20	13	13	13	13		13		14	14	17.7	130.7				
FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	30-Jun-19	time	5.90	9.73	13.63	17.63	21.70		25.86	30.36	34.90	39.46	44.00	49.37	3 / 3			
reaction time	0.201	interval		3.83	3.90	4.00	4.07		4.16	4.50	4.54	4.56	4.54	5.37		11.73	12.73	13.64
		velocity	7.63	9.14	8.97	8.75	8.60		8.41	7.78	7.71	7.68	7.71	7.45	8.10	8.95	8.25	7.70
H1 lead leg	R	strides	20	14	13	13	13		13	14	14	14	14	17.5	145.5			
FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)															<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>			
date	08-Sep-18	time	5.76	9.52	13.28	17.20	21.24		25.32	29.56	34.00	38.68	43.32	48.65	8 / 4			
reaction time	0.184	interval		3.76	3.76	3.92	4.04		4.08	4.24	4.44	4.68	4.64	5.33		11.44	12.36	13.76
		velocity	7.81	9.31	9.31	8.93	8.66		8.58	8.25	7.88	7.48	7.54	7.50	8.22	9.18	8.50	7.63
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17.5	143.5			
FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>			
date	30-Aug-18	time	5.72	9.44	13.20		21.04	22.9	25.16	29.40	33.80	38.48	43.16	48.73	4 / 3			
reaction time	0.158	interval		3.72	3.76		7.84		4.12	4.24	4.40	4.68	4.68	5.57			13.76	
		velocity	7.87	9.41	9.31		8.93	8.73	8.50	8.25	7.95	7.48	7.48	7.18	8.21			7.63
H1 lead leg	R	strides	20	13	13		13		13	13	13	14	14	18	117			
FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>			
date	21-Jul-18	time	5.88	9.60		21.28		25.36	29.56	33.96	38.48	43.12	48.44	5 / 2				
reaction time	0.151	interval		3.72		11.68		4.08	4.20	4.40	4.52	4.64	5.32				13.56	
		velocity	7.65	9.41		8.99		8.58	8.33	7.95	7.74	7.54	7.52	8.26				7.74
H1 lead leg	R	strides	20	13		13		13	13	14	14	14	14	17.5	118.5			
FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>			
date	05-Jul-18	time	5.80	9.56	13.36		21.12		25.20	29.54	33.92	38.52	43.20	48.85	3 / 3			
reaction time	0.183	interval		3.76	3.80		7.76		4.08	4.34	4.38	4.60	4.68	5.65			13.66	
		velocity	7.76	9.31	9.21		9.02		8.58	8.06	7.99	7.61	7.48	7.08	8.19			7.69
H1 lead leg	R	strides	20	13	13		13		13	14	14	14	14	18	133			
FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>			
date	10-Jun-18	time	5.80	9.60	13.48	17.44	21.52		25.68	30.00	34.40	38.92	43.48	48.91	6 / 3			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time	0.202	interval	3.80	3.88	3.96	4.08	4.16	4.32	4.40	4.52	4.56	5.43	11.64	12.56	13.48					
		velocity	7.76	9.21	9.02	8.84	8.58	8.41	8.10	7.95	7.74	7.68	7.37	8.18	9.02	8.36	7.79			
H1 lead leg	R	strides	20	13	13	13	13	14	14	14	14	14	17.5	158.5						
FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>							
date	07-Jun-18	time	5.84	9.48		21.16	23.0	25.20	29.44	33.84	38.28	43.00	48.54	4 / 3						
reaction time	0.210	interval		3.64		11.68		4.04	4.24	4.40	4.44	4.72	5.54				13.56			
		velocity	7.71	9.62		8.99	8.70	8.66	8.25	7.95	7.88	7.42	7.22	8.24				7.74		
H1 lead leg	R	strides	20	13	13			13	13	14	14	14	18	132						
FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>							
date	31-May-18	time	5.84	9.56	13.32	17.16	21.12	25.20	29.40	33.84	38.36	43.12	48.63	5 / 3						
reaction time	0.205	interval		3.72	3.76	3.84	3.96	4.08	4.20	4.44	4.52	4.76	5.51				11.32	12.24	13.72	
		velocity	7.71	9.41	9.31	9.11	8.84	8.58	8.33	7.88	7.74	7.35	7.26	8.23			9.28	8.58	7.65	
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	18	158						
FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>							
date	04-May-18	time	6.04	9.80	13.72	17.68	21.76	25.92	30.32	34.80	39.48	44.28	49.95	3 / 4						
reaction time	0.224	interval		3.76	3.92	3.96	4.08	4.16	4.40	4.48	4.68	4.80	5.67				11.64	12.64	13.96	
		velocity	7.45	9.31	8.93	8.84	8.58	8.41	7.95	7.81	7.48	7.29	7.05	8.01			9.02	8.31	7.52	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	18.2	145.2						
FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	24-Aug-17	time	5.84	9.56	13.36		21.28	25.48	29.88	34.40	39.08	43.80	49.23	5 / 5						
reaction time	0.181	interval		3.72	3.80		7.92	4.20	4.40	4.52	4.68	4.72	5.43						13.92	
		velocity	7.71	9.41	9.21		8.84	8.33	7.95	7.74	7.48	7.42	7.37	8.13						7.54
H1 lead leg	R	strides	20	13	13			13	14	14	14	14	17.5	118.5						
FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	09-Aug-17	time	5.92	9.60	13.36	17.24	21.24	25.44	29.72	34.16	38.64	43.16	48.49	8 / 2						
reaction time	0.211	interval		3.68	3.76	3.88	4.00	4.20	4.28	4.44	4.48	4.52	5.33				11.32	12.48	13.44	
		velocity	7.60	9.51	9.31	9.02	8.75	8.33	8.18	7.88	7.81	7.74	7.50	8.25			9.28	8.41	7.81	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	18	159						
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	09-Jul-17	time	6.00	9.68	13.52	17.40	21.40	25.52	29.88	34.32	38.76	43.16	48.24	8 / 3						
reaction time	0.187	interval		3.68	3.84	3.88	4.00	4.12	4.36	4.44	4.44	4.40	5.08				11.40	12.48	13.28	
		velocity	7.50	9.51	9.11	9.02	8.75	8.50	8.03	7.88	7.88	7.95	7.87	8.29			9.21	8.41	7.91	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.2	158.2						
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	18-Jun-17	time	6.00	9.72		17.48	21.56	25.72	30.12	34.60	39.20	43.84	49.18	6 / 3						
reaction time	0.178	interval		3.72		7.76	4.08	4.16	4.40	4.48	4.60	4.64	5.34				11.48	12.64	13.72	
		velocity	7.50	9.41		9.02	8.58	8.41	7.95	7.81	7.61	7.54	7.49	8.13			9.15	8.31	7.65	
H1 lead leg	R	strides	20	13		13		13	14	14	14	14	17.7	132.7						
FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	15-Jun-17	time	5.96	9.70	13.53	17.46	21.50	25.60	30.00	34.30	38.76	43.20	48.44	4 / 2						
reaction time	0.188	interval		3.74	3.83	3.93	4.04	4.10	4.40	4.30	4.46	4.44	5.24				11.50	12.54	13.20	
		velocity	7.55	9.36	9.14	8.91	8.66	8.54	7.95	8.14	7.85	7.88	7.63	8.26			9.13	8.37	7.95	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.5	158.5						
FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							
date	27-Aug-16	time	5.88	9.52		17.24	21.24	25.28		33.92	38.40	43.00	48.24	4 / 3						
reaction time	0.186	interval		3.64		7.72	4.00	4.04		8.64	4.48	4.60	5.24				11.36			
		velocity	7.65	9.62		9.07	8.75	8.66		8.10	7.81	7.61	7.63	8.29			9.24			
H1 lead leg	R	strides	20	13		13		13			14	14	17.5	104.5						
FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							
date	23-Jul-16	time	5.84	9.56	13.40	17.28	21.28	25.48	29.80	34.24	38.80	43.36	48.70	6 / 3						
reaction time	0.189	interval		3.72	3.84	3.88	4.00	4.20	4.32	4.44	4.56	4.56	5.34				11.44	12.52	13.56	
		velocity	7.71	9.41	9.11	9.02	8.75	8.33	8.10	7.88	7.68	7.68	7.49	8.21			9.18	8.39	7.74	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	17.2	158.2						
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							
date	08-Jul-16	time	5.88	9.56	13.44	17.44	21.48	25.60	29.80	34.24	39.80	43.52	48.98	6 / 1						
reaction time	0.175	interval		3.68	3.88	4.00	4.04	4.12	4.20	4.44	5.56	3.72	5.46				11.56	12.36	13.72	
		velocity	7.65	9.51	9.02	8.75	8.66	8.50	8.33	7.88	6.29	9.41	7.33	8.17			9.08	8.50	7.65	
H1 lead leg	R	strides	20	13	13	13	13	13		14	14	14	18	145						
Heat 2 - 2016 European Championships (Amsterdam, NED) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							
date	07-Jul-16	time	5.84	9.48	13.28	17.28	21.20	25.08	29.28	33.64	38.16	42.80	48.42	5 / 1						
reaction time	0.173	interval		3.64	3.80	4.00	3.92	3.88	4.20	4.36	4.52	4.64	5.62	NR PB			11.44	12.00	13.52	
		velocity	7.71	9.62	9.21	8.75	8.93	9.02	8.33	8.03	7.74	7.54	7.12	8.26			9.18	8.75	7.77	
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	18	159						
FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>							

date	09-Jun-16	time	5.88	9.56	13.40	17.26	21.48	25.64	30.04	34.40	38.88	43.44	48.79	1 / 1					
reaction time	0.164	interval		3.68	3.84	3.86	4.22	4.16	4.40	4.36	4.48	4.56	5.35		11.38	12.78	13.40		
		velocity	7.65	9.51	9.11	9.07	8.29	8.41	7.95	8.03	7.81	7.68	7.48	8.20	9.23	8.22	7.84		
H1 lead leg	R	strides	20	13		13	13	13	14	14	14	14	17.7	145.7					
FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)														<i>(H8 5m short)</i>			<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>		
date	28-May-16	time	6.00	9.84	13.72	17.76		26.16	30.40	34.32	39.52	44.20	49.43	1 / 5					
reaction time		interval		3.84	3.88	4.04		8.40	4.24	3.92	5.20	4.68	5.23		11.76	12.64	13.80		
		velocity	7.50	9.11	9.02	8.66		8.33	8.25	7.65	7.69	7.48	7.65	8.09	8.93	8.31	7.61		
H1 lead leg	R	strides	20	13	13	13			13	12	16	14	17.5	131.5					
FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	14-May-16	time	5.76	9.44	13.28	17.16	21.12	25.24	29.64	34.08	38.80	43.52	49.14	2 / 5					
reaction time	0.162	interval		3.68	3.84	3.88	3.96	4.12	4.40	4.44	4.72	4.72	5.62		11.40	12.48	13.88		
		velocity	7.81	9.51	9.11	9.02	8.84	8.50	7.95	7.88	7.42	7.42	7.12	8.14	9.21	8.41	7.56		
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	18	161					
FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)														<i>Henson (2021) - Athlete First: major championships report</i>					
date	25-Aug-15	time	6.00		13.52	17.40	21.40		29.88	34.28	38.84	43.84	48.96	2 / 6					
reaction time	0.204	interval			7.52	3.88	4.00		8.48	4.40	4.56	5.00	5.12		11.40	12.48	13.96		
		velocity	7.50		9.31	9.02	8.75		8.25	7.95	7.68	7.00	7.81	8.17	9.21	8.41	7.52		
H1 lead leg	R	strides		13		13	13			14	14	14	17.5	98.5					
Coroller, Victor (FRA) (1997)																			
FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	19-Aug-22	time	5.93	9.79		17.49	21.58	23.21	25.79	30.28	34.82	39.71	44.76	50.46	8 / 8				
reaction time	0.201	interval		3.86		7.70	4.09		4.21	4.49	4.54	4.89	5.05	5.70		11.56	12.79	14.48	
		velocity	7.59	9.07		9.09	8.56	8.62	8.31	7.80	7.71	7.16	6.93	7.02	7.93	9.08	8.21	7.25	
H1 lead leg	R	strides	21	14			14		14	15	16	16	16	19	145				
FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>					
date	05-Jul-18	time	5.96	9.72	13.64	17.64	21.72	23.5	25.92	30.36	35.04	39.76	44.56	50.03	3 / 7				
reaction time	0.165	interval		3.76	3.92	4.00	4.08		4.20	4.44	4.68	4.72	4.80	5.47		11.68	12.72	14.20	
		velocity	7.55	9.31	8.93	8.75	8.58	8.51	8.33	7.88	7.48	7.42	7.29	7.31	8.00	8.99	8.25	7.39	
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	18.5	168.5				
Cray, Eric Shawn (PHI) (1988)																			
FINAL - 2016 Athletissime (Laussane, SU) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	25-Aug-16	time	5.60	9.36	13.33	17.46	21.76		26.10	30.30	34.73	39.30	44.13	49.88	7 / 5				
reaction time	0.132	interval		3.76	3.97	4.13	4.30		4.34	4.20	4.43	4.57	4.83	5.75		11.86	12.84	13.83	
		velocity	8.04	9.31	8.82	8.47	8.14		8.06	8.33	7.90	7.66	7.25	6.96	8.02	8.85	8.18	7.59	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	154					
Cui Caizhuang (CHN) (1995)																			
Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)														<i>CAA Hurdle Development (2021)</i>					
date	26-Jun-21	time	6.38	10.49	14.65	19.00	23.39		27.91	32.51	37.29	42.16	47.11	52.73	5 / 5				
reaction time	0.171	interval		4.11	4.16	4.35	4.39		4.52	4.60	4.78	4.87	4.95	5.62		12.62	13.51	14.60	
		velocity	7.05	8.52	8.41	8.05	7.97		7.74	7.61	7.32	7.19	7.07	7.12	7.59	8.32	7.77	7.19	
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	18	170				
FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)														<i>CAA Hurdle Development (2021)</i>					
date	13-Jun-21	time	6.11	10.09	14.13	18.26	22.47		26.88	31.41	36.02	40.66	45.30	50.59	4 / 3				
reaction time	0.167	interval		3.98	4.04	4.13	4.21		4.41	4.53	4.61	4.64	4.64	5.29	PB	12.15	13.15	13.89	
		velocity	7.36	8.79	8.66	8.47	8.31		7.94	7.73	7.59	7.54	7.54	7.56	7.91	8.64	7.98	7.56	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
FINAL - 2021 National Grand Prix (Chengdu, CHN)														<i>CAA Hurdle Development (2021)</i>					
date	02-Apr-21	time	6.16	10.16	14.26	18.41	22.61		26.94	31.42	36.02	40.75	45.52	50.85	3 / 1				
reaction time	0.193	interval		4.00	4.10	4.15	4.20		4.33	4.48	4.60	4.73	4.77	5.33	PB	12.25	13.01	14.10	
		velocity	7.31	8.75	8.54	8.43	8.33		8.08	7.81	7.61	7.40	7.34	7.50	7.87	8.57	8.07	7.45	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19	172				
Heat 1 - 2021 National Grand Prix (Chengdu, CHN)														<i>CAA Hurdle Development (2021)</i>					
date	01-Apr-21	time	6.22	10.22	14.32	18.54	22.82		27.26	31.90	36.66	41.52	46.42	51.93	4 / 1				
reaction time	0.194	interval		4.00	4.10	4.22	4.28		4.44	4.64	4.76	4.86	4.90	5.51		12.32	13.36	14.52	
		velocity	7.23	8.75	8.54	8.29	8.18		7.88	7.54	7.35	7.20	7.14	7.26	7.70	8.52	7.86	7.23	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)														<i>CAA Hurdle Development (2019)</i>					
date	23-Aug-19	time	6.22	10.22	14.31	18.55	22.90		27.39	32.02	36.81	41.66	46.59	52.25	9 / 7				
reaction time	0.216	interval		4.00	4.09	4.24	4.35		4.49	4.63	4.79	4.85	4.93	5.66		12.33	13.47	14.57	
		velocity	7.23	8.75	8.56	8.25	8.05		7.80	7.56	7.31	7.22	7.10	7.07	7.66	8.52	7.80	7.21	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)														<i>CAA Hurdle Development (2019)</i>					
date	22-Aug-19	time	6.38	10.48	14.64	18.93	23.25		27.82	32.47	37.24	42.08	46.91	52.30	8 / 2				
reaction time	0.223	interval		4.10	4.16	4.29	4.32		4.57	4.65	4.77	4.84	4.83	5.39		12.55	13.54	14.44	

H1 lead leg	R	velocity	7.05	8.54	8.41	8.16	8.10		7.66	7.53	7.34	7.23	7.25	7.42	7.65		8.37	7.75	7.27	
		strides	24	14	14	14	14		15	15	15	15	15	18.3	173.3					
FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)																				
date	03-Aug-19	time	6.21	10.18	14.20	18.35	22.56		27.01	31.70	36.48	41.31	46.28		51.89		CAA Hurdle Development (2019)			
reaction time	0.194	interval		3.97	4.02	4.15	4.21		4.45	4.69	4.78	4.83	4.97	5.61			12.14	13.35	14.58	
		velocity	7.25	8.82	8.71	8.43	8.31		7.87	7.46	7.32	7.25	7.04	7.13	7.71		8.65	7.87	7.20	
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.8	171.8					
Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)																				
date	03-Aug-19	time	6.52	10.78	15.12	19.56	24.08		28.84	33.68	38.55	43.46	48.46		54.03		CAA Hurdle Development (2019)			
reaction time	0.228	interval		4.26	4.34	4.44	4.52		4.76	4.84	4.87	4.91	5.00	5.57			13.04	14.12	14.78	
		velocity	6.90	8.22	8.06	7.88	7.74		7.35	7.23	7.19	7.13	7.00	7.18	7.40		8.05	7.44	7.10	
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	20	177					
FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)																				
date	29-May-19	time	6.22	10.24	14.36	18.55	22.89		27.44	32.13	36.83	41.77	46.84		52.55		CAA Hurdle Development (2019)			
reaction time	0.195	interval		4.02	4.12	4.19	4.34		4.55	4.69	4.70	4.94	5.07	5.71			12.33	13.58	14.71	
		velocity	7.23	8.71	8.50	8.35	8.06		7.69	7.46	7.45	7.09	6.90	7.01	7.61		8.52	7.73	7.14	
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5					
Čukman, Hrvoje (CRO) (1998)																				
FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)																				
date	23-Jul-17	time	5.88	9.72	13.60	17.60	21.72		26.08	30.72	35.52	40.32	45.16		50.92		Henson (2020) - Athlete First: 2017 year end hurdle report			
reaction time	0.226	interval		3.84	3.88	4.00	4.12		4.36	4.64	4.80	4.80	4.84	5.76	PB		11.72	13.12	14.44	
		velocity	7.65	9.11	9.02	8.75	8.50		8.03	7.54	7.29	7.29	7.23	6.94	7.86		8.96	8.00	7.27	
H1 lead leg	R	strides		13	13	13	13		13	15	15	15	15	18	143					
Culson, Javier (PUR) (1984)																				
FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)																				
date	20-May-17	time		9.61	13.28	17.08	21.05		25.19	29.46	33.86	38.47	43.27		48.76		Henson (2020) - Athlete First: 2017 year end hurdle report			
reaction time		interval			3.67	3.80	3.97		4.14	4.27	4.40	4.61	4.80	5.49				12.38	13.81	
		velocity		8.32	9.54	9.21	8.82		8.45	8.20	7.95	7.59	7.29	7.29	8.20			8.48	7.60	
H1 lead leg		strides			13	13	13		13	13	13	14	14	17.2	123.2					
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)																				
date	13-May-17	time	5.84	9.48	13.24	17.12	21.16		25.40	29.76	34.36	39.08	44.08		49.90		Henson (2021) - Athlete First: 2017 year end hurdle report			
reaction time	0.194	interval		3.64	3.76	3.88	4.04		4.24	4.36	4.60	4.72	5.00	5.82				11.28	12.64	14.32
		velocity	7.71	9.62	9.31	9.02	8.66		8.25	8.03	7.61	7.42	7.00	6.87	8.02			9.31	8.31	7.33
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	15	17.5	158.5					
FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)																				
date	01-Sep-16	time	5.72	9.44	13.16	16.96	20.88		25.00	29.24	33.80	38.52	43.32		48.79		Henson (2020) - Athlete First: 2016 year end hurdle report			
reaction time	0.175	interval		3.72	3.72	3.80	3.92		4.12	4.24	4.56	4.72	4.80	5.47				11.24	12.28	14.08
		velocity	7.87	9.41	9.41	9.21	8.93		8.50	8.25	7.68	7.42	7.29	7.31	8.20			9.34	8.55	7.46
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14	17	157					
FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)																				
date	27-Aug-16	time	5.76	9.36		16.92	20.84		24.96		33.52	38.12	42.92		48.55		Henson (2020) - Athlete First: 2016 year end hurdle report			
reaction time	0.207	interval		3.60		7.56	3.92		4.12		8.56	4.60	4.80	5.63				11.16		
		velocity	7.81	9.72		9.26	8.93		8.50		8.18	7.61	7.29	7.10	8.24			9.41		
H1 lead leg	L	strides	20	13		13	13		13		14	14	14	17.2	104.2					
FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)																				
date	23-Jul-16	time	5.80	9.48	13.20	17.08	21.08		25.24	29.56	33.88	38.40	43.08		48.63		Henson (2020) - Athlete First: 2016 year end hurdle report			
reaction time	0.173	interval		3.68	3.72	3.88	4.00		4.16	4.32	4.32	4.52	4.68	5.55				11.28	12.48	13.52
		velocity	7.76	9.51	9.41	9.02	8.75		8.41	8.10	8.10	7.74	7.48	7.21	8.23			9.31	8.41	7.77
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17	156					
FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																				
date	16-Jun-16	time	5.80	9.53	13.20	17.07	21.16		25.43	29.77	34.17	38.83	43.70		49.43		Henson (2020) - Athlete First: 2016 year end hurdle report			
reaction time	0.184	interval		3.73	3.67	3.87	4.09		4.27	4.34	4.40	4.66	4.87	5.73				11.27	12.70	13.93
		velocity	7.76	9.38	9.54	9.04	8.56		8.20	8.06	7.95	7.51	7.19	6.98	8.09			9.32	8.27	7.54
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17.2	156.2					
FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)																				
date	09-Jun-16	time	5.76	9.40	13.08	17.00	21.04		25.28	29.48	33.84	38.36	43.24		48.99		Henson (2021) - Athlete First: 2016 year end hurdle report			
reaction time	0.175	interval		3.64	3.68	3.92	4.04		4.24	4.20	4.36	4.52	4.88	5.75				11.24	12.48	13.76
		velocity	7.81	9.62	9.51	8.93	8.66		8.25	8.33	8.03	7.74	7.17	6.96	8.16			9.34	8.41	7.63
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17.5	156.5					
FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)																				
date	28-May-16	time	5.88	9.60	13.40	17.40	21.56		25.80	30.16	33.96	39.28	44.08		49.51		Henson (2020) - Athlete First: 2016 year end hurdle report			
reaction time		interval		3.72	3.80	4.00	4.16		4.24	4.36	3.80	5.32	4.80	5.43				11.52	12.76	13.92
		velocity	7.65	9.41	9.21	8.75	8.41		8.25	8.03	7.89	7.52	7.29	7.37	8.08			9.11	8.23	7.54
H1 lead leg	L	strides	20	13	13	13	13		13		11	16	14	17	143					

FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	14-May-16	time	5.76	9.40	13.12	17.12	21.24	25.48	29.88	34.32	39.00	43.88	49.58	7 / 8						
reaction time	0.211	interval		3.64	3.72	4.00	4.12	4.24	4.40	4.44	4.68	4.88	5.70		11.36	12.76	14.00			
		velocity	7.81	9.62	9.41	8.75	8.50	8.25	7.95	7.88	7.48	7.17	7.02	8.07		9.24	8.23	7.50		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2		156.2					
FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)															<i>Henson (2021) - Athlete First: major championships report</i>					
date	15-Aug-13	time	5.70	9.33	13.00	16.70	20.60	24.63	28.87	33.27	37.87	42.60	48.38	7 / 6						
reaction time	0.189	interval		3.63	3.67	3.70	3.90	4.03	4.24	4.40	4.60	4.73	5.78		11.00	12.17	13.73			
		velocity	7.89	9.64	9.54	9.46	8.97	8.68	8.25	7.95	7.61	7.40	6.92	8.27		9.55	8.63	7.65		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2		156.2					
FINAL - 2012 Olympic Games (London, GBR)															<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>					
date	06-Aug-12	time	5.68	9.19	12.84	16.56	20.47	22.27	24.46	28.72	33.20	37.69	42.40	48.10	5 / 3					
reaction time	0.196	interval		3.51	3.65	3.72	3.91	3.99	4.26	4.48	4.49	4.71	5.70		10.88	12.16	13.68			
		velocity	7.92	9.97	9.59	9.41	8.95	8.98	8.77	8.22	7.81	7.80	7.43	7.02	8.32		9.65	8.63	7.68	
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17.5		159					
FINAL - 2011 IAAF World Championships (Daegu, KOR)															<i>Behm (2011) - Le quatrasche: Démus enfin!</i>					
date	01-Sep-11	time	5.8	9.4	13.1	16.9	20.9	24.9	29.2	33.5	38.1	42.8	48.44	3 / 2						
reaction time	0.190	interval		3.60	3.70	3.80	4.00	4.00	4.30	4.30	4.60	4.70	5.64		11.10	12.30	13.60			
		velocity	7.76	9.72	9.46	9.21	8.75	8.75	8.14	8.14	7.61	7.45	7.09	8.26		9.46	8.54	7.72		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18		157					
FINAL - 2009 IAAF World Championships (Berlin, GER)															<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
date	18-Aug-09	time	5.97	9.67	13.45	17.37	21.49	25.60	29.87	34.17	38.56	43.03	48.09	8 / 2						
reaction time	0.187	interval		3.70	3.78	3.92	4.12	4.11	4.27	4.30	4.39	4.47	5.06	NR		11.40	12.50	13.16		
		velocity	7.54	9.46	9.26	8.93	8.50	8.52	8.20	8.14	7.97	7.83	7.91	8.32		9.21	8.40	7.98		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	16.7		155.7					
Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)															<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
date	16-Aug-09	time	5.91	9.55	13.32	17.22	21.25	25.35	29.56	33.88	38.38	43.06	48.43	5 / 3						
reaction time	0.176	interval		3.64	3.77	3.90	4.03	4.10	4.21	4.32	4.50	4.68	5.37		11.31	12.34	13.50			
		velocity	7.61	9.62	9.28	8.97	8.68	8.54	8.31	8.10	7.78	7.48	7.45	8.26		9.28	8.51	7.78		
H1 lead leg	L	strides		13	13	13	13	13	13	13	14	14	17		136					
Heat 2 - 2009 IAAF World Championships (Berlin, GER)															<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
date	15-Aug-09	time	6.02	9.79	13.60	17.66	21.86	26.13	30.49	34.97	39.47	44.11	49.27	1 / 1						
reaction time	0.212	interval		3.77	3.81	4.06	4.20	4.27	4.36	4.48	4.50	4.64	5.16		11.64	12.83	13.62			
		velocity	7.48	9.28	9.19	8.62	8.33	8.20	8.03	7.81	7.78	7.54	7.75	8.12		9.02	8.18	7.71		
H1 lead leg		strides																		
Cuypers, Alain (BEL) (1967)																				
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>Brüggenmann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																				
date	24-Sep-88	time	6.20	10.13	14.07	18.06	22.14	26.45	30.79	35.22	39.76	44.40	49.75	7 / 7						
reaction time		interval		3.93	3.94	3.99	4.08	4.31	4.34	4.43	4.54	4.64	5.35	PB		11.86	12.73	13.61		
		velocity	7.26	8.91	8.88	8.77	8.58	8.12	8.06	7.90	7.71	7.54	7.48	8.04		8.85	8.25	7.71		
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	18.5		168.5					
Davis, Calvin (USA) (1972)																				
FINAL - 1996 Olympic Games (Atlanta, GA)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>McFarlane (2000) - the science of hurdling and speed</i>																				
date	01-Aug-96	time	6.02	9.85	13.62	17.38	21.34	25.48	29.70	33.90	38.35	42.82	47.96	5 / 3						
reaction time	0.267	interval		3.83	3.77	3.76	3.96	4.14	4.22	4.20	4.45	4.47	5.14		11.36	12.32	13.12			
		velocity	7.48	9.14	9.28	9.31	8.84	8.45	8.29	8.33	7.87	7.83	7.78	8.34		9.24	8.52	8.00		
H1 lead leg		strides	23	15	15	15	15	15	15	15	15	15	158							
FINAL - 1996 USA Olympic Trials (Atlanta, GA)															<i>McNichols - Hurdle technique study through video analysis</i>					
date	16-Jun-96	time	6.03	9.88	13.71	17.65	21.60	22.28	25.67	29.98	34.23	38.68	43.21	48.32	3 / 3					
reaction time		interval		3.85	3.83	3.94	3.95	4.07	4.31	4.25	4.45	4.53	5.11	PB		11.62	12.33	13.23		
		velocity	7.46	9.09	9.14	8.88	8.86	8.98	8.60	8.12	8.24	7.87	7.73	7.83	8.28		9.04	8.52	7.94	
H1 lead leg	R	strides	23	13	14	14	14	14	14	14	15	15	15	151						
Davis, Glenn (USA) (1934)																				
FINAL - 1960 Olympic Games (Rome, ITA)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf</i>																				
date	02-Sep-60	time	5.9	9.9	14.0	18.2	22.4	24.0	26.7	31.1	35.6	40.0	44.5	49.3	6 / 1					
reaction time		interval		4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.4	4.5	4.8	OR		12.30	12.90	13.40		
		velocity	7.63	8.75	8.54	8.33	8.33	8.33	8.14	7.95	7.78	7.95	7.78	8.33	8.11	(49.51)	8.54	8.14	7.84	
H1 lead leg		strides																		
FINAL - 1956 Olympic Games (Melbourne, AUS)															<i>Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)</i>					
date	24-Nov-56	time					22.7							50.1	4 / 1					
reaction time		interval												=OR						
		velocity					8.15							7.98	(50.29)					
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176						
de Araujo, Eronilde (BRA) (1970)																				
FINAL - 2000 Olympic Games (Sydney, AUS)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																				

date	27-Sep-00	time	5.98	9.66	13.38	17.14	21.06	22.62	25.10	29.38	33.78	38.26	43.94	48.34	8 / 5	
reaction time	0.190	interval		3.68	3.72	3.76	3.92		4.04	4.28	4.40	4.48	5.68	4.40	11.16 12.24 14.56	
		velocity	7.53	9.51	9.41	9.31	8.93	8.84	8.66	8.18	7.95	7.81	6.16	9.09	8.27	9.41 8.58 7.21
H1 lead leg		strides	21	13	13	13	13		13	14	14	14	14	17.3	159.3	

Semi-Final 3 - 2000 Olympic Games (Sydney, AUS) *Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	25-Sep-00	time	5.94	9.62	13.34	17.18	21.18	22.70	25.26	29.46	33.98	38.58	43.34	48.76	4 / 2	
reaction time	0.181	interval		3.68	3.72	3.84	4.00		4.08	4.20	4.52	4.60	4.76	5.42	11.24 12.28 13.88	
		velocity	7.58	9.51	9.41	9.11	8.75	8.81	8.58	8.33	7.74	7.61	7.35	7.38	8.20	9.34 8.55 7.56
H1 lead leg		strides	21	13	13	13	13		13	14	14	14	14	17.8	159.8	

Heat 8 - 2000 Olympic Games (Sydney, AUS) *Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.06	9.86	13.62	17.58	21.62		25.86	30.18	34.82	39.62	44.42	50.06	8 / 1	
reaction time	0.179	interval		3.80	3.76	3.96	4.04		4.24	4.32	4.64	4.80	4.80	5.64	11.52 12.60 14.24	
		velocity	7.43	9.21	9.31	8.84	8.66		8.25	8.10	7.54	7.29	7.29	7.09	7.99	9.11 8.33 7.37
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	17.9	163.9	

FINAL - 1999 IAAF World Championships (Sevilla, ESP) *Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	27-Aug-99	time	5.72	9.39	13.13	16.93	20.85		24.84	29.06	33.37	37.85	42.46	48.13	8 / 4	
reaction time	0.205	interval		3.67	3.74	3.80	3.92		3.99	4.22	4.31	4.48	4.61	5.67	11.21 12.13 13.40	
		velocity	7.87	9.54	9.36	9.21	8.93		8.77	8.29	8.12	7.81	7.59	7.05	8.31	9.37 8.66 7.84
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	15	17.5	161	

Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP) *Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	25-Aug-99	time	5.70	9.47	13.28	17.09	21.07		25.09	29.28	33.57	38.04	42.68	48.41	6 / 3	
reaction time	0.174	interval		3.77	3.81	3.81	3.98		4.02	4.19	4.29	4.47	4.64	5.73	11.39 12.19 13.40	
		velocity	7.89	9.28	9.19	9.19	8.79		8.71	8.35	8.16	7.83	7.54	6.98	8.26	9.22 8.61 7.84
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5	

FINAL - 1996 Olympic Games (Atlanta, GA) *Behm (1996) - 400m haies*

date	01-Aug-96	time	6.0	9.9	13.7	17.5	21.4		25.5	29.7	34.0	38.4	43.0	48.78	2 / 8	
reaction time	0.199	interval		3.90	3.80	3.80	3.90		4.10	4.20	4.30	4.40	4.60	5.78	11.50 12.20 13.30	
		velocity	7.50	8.97	9.21	9.21	8.97		8.54	8.33	8.14	7.95	7.61	6.92	8.20	9.13 8.61 7.89
H1 lead leg		strides	21	13	13	13	13		13	14	14	14	14	142		

de Jesús, Mikael Antonio (POR) (199) **H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA) *European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.96	9.67	13.50	17.52	21.63		25.97	30.46	34.90	39.58	44.33	49.72	2 / 6	
reaction time	0.164	interval		3.71	3.83	4.02	4.11		4.34	4.49	4.44	4.68	4.75	5.39	11.56 12.94 13.87	
		velocity	7.55	9.43	9.14	8.71	8.52		8.06	7.80	7.88	7.48	7.37	7.42	8.05	9.08 8.11 7.57
H1 lead leg		strides												0		

Heat 1 - 2024 European Athletics Championships (Roma, ITA) *European Athletics (2024) - 2024 european athletics championships - results book*

date	09-Jun-24	time	6.01	9.73	13.53	17.45	21.54		25.82	30.11	34.54	39.11	43.81	49.41	9 / 4	
reaction time	0.201	interval		3.72	3.80	3.92	4.09		4.28	4.29	4.43	4.57	4.70	5.60	11.44 12.66 13.70	
		velocity	7.49	9.41	9.21	8.93	8.56		8.18	8.16	7.90	7.66	7.45	7.14	8.10	9.18 8.29 7.66
H1 lead leg		strides												0		

Dean, Caleb (USA) (2001) **H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON) *Omega Timing (2024) - diamond league race analysis*

date	12-Jul-24	time	5.82	9.52	13.24	16.96	20.80		24.86	29.17	33.67	38.25	42.94	48.46	4 / 8	
reaction time	0.174	interval		3.70	3.72	3.72	3.84		4.06	4.31	4.50	4.58	4.69	5.52	11.14 12.21 13.77	
		velocity	7.73	9.46	9.41	9.41	9.11		8.62	8.12	7.78	7.64	7.46	7.25	8.25	9.43 8.60 7.63
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	17.7	161.7	

FINAL - 2024 USA Olympic Trials (Eugene, OR) *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	30-Jun-24	time	5.63	9.26	12.97	16.74	20.55	22.35	24.59	28.85	33.38			dnf	5 / --
reaction time		interval		3.63	3.71	3.77	3.81		4.04	4.26	4.53				11.11 12.11
		velocity	7.99	9.64	9.43	9.28	9.19	8.95	8.66	8.22	7.73				9.45 8.67
H1 lead leg	R	strides	20	13	13	13	13		13	14	14			113	

Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR) *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	28-Jun-24	time	5.81	9.50	13.25	17.04	20.94	22.61	24.83	29.27	33.84	38.56	43.44	48.92	7 / 1	
reaction time		interval		3.69	3.75	3.79	3.90		3.89	4.44	4.57	4.72	4.88	5.48	11.23 12.23 14.17	
		velocity	7.75	9.49	9.33	9.23	8.97	8.85	9.00	7.88	7.66	7.42	7.17	7.30	8.18	9.35 8.59 7.41
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	17.7	163.7	

Heat 3 - 2024 USA Olympic Trials (Eugene, OR) *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*

date	27-Jun-24	time	5.82	9.42	13.09	16.88	20.68	22.45	24.77	29.17	33.85	38.79	43.61	49.45	8 / 1	
reaction time		interval		3.60	3.67	3.79	3.80		4.09	4.40	4.68	4.94	4.82	5.84	11.06 12.29 14.44	
		velocity	7.73	9.72	9.54	9.23	9.21	8.91	8.56	7.95	7.48	7.09	7.26	6.85	8.09	9.49 8.54 7.27
H1 lead leg	R	strides	21	13	13	13	13		14	14	14	16	15	18	164	

FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis) *Henson (2024) - Athlete First: 2024 year end hurdle report*

date	07-Jun-24	time	5.79	9.42	13.13	16.84	20.67		24.66	28.85	33.13	37.60	42.11	47.23	6 / 1	
reaction time		interval		3.63	3.71	3.71	3.83		3.99	4.19	4.28	4.47	4.51	5.12	11.05 12.01 13.26	
		velocity	7.77	9.64	9.43	9.43	9.14		8.77	8.35	8.18	7.83	7.76	7.81	8.47	9.50 8.74 7.92

H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	14	18	159
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FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)

date	09-Jun-23	time	5.76	9.47	13.28	17.17	21.17	25.39	29.80	34.30	38.80	43.26	48.56	7 / 4	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
reaction time		interval		3.71	3.81	3.89	4.00	4.22	4.41	4.50	4.50	4.46	5.30		11.41	12.63	13.46
		velocity	7.81	9.43	9.19	9.00	8.75	8.29	7.94	7.78	7.78	7.85	7.55	8.24	9.20	8.31	7.80
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	14	18.2	161.2			

Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

date	25-Jun-21	time	5.93	9.77	13.67	17.60	21.77	26.07	30.53	35.03	39.77	44.53	49.78	7 / 5	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>		
reaction time	0.178	interval		3.84	3.90	3.93	4.17	4.30	4.46	4.50	4.74	4.76	5.25		11.67	12.93	14.00
		velocity	7.59	9.11	8.97	8.91	8.39	8.14	7.85	7.78	7.38	7.35	7.62	8.04	9.00	8.12	7.50
H1 lead leg	R	strides		13	13	13	13	15	15	15	15	15	18	145			

Deguchi, Haruto (JPN) (2001)**FINAL - 2023 Japanese National Championships (Osaka, JPN)**

date	03-Jun-23	time	6.14	10.01	13.93	17.93	22.16	26.39	30.81	35.40	40.06	44.88	50.35	2 / 6	<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>		
reaction time	0.216	interval		3.87	3.92	4.00	4.23	4.23	4.42	4.59	4.66	4.82	5.47		11.79	12.88	14.07
		velocity	7.33	9.04	8.93	8.75	8.27	8.27	7.92	7.63	7.51	7.26	7.31	7.94	8.91	8.15	7.46
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	15	18	166			

C FINAL - 2023 Shizuoka International Meeting (Fukuoki, JPN)

date	03-May-23	time	6.15	10.04	14.05	18.17	22.51	26.75	31.15	35.58	40.11	44.71	50.00	6 / 1	<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>		
reaction time	0.205	interval		3.89	4.01	4.12	4.34	4.24	4.40	4.43	4.53	4.60	5.29		12.02	12.98	13.56
		velocity	7.32	9.00	8.73	8.50	8.06	8.25	7.95	7.90	7.73	7.61	7.56	8.00	8.74	8.09	7.74
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	15	18	166			

FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)

date	25-Oct-20	time	6.41	10.49	14.70	19.00	23.51	28.06	32.60	37.22	41.89	46.68	52.17	4 / 1	<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>		
reaction time	0.195	interval		4.08	4.21	4.30	4.51	4.55	4.54	4.62	4.67	4.79	5.49		12.59	13.60	14.08
		velocity	7.02	8.58	8.31	8.14	7.76	7.69	7.71	7.58	7.49	7.31	7.29	7.67	8.34	7.72	7.46
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	15	17.7	165.7			

FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)

date	06-Aug-19	time	6.25	10.21	14.25	18.39	22.76	27.24	31.65	36.05	40.62	45.28	50.57	4 / 1	<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection</i>		
reaction time		interval		3.96	4.04	4.14	4.37	4.48	4.41	4.40	4.57	4.66	5.29	PB	12.14	13.26	13.63
		velocity	7.20	8.84	8.66	8.45	8.01	7.81	7.94	7.95	7.66	7.51	7.56	7.91	8.65	7.92	7.70
H1 lead leg		strides		13	13	13	14	14	15	15	15	15	15	127			

FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)

date	04-Aug-18	time	6.26	10.36	14.66	19.04	23.52	27.98	32.47	36.95	41.45	46.01	51.17	4 / 1	<i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>		
reaction time		interval		4.10	4.30	4.38	4.48	4.46	4.49	4.48	4.50	4.56	5.16	PB	12.78	13.43	13.54
		velocity	7.19	8.54	8.14	7.99	7.81	7.85	7.80	7.81	7.78	7.68	7.75	7.82	8.22	7.82	7.75
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135				

Delgado, Jesús David (ESP) (1999)**Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)**

date	10-Jun-24	time	6.03	9.81	13.71	17.70	21.72	25.85	30.19	34.64	39.29	43.88	49.38	3 / 7	<i>European Athletics (2024) - 2024 european athletics championships - results book</i>		
reaction time	0.271	interval		3.78	3.90	3.99	4.02	4.13	4.34	4.45	4.65	4.59	5.50		11.67	12.49	13.69
		velocity	7.46	9.26	8.97	8.77	8.71	8.47	8.06	7.87	7.53	7.63	7.27	8.10	9.00	8.41	7.67
H1 lead leg		strides											0				

Derby, Brian (USA) (1981)**Heat 1 - 2007 USATF National Championships (Indianapolis, IN)**

date	21-Jun-07	time	6.09	10.03	13.98	18.03	22.17	26.61	31.09	35.67	40.27	44.91	50.26	5 / 3	<i>USATF Men's Hurdle Development (2007)</i>		
reaction time		interval		3.94	3.95	4.05	4.14	4.44	4.48	4.58	4.60	4.64	5.35		11.94	13.06	13.82
		velocity	7.39	8.88	8.86	8.64	8.45	7.88	7.81	7.64	7.61	7.54	7.48	7.96	8.79	8.04	7.60
H1 lead leg	L	strides	21	14	13	13	13	14	14	14	14	14	144				

Derevyagin, Aleksandr (RUS) (1979)**FINAL - 2011 IAAF World Championships (Daegu, KOR)**

date	01-Sep-11	time	6.0	9.7	13.7	17.6	21.6	25.8	30.2	34.6	39.0	43.7	49.32	2 / 8	<i>Behm (2011) - Le quatrache: Démus enfin!</i>		
reaction time	0.187	interval		3.70	4.00	3.90	4.00	4.20	4.40	4.40	4.40	4.70	5.62		11.60	12.60	13.50
		velocity	7.50	9.46	8.75	8.97	8.75	8.33	7.95	7.95	7.95	7.45	7.12	8.11	9.05	8.33	7.78
H1 lead leg	L	strides	22	15	15	16	15	15	15	15	15	15	18	176			

FINAL - 2007 European Cup (Munich, GER)

date	23-Jun-07	time	6.17	10.12	14.14	18.12	22.21	26.30	30.52	34.80	39.20	43.74	49.12	4	<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>		
reaction time	0.162	interval		3.95	4.02	3.98	4.09	4.09	4.22	4.28	4.40	4.54	5.38	PB	11.95	12.40	13.22
		velocity	7.29	8.86	8.71	8.79	8.56	8.56	8.29	8.18	7.95	7.71	7.43	8.14	8.79	8.47	7.94
H1 lead leg		strides															

FINAL - 2006 European Championships (Göteborg, SWE)

date	10-Aug-06	time	5.9	9.7	13.6	17.6	21.7	26.0	30.4	34.7	39.4	44.2	50.31	8	<i>Behm (2006) - Göteborg 2006: Le quatrache</i>		
reaction time		interval		3.80	3.90	4.00	4.10	4.30	4.40	4.30	4.70	4.80	6.11		11.70	12.80	13.80
		velocity	7.63	9.21	8.97	8.75	8.54	8.14	7.95	8.14	7.45	7.29	6.55	7.95	8.97	8.20	7.61
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5			

Dia Bà, Amadou (SEN) (1958)														H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1988 Olympic Games (Seoul, KOR)														<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	25-Sep-88	time	5.96	9.60	13.33	17.13	21.01		25.06	29.26	33.44	37.83	42.27		47.23	5 / 2														
reaction time	0.220	interval		3.64	3.73	3.80	3.88		4.05	4.20	4.18	4.39	4.44	4.96	NR		11.17	12.13	13.01											
		velocity	7.55	9.62	9.38	9.21	9.02		8.64	8.33	8.37	7.97	7.88	8.06	8.47		9.40	8.66	8.07											
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	18	159															
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)														<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	24-Sep-88	time	6.16	10.00	13.91	17.73	21.78		25.89	30.18	34.49	38.99	43.48		48.48	4 / 3														
reaction time		interval		3.84	3.91	3.82	4.05		4.11	4.29	4.31	4.50	4.49	5.00			11.57	12.45	13.30											
		velocity	7.31	9.11	8.95	9.16	8.64		8.52	8.16	8.12	7.78	7.80	8.00	8.25		9.08	8.43	7.89											
H1 lead leg		strides	20	13	13	13	13		13	14	14	14	14	17	158															
FINAL - 1987 Meeting BNP D'Athletisme (Paris, FRA)														<i>Behm (1988) - 45-39</i>																
date	16-Jul-87	time	5.7	9.5	13.3	17.2	21.2		25.3	29.5	34.1		43.3		48.89	1 / 1														
reaction time		interval		3.84	3.78	3.83	4.08		4.02	4.26	4.59		9.20	5.59			11.45	12.36	13.79											
		velocity	7.89	9.11	9.26	9.14	8.58		8.71	8.22	7.63		7.61	7.16	8.18		9.17	8.50	7.61											
H1 lead leg		strides																												
Diagana, Stéphane (FRA) (1969)														<i>Behm (2003) - Paris 2003:Le quatrache masculn - féminin</i>																
Semi-Final 1 - 2003 IAAF World Championships (Paris, FRA)																														
date	27-Aug-03	time	5.8	9.5	13.3	17.2	21.2		25.3	29.5	33.9	38.5	43.1		48.64	2 / 5														
reaction time	0.163	interval		3.70	3.80	3.90	4.00		4.10	4.20	4.40	4.60	4.60	5.54			11.40	12.30	13.60											
		velocity	7.76	9.46	9.21	8.97	8.75		8.54	8.33	7.95	7.61	7.61	7.22	8.22		9.21	8.54	7.72											
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	18	162															
Heat 1 - 2003 IAAF World Championships (Paris, FRA)														<i>Behm (2003) - Paris 2003:Le quatrache masculn - féminin</i>																
date	26-Aug-03	time	5.8	9.5	13.3	17.1	20.9		25.1	29.4	34.1	38.7	43.5		49.00	7 / 3														
reaction time	0.186	interval		3.70	3.80	3.80	3.80		4.20	4.30	4.70	4.60	4.80	5.50			11.30	12.30	14.10											
		velocity	7.76	9.46	9.21	9.21	9.21		8.33	8.14	7.45	7.61	7.29	7.27	8.16		9.29	8.54	7.45											
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	18	162															
FINAL - 2002 European Championships (Munich, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	09-Aug-02	time	5.95	9.65	13.35	17.13	21.03		25.11	29.41	33.62	38.01	42.50		47.58	1 / 1														
reaction time	0.141	interval		3.70	3.70	3.78	3.90		4.08	4.30	4.21	4.39	4.49	5.08			11.18	12.28	13.09											
		velocity	7.56	9.46	9.46	9.26	8.97		8.58	8.14	8.31	7.97	7.80	7.87	8.41		9.39	8.55	8.02											
H1 lead leg		strides		13	13	13	13		13	14	14	15	15	123																
Semi-Final 2 - 2002 European Championships (Munich, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	08-Aug-02	time	5.97	9.66	13.44	17.26	21.20		25.32	29.69	34.14	38.82	43.53		49.01	1 / 1														
reaction time		interval		3.69	3.78	3.82	3.94		4.12	4.37	4.45	4.68	4.71	5.48			11.29	12.43	13.84											
		velocity	7.54	9.49	9.26	9.16	8.88		8.50	8.01	7.87	7.48	7.43	7.30	8.16		9.30	8.45	7.59											
H1 lead leg		strides																												
Heat 3 - 2002 European Championships (Munich, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	07-Aug-02	time	6.06	9.86	13.71	17.60	21.50		25.75	30.24	34.88	39.15	44.35		49.52	1 / 1														
reaction time		interval		3.80	3.85	3.89	3.90		4.25	4.49	4.64	4.27	5.20	5.17			11.54	12.64	14.11											
		velocity	7.43	9.21	9.09	9.00	8.97		8.24	7.80	7.54	8.20	6.73	7.74	8.08		9.10	8.31	7.44											
H1 lead leg		strides																												
FINAL - 2001 European Cup (Bremen, GER)														<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																
date	23-Jun-01	time	6.03	9.78	13.62	17.52	21.41		25.46	29.60	34.16	38.90	43.73		49.07	1 / 3														
reaction time		interval		3.75	3.84	3.90	3.89		4.05	4.14	4.56	4.74	4.83	5.34			11.49	12.08	14.13											
		velocity	7.46	9.33	9.11	8.97	9.00		8.64	8.45	7.68	7.38	7.25	7.49	8.15		9.14	8.69	7.43											
H1 lead leg		strides																												
FINAL - 1999 IAAF World Championships (Sevilla, ESP)														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																
date	27-Aug-99	time	5.44	9.09	12.77	16.54	20.39		24.41	28.77	33.08	37.59	42.19		48.12	5 / 2														
reaction time	0.139	interval		3.65	3.68	3.77	3.85		4.02	4.36	4.31	4.51	4.60	5.93			11.10	12.23	13.42											
		velocity	8.27	9.59	9.51	9.28	9.09		8.71	8.03	8.12	7.76	7.61	6.75	8.31		9.46	8.59	7.82											
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	19	163															
Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																
date	25-Aug-99	time	5.57	9.24	13.03	16.81	20.72		24.73	28.98	33.39	37.91	42.46		48.18	4 / 1														
reaction time	0.161	interval		3.67	3.79	3.78	3.91		4.01	4.25	4.41	4.52	4.55	5.72			11.24	12.17	13.48											
		velocity	8.08	9.54	9.23	9.26	8.95		8.73	8.24	7.94	7.74	7.69	6.99	8.30		9.34	8.63	7.79											
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162															
Heat 5 - 1999 IAAF World Championships (Sevilla, ESP)														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																
date	24-Aug-99	time	5.59	9.30	13.12	16.99	20.93		24.99	29.38	33.82	38.45	43.02		48.55	5 / 1														
reaction time	0.155	interval		3.71	3.82	3.87	3.94		4.06	4.39	4.44	4.63	4.57	5.53			11.40	12.39	13.64											
		velocity	8.05	9.43	9.16	9.04	8.88		8.62	7.97	7.88	7.56	7.66	7.23	8.24		9.21	8.47	7.70											
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162															
FINAL - 1997 IAAF World Championships (Athens, GRE)														<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>																
date	04-Aug-97	time	5.87	9.50	13.14	16.85	20.60		24.68	28.68	32.98	37.56	42.27		47.70	6 / 1														

reaction time	0.157	interval	3.63	3.64	3.71	3.75	4.08	4.00	4.30	4.58	4.71	5.43	10.98	11.83	13.59			
		velocity	7.67	9.64	9.62	9.43	9.33	8.58	8.75	8.14	7.64	7.43	7.37	8.39	9.56	8.88	7.73	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	19	163				
FINAL - 1997 European Cup (Munich, GER)																		
date	21-Jun-97	time	6.0	9.8	13.7	17.6	21.6	25.7	30.2	34.7	39.3	43.9	49.19	<i>Jung (2003) - http://www.fgs.uni-halle.de / 2</i>				
reaction time		interval		3.77	3.92	3.88	4.00	4.10	4.49	4.55	4.54	4.64	5.27	11.57	12.59	13.73		
		velocity	7.46	9.28	8.93	9.02	8.75	8.54	7.80	7.69	7.71	7.54	7.59	8.13	9.08	8.34	7.65	
H1 lead leg		strides																
FINAL - 1995 IAAF World Championships (Göteborg, SWE)																		
date	10-Aug-95	time				21.1							48.14	<i>Behm (1999) - Les chiffres: Les podiums de tous le championnats 6 / 3</i>				
reaction time		interval																
		velocity				8.77							8.31					
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	19.2	162				
FINAL - 1995 Athletissima (Luasanne, SUI)																		
date	05-Jul-95	time	5.86	9.54	13.30	17.10	20.97	24.94	29.09	33.25	37.67	42.16	47.37	<i>Behm (1999) - Les deux recordmen de France: Stéphane Diagana (Vazel) / 1</i>				
reaction time		interval		3.68	3.76	3.80	3.87	3.97	4.15	4.16	4.42	4.49	5.21	AR	11.24	11.99	13.07	
		velocity	7.68	9.51	9.31	9.21	9.04	8.82	8.43	8.41	7.92	7.80	7.68	8.44	9.34	8.76	8.03	
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	123					
FINAL - 1994 European Championships (Helsinki, FIN)																		
date	10-Aug-94	time	5.9	9.5	13.2	16.9	20.8	24.7	29.0	33.3	37.9	42.6	48.23	<i>Behm (1995) - la tactique du 400 haies / 3</i>				
reaction time		interval		3.60	3.70	3.70	3.90	3.90	4.30	4.30	4.60	4.70	5.63	11.00	12.10	13.60		
		velocity	7.63	9.72	9.46	9.46	8.97	8.97	8.14	8.14	7.61	7.45	7.10	8.29	9.55	8.68	7.72	
H1 lead leg		strides	20	13	13	13	13	13	14	14	15	15	143					
FINAL - 1993 IAAF World Championships (Stuttgart, GER)																		
date	19-Aug-93	time	5.87	9.42	13.10	16.89	20.74	24.74	28.91	33.18	37.66	42.26	47.64	<i>Graubner (2008) - http://www.fgs.uni-halle.de 7 / 4</i>				
reaction time	0.206	interval		3.55	3.68	3.79	3.85	4.00	4.17	4.27	4.48	4.60	5.38	PB	11.02	12.02	13.35	
		velocity	7.67	9.86	9.51	9.23	9.09	8.75	8.39	8.20	7.81	7.61	7.43	8.40	9.53	8.74	7.87	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	19	149				
FINAL - 1992 Olympic Games (Barcelona, ESP)																		
date	06-Aug-92	time	5.90	9.60	13.35	17.15	21.00	25.20	29.40	33.65	38.05	42.70	48.13	<i>Belloc (1992) - Diagana: 45.18 / 48.13 : 3" d'ecart; incompressibles? 6 / 4</i>				
reaction time		interval		3.70	3.75	3.80	3.85	4.20	4.20	4.25	4.40	4.65	5.43	PB	11.25	12.25	13.30	
		velocity	7.63	9.46	9.33	9.21	9.09	8.33	8.33	8.24	7.95	7.53	7.37	8.31	9.33	8.57	7.89	
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.3	164.3				
Dlouhy, Manfred (FRG) (1952)																		
FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)																		
date	28-Jun-75	time	6.3	10.3	14.4	18.7	23.0	25.0	27.1	31.6	36.7	41.4	46.4	52.14	<i>Helbig (1975) - 400-m-hürdenlauf 2 / 6</i>			
reaction time		interval		4.04	4.09	4.25	4.33	4.07	4.57	5.07	4.69	5.00	5.75		12.38	12.97	14.76	
		velocity	7.17	8.66	8.56	8.24	8.08	8.00	8.60	7.66	6.90	7.46	7.00	6.96	7.67	8.48	8.10	7.11
H1 lead leg		strides																
Dobek, Patryk (POL) (1994)																		
Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)																		
date	28-Sep-19	time	6.08	9.84	13.67	17.59	21.74	26.00	30.33	34.81	39.44	44.39	50.18	<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships 8 / 7</i>				
reaction time	0.174	interval		3.76	3.83	3.92	4.15	4.26	4.33	4.48	4.63	4.95	5.79		11.51	12.74	14.06	
		velocity	7.40	9.31	9.14	8.93	8.43	8.22	8.08	7.81	7.56	7.07	6.91	7.97	9.12	8.24	7.47	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	17	17.7	160.7				
FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)																		
date	13-Jun-19	time	5.92	9.62	13.45	17.42	21.42	23.1	25.55	29.99	34.46	39.30	44.21	49.80	<i>Henson (2020) - Athlete First: 2019 year end hurdle report 2 / 6</i>			
reaction time	0.155	interval		3.70	3.83	3.97	4.15	4.13	4.44	4.47	4.84	4.91	5.59			14.22		
		velocity	7.60	9.46	9.14	8.78	8.66	8.47	7.88	7.83	7.23	7.13	7.16	8.03			7.38	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	135				
FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																		
date	06-Jun-19	time	5.90	9.66	13.50	17.46	21.56	25.76	30.23	34.88	39.73	44.71	50.38	<i>Henson (2020) - Athlete First: 2019 year end hurdle report 3 / 8</i>				
reaction time	0.153	interval		3.76	3.84	3.96	4.10	4.20	4.47	4.65	4.85	4.98	5.67		11.56	12.77	14.48	
		velocity	7.63	9.31	9.11	8.84	8.54	8.33	7.83	7.53	7.22	7.03	7.05	7.94	9.08	8.22	7.25	
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	17.7	162.7				
FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																		
date	16-Jun-16	time	5.97	9.73	13.53	17.37	21.37	25.63	30.03	34.60	39.30	44.23	49.89	<i>Henson (2020) - Athlete First: 2016 year end hurdle report 7 / 3</i>				
reaction time	0.163	interval		3.76	3.80	3.84	4.00	4.26	4.40	4.57	4.70	4.93	5.66		11.40	12.66	14.20	
		velocity	7.54	9.31	9.21	9.11	8.75	8.22	7.95	7.66	7.45	7.10	7.07	8.02	9.21	8.29	7.39	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	15	18	160				
FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)																		
date	09-Jun-16	time	6.00	9.80	13.64	17.56	21.76	26.00	30.48	35.00	39.68	44.52	50.27	<i>Henson (2021) - Athlete First: 2016 year end hurdle report 3 / 7</i>				
reaction time	0.174	interval		3.80	3.84	3.92	4.20	4.24	4.48	4.52	4.68	4.84	5.75		11.56	12.92	14.04	
		velocity	7.50	9.21	9.11	8.93	8.33	8.25	7.81	7.74	7.48	7.23	6.96	7.96	9.08	8.13	7.48	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17.2	145.2				

FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date	14-May-16	time	5.92	9.68	13.52	17.52	21.56	25.72	30.08	34.48	39.08	43.68	49.01	1 / 2				
reaction time	0.178	interval		3.76	3.84	4.00	4.04	4.16	4.36	4.40	4.60	4.60	5.33		11.60	12.56	13.60	
		velocity	7.60	9.31	9.11	8.75	8.66	8.41	8.03	7.95	7.61	7.61	7.50	8.16	9.05	8.36	7.72	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5	159.5				

FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)*Henson (2021) - Athlete First: major championships report*

date	25-Aug-15	time	6.00	13.64	17.48	21.52	25.68	30.04	34.52	39.16	43.84	49.14	3 / 7					
reaction time	0.176	interval		7.64	3.84	4.04	4.16	4.36	4.48	4.64	4.68	5.30		11.48	12.56	13.80		
		velocity	7.50	9.16	9.11	8.66	8.41	8.03	7.81	7.54	7.48	7.55	8.14	9.15	8.36	7.61		
H1 lead leg	L	strides		13	13	13		14	14	14	14	95						

Dobrovolskiy, Sergey (URS) (1966)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 1985 European Junior Championships (Cottbus, GDR)***Warburton (1985) - 1985 european junior championships - hurdles*

date	25-Aug-85	time	9.90	13.82	18.20	22.39	26.83	31.28	35.94	40.57	45.20	51.31	1 / 4					
reaction time		interval		3.92	4.38	4.19	4.44	4.45	4.66	4.63	4.63	6.11		13.08	13.92			
		velocity	8.08	8.93	7.99	8.35	7.88	7.87	7.51	7.56	7.56	6.55	7.80	8.03	7.54			
H1 lead leg		strides																

Dömötör, Patrik (SVK) (2000)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 1 - 2024 European Athletics Championships (Roma, ITA)***European Athletics (2024) - 2024 european athletics championships - results book*

date	09-Jun-24	time	6.09	10.10	14.22	18.41	22.59	26.97	31.47	35.92	40.92	45.73	51.16	7 / 7				
reaction time	0.184	interval		4.01	4.12	4.19	4.18	4.38	4.50	4.45	5.00	4.81	5.43		12.32	13.06	14.26	
		velocity	7.39	8.73	8.50	8.35	8.37	7.99	7.78	7.87	7.00	7.28	7.37	7.82	8.52	8.04	7.36	
H1 lead leg		strides											0					

dos Santos, Alison Brendon (BRA) (**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2024 Memorial van damme (Brussels, BEL)***Omega Timing (2023) - diamond league race analysis*

date	14-Sep-24	time	5.72	9.38	13.14	16.86	20.84	24.92	29.14	33.42	37.83	42.44	47.93	6 / 1				
reaction time	0.151	interval		3.66	3.76	3.72	3.98	4.08	4.22	4.28	4.41	4.61	5.49		11.46	12.28	13.30	
		velocity	7.87	9.56	9.31	9.41	8.79	8.58	8.29	8.18	7.94	7.59	7.29	8.35	9.16	8.55	7.89	
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16	149				

FINAL - 2024 Weltklasse (Zürich, SU)*Omega Timing (2023) - diamond league race analysis*

date	05-Sep-24	time	5.77	9.39	13.07	16.80	20.73							dnf	6 / --			
reaction time	0.153	interval		3.62	3.68	3.73	3.93									11.34		
		velocity	7.80	9.67	9.51	9.38	8.91									9.26		
H1 lead leg	L	strides	20	13	12	12	12						69					

FINAL - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympic Games - Results Book (2024)*

date	09-Aug-24	time	5.72	9.30	12.96	16.66	20.44	24.35	28.42	32.65	37.09	41.68	47.26	3 / 3				
reaction time	0.167	interval		3.58	3.66	3.70	3.78	3.91	4.07	4.23	4.44	4.59	5.58		10.94	11.76	13.26	
		velocity	7.87	9.78	9.56	9.46	9.26	8.95	8.60	8.27	7.88	7.63	7.17	8.46	9.60	8.93	7.92	
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16.5	137.5				

Semi-Final 1 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympic Games - Results Book (2024)*

date	07-Aug-24	time	5.76	9.37	12.98	16.69	20.61	24.66	28.81	33.11	37.61	42.30	47.95	9 / 3				
reaction time	0.210	interval		3.61	3.61	3.71	3.92	4.05	4.15	4.30	4.50	4.69	5.65		10.93	12.12	13.49	
		velocity	7.81	9.70	9.70	9.43	8.93	8.64	8.43	8.14	7.78	7.46	7.08	8.34	9.61	8.66	7.78	
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	17	150				

Heat 3 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympic Games - Results Book (2024)*

date	05-Aug-24	time	5.82	9.54	13.27	17.04	20.96	25.03	29.27	33.65	38.23	42.97	48.75	2 / 3				
reaction time	0.165	interval		3.72	3.73	3.77	3.92	4.07	4.24	4.38	4.58	4.74	5.78		11.22	12.23	13.70	
		velocity	7.73	9.41	9.38	9.28	8.93	8.60	8.25	7.99	7.64	7.38	6.92	8.21	9.36	8.59	7.66	
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16.7	149.7				

FINAL - 2024 London Athletics Meet (London, GBR)*Omega Timing (2024) - diamond league race analysis*

date	20-Jul-24	time	5.82	9.42	13.04	16.69	20.50	24.51	28.68	32.92	37.30	41.80	47.18	6 / 1				
reaction time	0.178	interval		3.60	3.62	3.65	3.81	4.01	4.17	4.24	4.38	4.50	5.38		10.87	11.99	13.12	
		velocity	7.73	9.72	9.67	9.59	9.19	8.73	8.39	8.25	7.99	7.78	7.43	8.48	9.66	8.76	8.00	
H1 lead leg	L	strides	20	13	12	12	12			13	13	13	16.2	124.2				

FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)*Omega Timing (2024) - diamond league race analysis*

date	12-Jul-24	time	5.72	9.23	12.78	16.44	20.22	24.25	28.41	32.69	37.08	41.63	47.18	6 / 3				
reaction time	0.161	interval		3.51	3.55	3.66	3.78	4.03	4.16	4.28	4.39	4.55	5.55		10.72	11.97	13.22	
		velocity	7.87	9.97	9.86	9.56	9.26	8.68	8.41	8.18	7.97	7.69	7.21	8.48	9.79	8.77	7.94	
H1 lead leg	L	strides	20	13	12	12	12	13	13	13	13	13	17	151				

FINAL - 2024 Meeting de Paris (Paris, FRA)*Omega Timing (2024) - diamond league race analysis*

date	07-Jul-24	time	5.70	9.33	12.99	16.75	20.63	24.63	28.78	33.07	37.53	42.22	47.78	6 / 1				
reaction time	0.168	interval		3.63	3.66	3.76	3.88	4.00	4.15	4.29	4.46	4.69	5.56		11.05	12.03	13.44	
		velocity	7.89	9.64	9.56	9.31	9.02	8.75	8.43	8.16	7.85	7.46	7.19	8.37	9.50	8.73	7.81	
H1 lead leg	L	strides	20	13	12	12	12	12	13	13	13	13	16.7	149.7				

FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)*Henson (2024) - Athlete First: 2024 year end hurdle report*

date	02-Jun-24	time	5.80	9.50	13.06	16.70	20.53		24.47	28.60	32.87	37.27	41.80		47.01	5 / 1			
reaction time	0.164	interval		3.70	3.56	3.64	3.83		3.94	4.13	4.27	4.40	4.53	5.21			10.90	11.90	13.20
		velocity	7.76	9.46	9.83	9.62	9.14		8.88	8.47	8.20	7.95	7.73	7.68	8.51		9.63	8.82	7.95
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.2	149.2				
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>			
date	30-May-24	time	5.77	9.37	12.98	16.58	20.38		24.39	28.42	32.63	36.90	41.37		46.63	5 / 1			
reaction time	0.182	interval		3.60	3.61	3.60	3.80		4.01	4.03	4.21	4.27	4.47	5.26			10.81	11.84	12.95
		velocity	7.80	9.72	9.70	9.72	9.21		8.73	8.68	8.31	8.20	7.83	7.60	8.58		9.71	8.87	8.11
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.5	149.5				
FINAL - 2024 Seashore Doha Meeting (Doha, QAT)																<i>Omega Timing (2024) - diamond league race analysis</i>			
date	10-May-24	time	5.67	9.24	12.89	16.61	20.53		24.58	28.66	32.88	37.18	41.61		46.86	5 / 1			
reaction time	0.148	interval		3.57	3.65	3.72	3.92		4.05	4.08	4.22	4.30	4.43	5.25			10.94	12.05	12.95
		velocity	7.94	9.80	9.59	9.41	8.93		8.64	8.58	8.29	8.14	7.90	7.62	8.54		9.60	8.71	8.11
H1 lead leg	L	strides	20	13	12	12	13		13	13	13	13	13	16.2	151.2				
FINAL - 2023 Prefontaine Classic (Eugene, OR)																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	16-Sep-23	time	5.79	9.49	13.20	16.94	20.84		24.85	28.98	33.26	37.65	42.12		47.44	4 / 4			
reaction time	0.172	interval		3.70	3.71	3.74	3.90		4.01	4.13	4.28	4.39	4.47	5.32			11.15	12.04	13.14
		velocity	7.77	9.46	9.43	9.36	8.97		8.73	8.47	8.18	7.97	7.83	7.52	8.43		9.42	8.72	7.99
H1 lead leg	L	strides	20			12	12		12	13	13	13	13	16	124				
FINAL - 2023 Weltklasse (Zürich, SUI)																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	31-Aug-23	time	5.80	9.39	13.04	16.77	20.66		24.66	28.84	33.18	37.66	42.22		47.62	5 / 3			
reaction time	0.162	interval		3.59	3.65	3.73	3.89		4.00	4.18	4.34	4.48	4.56	5.40			10.97	12.07	13.38
		velocity	7.76	9.75	9.59	9.38	9.00		8.75	8.37	8.06	7.81	7.68	7.41	8.40		9.57	8.70	7.85
H1 lead leg	L	strides	20	13			12		12	13			13	16.2	99.2				
FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	23-Aug-23	time	5.81	9.56	12.96	16.62	20.49		24.48	28.60	32.90	37.55	42.21		48.10	9 / 5			
reaction time	0.164	interval		3.75	3.40	3.66	3.87		3.99	4.12	4.30	4.65	4.66	5.89			10.81	11.98	13.61
		velocity	7.75	9.33	10.29	9.56	9.04		8.77	8.50	8.14	7.53	7.51	6.79	8.32		9.71	8.76	7.71
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	14	14	17.2	152.2				
Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	21-Aug-23	time	5.87	9.61	13.24	16.78	20.65		24.76	29.00	33.28	37.65	42.17		47.38	8 / 2			
reaction time	0.182	interval		3.74	3.63	3.54	3.87		4.11	4.24	4.28	4.37	4.52	5.21			10.91	12.22	13.17
		velocity	7.67	9.36	9.64	9.89	9.04		8.52	8.25	8.18	8.01	7.74	7.68	8.44		9.62	8.59	7.97
H1 lead leg	L	strides	20	13	12	12	12		13	13	13	13	13	16.2	150.2				
Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	20-Aug-23	time	5.93	9.77	13.47		20.93		24.93	29.16	33.53	38.03	42.86		48.12	2 / 1			
reaction time	0.167	interval		3.84	3.70		7.46		4.00	4.23	4.37	4.50	4.83	5.26					13.70
		velocity	7.59	9.11	9.46		9.38		8.75	8.27	8.01	7.78	7.25	7.60	8.31				7.66
H1 lead leg	L	strides	20	13	12				12		13	13	14	16.2	113.2				
FINAL - 2023 Herculis Meeting International d' Athlétisme (Monaco, MON)																<i>Omega Timing (2023) - diamond league race analysis</i>			
date	21-Jul-23	time	5.71	9.26	12.88	16.52	20.34		24.30	28.43	32.71	37.15	41.99		47.66	6 / 2			
reaction time	0.169	interval		3.55	3.62	3.64	3.82		3.96	4.13	4.28	4.44	4.84	5.67			10.81	11.91	13.56
		velocity	7.88	9.86	9.67	9.62	9.16		8.84	8.47	8.18	7.88	7.23	7.05	8.39		9.71	8.82	7.74
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	14	17	151				
FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	08-Sep-22	time	5.70	9.27	12.91	16.58	20.45	21.96	24.36	28.50	32.70	37.10	41.67		46.98	6 / 1			
reaction time	0.155	interval		3.57	3.64	3.67	3.87		3.91	4.14	4.20	4.40	4.57	5.31			10.88	11.92	13.17
		velocity	7.89	9.80	9.62	9.54	9.04	9.11	8.95	8.45	8.33	7.95	7.66	7.53	8.51		9.65	8.81	7.97
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149				
FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	02-Sep-22	time	5.80	9.41	13.11	16.88	20.79	22.45	24.79	29.03	33.40	37.87	42.34		47.54	6 / 1			
reaction time	0.210	interval		3.61	3.70	3.77	3.91		2.34	4.24	4.37	4.47	4.47	5.20			11.08	12.15	13.31
		velocity	7.76	9.70	9.46	9.28	8.95	8.91	14.96	8.25	8.01	7.83	7.83	7.69	8.41		9.48	8.64	7.89
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149				
FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	06-Aug-22	time	5.83	9.50	13.26	17.10	21.03	22.69	25.17	29.50	33.90	38.23	42.63		47.80	6 / 1			
reaction time	0.179	interval		3.67	3.76	3.84	3.93		4.14	4.33	4.40	4.33	4.40	5.17			11.27	12.40	13.13
		velocity	7.72	9.54	9.31	9.11	8.91	8.81	8.45	8.08	7.95	8.08	7.95	7.74	8.37		9.32	8.47	8.00
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16	149				
FINAL - 2022 World Athletics Championships (Eugene, OR)																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>			
date	19-Jul-22	time	5.71	9.26	12.81	16.38	20.12	21.67	24.01	28.11	32.33	36.69	41.07		46.29	6 / 1			
reaction time	0.141	interval		3.55	3.55	3.57	3.74		3.89	4.10	4.22	4.36	4.38	5.22	CR NR		10.67	11.73	12.96
		velocity	7.88	9.86	9.86	9.80	9.36	9.23	9.00	8.54	8.29	8.03	7.99	7.66	8.64		9.84	8.95	8.10
H1 lead leg	L	strides	20	13	12	12	12		12	13	13	13	13	16.2	149.2				

FINAL - 2021 USATF Golden Games (Walnut, CA) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-May-21	time	6.04	9.71	13.51	17.45	21.42	25.56	29.73	34.03	38.40	42.77		47.68	4 / 3					
reaction time		interval		3.67	3.80	3.94	3.97	4.14	4.17	4.30	4.37	4.37	4.91	AR PB		11.41	12.28	13.04		
		velocity	7.45	9.54	9.21	8.88	8.82	8.45	8.39	8.14	8.01	8.01	8.15	8.39		9.20	8.55	8.05		
H1 lead leg	L	strides	20	13	13	12	12	13	13	13	13	13	16.2	151.2						
FINAL - 2019 IAAF World Championships (Doha, QAT)																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	30-Sep-19	time	6.07	9.89	13.77	17.60	21.54	25.55	29.73	33.96	38.39	42.99		48.28	5 / 7					
reaction time	0.208	interval		3.82	3.88	3.83	3.94	4.01	4.18	4.23	4.43	4.60	5.29	AJR PB		11.53	12.13	13.26		
		velocity	7.41	9.16	9.02	9.14	8.88	8.73	8.37	8.27	7.90	7.61	7.56	8.29		9.11	8.66	7.92		
H1 lead leg	L	strides	20	13	13	12	12	13	13	13	14	14	16	153						
Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	6.12	9.84	13.68	17.51	21.49	25.56	29.76	34.13	38.65	43.25		48.35	6 / 1					
reaction time	0.211	interval		3.72	3.84	3.83	3.98	4.07	4.20	4.37	4.52	4.60	5.10	AJR PB		11.39	12.25	13.49		
		velocity	7.35	9.41	9.11	9.14	8.79	8.60	8.33	8.01	7.74	7.61	7.84	8.27		9.22	8.57	7.78		
H1 lead leg	L	strides	20	13	13	13	12	12	13	13	14	14	16.5	153.5						
FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	18-Aug-19	time	5.96	9.92	13.80	17.80	21.80	23.6	25.92	30.24	34.72	39.36	43.88		49.20	4 / 2				
reaction time	0.152	interval		3.96	3.88	4.00	4.00	4.12	4.32	4.48	4.64	4.52	5.32			11.84	12.44	13.64		
		velocity	7.55	8.84	9.02	8.75	8.75	8.47	8.50	8.10	7.81	7.54	7.74	7.52	8.13		8.87	8.44	7.70	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17	157						
FINAL - 2019 Pan American Games (Lima, PER) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	08-Aug-19	time	5.90	9.67	13.51	17.45		25.36	29.52	33.82	38.23	42.97		48.45	5 / 1					
reaction time	0.160	interval		3.77	3.84	3.94		7.91	4.16	4.30	4.41	4.74	5.48	AJR PB		11.55	12.07	13.45		
		velocity	7.63	9.28	9.11	8.88		8.85	8.41	8.14	7.94	7.38	7.30	8.26		9.09	8.70	7.81		
H1 lead leg	L	strides	20	13	13	13			13	13	13	14	17	129						
Douglas, Matthew (GBR) (1976)																				
Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)																<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	15-Sep-00	time	5.86	9.50	13.22	16.98	20.90	22.50	24.98	29.34	33.86	38.62	43.20		49.53	8 / 6				
reaction time	0.177	interval		3.64	3.72	3.76	3.92		4.08	4.36	4.52	4.76	4.58	6.33		11.12	12.36	13.86		
		velocity	7.68	9.62	9.41	9.31	8.93	8.89	8.58	8.03	7.74	7.35	7.64	6.32	8.08		9.44	8.50	7.58	
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	19.5	165.5					
Heat 7 - 2000 Olympic Games (Sydney, AUS)																<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	5.96	9.64	13.56	17.48	21.52		25.80	30.20	34.60	39.28	44.04		49.62	8 / 3				
reaction time	0.163	interval		3.68	3.92	3.92	4.04		4.28	4.40	4.40	4.68	4.76	5.58		11.52	12.72	13.84		
		velocity	7.55	9.51	8.93	8.93	8.66		8.18	7.95	7.95	7.48	7.35	7.17	8.06		9.11	8.25	7.59	
H1 lead leg		strides	21	13	13	13	13		14	14	15	15	15	18.8	164.8					
Downing, Quincy (USA) (1993)																				
FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	26-Jun-22	time	5.97	9.61	13.25	17.05	20.95	22.61	25.05	29.53	34.13	39.04	44.04		50.09	3 / 8				
reaction time		interval		3.64	3.64	3.80	3.90		4.10	4.48	4.60	4.91	5.00	6.05		11.08	12.48	14.51		
		velocity	7.54	9.62	9.62	9.21	8.97	8.85	8.54	7.81	7.61	7.13	7.00	6.61	7.99		9.48	8.41	7.24	
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	144						
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)																<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	09-Jul-17	time	5.96	9.76	13.48	17.28	21.16		25.16	29.52	34.04	38.64	43.40		48.81	2 / 7				
reaction time	0.144	interval		3.80	3.72	3.80	3.88		4.00	4.36	4.52	4.60	4.76	5.41		11.32	12.24	13.88		
		velocity	7.55	9.21	9.41	9.21	9.02		8.75	8.03	7.74	7.61	7.35	7.39	8.20		9.28	8.58	7.56	
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	17.5	160.5					
FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	25-Jun-17	time	5.89	9.55	13.20	16.93	20.82			29.17	33.62	38.24	43.07		48.70	7 / 6				
reaction time		interval		3.66	3.65	3.73	3.89			8.35	4.45	4.62	4.83	5.63		11.04	12.24	13.90		
		velocity	7.64	9.56	9.59	9.38	9.00			8.38	7.87	7.58	7.25	7.10	8.21		9.51	8.58	7.55	
H1 lead leg	R	strides	21	13	13	13	13				14	14	15	17.7	133.7					
FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)																<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	10-Jul-16	time	5.97	9.74	13.61	17.42	21.39		25.49	29.86	34.33	39.10	43.91		49.60	3 / 7 6				
reaction time	0.196	interval		3.77	3.87	3.81	3.97		4.10	4.37	4.47	4.77	4.81	5.69		11.45	12.44	14.05		
		velocity	7.54	9.28	9.04	9.19	8.82		8.54	8.01	7.83	7.34	7.28	7.03	8.06		9.17	8.44	7.47	
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	18	162					
Drummond, Gerald (CRC) (1994)																				
FINAL - 2024 Memorial van damme (Brussels, BEL)																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	14-Sep-24	time	5.79	9.54	13.35	17.23	21.36		25.65	30.08	34.64	39.26	44.03		49.63	1 / 7				
reaction time	0.221	interval		3.75	3.81	3.88	4.13		4.29	4.43	4.56	4.62	4.77	5.60		11.82	12.85	13.95		
		velocity	7.77	9.33	9.19	9.02	8.47		8.16	7.90	7.68	7.58	7.34	7.14	8.06		8.88	8.17	7.53	
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	18	168					
FINAL - 2024 Weltklasse (Zürich, SUI)																<i>Omega Timing (2023) - diamond league race analysis</i>				

date	05-Sep-24	time	5.74	9.44	13.17	16.97	21.00	25.22	29.64	34.32	39.14	44.01	49.59	7 / 6					
reaction time	0.168	interval		3.70	3.73	3.80	4.03	4.22	4.42	4.68	4.82	4.87	5.58			11.56	12.67	14.37	
		velocity	7.84	9.46	9.38	9.21	8.68	8.29	7.92	7.48	7.26	7.19	7.17	8.07		9.08	8.29	7.31	
H1 lead leg	R	strides	20	13			14	14	14	15	15		105						
Semi-Final 3 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	07-Aug-24	time	5.81	9.55	13.42	17.35	21.43	25.71	30.02	34.61	39.35	44.21	49.68	2 / 7					
reaction time	0.219	interval		3.74	3.87	3.93	4.08	4.28	4.31	4.59	4.74	4.86	5.47			11.54	12.67	14.19	
		velocity	7.75	9.36	9.04	8.91	8.58	8.18	8.12	7.63	7.38	7.20	7.31	8.05		9.10	8.29	7.40	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168					
Repechage 2 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	07-Aug-24	time	5.78	9.54	13.44	17.38	21.45	25.66	29.91	34.37	38.97	43.62	48.78	4 / 2					
reaction time	0.216	interval		3.76	3.90	3.94	4.07	4.21	4.25	4.46	4.60	4.65	5.16			11.60	12.53	13.71	
		velocity	7.79	9.31	8.97	8.88	8.60	8.31	8.24	7.85	7.61	7.53	7.75	8.20		9.05	8.38	7.66	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168					
Heat 4 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	05-Aug-24	time	5.70	9.36	13.13	17.04	21.07	25.24	29.52	34.07	38.70	43.44	48.80	6 / 7					
reaction time	0.213	interval		3.66	3.77	3.91	4.03	4.17	4.28	4.55	4.63	4.74	5.36			11.34	12.48	13.92	
		velocity	7.89	9.56	9.28	8.95	8.68	8.39	8.18	7.69	7.56	7.38	7.46	8.20		9.26	8.41	7.54	
H1 lead leg	L	strides	20	14	14	14	14	14	14	15	15	15	18	167					
FINAL - 2024 London Athletics Meet (London, GBR)														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	20-Jul-24	time	5.77	9.53	13.37	17.31	21.38	25.62	29.94	34.39	38.97	43.60	48.89	1 / 7					
reaction time	0.205	interval		3.76	3.84	3.94	4.07	4.24	4.32	4.45	4.58	4.63	5.29			11.54	12.63	13.66	
		velocity	7.80	9.31	9.11	8.88	8.60	8.25	8.10	7.87	7.64	7.56	7.56	8.18		9.10	8.31	7.69	
H1 lead leg	L	strides	21	14	14	14	14			15	15	15	18	140					
FINAL - 2024 Meeting de Paris (Paris, FRA)														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	07-Jul-24	time	5.62	9.29	13.08	16.96	20.94	25.08	29.27	33.76	38.33	43.05	48.68	2 / 5					
reaction time	0.217	interval		3.67	3.79	3.88	3.98	4.14	4.19	4.49	4.57	4.72	5.63			11.34	12.31	13.78	
		velocity	8.01	9.54	9.23	9.02	8.79	8.45	8.35	7.80	7.66	7.42	7.10	8.22		9.26	8.53	7.62	
H1 lead leg	L	strides	21	14	14	14	14			15	15	15	18	140					
FINAL - 2024 Prefontaine Classic (Eugene, OR)														<i>Omega Timing (2024) - diamond league race analysis</i>					
date	25-May-24	time	5.79	9.57	13.44	17.28	21.19	25.30	29.46	33.85	38.46	43.16	48.56	8 / 1					
reaction time	0.211	interval		3.78	3.87	3.84	3.91	4.11	4.16	4.39	4.61	4.70	5.40			11.49	12.18	13.70	
		velocity	7.77	9.26	9.04	9.11	8.95	8.52	8.41	7.97	7.59	7.45	7.41	8.24		9.14	8.62	7.66	
H1 lead leg		strides			14	14	14	14	14	15	15	15	18	115					
FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	18-May-24	time	5.97	9.74	13.61	17.50	21.52	25.66	29.93	34.33	38.93	43.71	48.97	1 / 4					
reaction time	0.245	interval		3.77	3.87	3.89	4.02	4.14	4.27	4.40	4.60	4.78	5.26			11.53	12.43	13.78	
		velocity	7.54	9.28	9.04	9.00	8.71	8.45	8.20	7.95	7.61	7.32	7.60	8.17		9.11	8.45	7.62	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168					
Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	21-Aug-23	time	5.93	9.81		17.48	21.59		30.39	34.86		44.24	49.31	4 / 8					
reaction time	0.169	interval		3.88		7.67	4.11		8.80	4.47		9.38	5.07			11.55	12.91	13.85	
		velocity	7.59	9.02		9.13	8.52		7.95	7.83		7.46	7.89	8.11		9.09	8.13	7.58	
H1 lead leg	L	strides	21	14		14	14		16			18	83						
Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	20-Aug-23	time	5.86	9.76	13.63	17.60	21.58	25.74	30.03	34.46		43.60	48.73	8 / 4					
reaction time	0.220	interval		3.90	3.87	3.97	3.98	4.16	4.29	4.43		9.14	5.13			11.74	12.43	13.57	
		velocity	7.68	8.97	9.04	8.82	8.79	8.41	8.16	7.90		7.66	7.80	8.21		8.94	8.45	7.74	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15		18	138						
Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.90	9.70	13.66	17.63	21.83	23.64	26.23	30.67	35.10	39.67	44.30	49.37	6 / 7				
reaction time	0.188	interval		3.80	3.96	3.97	4.20	4.40	4.44	4.43	4.57	4.63	5.07			11.73	13.04	13.63	
		velocity	7.63	9.21	8.84	8.82	8.33	8.46	7.95	7.88	7.90	7.66	7.56	7.89	8.10		8.95	8.05	7.70
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	18	171					
Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jul-22	time	6.07	9.95	13.90	17.90	22.13	23.84	30.77		39.70	44.27	49.16	2 / 3					
reaction time	0.195	interval		3.88	3.95	4.00	4.23		8.64		8.93	4.57	4.89	NR		11.83	12.87	13.50	
		velocity	7.41	9.02	8.86	8.75	8.27	8.39	8.10		7.84	7.66	8.18	8.14		8.88	8.16	7.78	
H1 lead leg	L	strides	22	14	14	14	14				15	15	17.5	125.5					
Du Yuanpeng (CHN) (2000)																			
Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)														<i>CAA Hurdle Development (2021)</i>					
date	25-Apr-21	time	6.61	10.76	15.03	19.42	24.02	28.74	33.72	38.75	44.08	49.72	55.53	4 / 4					
reaction time	0.225	interval		4.15	4.27	4.39	4.60	4.72	4.98	5.03	5.33	5.64	5.81			12.81	14.30	16.00	
		velocity	6.81	8.43	8.20	7.97	7.61	7.42	7.03	6.96	6.57	6.21	6.88	7.20		8.20	7.34	6.56	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	17	18.5	174.5					

Ducos, Clement (FRA) (2001)															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 Weltklasse (Zürich, SUI)															<i>Omega Timing (2023) - diamond league race analysis</i>																
date	05-Sep-24	time	5.72	9.28	12.91	16.65	20.54		24.54	28.78	33.14	37.57	42.30		48.02	5 / 4															
reaction time	0.162	interval		3.56	3.63	3.74	3.89		4.00	4.24	4.36	4.43	4.73	5.72				11.26	12.13	13.52											
		velocity	7.87	9.83	9.64	9.36	9.00		8.75	8.25	8.03	7.90	7.40	6.99	8.33			9.33	8.66	7.77											
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161																
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)															<i>Omega Timing (2023) - diamond league race analysis</i>																
date	25-Aug-24	time	5.78	9.37	13.01	16.76	20.60		24.54	28.71	33.03	37.40	41.95		47.42	5 / 2															
reaction time	0.179	interval		3.59	3.64	3.75	3.84		3.94	4.17	4.32	4.37	4.55	5.47	PB			10.98	11.95	13.24											
		velocity	7.79	9.75	9.62	9.33	9.11		8.88	8.39	8.10	8.01	7.69	7.31	8.44			9.56	8.79	7.93											
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161																
FINAL - 2024 Olympic Games (Paris, FRA)															<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	09-Aug-24	time	5.69	9.25	12.91	16.62	20.47		24.49	28.68	32.99	37.60	42.29		47.76	5 / 4															
reaction time	0.162	interval		3.56	3.66	3.71	3.85		4.02	4.19	4.31	4.61	4.69	5.47				10.93	12.06	13.61											
		velocity	7.91	9.83	9.56	9.43	9.09		8.71	8.35	8.12	7.59	7.46	7.31	8.38			9.61	8.71	7.71											
H1 lead leg	L	strides	20	13		13	13		14	14	15	15	15	18	150																
Semi-Final 1 - 2024 Olympic Games (Paris, FRA)															<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	07-Aug-24	time	5.71	9.28	12.90	16.61	20.46		24.51	28.75	33.08	37.61	42.27		47.85	6 / 2															
reaction time	0.173	interval		3.57	3.62	3.71	3.85		4.05	4.24	4.33	4.53	4.66	5.58				10.90	12.14	13.52											
		velocity	7.88	9.80	9.67	9.43	9.09		8.64	8.25	8.08	7.73	7.51	7.17	8.36			9.63	8.65	7.77											
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163																
Heat 2 - 2024 Olympic Games (Paris, FRA)															<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	05-Aug-24	time	5.70	9.20	12.77	16.45	20.29		24.34	28.61	33.01	37.55	42.20		47.69	9 / 2															
reaction time	0.157	interval		3.50	3.57	3.68	3.84		4.05	4.27	4.40	4.54	4.65	5.49	PB			10.75	12.16	13.59											
		velocity	7.89	10.00	9.80	9.51	9.11		8.64	8.20	7.95	7.71	7.53	7.29	8.39			9.77	8.63	7.73											
H1 lead leg	L	strides	20	13	13	13	13		14	14	15	15	15	18	163																
FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)															<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>																
date	07-Jun-24	time	5.89	9.64											dnf	7 / --															
reaction time		interval		3.75																											
		velocity	7.64	9.33																											
H1 lead leg	L	strides	20	13											33																
Dudley, Eric (USA) (1980)															<i>USATF Men's Hurdle Development (2007)</i>																
Heat 2 - 2007 USATF National Championships (Indianapolis, IN)																															
date	21-Jun-07	time	6.11	9.91	13.89	17.92	22.05		26.36	30.74	35.22	39.91	44.43		49.58	7 / 4															
reaction time		interval		3.80	3.98	4.03	4.13		4.31	4.38	4.48	4.69	4.52	5.15	PB			11.81	12.82	13.69											
		velocity	7.36	9.21	8.79	8.68	8.47		8.12	7.99	7.81	7.46	7.74	7.77	8.07			8.89	8.19	7.67											
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	14	142																
Duma, Christian (GER) (1982)															<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>																
FINAL - 2002 IAAF World Cup (Madrid, ESP)																															
date	20-Sep-02	time	5.91	9.73	13.65	17.65	21.83		26.18	30.69	35.33	40.06	44.99		50.57	5 / 8															
reaction time	0.148	interval		3.82	3.92	4.00	4.18		4.35	4.51	4.64	4.73	4.93	5.58				11.74	13.04	14.30											
		velocity	7.61	9.16	8.93	8.75	8.37		8.05	7.76	7.54	7.40	7.10	7.17	7.91			8.94	8.05	7.34											
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	16	19.5	172.5																
Heat 3 - 2002 European Championships (Munich, GER)															<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	07-Aug-02	time	6.03	9.97	13.90	17.86	21.98		26.21	30.64	36.34	40.16	45.02		50.50	6 / 6															
reaction time		interval		3.94	3.93	3.96	4.12		4.23	4.43	5.70	3.82	4.86	5.48				11.83	12.78	14.38											
		velocity	7.46	8.88	8.91	8.84	8.50		8.27	7.90	6.14	9.16	7.20	7.30	7.92			8.88	8.22	7.30											
H1 lead leg		strides																													
Dutch, Johnny (USA) (1989)															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																
FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)																															
date	25-Jun-17	time	5.96	9.62	13.41	17.20	21.20		25.31	29.51	33.79	38.27	43.00		48.60	3 / 5															
reaction time		interval		3.66	3.79	3.79	4.00		4.11	4.20	4.28	4.48	4.73	5.60				11.24	12.31	13.49											
		velocity	7.55	9.56	9.23	9.23	8.75		8.52	8.33	8.18	7.81	7.40	7.14	8.23			9.34	8.53	7.78											
H1 lead leg	R	strides	22	13	13	13	13		14	14	15	15	15	19	166																
FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	23-Jul-16	time	5.84	9.60	13.56	17.60	21.80		26.08	30.40	34.80	39.24	43.92		49.60	5 / 7															
reaction time	0.193	interval		3.76	3.96	4.04	4.20		4.28	4.32	4.40	4.44	4.68	5.68				11.76	12.80	13.52											
		velocity	7.71	9.31	8.84	8.66	8.33		8.18	8.10	7.95	7.88	7.48	7.04	8.06			8.93	8.20	7.77											
H1 lead leg	R	strides	22	13	13	13	13		14	14	15	15	15	18.5	165.5																
FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	10-Jul-16	time	5.90	9.51	13.24	17.08	20.99		24.99	29.13	33.47	38.04	42.87		48.92	5 / 5															
reaction time	0.227	interval		3.61	3.73	3.84	3.91		4.00	4.14	4.34	4.57	4.83	6.05				11.18	12.05	13.74											
		velocity	7.63	9.70	9.38	9.11	8.95		8.75	8.45	8.06	7.66	7.25	6.61	8.18			9.39	8.71	7.64											
H1 lead leg	R	strides	22	13	13	13	13		14	14	15	15	15	19.7	166.7																

FINAL - 2016 Racers Grand Prix (Kingston, JAM) (TV Analysis)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date	11-Jun-16	time	5.67	9.33	13.13	17.03	21.10	25.27	29.43	33.77	38.17	42.70	48.10	5 / 1						
reaction time		interval		3.66	3.80	3.90	4.07	4.17	4.16	4.34	4.40	4.53	5.40				11.36	12.40	13.27	
		velocity	7.94	9.56	9.21	8.97	8.60	8.39	8.41	8.06	7.95	7.73	7.41	8.32			9.24	8.47	7.91	
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	18.2	165.2						

Heat 1 - 2009 IAAF World Championships (Berlin, GER)*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

date	15-Aug-09	time	5.95	9.65	13.50	17.39	21.43	25.66	29.93	34.35	38.91	43.67	49.38	6 / 3						
reaction time	0.165	interval		3.70	3.85	3.89	4.04	4.23	4.27	4.42	4.56	4.76	5.71				11.44	12.54	13.74	
		velocity	7.56	9.46	9.09	9.00	8.66	8.27	8.20	7.92	7.68	7.35	7.01	8.10			9.18	8.37	7.64	
H1 lead leg		strides																		

FINAL - 2008 USA Olympic Trials (Eugene, OR)*USATF Hurdle Development (2008)*

date	29-Jun-08	time	6.03	9.82	13.66	17.71	21.85	26.10	30.34	34.66	38.97	43.37	48.52	7 / 5						
reaction time		interval		3.79	3.84	4.05	4.14	4.25	4.24	4.32	4.31	4.40	5.15	PB			11.68	12.63	13.03	
		velocity	7.46	9.23	9.11	8.64	8.45	8.24	8.25	8.10	8.12	7.95	7.77	8.24			8.99	8.31	8.06	
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	147							

Duvigneau, Dominique (FRA) (1960) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**FINAL - 1987 French National Championships (Annecy, FRA)***Veney - split times from PJ*

date	09-Aug-87	time	6.09	10.11	14.19	18.38	22.55	26.92	31.37	36.03	40.70	45.42	50.92	/ 3						
reaction time		interval		4.02	4.08	4.19	4.17	4.37	4.45	4.66	4.67	4.72	5.50				12.29	12.99	14.05	
		velocity	7.39	8.71	8.58	8.35	8.39	8.01	7.87	7.51	7.49	7.42	7.27	7.86			8.54	8.08	7.47	
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	15	151							

Dyrzka, Juan Carlos (ARG) (1941) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**Heat 2 - 1968 Olympic Games (Mexico City, MEX) (Altitude)***Jonath (1969) - wie gerhard hennige trainiert*

date	13-Oct-68	time	6.1	10.0	14.0	17.9	21.9	23.6	26.1	30.5	35.0	39.5	44.2	49.8	/ 1					
reaction time		interval		3.90	4.00	3.90	4.00		4.20	4.40	4.50	4.50	4.70	5.60	NR			11.80	12.60	13.70
		velocity	7.38	8.97	8.75	8.97	8.75	8.47	8.33	7.95	7.78	7.78	7.45	7.14	8.03	(49.82)		8.90	8.33	7.66
H1 lead leg		strides																		

Dzhivondov, Ilya (BUL) (1978) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**Heat 5 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date	24-Sep-00	time	6.08	9.88	13.80	17.80	22.00	26.36	30.92	35.88			54.36	8 / 8						
reaction time	0.279	interval		3.80	3.92	4.00	4.20	4.36	4.56	4.96							11.72	13.12		
		velocity	7.40	9.21	8.93	8.75	8.33	8.03	7.68	7.06			7.36				8.96	8.00		
H1 lead leg		strides	22	13	13	13	14	14	15	15			119							

Edlund, Oskar (SWE) (2002) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**Repechage 1 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	07-Aug-24	time	5.83	9.49	13.29	17.13	21.09	25.23	29.58	34.23	38.87	43.51	48.99	8 / 4						
reaction time	0.168	interval		3.66	3.80	3.84	3.96	4.14	4.35	4.65	4.64	4.64	5.48				11.30	12.45	13.93	
		velocity	7.72	9.56	9.21	9.11	8.84	8.45	8.05	7.53	7.54	7.54	7.30	8.16			9.29	8.43	7.54	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162						

Heat 2 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.81	9.40	13.11	16.90	20.88	25.06	29.49	34.14	38.98	43.88	49.74	6 / 7						
reaction time	0.188	interval		3.59	3.71	3.79	3.98	4.18	4.43	4.65	4.84	4.90	5.86				11.09	12.59	14.39	
		velocity	7.75	9.75	9.43	9.23	8.79	8.37	7.90	7.53	7.23	7.14	6.83	8.04			9.47	8.34	7.30	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18	162						

FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)*Henson (2024) - Athlete First: 2024 year end hurdle report*

date	07-Jun-24	time	5.95	9.61	13.35	17.16	21.09	25.27	29.66	34.16	38.80	43.64	49.23	9 / 5						
reaction time		interval		3.66	3.74	3.81	3.93	4.18	4.39	4.50	4.64	4.84	5.59				11.21	12.50	13.98	
		velocity	7.56	9.56	9.36	9.19	8.91	8.37	7.97	7.78	7.54	7.23	7.16	8.13			9.37	8.40	7.51	
H1 lead leg	L	strides		13	13	13	13	14	14	15	15	15	18.5	143.5						

FINAL - 2023 Bauhaus Galan (Stockholm, SWE)*Omega Timing (2023) - diamond league race analysis*

date	02-Jul-23	time	5.97	9.80	13.73	17.69	21.72	25.95	30.42	35.04	39.80	44.57	50.35	1 / 7						
reaction time	0.177	interval		3.83	3.93	3.96	4.03	4.23	4.47	4.62	4.76	4.77	5.78				11.72	12.73	14.15	
		velocity	7.54	9.14	8.91	8.84	8.68	8.27	7.83	7.58	7.35	7.34	6.92	7.94			8.96	8.25	7.42	
H1 lead leg	L	strides	21	13		13	13	13				15	15	103						

Ehrle, Klaus (AUT) (1966) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)***Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988*

date	24-Sep-88	time	6.16	10.00	13.92	17.93	22.01	26.25	30.74	35.46	40.44	45.52	51.04	2 / 7						
reaction time		interval		3.84	3.92	4.01	4.08	4.24	4.49	4.72	4.98	5.08	5.52				11.77	12.81	14.78	
		velocity	7.31	9.11	8.93	8.73	8.58	8.25	7.80	7.42	7.03	6.89	7.25	7.84			8.92	8.20	7.10	
H1 lead leg		strides	21	13	13	13	13	14	14	15	15	15	18	164						

Ehmsprenger, Klaus (GER) (1973) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**FINAL - 1997 European Cup (Munich, GER)***Jung (2003) - <http://www.fgs.uni-halle.de>*

date	21-Jun-97	time	6.56	10.77	15.15	19.62	24.23	28.92	33.77	38.71	43.99	49.46	55.13	/ 8						
reaction time		interval		4.21	4.38	4.47	4.61	4.69	4.85	4.94	5.28	5.47	5.67				13.06	14.15	15.69	
		velocity	6.86	8.31	7.99	7.83	7.59	7.46	7.22	7.09	6.63	6.40	7.05	7.26			8.04	7.42	6.69	
H1 lead leg		strides																		

														H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Elder, Clayton (USA) (2001)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																
Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)																														
date	28-Jun-24	time	6.14	10.15	14.16	18.20	22.26	24.15	26.64	31.09	35.89	40.79	45.75	51.72	1 / 6															
reaction time		interval	4.01	4.01	4.04	4.06		4.38	4.45	4.80	4.90	4.96	5.97			12.06	12.89	14.66												
		velocity	7.33	8.73	8.73	8.66	8.62	8.28	7.99	7.87	7.29	7.14	7.06	6.70	7.73	8.71	8.15	7.16												
H1 lead leg	L	strides	24	16	15	15	15		16	16	17	17	17	20.2	188.2															
Heat 1 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																
date	27-Jun-24	time	6.03	9.86	13.72	17.60	21.71	23.61	25.99	30.51	35.37	40.38	45.65	51.98	9 / 5															
reaction time		interval	3.83	3.86	3.88	4.11		4.28	4.52	4.86	5.01	5.27	6.33			11.57	12.91	15.14												
		velocity	7.46	9.14	9.07	9.02	8.52	8.47	8.18	7.74	7.20	6.99	6.64	6.32	7.70	9.08	8.13	6.94												
H1 lead leg	R	strides	23	15	15	15	16		16	16	17	17	18	21	189															
Elliott, Cass (USA) (2000)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)																														
date	09-Jun-23	time	6.14	9.89	13.80	17.76	21.89		30.43	34.88	39.39	44.01		49.21	2 / 7															
reaction time		interval	3.75	3.91	3.96	4.13		8.54	4.45	4.51	4.62	5.20				11.62	12.67	13.58												
		velocity	7.33	9.33	8.95	8.84	8.47		8.20	7.87	7.76	7.58	7.69	8.13		9.04	8.29	7.73												
H1 lead leg	L	strides	21	14	14	14	14			15	15	16	18.5	141.5																
Ezekiel, Nathaniel (NGR) (2003)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>																
FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)																														
date	07-Jun-24	time	6.00	9.67	13.45	17.26	21.14		25.21	29.48	33.97	38.65	43.34	48.88	5 / 3															
reaction time		interval	3.67	3.78	3.81	3.88		4.07	4.27	4.49	4.68	4.69	5.54			11.26	12.22	13.86												
		velocity	7.50	9.54	9.26	9.19	9.02		8.60	8.20	7.80	7.48	7.46	7.22	8.18	9.33	8.59	7.58												
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17	158															
Faye, Ibou (SEN) (1969)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
Heat 3 - 2000 Olympic Games (Sydney, AUS)																														
date	24-Sep-00	time	6.02	9.74	13.62	17.58	21.66		25.90	30.38	34.90	39.62	44.46	50.09	4 / 3															
reaction time	0.188	interval	3.72	3.88	3.96	4.08		4.24	4.48	4.52	4.72	4.84	5.63			11.56	12.80	14.08												
		velocity	7.48	9.41	9.02	8.84	8.58		8.25	7.81	7.74	7.42	7.23	7.10	7.99	9.08	8.20	7.46												
H1 lead leg		strides	22	13	13	13	13		13	14	14	15	15	18	163															
Feng Zhiqiang (CHN) (1998)														<i>CAA Hurdle Development (2021)</i>																
Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)																														
date	26-Jun-21	time	6.29	10.22	14.23	18.38	22.72		27.21	32.05	36.80	41.62	46.48	52.24	3 / 3															
reaction time	0.268	interval	3.93	4.01	4.15	4.34		4.49	4.84	4.75	4.82	4.86	5.76			12.09	13.67	14.43												
		velocity	7.15	8.91	8.73	8.43	8.06		7.80	7.23	7.37	7.26	7.20	6.94	7.66	8.68	7.68	7.28												
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162															
FINAL - 2020 Chinese National Championships (Shaoxing, CHN)														<i>CAA Hurdle Development (2020)</i>																
date	17-Sep-20	time	5.92	9.64	13.58	17.62	21.79		26.16	30.50	35.17	39.96	44.87	50.43	6 / 1															
reaction time		interval	3.72	3.94	4.04	4.17		4.37	4.34	4.67	4.79	4.91	5.56			11.70	12.88	14.37												
		velocity	7.60	9.41	8.88	8.66	8.39		8.01	8.06	7.49	7.31	7.13	7.19	7.93	8.97	8.15	7.31												
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	15	17	158															
FINAL - 2019 Nanjing World Challenge (Nanjing, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	21-May-19	time	6.20	10.06	13.96	17.93	22.10		26.46	31.10		40.56	45.40	50.72	2 / 7															
reaction time		interval	3.86	3.90	3.97	4.17		4.36	4.64		9.46	4.84	5.32			11.73	13.17	14.30												
		velocity	7.26	9.07	8.97	8.82	8.39		8.03	7.54		7.40	7.23	7.52	7.89	8.95	7.97	7.34												
H1 lead leg	L	strides		13	13	13	13		13	14				17.2	96.2															
FINAL - 2019 Shanghai Diamond League (Shanghai, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	18-May-19	time	6.20	10.12	14.19	18.29	22.63	24.4	27.19	31.93	36.70	41.70	46.63	52.11	2 / 8															
reaction time	0.195	interval	3.92	4.07	4.10	4.34		4.56	4.74	4.77	5.00	4.93	5.48			12.09	13.64	14.70												
		velocity	7.26	8.93	8.60	8.54	8.06	8.20	7.68	7.38	7.34	7.00	7.10	7.30	7.68	8.68	7.70	7.14												
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	17	161															
Heat 2 - 2019 Asian Athletics Championships (Doha, QAT)														<i>CAA Hurdle Development (2019)</i>																
date	21-Apr-19	time	5.99	9.91	13.83	17.88	22.10		26.51	31.09	35.68	40.36	45.15	50.71	7 / 6															
reaction time	0.199	interval	3.92	3.92	4.05	4.22		4.41	4.58	4.59	4.68	4.79	5.56			11.89	13.21	14.06												
		velocity	7.51	8.93	8.93	8.64	8.29		7.94	7.64	7.63	7.48	7.31	7.19	7.89	8.83	7.95	7.47												
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	17.5	160.5															
FINAL - 2017 Chinese National Games (Tianjin, CHN)														<i>Zhou (2020) - analysis of competitive performance characteristics of outstanding men's 400m hurdlers</i>																
date	04-Sep-17	time	5.7	9.6	13.5	17.3	21.6		26.0	30.3	34.8	39.5	44.1	49.66	1 / 1															
reaction time		interval	3.90	3.90	3.80	4.30		4.40	4.30	4.50	4.70	4.60	5.56	PB		11.60	13.00	13.80												
		velocity	7.89	8.97	8.97	9.21	8.14		7.95	8.14	7.78	7.45	7.61	7.19	8.05	9.05	8.08	7.61												
H1 lead leg		strides	21	13	13	13	13		14	15	15	15	15	18	165															
Ferguson, Kenneth (USA) (1984)														<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																
FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)																														
date	22-Sep-07	time	6.14	9.62	13.42	17.39	21.58		25.93	30.36	34.86	39.39	44.04	49.45	7 / 6															
reaction time	0.153	interval	3.48	3.80	3.97	4.19		4.35	4.43	4.50	4.53	4.65	5.41			11.25	12.97	13.68												
		velocity	7.33	10.06	9.21	8.82	8.35		8.05	7.90	7.78	7.73	7.53	7.39	8.09	9.33	8.10	7.68												
H1 lead leg		strides																												

H1 lead leg			strides																		
Heat 4 - 2007 USATF National Championships (Indianapolis, IN)																<i>USATF Men's Hurdle Development (2007)</i>					
date	21-Jun-07	time	6.11	9.79	13.60	17.57	21.72	26.21	30.85	35.45	39.84	44.29		49.31		5 / 1					
reaction time		interval	3.68	3.81	3.97	4.15	4.49	4.64	4.60	4.39	4.45	5.02					11.46	13.28	13.44		
		velocity	7.36	9.51	9.19	8.82	8.43	7.80	7.54	7.61	7.97	7.87	7.97	8.11			9.16	7.91	7.81		
H1 lead leg	L	strides	22	13	13	13	13	15	15	15	15	15		149							
FINAL - 2006 USATF National Championships (Indianapolis, IN)																<i>USATF Men's Hurdle Development (2006)</i>					
date	24-Jun-06	time	5.86	9.61	13.46	17.35	21.41	25.66	30.03	34.60	39.34	44.56		50.76		1 / 7					
reaction time		interval	3.75	3.85	3.89	4.06	4.25	4.37	4.57	4.74	5.22	6.20					11.49	12.68	14.53		
		velocity	7.68	9.33	9.09	9.00	8.62	8.24	8.01	7.66	7.38	6.70	6.45	7.88			9.14	8.28	7.23		
H1 lead leg	L	strides	22	13	15	13	13	15	15	15	15	15		151							
FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)																<i>USATF Women's Sprint Development (2003)</i>					
date	22-Jun-03	time	6.34	10.39	14.51	18.73	23.14	27.36	31.39	35.60	39.96	44.68		50.70		7 / 1					
reaction time		interval	4.05	4.12	4.22	4.41	4.22	4.03	4.21	4.36	4.72	6.02					12.39	12.66	13.29		
		velocity	7.10	8.64	8.50	8.29	7.94	8.29	8.68	8.31	8.03	7.42	6.64	7.89			8.47	8.29	7.90		
H1 lead leg		strides																			
Fernández, Sérgio (ESP) (1993)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)																					
date	10-Jun-24	time	5.84	9.53	13.42	17.33	21.38	25.54	29.86	34.37	39.06	43.82		49.34		4 / 5					
reaction time	0.163	interval	3.69	3.89	3.91	4.05	4.16	4.32	4.51	4.69	4.76	5.52					11.49	12.53	13.96		
		velocity	7.71	9.49	9.00	8.95	8.64	8.41	8.10	7.76	7.46	7.35	7.25	8.11			9.14	8.38	7.52		
H1 lead leg		strides												0							
Heat 3 - 2024 European Athletics Championships (Roma, ITA)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	09-Jun-24	time	5.90	9.69	13.58	17.61	21.62	25.81	30.20	34.78	39.77	44.58		49.98		2 / 4					
reaction time	0.176	interval	3.79	3.89	4.03	4.01	4.19	4.39	4.58	4.99	4.81	5.40					11.71	12.59	14.38		
		velocity	7.63	9.23	9.00	8.68	8.73	8.35	7.97	7.64	7.01	7.28	7.41	8.00			8.97	8.34	7.30		
H1 lead leg		strides												0							
FINAL - 2016 Athletissime (Laussane, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	25-Aug-16	time	5.96	9.80	13.73	17.70	21.76	25.93	30.26	34.73	39.26	43.80		49.22		3 / 3					
reaction time	0.146	interval	3.84	3.93	3.97	4.06	4.17	4.33	4.47	4.53	4.54	5.42					11.74	12.56	13.54		
		velocity	7.55	9.11	8.91	8.82	8.62	8.39	8.08	7.83	7.73	7.71	7.38	8.13			8.94	8.36	7.75		
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17	158							
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)																<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	08-Jul-16	time	6.04	9.88	13.84	17.96	22.04	26.16	30.28	34.68	39.20	43.84		49.06		5 / 2					
reaction time	0.138	interval	3.84	3.96	4.12	4.08	4.12	4.12	4.40	4.52	4.64	5.22					11.92	12.32	13.56		
		velocity	7.45	9.11	8.84	8.50	8.58	8.50	8.50	7.95	7.74	7.54	7.66	8.15			8.81	8.52	7.74		
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17.5	144.5							
Fields, Ryan (USA) (2000)																<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)																					
date	28-Jun-24	time	6.02	9.91	13.86	17.86	22.15	24.05	26.42	30.90	35.62	40.44	45.22		50.78		5 / 4				
reaction time		interval	3.89	3.95	4.00	4.29		4.27	4.48	4.72	4.82	4.78	5.56				11.84	13.04	14.32		
		velocity	7.48	9.00	8.86	8.75	8.16	8.32	8.20	7.81	7.42	7.26	7.32	7.19	7.88		8.87	8.05	7.33		
H1 lead leg	R	strides	21	14	14	15	15	15	15	15	15	15	18	172							
Heat 2 - 2024 USA Olympic Trials (Eugene, OR)																<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	6.10	10.05	14.07	17.95	22.12	24.05	26.42	30.83	35.44	40.11	44.90		50.50		9 / 3				
reaction time		interval	3.95	4.02	3.88	4.17		4.30	4.41	4.61	4.67	4.79	5.60				11.85	12.88	14.07		
		velocity	7.38	8.86	8.71	9.02	8.39	8.32	8.14	7.94	7.59	7.49	7.31	7.14	7.92		8.86	8.15	7.46		
H1 lead leg	R	strides	14	14	13	14	14	14	14	15	15	15	18	117							
Fleischhauer, Georg (GER) (1988)																<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>					
Heat 1 - 2011 IAAF World Championships (Daegu, KOR)																					
date	29-Aug-11	time	6.16	9.96	13.84	17.78	21.77	25.85	30.08	34.48	38.96	43.52		48.72		4 / 3					
reaction time	0.176	interval	3.80	3.88	3.94	3.99		4.08	4.23	4.40	4.48	4.56	5.20	PB			11.62	12.30	13.44		
		velocity	7.31	9.21	9.02	8.88	8.77		8.58	8.27	7.95	7.81	7.68	7.69	8.21		9.04	8.54	7.81		
H1 lead leg		strides	21	13	13	13	13		13	13	14	14	14	141							
FINAL - 2011 Weltklasse in Biberach (Biberach, GER)																<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>					
date	28-Jun-11	time	6.30	10.16	14.06	18.02	22.04	26.26	30.58	35.00	39.64	44.26		49.50		1 / 2					
reaction time		interval	3.86	3.90	3.96	4.02		4.22	4.32	4.42	4.64	4.62	5.24				11.72	12.56	13.68		
		velocity	7.14	9.07	8.97	8.84	8.71		8.29	8.10	7.92	7.54	7.58	7.63	8.08		8.96	8.36	7.68		
H1 lead leg		strides	20	13	13	13	13		13	13	13	14	14	139							
Flenoy, Stefan (USA) (1968)																<i>McNichols - Hurdle technique study through video analysis</i>					
FINAL - 1996 USA Olympic Trials (Atlanta, GA)																					
date	16-Jun-96	time	5.86	9.61	13.38	17.21	21.08	21.75	25.17	29.43	33.96	38.51	43.18		48.74		6 / 6				
reaction time		interval	3.75	3.77	3.83	3.87		4.09	4.26	4.53	4.55	4.67	5.56				11.35	12.22	13.75		
		velocity	7.68	9.33	9.28	9.14	9.04	9.20	8.56	8.22	7.73	7.69	7.49	7.19	8.21		9.25	8.59	7.64		
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	141							

Forsberg, Anton (SWE) (1991)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2011 Peks Memorial (Hässleholm, SWE)																			
<i>Blomkvist (2011) - www.ellitandslag.se/SprintHäck/LängSprintHäck.aspx</i>																			
date	12-Jun-11	time	10.76	15.06	19.36	23.78			33.10	37.88	42.84	48.08		54.40	/ 4				
reaction time		interval		4.30	4.30	4.42			9.32	4.78	4.96	5.24	6.32	PB			13.74	14.98	
		velocity	7.43	8.14	8.14	7.92			7.51	7.32	7.06	6.68	6.33	7.35			7.64	7.01	
H1 lead leg	R	strides	14	14	14	14		15	15	15	15	15	19	150					
Franca, Matteo (ITA)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 1993 Pesaro, ITA																			
<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																			
date	10-Oct-93	time	6.80	11.19	15.49	20.08	24.85	26.90	29.77	34.58	39.63	44.83	50.17	56.10	???		13.28	14.50	15.59
reaction time		interval		4.39	4.30	4.59	4.77		4.92	4.81	5.05	5.20	5.34	5.93	PB				
		velocity	6.62	7.97	8.14	7.63	7.34	7.43	7.11	7.28	6.93	6.73	6.55	6.75	7.13		7.91	7.24	6.74
H1 lead leg		strides	23	15	15	15	17		17	17	17	17	17	170					
FINAL - 1993 Bologna, ITA																			
<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																			
date	09-Sep-93	time	6.87	11.55	16.16	20.91	25.96	28.10	31.07	36.30	41.43	46.53	51.83	57.40	???		14.04	15.39	15.53
reaction time		interval		4.68	4.61	4.75	5.05		5.11	5.23	5.13	5.10	5.30	5.57					
		velocity	6.55	7.48	7.59	7.37	6.93	7.12	6.85	6.69	6.82	6.86	6.60	7.18	6.97		7.48	6.82	6.76
H1 lead leg		strides	23	15	15	15	15		16	16	17	17	17	166					
FINAL - 1993 Bologna, ITA																			
<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																			
date	01-Jul-93	time	6.79	11.17	15.71	20.31	25.36	27.50	30.34	35.41	40.57	46.09	51.40	57.40	???		13.52	15.10	15.99
reaction time		interval		4.38	4.54	4.60	5.05		4.98	5.07	5.16	5.52	5.31	6.00					
		velocity	6.63	7.99	7.71	7.61	6.93	7.27	7.03	6.90	6.78	6.34	6.59	6.67	6.97		7.77	6.95	6.57
H1 lead leg		strides	23	15	15	15	15		17	17	17	17	17	168					
Franz, Felix (GER) (1993)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2014 European Championships (Zurich, SUI)																			
<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>																			
date	15-Aug-14	time	6.03	9.91	13.75	17.83	21.91		26.11	30.55	35.07	39.79	44.51	49.83	/ 5		11.80	12.72	13.96
reaction time	0.174	interval		3.88	3.84	4.08	4.08		4.20	4.44	4.52	4.72	4.72	5.32					
		velocity	7.46	9.02	9.11	8.58	8.58		8.33	7.88	7.74	7.42	7.42	7.52	8.03		8.90	8.25	7.52
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	121					
Fredericks, Cornel (RSA) (1990)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)																			
<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>																			
date	08-Sep-18	time	5.96	9.84	13.64	17.52	21.60		25.80	30.24	34.84	39.64	44.60	50.54	2 / 7		11.56	12.72	14.36
reaction time	0.139	interval		3.88	3.80	3.88	4.08		4.20	4.44	4.60	4.80	4.96	5.94					
		velocity	7.55	9.02	9.21	9.02	8.58		8.33	7.88	7.61	7.29	7.06	6.73	7.91		9.08	8.25	7.31
H1 lead leg	R	strides	22	14	14	14	14			15	15	15	15	19.2	157.2				
FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																			
date	30-Aug-18	time	5.92	9.68	13.48	17.44	21.52	23.4	25.76	30.24		39.44		49.96	8 / 5		11.52	12.80	
reaction time	0.144	interval		3.76	3.80	3.96	4.08		4.24	4.48		9.20							
		velocity	7.60	9.31	9.21	8.84	8.58	8.55	8.25	7.81		7.61		8.01			9.11	8.20	
H1 lead leg	R	strides	21	14	14		14	14	15	15				107					
FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																			
date	04-May-18	time	5.96	9.72	13.60	17.52	21.64		25.88	30.32	34.88	39.64	44.40	50.03	1 / 5		11.56	12.80	14.08
reaction time	0.164	interval		3.76	3.88	3.92	4.12		4.24	4.44	4.56	4.76	4.76	5.63					
		velocity	7.55	9.31	9.02	8.93	8.50		8.25	7.88	7.68	7.35	7.35	7.10	8.00		9.08	8.20	7.46
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	19	156				
FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	06-Jul-17	time	6.00	9.76	13.60	17.48	21.48		25.56	29.80	34.20	38.80	43.52	49.32	8 / 5		11.48	12.32	13.72
reaction time	0.137	interval		3.76	3.84	3.88	4.00		4.08	4.24	4.40	4.60	4.72	5.80					
		velocity	7.50	9.31	9.11	9.02	8.75		8.58	8.25	7.95	7.61	7.42	6.90	8.11		9.15	8.52	7.65
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	20	172				
FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	05-May-17	time	6.00	9.76	13.63	17.53	21.56		25.70	30.06	34.53	39.26	44.20	49.96	1 / 5		11.53	12.53	14.14
reaction time	0.147	interval		3.76	3.87	3.90	4.03		4.14	4.36	4.47	4.73	4.94	5.76					
		velocity	7.50	9.31	9.04	8.97	8.68		8.45	8.03	7.83	7.40	7.09	6.94	8.01		9.11	8.38	7.43
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	16	19.5	172.5				
FINAL - 2011 IAAF World Championships (Daegu, KOR)																			
<i>Behm (2011) - Le quatrache: Démus enfin!</i>																			
date	01-Sep-11	time	5.8	9.5	13.3	17.2	21.3		25.3	29.5	34.0	38.6	43.4	49.12	4 / 5		11.40	12.30	13.90
reaction time	0.170	interval		3.70	3.80	3.90	4.10		4.00	4.20	4.50	4.60	4.80	5.72					
		velocity	7.76	9.46	9.21	8.97	8.54		8.75	8.33	7.78	7.61	7.29	6.99	8.14		9.21	8.54	7.55
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	16	16	20	174				
Friedrich, Dieter (FRG) (1947)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)																			
<i>Helbig (1975) - 400-m-hürdenlauf</i>																			
date	28-Jun-75	time	6.0	10.0	14.1	18.3	22.6	24.6	27.0	31.4	36.2	40.6	45.3	51.29	5 / 2		12.24	13.13	13.93
reaction time		interval		4.00	4.04	4.20	4.32		4.39	4.42	4.77	4.45	4.71	5.96					
		velocity	7.46	8.75	8.66	8.33	8.10	8.13	7.97	7.92	7.34	7.87	7.43	6.71	7.80		8.58	8.00	7.54
H1 lead leg		strides																	

														H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Frinolli, Giorgio (ITA) (1970)																														
Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	25-Sep-00	time	6.08	9.88	13.84	17.84	21.92	26.08	30.52	35.04	39.72	44.48	50.10	2 / 8																
reaction time	0.342	interval	3.80	3.96	4.00	4.08	4.16	4.44	4.52	4.68	4.76	5.62	7.98		11.76	12.68	13.96													
		velocity	7.40	9.21	8.84	8.75	8.58	8.41	7.88	7.74	7.48	7.35	7.12		8.93	8.28	7.52													
H1 lead leg		strides	14	14	14	14	14	14	15	15	16	15	131																	
Heat 8 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	24-Sep-00	time	6.06	9.82	13.78	17.70	21.78	25.94	30.26	34.86	39.78	44.66	50.27	6 / 2																
reaction time	0.179	interval	3.76	3.96	3.92	4.08	4.16	4.32	4.60	4.92	4.88	5.61	7.96		11.64	12.56	14.40													
		velocity	7.43	9.31	8.84	8.93	8.58	8.41	8.10	7.61	7.11	7.17	7.13		9.02	8.36	7.29													
H1 lead leg		strides	21	14	14	14	14	14	14	15	16	16	19.2	171.2																
Frinolli, Roberto (ITA) (1940)																														
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)														<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>																
date	15-Oct-68	time	5.8	9.7	13.6	17.5	21.5	23.4	25.6	29.9	34.3	38.9	43.9	50.1	4 / 8															
reaction time		interval	3.90	3.90	3.90	4.00	4.10	4.30	4.40	4.60	5.00	6.20	(50.13)		11.70	12.40	14.00													
		velocity	7.76	8.97	8.97	8.97	8.75	8.55	8.54	8.14	7.95	7.61	7.00	6.45	7.98	8.97	8.47	7.50												
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	15	157																
Heat 4 - 1968 Olympic Games (Mexico City, MEX) (Altitude)														<i>Jonath (1969) - wie gerhard hennige trainiert</i>																
date	13-Oct-68	time	6.0	10.0	14.2	18.2	22.2	23.8	26.6	30.7	35.1	39.4	44.0	49.9	1 / 1															
reaction time		interval	4.00	4.20	4.00	4.00	4.40	4.40	4.10	4.40	4.30	4.60	5.90	(49.95)		12.20	12.50	13.30												
		velocity	7.50	8.75	8.33	8.75	8.75	8.40	7.95	8.54	7.95	8.14	7.61	6.78	8.02	8.61	8.40	7.89												
H1 lead leg		strides																												
FINAL - 1964 Olympic Games (Tokyo, JPN)														<i>Breitschaft (1965) - die leichtathletik wettkämpfe der 1964 olympischen sommerspielen - 400m hürdenlauf</i>																
date	16-Oct-64	time	5.8	13.4	21.0	29.8	39.0	50.7	7 / 6																					
reaction time		interval	7.60	7.60	8.80	9.20	11.70																							
		velocity	7.76	9.21	9.21	7.95	7.61	6.41	7.89																					
H1 lead leg		strides																												
Fu Jiaho (CHN) (1999)																														
FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	03-Aug-19	time	6.30	10.36	14.56	18.79	23.16	27.70	32.38	37.10	41.90	46.91	52.81	5 / 7-6																
reaction time	0.193	interval	4.06	4.20	4.23	4.37	4.54	4.68	4.72	4.80	5.01	5.90	7.57		12.49	13.59	14.53													
		velocity	7.14	8.62	8.33	8.27	8.01	7.71	7.48	7.42	7.29	6.99	6.78	7.57	8.41	7.73	7.23													
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	16	20	174																
Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	03-Aug-19	time	6.35	10.54	14.85	19.14	23.46	28.09	32.82	37.52	42.32	47.33	52.83	3 / 2																
reaction time	0.183	interval	4.19	4.31	4.29	4.32	4.63	4.73	4.70	4.80	5.01	5.50	7.57		12.79	13.68	14.51													
		velocity	7.09	8.35	8.12	8.16	8.10	7.56	7.40	7.45	7.29	6.99	7.27	7.57	8.21	7.68	7.24													
H1 lead leg	L	strides	22	14	14	14	15	15	16	15	16	16	18.5	175.5																
Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	09-Jul-19	time	6.37	10.43	14.64	18.88	23.22	27.69	32.32	37.05	41.79	46.65	52.29	5 / 7-6																
reaction time	0.232	interval	4.06	4.21	4.24	4.34	4.47	4.63	4.73	4.74	4.86	5.64	7.65		12.51	13.44	14.33													
		velocity	7.06	8.62	8.31	8.25	8.06	7.83	7.56	7.40	7.38	7.20	7.09	7.65	8.39	7.81	7.33													
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	16	20	174																
FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	29-May-19	time	6.67	11.05	15.45	19.80	24.34	29.01	33.76	38.52	43.47	48.88	54.71	1 / 6																
reaction time	0.208	interval	4.38	4.40	4.35	4.54	4.67	4.75	4.76	4.95	5.41	5.83	7.31		13.13	13.96	15.12													
		velocity	6.75	7.99	7.95	8.05	7.71	7.49	7.37	7.35	7.07	6.47	6.86	7.31	8.00	7.52	6.94													
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	17	19.5	174.5																
FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	12-Apr-19	time	6.60	10.84	15.16	19.62	24.20	28.90	33.78	38.58	43.36	48.62	54.39	3 / 7																
reaction time	0.200	interval	4.24	4.32	4.46	4.58	4.70	4.88	4.80	4.78	5.26	5.77	7.35		13.02	14.16	14.84													
		velocity	6.82	8.25	8.10	7.85	7.64	7.45	7.17	7.29	7.32	6.65	6.93	7.35	8.06	7.42	7.08													
H1 lead leg	L	strides	21	16	16	16	16	15	15	15	15	15	19.2	179.2																
FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)														<i>CAA Hurdle Development (2019)</i>																
date	08-Apr-19	time	6.44	10.51	14.73	18.88	23.19	27.64	32.26	36.93	41.79	46.86	52.33	6 / 6																
reaction time	0.218	interval	4.07	4.22	4.15	4.31	4.45	4.62	4.67	4.86	5.07	5.47	7.64		12.44	13.38	14.6													
		velocity	6.99	8.60	8.29	8.43	8.12	7.87	7.58	7.49	7.20	6.90	7.31	7.64	8.44	7.85	7.19													
H1 lead leg	L	strides	22	16	16	16	16	16	17	17	17	17	19.5	189.5																
Fuchiqami, Syota (JPN) (2005)																														
FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)														<i>Takashima (2023) - national high school sports festival - biomechanics data</i>																
date	04-Aug-23	time	6.02	9.81	13.65	17.62	21.62	25.84	30.21	34.73	39.49	44.54	50.64	6 / 2																
reaction time	0.221	interval	3.79	3.84	3.97	4.00	4.22	4.37	4.52	4.76	5.05	6.10	7.90		11.60	12.59	14.33													
		velocity	7.48	9.23	9.11	8.82	8.75	8.29	8.01	7.74	7.35	6.93	6.56	7.90	9.05	8.34	7.33													
H1 lead leg		strides	21	14	14	14	14	15	15	15	15	15	21	173																

FINAL - 2022 Japanese National High School Championships (Naruto, JPN)														<i>Kishima (2022) - national high school championships biomechanics data collection</i>									
date	05-Aug-22	time	6.08	9.98	13.93	18.10	22.42	26.88	31.38	36.02	40.73	45.53	51.03	6 / 3									
reaction time	0.186	interval		3.90	3.95	4.17	4.32	4.46	4.50	4.64	4.71	4.80	5.50	12.02	13.28	14.15							
		velocity	7.40	8.97	8.86	8.39	8.10	7.85	7.78	7.54	7.43	7.29	7.27	7.84	8.74	7.91	7.42						
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19.5	172.5									
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)														<i>Kishima (2022) - national high school championships biomechanics data collection</i>									
date	05-Aug-22	time	6.16	10.09	14.11	18.31	22.69	27.16	31.70	36.49	41.36	46.25	51.86	2 / 7									
reaction time	0.187	interval		3.93	4.02	4.20	4.38	4.47	4.54	4.79	4.87	4.89	5.61	12.15	13.39	14.55							
		velocity	7.31	8.91	8.71	8.33	7.99	7.83	7.71	7.31	7.19	7.16	7.13	7.71	8.64	7.84	7.22						
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19.2	172.2									
Fueki, Yasuhiro (JPN) (1985)														<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>									
FINAL - 2014 Seiko Golden Grand Prix (Tokyo, JPN)																							
date	11-May-14	time	6.01	9.90	13.80	17.72	21.77	25.92	30.39	35.04	39.98	45.25	51.68	/ 8									
reaction time		interval		3.89	3.90	3.92	4.05	4.15	4.47	4.65	4.94	5.27	6.43	11.71	12.67	14.86							
		velocity	7.49	9.00	8.97	8.93	8.64	8.43	7.83	7.53	7.09	6.64	6.22	7.74	8.97	8.29	7.07						
H1 lead leg		strides		14	14	14	14	14	14	15	15	16	130										
Fujii, Ryusei (JPN) (1998)														<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>									
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)																							
date	31-Jul-15	time	6.19	10.24	14.55	18.97	23.37	27.78	32.23	36.69	41.27	45.96	51.34	4 / 4									
reaction time		interval		4.05	4.31	4.42	4.40	4.41	4.45	4.46	4.58	4.69	5.38	PB	12.78	13.26	13.73						
		velocity	7.27	8.64	8.12	7.92	7.95	7.94	7.87	7.85	7.64	7.46	7.43	7.79	8.22	7.92	7.65						
H1 lead leg		strides		14	15	15	15	15	15	15	15	15	134										
Fukamachi, Hidai (JPN) (2001)														<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)																							
date	26-Jun-21	time	6.22	10.19	14.10	18.10	22.19	26.43	30.81	35.39	40.14	45.03	50.73	4 / 3									
reaction time	0.220	interval		3.97	3.91	4.00	4.09	4.24	4.38	4.58	4.75	4.89	5.70	PB	11.88	12.71	14.22						
		velocity	7.23	8.82	8.95	8.75	8.56	8.25	7.99	7.64	7.37	7.16	7.02	7.88	8.84	8.26	7.38						
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	16	16	19.5	173.5									
FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)														<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data</i>									
date	06-Aug-19	time	6.31	10.39	14.51	18.74	23.13	27.79	32.52	37.37	42.60	47.96	54.32	8 / 6									
reaction time		interval		4.08	4.12	4.23	4.39	4.66	4.73	4.85	5.23	5.36	6.36	12.43	13.78	15.44							
		velocity	7.13	8.58	8.50	8.27	7.97	7.51	7.40	7.22	6.69	6.53	6.29	7.36	8.45	7.62	6.80						
H1 lead leg		strides		15	15	15	15	16	16	16	17	17	142										
Futch, Eric (USA) (1993)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>									
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)																							
date	09-Jul-17	time	5.96	9.72	13.56	17.48	21.60	25.80	30.04	34.40	38.84	43.40	48.68	5 / 5									
reaction time	0.189	interval		3.76	3.84	3.92	4.12	4.20	4.24	4.36	4.44	4.56	5.28	11.52	12.56	13.36							
		velocity	7.55	9.31	9.11	8.93	8.50	8.33	8.25	8.03	7.88	7.68	7.58	8.22	9.11	8.36	7.86						
H1 lead leg	R	strides	22	14	14	13	14	15	14	15	15	15	18	169									
FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>									
date	25-Jun-17	time	5.96	9.79	13.65	17.58	21.65	25.65	29.82	34.03	38.34	42.79	48.18	4 / 1									
reaction time		interval		3.83	3.86	3.93	4.07	4.00	4.17	4.21	4.31	4.45	5.39	PB	11.62	12.24	12.97						
		velocity	7.55	9.14	9.07	8.91	8.60	8.75	8.39	8.31	8.12	7.87	7.42	8.30	9.04	8.58	8.10						
H1 lead leg	R	strides	22	14	14	13	13	14	14	15	15	15	18	153									
Garnier, Philippe (FRA) (1963)														<i>Veney - split times from PJ</i>									
FINAL - 1987 French National Championships (Annecy, FRA)																							
date	09-Aug-87	time	6.07	10.18	14.43	18.59	22.64	26.96	31.33	35.85	40.59	45.67	51.80	/ 6									
reaction time		interval		4.11	4.25	4.16	4.05	4.32	4.37	4.52	4.74	5.08	6.13	12.52	12.74	14.34							
		velocity	7.41	8.52	8.24	8.41	8.64	8.10	8.01	7.74	7.38	6.89	6.53	7.72	8.39	8.24	7.32						
H1 lead leg		strides																					
Garrett, LaBronze (USA) (1976)														<i>USATF Men's Hurdle Development (2006)</i>									
FINAL - 2006 USATF National Championships (Indianapolis, IN)																							
date	24-Jun-06	time	5.94	9.83	13.73	17.67	21.67	25.87	30.10	34.54	39.14	43.74	49.47	2 / 5									
reaction time		interval		3.89	3.90	3.94	4.00	4.20	4.23	4.44	4.60	4.60	5.73	11.73	12.43	13.64							
		velocity	7.58	9.00	8.97	8.88	8.75	8.33	8.27	7.88	7.61	7.61	6.98	8.09	8.95	8.45	7.70						
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	146										
FINAL - 2003 USATF National Championships (Palo Alto, CA)														<i>USATF Women's Sprint Development (2003)</i>									
date	22-Jun-03	time	6.04	9.89	13.90	18.07	22.36	26.69	31.20	35.79	40.41	45.08	50.45	1 / 2 7									
reaction time		interval		3.85	4.01	4.17	4.29	4.33	4.51	4.59	4.62	4.67	5.37	12.03	13.13	13.88							
		velocity	7.45	9.09	8.73	8.39	8.16	8.08	7.76	7.63	7.58	7.49	7.45	7.93	8.73	8.00	7.56						
H1 lead leg		strides																					
Gavrilenko, Yevgeniy (URS) (1951)														<i>Behm (1995) - la tactique du 400 haies</i>									
FINAL - 1976 Olympic Games (Montreal, CAN)																							
date	25-Jul-76	time	6.0	9.7	13.4	17.4	21.5	25.7	29.9	34.5	39.0	43.8	49.45	8 / 3									
reaction time		interval		3.70	3.70	4.00	4.10	4.20	4.20	4.60	4.50	4.80	5.65	11.40	12.50	13.90							
		velocity	7.50	9.46	9.46	8.75	8.54	8.33	8.33	7.61	7.78	7.29	7.08	8.09	9.21	8.40	7.55						

H1 lead leg	L	strides	13	13	13	13	13	15	15	15	15	15	125						
FINAL - 1972 Olympic Games (Munich, FRG)			<i>Letzelter (1973) - schrittgestaltung und geschwindigkeitsverlauf beim 400-m-hürdenlauf der olympischen spiele 1972</i>																
date	03-Sep-72	time	6.0	9.8	13.7	17.6	21.6	23.3	25.9	30.3	34.8	39.3	44.1	49.66	2 / 6				
reaction time		interval	3.80	3.85	3.95	4.00	4.00	4.25	4.40	4.50	4.55	4.75	5.61			11.60	12.65	13.80	
		velocity	7.50	9.21	9.09	8.86	8.75	8.58	8.24	7.95	7.78	7.69	7.37	7.13	8.05	9.05	8.30	7.61	
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	131						
Gaymon, Justin (USA) (1986)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2008 USA Olympic Trials (Eugene, OR)			<i>USATF Hurdle Development (2008)</i>																
date	29-Jun-08	time	6.07	9.97	13.73	17.73	21.70	25.82	30.09	34.50	38.87	43.32	48.46	8 / 4					
reaction time		interval	3.90	3.76	4.00	3.97	4.12	4.27	4.41	4.37	4.45	5.14	PB			11.66	12.36	13.23	
		velocity	7.41	8.97	9.31	8.75	8.82	8.50	8.20	7.94	8.01	7.87	7.78	8.25		9.01	8.50	7.94	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	153						
Heat 3 - 2007 USATF National Championships (Indianapolis, IN)			<i>USATF Men's Hurdle Development (2007)</i>																
date	21-Jun-07	time	6.02	10.01	14.06	18.27	22.41	26.75	31.18	35.70	40.27	44.93	50.16	6 / 2					
reaction time		interval	3.99	4.05	4.21	4.14	4.34	4.43	4.52	4.57	4.66	5.23				12.25	12.91	13.75	
		velocity	7.48	8.77	8.64	8.31	8.45	8.06	7.90	7.74	7.66	7.51	7.65	7.97		8.57	8.13	7.64	
H1 lead leg	R	strides	22	15	15	14	14	15	15	15	15	15	155						
Geiger, Karl (FRG) (1953)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)			<i>Helbig (1975) - 400-m-hürdenlauf</i>																
date	28-Jun-75	time	6.3	10.3	14.4	18.6	23.4	25.4	27.8	32.4	37.1	41.8	46.7	52.42	4 / 7				
reaction time		interval	4.02	4.11	4.18	4.86	4.40	4.60	4.63	4.68	4.97	5.70				12.31	13.86	14.28	
		velocity	7.18	8.71	8.52	8.37	7.20	7.86	7.95	7.61	7.56	7.48	7.04	7.02	7.63	8.53	7.58	7.35	
H1 lead leg		strides																	
Gianessi, Paolo (ITA)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1993 Bergamo, ITA			<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																
date	03-Oct-93	time	6.49	10.73	14.96	19.38	23.81	25.80	28.51	33.37	38.35	43.81	49.17	55.47	???				
reaction time		interval	4.24	4.23	4.42	4.43	4.70	4.70	4.86	4.98	5.46	5.36	6.30			12.89	13.99	15.80	
		velocity	6.93	8.25	8.27	7.92	7.90	7.75	7.45	7.20	7.03	6.41	6.53	6.35	7.21	8.15	7.51	6.65	
H1 lead leg		strides	22	15	15	15	15	15	15	15	15	16	16	159					
FINAL - 1993 Urbino, ITA			<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																
date	08-Sep-93	time	6.7	11.1	15.6	21.2	24.8	26.9	29.4	34.3	39.2	44.2	49.4	55.20	???				
reaction time		interval	4.40	4.50	5.60	3.60	4.60	4.90	4.90	5.00	5.20	5.80				14.50	13.10	15.10	
		velocity	6.72	7.95	7.78	6.25	9.72	7.43	7.61	7.14	7.14	7.00	6.73	6.90	7.25	7.24	8.02	6.95	
H1 lead leg		strides	22	15	15	15	15	15	15	15	15	15	15	157					
FINAL - 1992 Corridonia, ITA			<i>Partipilo (1994) - la distribuzione dello sforzo nei 400m ad ostacoli</i>																
date	31-May-92	time	6.84	11.47	16.18	20.93	25.67	27.70	30.50	35.51	40.51	45.63	50.80	56.70	???				
reaction time		interval	4.63	4.71	4.75	4.74	4.83	5.01	5.00	5.12	5.17	5.90				14.09	14.58	15.29	
		velocity	6.58	7.56	7.43	7.37	7.38	7.22	7.25	6.99	7.00	6.84	6.77	6.78	7.05	7.45	7.20	6.87	
H1 lead leg		strides	22	15	15	15	15	15	15	15	15	15	15	157					
Gibson, Jeffery (BAH) (1990)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)			<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																
date	20-Jul-19	time	6.04	9.88	13.84	17.84	22.00	23.8	26.24	35.12	39.76	44.44	49.88	1 / 7					
reaction time	0.153	interval	3.84	3.96	4.00	4.16	4.24	4.24	4.37	4.47	4.64	4.68	5.44			11.80			
		velocity	7.45	9.11	8.84	8.75	8.41	8.40	8.25	7.88	7.54	7.48	7.35	8.02	8.90				
H1 lead leg	R	strides	20	13	13	13	13					14	14	17.7	117.7				
FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)			<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																
date	12-Apr-18	time	6.00	9.84	13.68	17.58	21.55	25.69	30.06	34.53	39.17	43.77	49.10	8 / 2					
reaction time	0.146	interval	3.84	3.84	3.90	3.97	4.14	4.37	4.47	4.64	4.60	5.33				11.58	12.48	13.71	
		velocity	7.50	9.11	9.11	8.97	8.82	8.45	8.01	7.83	7.54	7.61	7.50	8.15	9.07	8.41	7.66		
H1 lead leg	R	strides	13	13	13	13	13	13	14	14	14	14	17.7	138.7					
FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)			<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	28-May-16	time	6.04	9.88	13.80	17.76	26.16	30.44	34.32	39.48	44.00	49.16	6 / 4						
reaction time		interval	3.84	3.92	3.96	8.40	4.28	3.88	5.16	4.52	5.16					11.72	12.68	13.56	
		velocity	7.45	9.11	8.93	8.84	8.33	8.18	7.73	7.75	7.74	7.75	8.14	8.96	8.28	7.74			
H1 lead leg	R	strides	20	13	13	13			13	11	16	14	17	130					
FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)			<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	14-May-16	time	5.92	9.68	13.56	17.52	21.56	25.72	30.08	34.60	39.16	43.76	49.11	4 / 3					
reaction time	0.213	interval	3.76	3.88	3.96	4.04	4.16	4.36	4.52	4.56	4.60	5.35				11.60	12.56	13.68	
		velocity	7.60	9.31	9.02	8.84	8.66	8.41	8.03	7.74	7.68	7.61	7.48	8.14	9.05	8.36	7.68		
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	17.5	157.5					
FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)			<i>Henson (2021) - Athlete First: major championships report</i>																
date	25-Aug-15	time	5.88	9.64	13.36	17.16	21.12	25.08	29.28	33.60	38.08	42.72	48.17	7 / 3					
reaction time	0.184	interval	3.76	3.72	3.80	3.96	3.96	4.20	4.32	4.48	4.64	5.45	NR PB			11.28	12.12	13.44	
		velocity	7.65	9.31	9.41	9.21	8.84	8.84	8.33	8.10	7.81	7.54	7.34	8.30	9.31	8.66	7.81		
H1 lead leg	R	strides	13	13	12	13	13	13	13	14	14	14	17.5	136.5					

															H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Goller, Thomas (GER) (1977)																															
FINAL - 2007 European Cup (Munich, GER)																		<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>													
date	23-Jun-07	time	6.00	9.77	13.68	17.64	21.70		25.97	30.46	35.10	39.94	44.80		50.48	/ 5															
reaction time	0.143	interval		3.77	3.91	3.96	4.06		4.27	4.49	4.64	4.84	4.86	5.68			11.64	12.82	14.34												
		velocity	7.50	9.28	8.95	8.84	8.62		8.20	7.80	7.54	7.23	7.20	7.04	7.92		9.02	8.19	7.32												
H1 lead leg		strides																													
Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)																		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>													
date	25-Sep-00	time	5.90	9.58	13.50	17.42	21.38	22.90	25.50	29.82	34.30	38.94	43.66		49.28	3 / 6															
reaction time	0.152	interval		3.68	3.92	3.92	3.96		4.12	4.32	4.48	4.64	4.72	5.62			11.52	12.40	13.84												
		velocity	7.63	9.51	8.93	8.93	8.84	8.73	8.50	8.10	7.81	7.54	7.42	7.12	8.12		9.11	8.47	7.59												
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	18	162																
Heat 1 - 2000 Olympic Games (Sydney, AUS)																		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>													
date	24-Sep-00	time	5.94	9.58	13.30	17.10	21.02		25.10	29.50	33.94	38.74	43.62		49.32	7 / 2															
reaction time	0.154	interval		3.64	3.72	3.80	3.92		4.08	4.40	4.44	4.80	4.88	5.70			11.16	12.40	14.12												
		velocity	7.58	9.62	9.41	9.21	8.93		8.58	7.95	7.88	7.29	7.17	7.02	8.11		9.41	8.47	7.44												
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	19.2	163.2																
FINAL - 2000 ISTAF (Berlin, GER)																		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>													
date	01-Sep-00	time	5.98	9.68	13.46	17.35	21.40		25.52	29.83	34.16	38.74	43.44		48.82	/ 5															
reaction time		interval		3.70	3.78	3.89	4.05		4.12	4.31	4.33	4.58	4.70	5.38			11.37	12.48	13.61												
		velocity	7.53	9.46	9.26	9.00	8.64		8.50	8.12	8.08	7.64	7.45	7.43	8.19		9.23	8.41	7.71												
H1 lead leg		strides																													
Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)																		<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>													
date	25-Aug-99	time	5.58	9.26	13.02	16.87	20.78		24.94	29.50	34.12	38.82	43.74		49.89	1 / 8															
reaction time	0.178	interval		3.68	3.76	3.85	3.91		4.16	4.56	4.62	4.70	4.92	6.15			11.29	12.63	14.24												
		velocity	8.06	9.51	9.31	9.09	8.95		8.41	7.68	7.58	7.45	7.11	6.50	8.02		9.30	8.31	7.37												
H1 lead leg	L	strides	20	13	13	13	13		13	15	15	15	15	19	164																
Gollnow, David (GER) (1989)																															
FINAL - 2011 German National Championships (Kassel, GER)																		<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>													
date	24-Jul-11	time	6.26	10.12	13.94	17.80	21.81		25.96	30.34	34.93	39.62	44.35		49.56	6 / 1															
reaction time	0.175	interval		3.86	3.82	3.86	4.01		4.15	4.38	4.59	4.69	4.73	5.21			11.54	12.54	14.01												
		velocity	7.19	9.07	9.16	9.07	8.73		8.43	7.99	7.63	7.46	7.40	7.68	8.07		9.10	8.37	7.49												
H1 lead leg		strides	21	13	13	13	13		13	14	14	15	15	144																	
FINAL - 2011 European U23 Championships (Ostrava, CZE)																		<i>Beck (2011) - 400-meter-hürdensprinter im aufschwung</i>													
date	16-Jul-11	time	6.22	10.16	14.19	18.16	22.30		26.62	31.02	35.54	40.20	44.84		49.97	2 / 6															
reaction time	0.201	interval		3.94	4.03	3.97	4.14		4.32	4.40	4.52	4.66	4.64	5.13			11.94	12.86	13.82												
		velocity	7.23	8.88	8.68	8.82	8.45		8.10	7.95	7.74	7.51	7.54	7.80	8.00		8.79	8.16	7.60												
H1 lead leg		strides	21	13	13	13	13		14	14	14	15	15	145																	
Gonigam, Philippe (FRA) (1963)																															
FINAL - 1987 French National Championships (Annecy, FRA)																		<i>Veney - split times from PJ</i>													
date	09-Aug-87	time	6.15	10.12	14.23	18.46	22.68		26.94	31.30	35.69	40.33	45.01		50.60	/ 2															
reaction time		interval		3.97	4.11	4.23	4.22		4.26	4.36	4.39	4.64	4.68	5.59			12.31	12.84	13.71												
		velocity	7.32	8.82	8.52	8.27	8.29		8.22	8.03	7.97	7.54	7.48	7.16	7.91		8.53	8.18	7.66												
H1 lead leg		strides	22	15	15	15	15		15	15	15	15	16	158																	
FINAL - 1986 French National Championships (Aix les Bains, FRA)																		<i>Veney - split times from PJ</i>													
date	10-Aug-86	time	6.11	10.03	14.09	18.17	22.36		26.58	30.81	35.16	39.62	44.16		49.82	/ 1															
reaction time		interval		3.92	4.06	4.08	4.19		4.22	4.23	4.35	4.46	4.54	5.66			12.06	12.64	13.35												
		velocity	7.36	8.93	8.62	8.58	8.35		8.29	8.27	8.05	7.85	7.71	7.07	8.03		8.71	8.31	7.87												
H1 lead leg		strides																													
Gong Debin (CHN) (1997)																															
Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)																		<i>CAA Hurdle Development (2021)</i>													
date	26-Jun-21	time	6.11	10.08	14.10	18.42	22.79		27.33	32.02	36.84	41.74	46.58		52.00	4 / 4															
reaction time	0.271	interval		3.97	4.02	4.32	4.37		4.54	4.69	4.82	4.90	4.84	5.42			12.31	13.60	14.56												
		velocity	7.36	8.82	8.71	8.10	8.01		7.71	7.46	7.26	7.14	7.23	7.38	7.69		8.53	7.72	7.21												
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5																
FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)																		<i>CAA Hurdle Development (2021)</i>													
date	13-Jun-21	time	5.95	9.96	13.95	18.28	22.65		27.41	32.23	37.09	41.98	47.01		53.07	1 / 8															
reaction time	0.257	interval		4.01	3.99	4.33	4.37		4.76	4.82	4.86	4.89	5.03	6.06			12.33	13.95	14.78												
		velocity	7.56	8.73	8.77	8.08	8.01		7.35	7.26	7.20	7.16	6.96	6.60	7.54		8.52	7.53	7.10												
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	19	171																
Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)																		<i>CAA Hurdle Development (2021)</i>													
date	25-Apr-21	time	6.24	10.29	14.64	18.94	23.54		28.14	32.85	37.67	42.54	47.36		52.97	5 / 3															
reaction time	0.300	interval		4.05	4.35	4.30	4.60		4.60	4.71	4.82	4.87	4.82	5.61			12.70	13.91	14.51												
		velocity	7.21	8.64	8.05	8.14	7.61		7.61	7.43	7.26	7.19	7.26	7.13	7.55		8.27	7.55	7.24												
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170																

														CAA Hurdle Development (2019)					
Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)														7 / 6	12.71	14.05	15.08		
date	22-Aug-19	time	6.36	10.53	14.71	19.07	23.62	28.24	33.12	38.15	43.18	48.20	54.11	59.1	7.39	8.26	7.47	6.96	
reaction time	0.325	interval		4.17	4.18	4.36	4.55	4.62	4.88	5.03	5.03	5.02	5.91						
		velocity	7.08	8.39	8.37	8.03	7.69	7.58	7.17	6.96	6.96	6.97	6.77						
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	16	19						
Heat 1 - 2019 Asian Athletics Championships (Doha, QAT)														CAA Hurdle Development (2019)					
date	21-Apr-19	time	5.96	9.81	13.63	17.68	21.81	26.19	30.81	35.55	40.27	45.12	50.96	58.4	7.85	8.96	8.00	7.34	
reaction time	0.182	interval		3.85	3.82	4.05	4.13	4.38	4.62	4.74	4.72	4.85	5.84						
		velocity	7.55	9.09	9.16	8.64	8.47	7.99	7.58	7.38	7.42	7.22	6.85						
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.7						
Gorbán, Boris (RUS) (1978)																			
FINAL - 2001 IAAF World Championships (Edmonton, CAN)														Behm (2001) - Edmonton: Le quatrache: les finales					
date	10-Aug-01	time	5.9	9.8	13.7	17.7	21.6	25.5	29.5	33.8	38.3	42.9	48.40	55.0	8.26	8.90	8.90	7.84	
reaction time	0.176	interval		3.90	3.90	4.00	3.90	3.90	4.00	4.30	4.50	4.60	5.50	DQ					
		velocity	7.63	8.97	8.97	8.75	8.97	8.97	8.75	8.14	7.78	7.61	7.27						
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.5						
Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)														Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games					
date	25-Sep-00	time	5.94	9.74	13.66	17.62	21.66	23.18	25.74	30.02	34.54	39.14	43.86	49.29	54.3	8.99	8.47	7.59	
reaction time	0.454	interval		3.80	3.92	3.96	4.04	4.08	4.28	4.52	4.60	4.72	5.43						
		velocity	7.58	9.21	8.93	8.84	8.66	8.63	8.58	8.18	7.74	7.61	7.42	7.37					
H1 lead leg		strides	20	13	13	13	13	13	14	14	14	14	17.5						
Heat 2 - 2000 Olympic Games (Sydney, AUS)														Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games					
date	24-Sep-00	time	5.98	9.82	13.62	17.54	21.54	25.70	30.66	34.66	39.30	43.98	49.44	54.6	8.09	9.08			
reaction time	0.195	interval		3.84	3.80	3.92	4.00	4.16	4.28	4.52	4.64	4.68	5.46						
		velocity	7.53	9.11	9.21	8.93	8.75	8.41	7.81	7.54	7.48	7.33	7.33						
H1 lead leg		strides	20	13	13	13	13	13	14	14	14	17.8							
Gordon, Jehue (TTO) (1991)																			
FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)														Henson (2021) - Athlete First: major championships report					
date	15-Aug-13	time	5.73	9.40	13.20	17.07	20.97	24.97	29.07	33.27	37.63	42.17	47.69	55.2	8.39	9.26	8.75	8.02	
reaction time	0.174	interval		3.67	3.80	3.87	3.90	4.00	4.10	4.20	4.36	4.54	5.52						
		velocity	7.85	9.54	9.21	9.04	8.97	8.75	8.54	8.33	8.03	7.71	7.25						
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.7						
FINAL - 2012 Olympic Games (London, GBR)														Hillier (2012) - uka 2012 olympic games report: 400m hurdles					
date	06-Aug-12	time	5.72	9.28	13.07	16.92	20.93	22.73	25.02	29.14	33.40	38.05	43.07	48.86	57.9	8.19	9.38	8.59	
reaction time	0.165	interval		3.56	3.79	3.85	4.01	4.09	4.12	4.26	4.65	5.02	5.79						
		velocity	7.87	9.83	9.23	9.09	8.73	8.80	8.56	8.50	8.22	7.53	6.97	6.91					
H1 lead leg	L	strides	21	13	13	13	13	13	14	15	15	15	145						
FINAL - 2009 IAAF World Championships (Berlin, GER)														Graubner (2009) - biomechanical analyses at the 12th IAAF world championships					
date	18-Aug-09	time	6.04	9.76	13.60	17.40	21.32	25.36	29.59	33.96	38.44	43.00	48.26	52.6	8.29	9.24	8.61	7.83	
reaction time	0.172	interval		3.72	3.84	3.80	3.92	4.04	4.23	4.37	4.48	4.56	5.26	NR					
		velocity	7.45	9.41	9.11	9.21	8.93	8.66	8.27	8.01	7.81	7.68	7.60						
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17						
Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)														Graubner (2009) - biomechanical analyses at the 12th IAAF world championships					
date	16-Aug-09	time	6.00	9.68	13.50	17.36	21.39	25.60	29.84	34.22	38.80	43.44	48.77	53.3	8.20	9.24	8.41	7.72	
reaction time	0.162	interval		3.68	3.82	3.86	4.03	4.21	4.24	4.38	4.58	4.64	5.33						
		velocity	7.50	9.51	9.16	9.07	8.68	8.31	8.25	7.99	7.64	7.54	7.50						
H1 lead leg		strides			13	13	13	13	13	13	14	14	17						
Heat 3 - 2009 IAAF World Championships (Berlin, GER)														Graubner (2009) - biomechanical analyses at the 12th IAAF world championships					
date	15-Aug-09	time	6.05	9.78	13.53	17.36	21.33	25.55	29.77	34.17	38.91	43.45	48.66	52.1	8.22	9.28	8.46	7.68	
reaction time	0.173	interval		3.73	3.75	3.83	3.97	4.22	4.22	4.40	4.74	4.54	5.21	NR					
		velocity	7.44	9.38	9.33	9.14	8.82	8.29	8.29	7.95	7.38	7.71	7.68						
H1 lead leg		strides																	
Gotoh, Keita (JPN) (1999)																			
Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)														(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en					
date	23-Oct-16	time					24.01				39.19			56.49					
reaction time		interval									15.18								
		velocity					7.71				6.92			7.08					
H1 lead leg		strides																	
Goto, Sota (JPN)																			
FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)														Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection					
date	04-Aug-18	time	6.22	10.24	14.46	18.77	23.21	27.71	32.30	36.94	41.89	46.88	52.56	56.8	7.61	8.37	7.76	7.20	
reaction time		interval		4.02	4.22	4.31	4.44	4.50	4.59	4.64	4.95	4.99	5.68						
		velocity	7.23	8.71	8.29	8.12	7.88	7.78	7.63	7.54	7.07	7.01	7.04						
H1 lead leg		strides		15	15	15	15	15	15	15	16	16	137						
Graham, John (CAN) (1965)																			
			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10

Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)															<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>						
date	24-Sep-88	time	6.05	10.05	14.09	18.14	22.38	26.75	31.16	35.79	40.68	45.68	51.33	7 / 8							
reaction time		interval		4.00	4.04	4.05	4.24	4.37	4.41	4.63	4.89	5.00	5.65				12.09	13.02	14.52		
		velocity	7.44	8.75	8.66	8.64	8.25	8.01	7.94	7.56	7.16	7.00	7.08	7.79			8.68	8.06	7.23		
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	16	18.5	170.5							
Graham, Winthrop (JAM) (1965)																					
FINAL - 1993 IAAF World Championships (Stuttgart, GER)															<i>Graubner (2008) - http://www.fgs.uni-halle.de</i>						
date	19-Aug-93	time	5.92	9.63	13.43	17.26	21.18	25.07	29.10	33.44	37.77	42.33	47.62	5 / 3							
reaction time	0.213	interval		3.71	3.80	3.83	3.92	3.89	4.03	4.34	4.33	4.56	5.29				11.34	11.84	13.23		
		velocity	7.60	9.43	9.21	9.14	8.93	9.00	8.68	8.06	8.08	7.68	7.56	8.40			9.26	8.87	7.94		
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18	146							
FINAL - 1992 Olympic Games (Barcelona, ESP)															<i>Knight (1992) - 1992 Olympic report: the hurdling events</i>						
date	06-Aug-92	time	5.9	9.5	13.3	17.1	20.9	24.9	29.1	33.3	37.8	42.4	47.66	3 / 2							
reaction time		interval		3.60	3.80	3.80	3.80	4.00	4.20	4.20	4.50	4.60	5.26				11.20	12.00	13.30		
		velocity	7.63	9.72	9.21	9.21	9.21	8.75	8.33	8.33	7.78	7.61	7.60	8.39			9.38	8.75	7.89		
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.7	159							
FINAL - 1991 IAAF World Championships (Tokyo, JPN)															<i>Behm (1995) - la tactique du 400 haies</i>						
date	27-Aug-91	time	5.9	9.5	13.2	16.8	20.4	24.3	28.6	33.0	37.5	42.1	47.74	5 / 2							
reaction time		interval		3.60	3.70	3.60	3.60	3.90	4.30	4.40	4.50	4.60	5.64	NR			10.90	11.80	13.50		
		velocity	7.63	9.72	9.46	9.72	9.72	8.97	8.14	7.95	7.78	7.61	7.09	8.38			9.63	8.90	7.78		
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18.5	159.5							
FINAL - 1988 Olympic Games (Seoul, KOR)															<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>						
date	25-Sep-88	time	6.15	9.96	13.79	17.68	21.57	25.61	29.69	34.02	38.40	42.95	48.04	4 / 5							
reaction time	0.191	interval		3.81	3.83	3.89	3.89	4.04	4.08	4.33	4.38	4.55	5.09	PB			11.53	12.01	13.26		
		velocity	7.32	9.19	9.14	9.00	9.00	8.66	8.58	8.08	7.99	7.69	7.86	8.33			9.11	8.74	7.92		
H1 lead leg	L	strides	21	14	13	14	13	14	14	14	14	14	17.3	162.3							
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)															<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>						
date	24-Sep-88	time	6.00	9.85	13.77	17.72	21.70	25.78	29.95	34.27	38.74	43.32	48.37	6 / 2							
reaction time		interval		3.85	3.92	3.95	3.98	4.08	4.17	4.32	4.47	4.58	5.05				11.72	12.23	13.37		
		velocity	7.50	9.09	8.93	8.86	8.79	8.58	8.39	8.10	7.83	7.64	7.92	8.27			8.96	8.59	7.85		
H1 lead leg		strides	21	14	14	13	13	14	14	14	14	15	17.5	163.5							
Grant, Robert (USA) (1996)																					
FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>						
date	07-Jun-19	time	6.00	9.80	13.80	17.83	21.96	26.13	30.36	34.73		43.63	48.83	7 / 4							
reaction time	0.186	interval		3.80	4.00	4.03	4.13	4.17	4.23	4.37		8.90	5.20	DQ			11.83	12.53	13.27		
		velocity	7.50	9.21	8.75	8.68	8.47	8.39	8.27	8.01		7.87	7.69	8.19			8.88	8.38	7.91		
H1 lead leg	R	strides		14	14	14	14	14	16	15				101							
Green, Jack (GBR) (1991)																					
FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	21-Jul-18	time	6.08	9.96										dnf	2 / --						
reaction time	0.180	interval		3.88																	
		velocity	7.40	9.02																	
H1 lead leg	R	strides	22	14										36							
FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	05-Jul-18	time	6.00	9.80	13.76		21.80	25.96	30.32		39.44	44.12	49.52	1 / 7							
reaction time	0.172	interval		3.80	3.96		8.04	4.16	4.36		9.12	4.68	5.40							13.80	
		velocity	7.50	9.21	8.84		8.71	8.41	8.03		7.68	7.48	7.41	8.08						7.61	
H1 lead leg	R	strides	22	14	14		14	14	14		15	15	18.2	140.2							
FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	10-Jun-18	time	6.04	9.84	13.72	17.68	21.80	26.12	30.56	35.04	39.60	44.40	49.73	8 / 5							
reaction time	0.176	interval		3.80	3.88	3.96	4.12	4.32	4.44	4.48	4.56	4.80	5.33				11.64	12.88	13.84		
		velocity	7.45	9.21	9.02	8.84	8.50	8.10	7.88	7.81	7.68	7.29	7.50	8.04			9.02	8.15	7.59		
H1 lead leg	R	strides	22	14	14	13	14	15	15	15	15	16	153								
FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	04-May-18	time	6.12	10.00	13.92	18.04	22.32	26.64	31.12	35.56	40.20	44.96	50.22	8 / 7							
reaction time	0.230	interval		3.88	3.92	4.12	4.28	4.32	4.48	4.44	4.64	4.76	5.26				11.92	13.08	13.84		
		velocity	7.35	9.02	8.93	8.50	8.18	8.10	7.81	7.88	7.54	7.35	7.60	7.96			8.81	8.03	7.59		
H1 lead leg	R	strides	22	14	13	14	14	14	14	15	15	15	150								
FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>						
date	12-Apr-18	time	6.17	9.97	13.74	17.65	21.75	25.99	30.30	34.70	39.24	43.77	49.18	7 / 4							
reaction time	0.185	interval		3.80	3.77	3.91	4.10	4.24	4.31	4.40	4.54	4.53	5.41				11.48	12.65	13.47		
		velocity	7.29	9.21	9.28	8.95	8.54	8.25	8.12	7.95	7.71	7.73	7.39	8.13			9.15	8.30	7.80		
H1 lead leg	R	strides	22	14	13	13	14	14	14	14	15	15	19.2	167.2							
FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>						
date	24-Aug-17	time	6.00	9.72	13.48	17.40	21.52	25.84	30.24	34.76	39.44	44.12	49.41	8 / 6							

reaction time	0.218	interval	3.72	3.76	3.92	4.12		4.32	4.40	4.52	4.68	4.68	5.29		11.40	12.84	13.88	
		velocity	7.50	9.41	9.31	8.93	8.50	8.10	7.95	7.74	7.48	7.48	7.56	8.10	9.21	8.18	7.56	
H1 lead leg	L	strides	21	13	13	13	14	14	15	15		15	18.5	151.5				
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	09-Jul-17	time	6.16	9.92	13.68	17.48	21.44	25.72	30.00	34.40	38.92	43.52		48.77	9 / 6			
reaction time	0.213	interval		3.76	3.76	3.80	3.96	4.28	4.28	4.40	4.52	4.60	5.25		11.32	12.52	13.52	
		velocity	7.31	9.31	9.31	9.21	8.84	8.18	8.18	7.95	7.74	7.61	7.62	8.20	9.28	8.39	7.77	
H1 lead leg	R	strides	22	14	13	13	13	14	14	15	15	15	15	18.7	166.7			
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	18-Jun-17	time	6.08	9.88	13.60	17.44	21.48	25.76	30.12	34.60	39.16	43.80		49.29	8 / 4			
reaction time	0.203	interval		3.80	3.72	3.84	4.04	4.28	4.36	4.48	4.56	4.64	5.49		11.36	12.68	13.68	
		velocity	7.40	9.21	9.41	9.11	8.66	8.18	8.03	7.81	7.68	7.54	7.29	8.12	9.24	8.28	7.68	
H1 lead leg	R	strides	22	14	13	13	14	14	15	15	15	15	19.2	169.2				
FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	23-Jul-16	time	6.12	10.00	13.84	17.80	21.92	26.12	30.40	34.72	39.20	43.76		48.99	9 / 5			
reaction time	0.187	interval		3.88	3.84	3.96	4.12	4.20	4.28	4.32	4.48	4.56	5.23		11.68	12.60	13.36	
		velocity	7.35	9.02	9.11	8.84	8.50	8.33	8.18	8.10	7.81	7.68	7.65	8.16	8.99	8.33	7.86	
H1 lead leg	R	strides	22	14	13	13	14	14	15	15	15	15	18.7	168.7				
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	08-Jul-16	time	6.08	10.00	13.96	18.12	22.24								dnf	2 / --		
reaction time	0.187	interval		3.92	3.96	4.16	4.12								12.04			
		velocity	7.40	8.93	8.84	8.41	8.50								8.72			
H1 lead leg	L	strides	22	14		14	14							64				
Green, Leford (JAM) (1986)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2012 Olympic Games (London, GBR)														<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>				
date	06-Aug-12	time	5.98	9.75	13.31	17.20	21.32	23.12	25.69	30.12	34.71	39.27	42.88		49.12	9 / 7		
reaction time	0.194	interval		3.77	3.56	3.89	4.12	4.37	4.43	4.59	4.56	3.61	6.24		11.22	12.92	12.76	
		velocity	7.53	9.28	9.83	9.00	8.50	8.65	8.01	7.90	7.63	7.68	9.70	6.41	8.14	9.36	8.13	8.23
H1 lead leg	L	strides	21	13	13	13	13	13	14	15	15	15		145				
Greene, David (Dai) (GBR) (1986)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2012 Olympic Games (London, GBR)														<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>				
date	06-Aug-12	time	5.82	9.44	13.18	16.98	20.96	22.76	25.12	29.32	33.64	38.10	42.84		48.24	3 / 4		
reaction time	0.150	interval		3.62	3.74	3.80	3.98	4.16	4.20	4.32	4.46	4.74	5.40		11.16	12.34	13.52	
		velocity	7.73	9.67	9.36	9.21	8.79	8.79	8.41	8.33	8.10	7.85	7.38	7.41	8.29	9.41	8.51	7.77
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	16	19.2	172				
Semi-Final 1 - 2012 Olympic Games (London, GBR)														<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>				
date	04-Aug-12	time	5.91	9.54	13.28	17.13	21.07	22.67	25.17	29.38	33.67	38.17	42.79		48.19	7 / 4		
reaction time	0.181	interval		3.63	3.74	3.85	3.94	4.10	4.21	4.29	4.50	4.62	5.40		11.22	12.25	13.41	
		velocity	7.61	9.64	9.36	9.09	8.88	8.82	8.54	8.31	8.16	7.78	7.58	7.41	8.30	9.36	8.57	7.83
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15		152				
Heat 3 - 2012 Olympic Games (London, GBR)														<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>				
date	03-Aug-12	time	6.02	9.76	13.59	17.48	21.52	23.12	25.75	30.04	34.44	39.01	43.64		48.98	1 / 1		
reaction time	0.167	interval		3.74	3.83	3.89	4.04	4.23	4.29	4.40	4.57	4.63	5.34		11.46	12.56	13.60	
		velocity	7.48	9.36	9.14	9.00	8.66	8.65	8.27	8.16	7.95	7.66	7.56	7.49	8.17	9.16	8.36	7.72
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15		152				
FINAL - 2011 IAAF World Championships (Daegu, KOR)														<i>Behm (2011) - Le quatrache: Démus enfin!</i>				
date	01-Sep-11	time	5.9	9.6	13.3	17.2	21.1		25.2	29.4	33.8	38.3	42.9		48.26	6 / 1		
reaction time	0.153	interval		3.70	3.70	3.90	3.90		4.10	4.20	4.40	4.50	4.60	5.36		11.30	12.20	13.50
		velocity	7.63	9.46	9.46	8.97	8.97		8.54	8.33	7.95	7.78	7.61	7.46	8.29	9.29	8.61	7.78
H1 lead leg	R	strides	21	14	14	14	14		14	15	15	15	15	18.5	169.5			
FINAL - 2010 Commonwealth Games (Dehli, IND)														<i>Arnold (2010) - 400mH planning and peaking</i>				
date	10-Oct-10	time	6.1	9.9	13.7	17.7	21.7	23.5	25.9	30.1	34.4	38.9	43.5		48.52	6 / 1		
reaction time	0.163	interval		3.80	3.80	4.00	4.00		4.20	4.20	4.30	4.50	4.60	5.02		11.60	12.40	13.40
		velocity	7.38	9.21	9.21	8.75	8.75	8.51	8.33	8.33	8.14	7.78	7.61	7.97	8.24	9.05	8.47	7.84
H1 lead leg	R	strides	21	14	14	14	14		14	15	15	15	19	170				
Heat 2 - 2010 Commonwealth Games (Dehli, IND)														<i>Arnold (2010) - 400mH planning and peaking</i>				
date	09-Oct-10	time	6.1	10.0	14.0	18.0	22.3	24.1	26.6	30.9	35.4	40.0	44.6		49.98	4 / 1		
reaction time	0.177	interval		3.90	4.00	4.00	4.30		4.30	4.30	4.50	4.60	4.60	5.38		11.90	12.90	13.70
		velocity	7.38	8.97	8.75	8.75	8.14	8.30	8.14	8.14	7.78	7.61	7.61	7.43	8.00	8.82	8.14	7.66
H1 lead leg		strides																
FINAL - 2010 European Championships (Barcelona, ESP)														<i>Arnold (2010) - 400mH planning and peaking</i>				
date	31-Jul-10	time	6.08	9.86	13.70	17.56	21.52		25.54	29.70	33.96	38.38	42.96		48.12	3 / 1		
reaction time	0.175	interval		3.78	3.84	3.86	3.96		4.02	4.16	4.26	4.42	4.58	5.16		11.48	12.14	13.26
		velocity	7.40	9.26	9.11	9.07	8.84		8.71	8.41	8.22	7.92	7.64	7.75	8.31	9.15	8.65	7.92
H1 lead leg	R	strides	21	14	14	14	14		14	15	15	15	19	170				

Semi-Final 1 - 2010 European Championships (Barcelona, ESP)															<i>Arnold (2010) - 400mH planning and peaking</i>				
date	29-Jul-10	time	6.10	9.84	13.72	17.62	21.68	25.86	30.18	34.70	39.32	44.02	49.48	3 / 1					
reaction time	0.225	interval		3.74	3.88	3.90	4.06	4.18	4.32	4.52	4.62	4.70	5.46		11.52	12.56	13.84		
		velocity	7.38	9.36	9.02	8.97	8.62	8.37	8.10	7.74	7.58	7.45	7.33	8.08	9.11	8.36	7.59		
H1 lead leg	R	strides																	
Heat 4 - 2010 European Championships (Barcelona, ESP)															<i>Arnold (2010) - 400mH planning and peaking</i>				
date	28-Jul-10	time	6.22	10.04	13.94	17.84	21.88	26.08	30.46	34.90	39.56	44.40	50.11	4 / 1					
reaction time	0.189	interval		3.82	3.90	3.90	4.04	4.20	4.38	4.44	4.66	4.84	5.71		11.62	12.62	13.94		
		velocity	7.23	9.16	8.97	8.97	8.66	8.33	7.99	7.88	7.51	7.23	7.01	7.98	9.04	8.32	7.53		
H1 lead leg	R	strides																	
FINAL - 2009 IAAF World Championships (Berlin, GER)															<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	18-Aug-09	time	6.07	9.86	13.71	17.65	21.76	25.93	30.19	34.52	38.92	43.46	48.68	6 / 7					
reaction time	0.148	interval		3.79	3.85	3.94	4.11	4.17	4.26	4.33	4.40	4.54	5.22		11.58	12.54	13.27		
		velocity	7.41	9.23	9.09	8.88	8.52	8.39	8.22	8.08	7.95	7.71	7.66	8.22	9.07	8.37	7.91		
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	19	171					
Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)															<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	16-Aug-09	time	6.05	9.79	13.65	17.51	21.54	25.66	29.94	34.24	38.62	43.10	48.27	4 / 2					
reaction time	0.156	interval		3.74	3.86	3.86	4.03	4.12	4.28	4.30	4.38	4.48	5.17	PB	11.46	12.43	13.16		
		velocity	7.44	9.36	9.07	9.07	8.68	8.50	8.18	8.14	7.99	7.81	7.74	8.29	9.16	8.45	7.98		
H1 lead leg		strides						14	14	15	15	15	18.7	91.7					
Heat 4 - 2009 IAAF World Championships (Berlin, GER)															<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>				
date	15-Aug-09	time	6.16	9.98	13.88	17.93	22.03	26.20	30.44	34.76	39.22	43.64	48.76	7 / 1					
reaction time	0.165	interval		3.82	3.90	4.05	4.10	4.17	4.24	4.32	4.46	4.42	5.12		11.77	12.51	13.20		
		velocity	7.31	9.16	8.97	8.64	8.54	8.39	8.25	8.10	7.85	7.92	7.81	8.20	8.92	8.39	7.95		
H1 lead leg		strides																	
Greene, Joe (USA) (1987)																			
Heat 2 - 2007 USATF National Championships (Indianapolis, IN)															<i>USATF Men's Hurdle Development (2007)</i>				
date	21-Jun-07	time	6.17	9.88	13.70	17.60	21.71	26.08	30.61	35.25	39.94	44.72	50.44	5 / 6					
reaction time		interval		3.71	3.82	3.90	4.11	4.37	4.53	4.64	4.69	4.78	5.72		11.43	13.01	14.11		
		velocity	7.29	9.43	9.16	8.97	8.52	8.01	7.73	7.54	7.46	7.32	6.99	7.93	9.19	8.07	7.44		
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	146						
Griffith, Rasheeme (BAR) (2000)																			
FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	09-Jun-23	time	6.05	9.74	13.60	17.52	21.54		30.06	34.48	39.09	43.91	49.17	3 / 5					
reaction time		interval		3.69	3.86	3.92	4.02		8.52	4.42	4.61	4.82	5.26		11.47	12.54	13.85		
		velocity	7.44	9.49	9.07	8.93	8.71		8.22	7.92	7.59	7.26	7.60	8.14	9.15	8.37	7.58		
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	15	18	147					
Grimes, Norman (USA) (1998)																			
FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	07-Jun-19	time	5.93	9.60	13.30	17.06	20.86	24.80	29.06	33.46	38.16	42.93	48.71	3 / 2					
reaction time	0.231	interval		3.67	3.70	3.76	3.80	3.94	4.26	4.40	4.70	4.77	5.78	PB	11.13	12.00	13.87		
		velocity	7.59	9.54	9.46	9.31	9.21	8.88	8.22	7.95	7.45	7.34	6.92	8.21	9.43	8.75	7.57		
H1 lead leg	L	strides		13	13	13	13	13	14	14	14	14	17.5	138.5					
Gucek, Matic Ian (SLO) (2003)																			
Repechage 2 - 2024 Olympic Games (Paris, FRA)															<i>Paris 2024 Olympic Games - Results Book (2024)</i>				
date	07-Aug-24	time	5.86	9.63	13.48	17.40	21.43	25.56	29.82	34.26	38.88	43.57	49.06	7 / 4					
reaction time	0.146	interval		3.77	3.85	3.92	4.03	4.13	4.26	4.44	4.62	4.69	5.49		11.54	12.42	13.75		
		velocity	7.68	9.28	9.09	8.93	8.68	8.47	8.22	7.88	7.58	7.46	7.29	8.15	9.10	8.45	7.64		
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5					
Heat 1 - 2024 Olympic Games (Paris, FRA)															<i>Paris 2024 Olympic Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.97	9.70	13.45	17.33	21.32	25.50	29.88	34.49	39.34	44.41	50.30	3 / 7					
reaction time	0.147	interval		3.73	3.75	3.88	3.99	4.18	4.38	4.61	4.85	5.07	5.89		11.36	12.55	14.53		
		velocity	7.54	9.38	9.33	9.02	8.77	8.37	7.99	7.59	7.22	6.90	6.79	7.95	9.24	8.37	7.23		
H1 lead leg	R	strides	24	14	14	14	14	14	14	15	15	15	19.5	172.5					
FINAL - 2024 European Athletics Championships (Roma, ITA)															<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	11-Jun-24	time	5.84	9.63	13.48	17.36	21.40	25.44	29.73	34.11	38.76	43.40	48.87	2 / 7					
reaction time	0.158	interval		3.79	3.85	3.88	4.04	4.04	4.29	4.38	4.65	4.64	5.47		11.52	12.37	13.67		
		velocity	7.71	9.23	9.09	9.02	8.66	8.66	8.16	7.99	7.53	7.54	7.31	8.18	9.11	8.49	7.68		
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.7	155.7					
Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)															<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.86	9.59	13.42	17.23	21.12	25.18	29.34	33.60	38.17	42.85	48.34	8 / 3					
reaction time	0.186	interval		3.73	3.83	3.81	3.89	4.06	4.16	4.26	4.57	4.68	5.49	NR PB	11.37	12.11	13.51		
		velocity	7.68	9.38	9.14	9.19	9.00	8.62	8.41	8.22	7.66	7.48	7.29	8.27	9.23	8.67	7.77		
H1 lead leg		strides											0						

FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)*Henson (2024) - Athlete First: 2024 year end hurdle report*

date	02-Jun-24	time	5.97	9.76	13.53	17.40	21.46	25.63	29.96	34.50	39.06	43.76	49.13	8 / 6			
reaction time	0.151	interval		3.79	3.77	3.87	4.06	4.17	4.33	4.54	4.56	4.70	5.37	11.43	12.56	13.80	
		velocity	7.54	9.23	9.28	9.04	8.62	8.39	8.08	7.71	7.68	7.45	7.45	8.14	9.19	8.36	7.61
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5			

Guillaume, Jacques (USA) (2002)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

Heat 3 - 2024 USA Olympic Trials (Eugene, OR)																		
date	27-Jun-24	time	6.12	9.83	13.69	17.60	21.52	23.42	25.84	30.40	35.50	40.69	45.76	55.09	4 / Z			
reaction time		interval		3.71	3.86	3.91	3.92	4.32	4.56	5.10	5.19	5.07	9.33	DQ	11.48	12.80	15.36	
		velocity	7.35	9.43	9.07	8.95	8.93	8.54	8.10	7.68	6.86	6.74	6.90	4.29	7.26	9.15	8.20	6.84
H1 lead leg	L	strides	21	13	13	13	13	14	15	16	16			134				

Guillen, Serge (FRA) (1960)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

(1982) - XIII championnats d'Europe d'Atletisme, Athens 1982

Heat 1 - 1982 European Championships (Athens, GRE)																	
date	08-Sep-82	time	5.9		13.9		22.0		30.6		39.6		50.07	/ 2			
reaction time		interval			8.00		8.10		8.60		9.00						
		velocity	7.63		8.75		8.64		8.14		7.78		7.99				
H1 lead leg		strides															

Haapalainen, Jere (FIN) (2004)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

European Athletics (2024) - 2024 european athletics championships - results book

Heat 3 - 2024 European Athletics Championships (Roma, ITA)																	
date	09-Jun-24	time	5.98	9.86	13.84	17.95	22.19	26.52	31.01	35.70	40.91	46.16	52.18	4 / 8			
reaction time	0.217	interval		3.88	3.98	4.11	4.24	4.33	4.49	4.69	5.21	5.25	6.02		11.97	13.06	15.15
		velocity	7.53	9.02	8.79	8.52	8.25	8.08	7.80	7.46	6.72	6.67	6.64	7.67	8.77	8.04	6.93
H1 lead leg		strides												0			

Hackelbusch, Henning (GER) (1982)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

Graubner (2009) - http://www.fgs.uni-halle.de

Heat 2 - 2002 European Championships (Munich, GER)																	
date	07-Aug-02	time	6.21	10.13	14.09	18.10	22.23	26.67	31.23	35.97	40.80	45.71	51.37	/ 7			
reaction time		interval		3.92	3.96	4.01	4.13	4.44	4.56	4.74	4.83	4.91	5.66		11.89	13.13	14.48
		velocity	7.25	8.93	8.84	8.73	8.47	7.88	7.68	7.38	7.25	7.13	7.07	7.79	8.83	8.00	7.25
H1 lead leg		strides															

Hackett, Darek (USA) (2002)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

Heat 3 - 2024 USA Olympic Trials (Eugene, OR)																		
date	27-Jun-24	time	5.85	9.71	13.48	17.49	21.54	23.43	25.81	30.36	35.24	40.32	45.78	52.78	7 / 6			
reaction time		interval		3.86	3.77	4.01	4.05	4.27	4.55	4.88	5.08	5.46	7.00		11.64	12.87	15.42	
		velocity	7.69	9.07	9.28	8.73	8.64	8.54	8.20	7.69	7.17	6.89	6.41	5.71	7.58	9.02	8.16	6.81
H1 lead leg	L	strides	24	15	14	14	14	14	15	15	16	16	20.5	177.5				

Hale, Ja'Kwan (USA) (2000)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

Henson (2024) - Athlete First: 2024 year end hurdle report

FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)																	
date	07-Jun-24	time	6.05	9.78	13.74	17.72	21.72	26.04	30.41	35.01	39.59	44.26	49.49	2 / 7			
reaction time		interval		3.73	3.96	3.98	4.00	4.32	4.37	4.60	4.58	4.67	5.23		11.67	12.69	13.85
		velocity	7.44	9.38	8.84	8.79	8.75	8.10	8.01	7.61	7.64	7.49	7.65	8.08	9.00	8.27	7.58
H1 lead leg	R	strides	20	13	14	14	13	14	14	15	15	15	18	165			

Hall, Quincy (USA) (1998)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

Henson (2022) - Athlete First: 2022 year end hurdle report

FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)																		
date	26-Jun-22	time	6.10	9.81	13.61	17.55	21.62	23.22	25.76	29.96	34.26	38.77	43.34	48.33	6 / 5			
reaction time		interval		3.71	3.80	3.94	4.07	4.14	4.20	4.30	4.45	4.57	4.99		11.45	12.41	13.38	
		velocity	7.38	9.43	9.21	8.88	8.60	8.61	8.45	8.33	8.14	7.76	7.66	8.02	8.28	9.17	8.46	7.85
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	14	16	156			

FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	28-May-22	time	5.80	9.53	13.30	17.16	21.10	23.83	25.20	29.46	33.73	38.37	43.00	48.10	6 / 3			
reaction time	0.213	interval		3.73	3.77	3.86	3.94	4.10	4.26	4.27	4.64	4.63	5.10	PB	11.36	12.30	13.54	
		velocity	7.76	9.38	9.28	9.07	8.88	8.39	8.54	8.22	8.20	7.54	7.56	7.84	8.32	9.24	8.54	7.75
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	14	16	156			

FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	07-Jun-19	time	6.06	9.83	13.70	17.56	21.53	25.53	29.70	34.03	38.60	43.40	48.48	5 / 1			
reaction time	0.269	interval		3.77	3.87	3.86	3.97	4.00	4.17	4.33	4.57	4.80	5.08	PB	11.50	12.14	13.70
		velocity	7.43	9.28	9.04	9.07	8.82	8.75	8.39	8.08	7.66	7.29	7.87	8.25	9.13	8.65	7.66
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	15	16.7	156.7			

Hamada, Hiroshi (JPN) (2001)

H1 H2 H3 H4 H5

200m H6 H7 H8 H9 H10

Run-In Official Time Lane / Place

H1-H4 H4-H7 H7-H10

Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection

FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)																	
date	06-Aug-19	time	6.26	10.28	14.41	18.69	23.02	27.46	31.92	36.53	41.54	46.85	52.71	3 / 4			
reaction time		interval		4.02	4.13	4.28	4.33	4.44	4.46	4.61	5.01	5.31	5.86		12.43	13.23	14.93
		velocity	7.19	8.71	8.47	8.18	8.08	7.88	7.85	7.59	6.99	6.59	6.83	7.59	8.45	7.94	7.03
H1 lead leg		strides		15	15	15	15	15	15	15	16	17	138				

FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)*Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection*

date	04-Aug-18	time	6.41	10.56	14.81	19.10	23.46	27.79	32.25	36.82	41.61	46.50	51.98	9 / 4			
reaction time		interval		4.15	4.25	4.29	4.36	4.33	4.46	4.57	4.79	4.89	5.48	PB	12.69	13.15	14.25

		velocity	7.02	8.43	8.24	8.16	8.03		8.08	7.85	7.66	7.31	7.16	7.30	7.70		8.27	7.98	7.37	
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135					
Hamamura, Kazuki (JPN) (1997)																				
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)																				
										<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>										
date	31-Jul-15	time	6.16	10.33	14.43	18.64	22.96		27.38	31.97	36.75	41.86	47.31		53.19		3 / 6			
reaction time		interval		4.17	4.10	4.21	4.32		4.42	4.59	4.78	5.11	5.45	5.88				12.48	13.33	15.34
		velocity	7.31	8.39	8.54	8.31	8.10		7.92	7.63	7.32	6.85	6.42	6.80	7.52			8.41	7.88	6.84
H1 lead leg		strides		15	15	15	15		15	16	15	17	17		140					
Hamed, Zaid Abou (SYR) (1970)																				
Heat 7 - 2000 Olympic Games (Sydney, AUS)																				
										<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>										
date	24-Sep-00	time	6.08	10.08	14.20	18.36	22.76		27.04	31.60	36.04	40.68			50.74		3 / 5			
reaction time	0.117	interval		4.00	4.12	4.16	4.40		4.28	4.56	4.44	4.64						12.28	13.24	
		velocity	7.40	8.75	8.50	8.41	7.95		8.18	7.68	7.88	7.54			7.88			8.55	7.93	
H1 lead leg		strides	21	14	14	14	14		14	15	15	15			136					
Hamm, Shareez (USA) (1998)																				
Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)																				
										<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>										
date	28-Jun-24	time	6.02	9.80	13.75	17.79	21.94	23.82	26.38	30.97	35.64	40.34	45.09		51.02		1 / 6			
reaction time		interval		3.78	3.95	4.04	4.15		4.44	4.59	4.67	4.70	4.75	5.93				11.77	13.18	14.12
		velocity	7.48	9.26	8.86	8.66	8.43	8.40	7.88	7.63	7.49	7.45	7.37	6.75	7.84			8.92	7.97	7.44
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	16	19	172					
Heat 5 - 2024 USA Olympic Trials (Eugene, OR)																				
										<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>										
date	27-Jun-24	time	6.00	9.76	13.67	17.78	22.08	23.96	26.52	31.28	35.88	40.50	45.29		50.92		7 / 6			
reaction time		interval		3.76	3.91	4.11	4.30		4.44	4.76	4.60	4.62	4.79	5.63				11.78	13.50	14.01
		velocity	7.50	9.31	8.95	8.52	8.14	8.35	7.88	7.35	7.61	7.58	7.31	7.10	7.86			8.91	7.78	7.49
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	15	19	171					
Han Mingkun (CHN) (1995)																				
Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)																				
										<i>CAA Hurdle Development (2021)</i>										
date	25-Apr-21	time	6.46	10.54	14.78	19.26	23.91		28.66	33.42	38.19	43.04	48.16		54.11		7 / 6			
reaction time	0.205	interval		4.08	4.24	4.48	4.65		4.75	4.76	4.77	4.85	5.12	5.95				12.80	14.16	14.74
		velocity	6.97	8.58	8.25	7.81	7.53		7.37	7.35	7.34	7.22	6.84	6.72	7.39			8.20	7.42	7.12
H1 lead leg	L	strides	21	14	14	15	15		15	15	15	15	16	19	174					
Hanaoka, Kazuma (JPN) (2000)																				
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)																				
										<i>Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data</i>										
date	31-Jul-17	time	6.31	10.39	14.53	18.74	23.09		27.59	32.20	36.97	41.99	47.18		52.88		5 / 6			
reaction time	0.192	interval		4.08	4.14	4.21	4.35		4.50	4.61	4.77	5.02	5.19	5.70				12.43	13.46	14.98
		velocity	7.13	8.58	8.45	8.31	8.05		7.78	7.59	7.34	6.97	6.74	7.02	7.56			8.45	7.80	7.01
H1 lead leg		strides		15	15	15	15		15	15	15	17	17		139					
Hann, Mamadou Kasse (FRA) (1986)																				
FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																				
										<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>										
date	06-Jun-19	time	5.97	9.87	13.77	17.70	21.77		25.97	30.32	34.85	39.48	44.45		50.00		1 / 6			
reaction time	0.157	interval		3.90	3.90	3.93	4.07		4.20	4.35	4.53	4.63	4.97	5.55				11.73	12.62	14.13
		velocity	7.54	8.97	8.97	8.91	8.60		8.33	8.05	7.73	7.56	7.04	7.21	8.00			8.95	8.32	7.43
H1 lead leg	L	strides	21	14	14	13	13		14	14	14	14	15	17.7	163.7					
FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																				
										<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>										
date	10-Jun-18	time	6.00	9.80	13.68	17.52	21.48		25.68	30.04	34.56	39.24	44.04		49.58		3 / 4			
reaction time	0.140	interval		3.80	3.88	3.84	3.96		4.20	4.36	4.52	4.68	4.80	5.54				11.52	12.52	14.00
		velocity	7.50	9.21	9.02	9.11	8.84		8.33	8.03	7.74	7.48	7.29	7.22	8.07			9.11	8.39	7.50
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	17.7	163.7					
FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)																				
										<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>										
date	07-Jun-18	time	5.92	9.72		21.48	23.3	25.68	30.08	34.48	39.16	43.96		49.50		2 / 7				
reaction time	0.159	interval		3.80		11.76		4.20	4.40	4.40	4.68	4.80	5.54						13.88	
		velocity	7.60	9.21		8.93	8.58	8.33	7.95	7.95	7.48	7.29	7.22	8.08						7.56
H1 lead leg	L	strides	21	13				14	14	14	14	15	17	122						
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)																				
										<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>										
date	09-Jul-17	time	6.08	9.96	13.84	17.64	21.60		25.72	30.16	34.64	39.36	44.16		49.50		3 / 9			
reaction time	0.151	interval		3.88	3.88	3.80	3.96		4.12	4.44	4.48	4.72	4.80	5.34				11.56	12.52	14.00
		velocity	7.40	9.02	9.02	9.21	8.84		8.50	7.88	7.81	7.42	7.29	7.49	8.08			9.08	8.39	7.50
H1 lead leg	L	strides	21	14	14	13	13		13	14	14	15	14		145					
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																				
										<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>										
date	18-Jun-17	time	6.04	9.92		17.76	21.88		26.08	30.60	35.16	39.80	44.44		49.72		5 / 5			
reaction time	0.158	interval		3.88		7.84	4.12		4.20	4.52	4.56	4.64	4.64	5.28				11.72	12.84	13.84
		velocity	7.45	9.02		8.93	8.50		8.33	7.74	7.68	7.54	7.54	7.58	8.05			8.96	8.18	7.59
H1 lead leg	L	strides	21	13			13		14	14	14	14	14		117					
FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)																				
										<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>										
date	15-Jun-17	time	6.03	9.80	13.53	17.36	21.26		25.46	29.76	34.26	39.00	43.73		48.97		5 / 4			

reaction time	0.176	interval	3.77	3.73	3.83	3.90	4.20	4.30	4.50	4.74	4.73	5.24	11.33	12.40	13.97		
		velocity	7.46	9.28	9.38	9.14	8.97	8.33	8.14	7.78	7.38	7.40	7.63	8.17	9.27	8.47	7.52
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	17.2	163.2			
FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	27-Aug-16	time	6.08	9.92	17.76	21.76	25.88	34.60	39.28	44.08	49.46	1 / 7					
reaction time	0.115	interval	3.84	7.84	4.00	4.12	8.72	4.68	4.80	5.38	11.68						
		velocity	7.40	9.11	8.93	8.75	8.50	8.03	7.48	7.29	7.43	8.09	8.99				
H1 lead leg	R	strides	20	13	13	13	13	14	14	87							
<i>Hann, Mamadou Kasse (SEN) (1986)</i>													<i>Henson (2021) - Athlete First: major championships report</i>				
FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)													<i>Henson (2021) - Athlete First: major championships report</i>				
date	15-Aug-13	time	6.00	9.77	13.60	17.37	21.33	25.33	29.60	34.17	38.70	43.37	48.68	2 / 7			
reaction time	0.195	interval	3.77	3.83	3.77	3.96	4.00	4.27	4.57	4.53	4.67	5.31	11.37	12.23	13.77		
		velocity	7.50	9.28	9.14	9.28	8.84	8.75	8.20	7.66	7.73	7.49	7.53	8.22	9.23	8.59	7.63
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	16.7	143.7				
Happio, Wilfried (FRA) (1998)																	
FINAL - 2024 Memorial van damme (Brussels, BEL)													<i>Omega Timing (2023) - diamond league race analysis</i>				
date	14-Sep-24	time	5.80	9.50	13.34	17.15	21.18	25.34	29.74	34.42	39.39	44.39	50.19	2 / 8			
reaction time	0.151	interval	3.70	3.84	3.81	4.03	4.16	4.40	4.68	4.97	5.00	5.80	11.68	12.59	14.65		
		velocity	7.76	9.46	9.11	9.19	8.68	8.41	7.95	7.48	7.04	7.00	6.90	7.97	8.99	8.34	7.17
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18	159			
Semi-Final 3 - 2024 Olympic Games (Paris, FRA)													<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	07-Aug-24	time	5.73	9.33	12.95	16.65	20.53	24.59	28.85	33.39	38.20	43.03	48.66	7 / 3			
reaction time	0.156	interval	3.60	3.62	3.70	3.88	4.06	4.26	4.54	4.81	4.83	5.63	10.92	12.20	14.18		
		velocity	7.85	9.72	9.67	9.46	9.02	8.62	8.22	7.71	7.28	7.25	7.10	8.22	9.62	8.61	7.40
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159			
Heat 4 - 2024 Olympic Games (Paris, FRA)													<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.73	9.30	12.95	16.73	20.67	24.74	29.06	33.56	38.39	43.07	48.42	7 / 3			
reaction time	0.152	interval	3.57	3.65	3.78	3.94	4.07	4.32	4.50	4.83	4.68	5.35	11.00	12.33	14.01		
		velocity	7.85	9.80	9.59	9.26	8.88	8.60	8.10	7.78	7.25	7.48	7.48	8.26	9.55	8.52	7.49
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.7	158.7			
FINAL - 2024 London Athletics Meet (London, GBR)													<i>Omega Timing (2024) - diamond league race analysis</i>				
date	20-Jul-24	time	5.84	9.49	13.19	16.95	20.82	24.87	29.08	33.43	38.06	42.90	48.26	4 / 5			
reaction time	0.153	interval	3.65	3.70	3.76	3.87	4.05	4.21	4.35	4.63	4.84	5.36	11.11	12.13	13.82		
		velocity	7.71	9.59	9.46	9.31	9.04	8.64	8.31	8.05	7.56	7.23	7.46	8.29	9.45	8.66	7.60
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2	156.2			
FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)													<i>Omega Timing (2024) - diamond league race analysis</i>				
date	12-Jul-24	time	5.92	9.61	13.35	17.12	21.02	25.11	29.31	33.68	38.36	43.06	48.37	1 / 7			
reaction time	0.161	interval	3.69	3.74	3.77	3.90	4.09	4.20	4.37	4.68	4.70	5.31	11.20	12.19	13.75		
		velocity	7.60	9.49	9.36	9.28	8.97	8.56	8.33	8.01	7.48	7.45	7.53	8.27	9.38	8.61	7.64
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17.2	143.2			
FINAL - 2024 Meeting de Paris (Paris, FRA)													<i>Omega Timing (2024) - diamond league race analysis</i>				
date	07-Jul-24	time	5.69	9.32	13.04	16.87	20.79	24.85	29.03	33.42	38.16	43.00	48.56	5 / 4			
reaction time	0.151	interval	3.63	3.72	3.83	3.92	4.06	4.18	4.39	4.74	4.84	5.56	11.18	12.16	13.97		
		velocity	7.91	9.64	9.41	9.14	8.93	8.62	8.37	7.97	7.38	7.23	7.19	8.24	9.39	8.63	7.52
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	15	18	158			
Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)													<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.83	9.59	13.46	17.33	21.29	25.36	29.55	33.84	38.51	43.18	48.55	5 / 5			
reaction time	0.168	interval	3.76	3.87	3.87	3.96	4.07	4.19	4.29	4.67	4.67	5.37	11.50	12.22	13.63		
		velocity	7.72	9.31	9.04	9.04	8.84	8.60	8.35	8.16	7.49	7.49	7.45	8.24	9.13	8.59	7.70
H1 lead leg		strides											0				
FINAL - 2024 Seashore Doha Meeting (Doha, QAT)													<i>Omega Timing (2024) - diamond league race analysis</i>				
date	10-May-24	time	5.80	9.50	13.28	17.16	21.19	25.31	29.53	33.98	38.72	43.54	49.10	4 / 3			
reaction time	0.151	interval	3.70	3.78	3.88	4.03	4.12	4.22	4.45	4.74	4.82	5.56	11.36	12.37	14.01		
		velocity	7.76	9.46	9.26	9.02	8.68	8.50	8.29	7.87	7.38	7.26	7.19	8.15	9.24	8.49	7.49
H1 lead leg	L	strides	20	13	13	13	13	13			15	15	17.7	132.7			
FINAL - 2023 Prefontaine Classic (Eugene, OR)													<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.88	9.56	13.26	17.03	20.93	24.96	29.07	33.36	37.91	42.52	47.83	3 / 5			
reaction time	0.173	interval	3.68	3.70	3.77	3.90	4.03	4.11	4.29	4.55	4.61	5.31	11.15	12.04	13.45		
		velocity	7.65	9.51	9.46	9.28	8.97	8.68	8.52	8.16	7.69	7.59	7.53	8.36	9.42	8.72	7.81
H1 lead leg	L	strides	20			13	13	13	13	13	15	15	18	133			
FINAL - 2023 Weltklasse (Zürich, SUI)													<i>Omega Timing (2023) - diamond league race analysis</i>				
date	31-Aug-23	time	6.09	9.69	13.37	17.16	21.08	25.15	29.33	33.73	38.35	43.05	48.42	2 / 5			
reaction time	0.469	interval	3.60	3.68	3.79	3.92	4.07	4.18	4.40	4.62	4.70	5.37	11.07	12.17	13.72		
		velocity	7.39	9.72	9.51	9.23	8.93	8.60	8.37	7.95	7.58	7.45	7.45	8.26	9.49	8.63	7.65
H1 lead leg	L	strides	20	13		13		13	13			15	17.2	104.2			

Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	21-Aug-23	time	5.94	9.67	13.31	16.91	20.72	24.66	28.76	33.40	43.31	48.83	6 / 7			
reaction time	0.176	interval		3.73	3.64	3.60	3.81	3.94	4.10	4.64	9.91	5.52		10.97	11.85	14.55
		velocity	7.58	9.38	9.62	9.72	9.19	8.88	8.54	7.54	7.06	7.25	8.19		9.57	8.86
H1 lead leg	L	strides	20	13	13	13	13	13	13	14		17.7	129.7			

*Henson (2023) - Athlete First: 2023 year end hurdle report***Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)**

date	20-Aug-23	time	5.93	9.80	13.60	17.43	21.23	25.26	29.46	33.80	38.53	43.36	48.63	4 / 1		
reaction time	0.172	interval		3.87	3.80	3.83	3.80	4.03	4.20	4.34	4.73	4.83	5.27		11.50	12.03
		velocity	7.59	9.04	9.21	9.14	9.21	8.68	8.33	8.06	7.40	7.25	7.59	8.23		9.13
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17	158		

*Henson (2023) - Athlete First: 2023 year end hurdle report***FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)**

date	21-Jul-23	time	5.80	9.44	13.14	16.91	20.82	24.89	29.09	33.44	38.09	42.79	48.25	4 / 5		
reaction time	0.149	interval		3.64	3.70	3.77	3.91	4.07	4.20	4.35	4.65	4.70	5.46		11.11	12.18
		velocity	7.76	9.62	9.46	9.28	8.95	8.60	8.33	8.05	7.53	7.45	7.33	8.29		9.45
H1 lead leg	L	strides	20	13	13	13	13	13	13	15	15	15	115			

*Omega Timing (2023) - diamond league race analysis***FINAL - 2023 Bauhaus Galan (Stockholm, SWE)**

date	02-Jul-23	time	5.79	9.44	13.12	16.88	20.80	24.86	29.12	33.68	38.71	43.77	49.67	6 / 5		
reaction time	0.151	interval		3.65	3.68	3.76	3.92	4.06	4.26	4.56	5.03	5.06	5.90		11.09	12.24
		velocity	7.77	9.59	9.51	9.31	8.93	8.62	8.22	7.68	6.96	6.92	6.78	8.05		9.47
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	15	15	129			

*Omega Timing (2023) - diamond league race analysis***FINAL - 2023 Bislett Games (Oslo, NOR)**

date	15-Jun-23	time	5.82	9.47	13.16	16.95	20.88	24.93	29.11	33.48	38.00	42.70	48.13	5 / 3		
reaction time	0.159	interval		3.65	3.69	3.79	3.93	4.05	4.18	4.37	4.52	4.70	5.43		11.13	12.16
		velocity	7.73	9.59	9.49	9.23	8.91	8.64	8.37	8.01	7.74	7.45	7.37	8.31		9.43
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	17	104			

*Omega Timing (2023) - diamond league race analysis***FINAL - 2023 Meeting de Paris (Paris, FRA)**

date	09-Jun-23	time	5.76	9.37	13.06	16.85	20.77	24.79	28.96	33.32	38.00	42.81	48.26	6 / 2		
reaction time	0.156	interval		3.61	3.69	3.79	3.92	4.02	4.17	4.36	4.68	4.81	5.45		11.09	12.11
		velocity	7.81	9.70	9.49	9.23	8.93	8.71	8.39	8.03	7.48	7.28	7.34	8.29		9.47
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159		

*Omega Timing (2023) - diamond league race analysis***FINAL - 2023 FBK Games (Hengelo, NED)**

date	04-Jun-23	time	5.85	9.55	13.34	17.23	21.27	25.40	29.68	34.18	38.98	43.79	49.40	7 / 4		
reaction time	0.158	interval		3.70	3.79	3.89	4.04	4.13	4.28	4.50	4.80	4.81	5.61		11.38	12.45
		velocity	7.69	9.46	9.23	9.00	8.66	8.47	8.18	7.78	7.29	7.28	7.13	8.10		9.23
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.5	158.5		

*Omega Timing (2023) - continental tour race analysis***FINAL - 2023 Doha Diamond League (Doha, QAT)**

date	05-May-23	time	5.85	9.55	13.30	17.17	21.14	25.24	29.53	33.96	38.65	43.56	49.12	5 / 3		
reaction time	0.156	interval		3.70	3.75	3.87	3.97	4.10	4.29	4.43	4.69	4.91	5.56		11.32	12.36
		velocity	7.69	9.46	9.33	9.04	8.82	8.54	8.16	7.90	7.46	7.13	7.19	8.14		9.28
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159		

*Omega Timing (2023) - diamond league race analysis***FINAL - 2022 Weltklasse (Zürich, SU) (TV Analysis)**

date	08-Sep-22	time	5.87	9.54	13.38	17.32	21.32	22.89	25.46	29.69	34.00	38.71	43.48	48.72	7 / 4	
reaction time	0.130	interval		3.67	3.84	3.94	4.00	4.14	4.23	4.31	4.71	4.77	5.24		11.45	12.37
		velocity	7.67	9.54	9.11	8.88	8.75	8.74	8.45	8.27	8.12	7.43	7.34	7.63	8.21	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.5	158.5		

*Henson (2022) - Athlete First: 2022 year end hurdle report***FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)**

date	02-Sep-22	time	5.87	9.51	13.24	17.10	21.08	22.72	25.16	29.46	33.97	38.67	43.44	48.61	5 / 4-3	
reaction time	0.170	interval		3.64	3.73	3.84	3.84	3.84	4.14	4.30	4.51	4.70	4.77	5.17		13.98
		velocity	7.67	9.62	9.38	9.11	8.93	8.80	8.43	8.14	7.76	7.45	7.34	7.74	8.23	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.2	132.2		

*Henson (2022) - Athlete First: 2022 year end hurdle report***FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)**

date	19-Aug-22	time	5.85	9.43	13.10	17.09	21.06	22.67	25.19	29.44	33.85	38.50	43.27	48.56	3 / 2	
reaction time	0.185	interval		3.58	3.66	3.97	4.00	4.13	4.25	4.41	4.65	4.77	5.29		11.24	12.35
		velocity	7.69	9.78	9.14	8.82	8.82	8.47	8.24	7.94	7.53	7.34	7.56	8.24		9.34
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	133		

*Henson (2022) - Athlete First: 2022 year end hurdle report***FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)**

date	06-Aug-22	time	5.83	9.50	13.26	17.10	21.10	22.80	25.23	29.50	33.93	38.70	43.50	48.74	5 / 3	
reaction time	0.154	interval		3.67	3.76	3.84	4.00	4.13	4.27	4.43	4.77	4.80	5.24		11.27	12.40
		velocity	7.72	9.54	9.31	9.11	8.75	8.77	8.47	8.20	7.90	7.34	7.29	7.63	8.21	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.7	145.7		

*Henson (2022) - Athlete First: 2022 year end hurdle report***FINAL - 2022 World Athletics Championships (Eugene, OR)**

date	19-Jul-22	time	5.79	9.33	12.95	16.58	20.34	21.86	24.26	28.50	32.83	37.49	42.18	47.41	5 / 4	
reaction time	0.134	interval		3.54	3.62	3.63	3.76	3.92	4.24	4.33	4.66	4.69	5.23	PB		10.79
		velocity	7.77	9.89	9.67	9.64	9.31	9.15	8.93	8.25	8.08	7.51	7.46	7.65	8.44	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159		

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	17-Jul-22	time	5.76	9.40	13.20	16.90	20.76	22.44	24.80	29.06	33.46	38.07	42.73	48.14	6 / 2					
reaction time	0.136	interval		3.64	3.80	3.70	3.86		4.04	4.26	4.40	4.61	4.66	5.41	PB		11.14	12.16	13.67	
		velocity	7.81	9.62	9.21	9.46	9.07	8.91	8.66	8.22	7.95	7.59	7.51	7.39	8.31		9.43	8.63	7.68	
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159					

Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	16-Jul-22	time	5.96	9.60	13.40	17.27	21.30	23.05	25.40	29.73	34.20	39.07	44.07	49.60	6 / 3					
reaction time	0.308	interval		3.64	3.80	3.87	4.03		4.10	4.33	4.47	4.87	5.00	5.53			11.31	12.46	14.34	
		velocity	7.55	9.62	9.21	9.04	8.68	8.68	8.54	8.08	7.83	7.19	7.00	7.23	8.06		9.28	8.43	7.32	
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.2	158.2					

FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	16-Jun-22	time	5.76	9.40	13.22	17.12	21.10	22.81	25.28	29.72	34.12	38.80	43.48	49.01	3 / 3					
reaction time	0.150	interval		3.64	3.82	3.90	3.98		4.18	4.44	4.40	4.68	4.68	5.53	PB		11.36	12.60	13.76	
		velocity	7.81	9.62	9.16	8.97	8.79	8.77	8.37	7.88	7.95	7.48	7.48	7.23	8.16		9.24	8.33	7.63	
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	18	161					

FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	05-Jun-22	time	5.87	9.50	13.27	17.17	21.20	22.90	25.30	29.80	34.30	39.07	43.83	49.27	2 / 3					
reaction time	0.143	interval		3.63	3.77	3.90	4.03		4.10	4.50	4.50	4.77	4.76	5.44			11.30	12.63	14.03	
		velocity	7.67	9.64	9.28	8.97	8.68	8.73	8.54	7.78	7.78	7.34	7.35	7.35	8.12		9.29	8.31	7.48	
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15	143						

FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	09-Jul-21	time	5.84	9.54	17.32	21.37	23.1	25.52	30.05	34.60	39.34	44.17	49.66	3 / 5						
reaction time	0.123	interval		3.70	7.78	4.05		4.15	4.53	4.55	4.74	4.83	5.49			11.48	12.73	14.12		
		velocity	7.71	9.46	9.00	8.64	8.66	8.43	7.73	7.69	7.38	7.25	7.29	8.05		9.15	8.25	7.44		
H1 lead leg	L	strides	20	13		13		13	14		15	15	103							

FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	04-Jul-21	time	5.80	9.56	13.40	17.24	21.20	23.0	25.28		34.04	38.88	43.64	49.28	2 / 6					
reaction time	0.136	interval		3.76	3.84	3.84	3.96		4.08		8.76	4.84	4.76	5.64		11.44				
		velocity	7.76	9.31	9.11	9.11	8.84	8.70	8.58		7.99	7.23	7.35	7.09	8.12		9.18			
H1 lead leg	L	strides	20	13	13	13	13		13	13		15	15	18	146					

FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

Henson (2020) - Athlete First: 2020 year end hurdle report

date	17-Sep-20	time	5.91	9.71		21.59	23.4		30.10	34.53	39.21	44.01	49.65	5 / 5						
reaction time	0.166	interval		3.80		11.88			8.51	4.43	4.68	4.80	5.64						13.91	
		velocity	7.61	9.21		8.84	8.55		8.23	7.90	7.48	7.29	7.09	8.06					7.55	
H1 lead leg	L	strides	20	13						14	15	15	17.5	94.5						

FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

Henson (2020) - Athlete First: 2020 year end hurdle report

date	23-Aug-20	time	5.86		13.48	17.44	21.40	23.2	25.54		34.36	38.94	43.64	49.14	5 / 2					
reaction time	0.141	interval			7.62	3.96	3.96		4.14		8.82	4.58	4.70	5.50		11.58				
		velocity	7.68		9.19	8.84	8.84	8.62	8.45		7.94	7.64	7.45	7.27	8.14		9.07			
H1 lead leg	L	strides	20	13		13	13		13			15	15	18.5	120.5					

FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)

Henson (2020) - Athlete First: 2017 year end hurdle report

date	23-Jul-17	time	5.88	9.64	13.56	17.60	21.84		26.04	30.56	34.92	39.48	44.24	49.93	6 / 1					
reaction time	0.234	interval		3.76	3.92	4.04	4.24		4.20	4.52	4.36	4.56	4.76	5.69	NJR PB		11.72	12.96	13.68	
		velocity	7.65	9.31	8.93	8.66	8.25		8.33	7.74	8.03	7.68	7.35	7.03	8.01		8.96	8.10	7.68	
H1 lead leg	L	strides		13	13	13	13		13	14	14	15	15	18	141					

Harada, Hibiki (JPN) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2021 Japanese High School National Championships (Fukui, JPN)

Shibayama (2021) - national high school and U20 national championships

date	30-Jul-21	time	6.19	10.08	14.32	18.84	23.36		28.01	32.83	37.74	42.91	48.06	53.82	1 / 8					
reaction time	0.162	interval		3.89	4.24	4.52	4.52		4.65	4.82	4.91	5.17	5.15	5.76			12.65	13.99	15.23	
		velocity	7.27	9.00	8.25	7.74	7.74		7.53	7.26	7.13	6.77	6.80	6.94	7.43		8.30	7.51	6.89	
H1 lead leg		strides		14	14	15	15		15	15	15	16	16	135						

Hamden, Iain (ZIM) (1976)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 8 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.26	10.10	13.98	17.98	22.18		26.62	31.22	36.26	41.74	54.01	3 / 7						
reaction time	0.287	interval		3.84	3.88	4.00	4.20		4.44	4.60	5.04	5.48				11.72	13.24			
		velocity	7.19	9.11	9.02	8.75	8.33		7.88	7.61	6.94	6.39	7.41			8.96	7.93			
H1 lead leg		strides	21	13	13	13	13		14	14	15	16	132							

Hamden, Ken (ZIM) (1973)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 5 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.28	10.00	13.92	17.84	21.88		26.00	30.40	35.24	40.48	45.72	51.83	5 / 4					
reaction time	0.435	interval		3.72	3.92	3.92	4.04		4.12	4.40	4.84	5.24	5.24	6.11			11.56	12.56	15.32	
		velocity	7.17	9.41	8.93	8.93	8.66		8.50	7.95	7.23	6.68	6.68	6.55	7.72		9.08	8.36	6.85	
H1 lead leg		strides	22	13	13	13	13		13	13	15	17	17	19.7	168.7					

Harris, Danny (USA) (1965)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1987 IAAF World Championships (Rome, ITA)

													Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)					
date	01-Sep-87	time	6.07	9.20	13.44	17.22	21.09	24.98	29.17	33.35	37.76	42.42	47.48	4 / 2				
reaction time		interval		3.13	4.24	3.78	3.87	3.89	4.19	4.18	4.41	4.66	5.06			11.15	11.95	13.25
		velocity	7.41	11.18	8.25	9.26	9.04	9.00	8.35	8.37	7.94	7.51	7.91	8.42		9.42	8.79	7.92
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	17.8					

Semi-Final 1 - 1987 IAAF World Championships (Rome, ITA)

													Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)					
date	31-Aug-87	time	6.01	9.69	13.41	17.17	21.02	24.96	29.21	33.58	38.15	43.01	48.24	3 / 2				
reaction time		interval		3.68	3.72	3.76	3.85	3.94	4.25	4.37	4.57	4.86	5.23			11.16	12.04	13.80
		velocity	7.49	9.51	9.41	9.31	9.09	8.88	8.24	8.01	7.66	7.20	7.65	8.29		9.41	8.72	7.61
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18.1					

Heat 2 - 1987 IAAF World Championships (Rome, ITA)

													Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)					
date	30-Aug-87	time	6.11	9.80	13.59	17.45	21.42	25.62	30.04	34.48	38.98	43.54	48.74	8 / 1				
reaction time		interval		3.69	3.79	3.86	3.97	4.20	4.42	4.44	4.50	4.56	5.20			11.34	12.59	13.50
		velocity	7.36	9.49	9.23	9.07	8.82	8.33	7.92	7.88	7.78	7.68	7.69	8.21		9.26	8.34	7.78
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	17					

FINAL - 1984 Olympic Games (Los Angeles, CA)

													Behm (1995) - la tactique du 400 haies					
date	05-Aug-84	time	6.0	9.8	13.7	17.6	21.6	25.7	29.9	34.1	38.5	43.0	48.13	4 / 2				
reaction time	0.210	interval		3.80	3.90	3.90	4.00	4.10	4.20	4.20	4.40	4.50	5.13			11.60	12.30	13.10
		velocity	7.50	9.21	8.97	8.97	8.75	8.54	8.33	8.33	7.95	7.78	7.80	8.31		9.05	8.54	8.02
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	15	17					

Harris, Rickey (USA) (1981)

													USATF Men's Hurdle Development (2007)					
date	21-Jun-07	time	6.02	9.93	13.85	17.85	21.97	26.28	30.63	35.11	39.71	44.41	49.46	6 / 3				
reaction time		interval		3.91	3.92	4.00	4.12	4.31	4.35	4.48	4.60	4.70	5.05			11.83	12.78	13.78
		velocity	7.48	8.95	8.93	8.75	8.50	8.12	8.05	7.81	7.61	7.45	7.92	8.09		8.88	8.22	7.62
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	157					

Hartman, Samuel (USA) (1999)

													USATF and Karmarush (2024) - USA Olympic trials results and race analysis					
date	28-Jun-24	time	6.16	9.99	13.87	17.84	21.73	23.56	25.78	30.13	34.93	39.84	44.72	50.50	3 / 5			
reaction time		interval		3.83	3.88	3.97	3.89	4.05	4.35	4.80	4.91	4.88	5.78			11.68	12.29	14.59
		velocity	7.31	9.14	9.02	8.82	9.00	8.49	8.64	8.05	7.29	7.13	7.17	6.92	7.92		8.99	8.54
H1 lead leg	R	strides		13	13	13	13		13	13	15	15	18.2	141.2				

Heat 4 - 2024 USA Olympic Trials (Eugene, OR)

													USATF and Karmarush (2024) - USA Olympic trials results and race analysis					
date	27-Jun-24	time	6.17	10.05	14.00	17.96	21.96	23.74	26.04	30.40	35.13	39.89	45.09	50.98	9 / 4			
reaction time		interval		3.88	3.95	3.96	4.00	4.08	4.36	4.73	4.76	5.20	5.89			11.79	12.44	14.69
		velocity	7.29	9.02	8.86	8.84	8.75	8.42	8.58	8.03	7.40	7.35	6.73	6.79	7.85		8.91	8.44
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	19	162			

Harvey, Jonathan (USA) (1997)

													Henson (2021) - Athlete First: 2021 year end hurdle report					
date	25-Jun-21	time	5.93	9.67	13.54	17.55	21.69	26.16	30.63	35.23	39.77	44.34	49.53	7 / 6				
reaction time	0.140	interval		3.74	3.87	4.01	4.14	4.47	4.47	4.60	4.54	4.57	5.19			11.62	13.08	13.71
		velocity	7.59	9.36	9.04	8.73	8.45	7.83	7.83	7.61	7.71	7.66	7.71	8.08		9.04	8.03	7.66
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	17.2	163.2				

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)

													Henson (2021) - Athlete First: 2021 year end hurdle report					
date	11-Jun-21	time	5.87	9.57		17.20	21.27		30.07	34.70	39.33	44.03	49.64	2 / 7				
reaction time	0.149	interval		3.70		7.63	4.07		8.80	4.63	4.63	4.70	5.61			11.33	12.87	13.96
		velocity	7.67	9.46		9.17	8.60		7.95	7.56	7.56	7.45	7.13	8.06		9.27	8.16	7.52
H1 lead leg	R	strides	21	13		13					15	15	18.5	110.5				

Hashimoto, Ryosei (JPN)

													Takashima (2023) - national high school sports festival - biomechanics data					
date	04-Aug-23	time	6.17	10.23	14.36	18.50	22.72	27.08	31.50	36.00	40.66	45.40	50.74	4 / 3				
reaction time	0.206	interval		4.06	4.13	4.14	4.22	4.36	4.42	4.50	4.66	4.74	5.34			12.33	13.00	13.90
		velocity	7.29	8.62	8.47	8.45	8.29	8.03	7.92	7.78	7.51	7.38	7.49	7.88		8.52	8.08	7.55
H1 lead leg		strides	20	15	15	15	15		15	15	15	15	18	173				

Hashimoto, Yu (JPN) (2006)

													Takashima (2024) - national high school sports festival - biomechanics data					
date	30-Jul-24	time	6.07	9.86	13.73	17.83	21.89	26.14	30.53	35.10	39.77	44.71	50.46	8 / 2				
reaction time	0.207	interval		3.79	3.87	4.10	4.06	4.25	4.39	4.57	4.67	4.94	5.75			11.76	12.70	14.18
		velocity	7.41	9.23	9.04	8.54	8.62	8.24	7.97	7.66	7.49	7.09	6.96	7.93		8.93	8.27	7.40
H1 lead leg		strides	21	14	14	14	14		15	15	15	15	21	173				

Hataura, Yusuke (JPN) (1998)

													Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season					
date	02-Oct-20	time	6.16	9.99	13.93	17.95	22.14	26.48	30.85	35.34	39.99	44.91	50.80	8 / 7				
reaction time	0.131	interval		3.83	3.94	4.02	4.19	4.34	4.37	4.49	4.65	4.92	5.89			11.79	12.90	14.06
		velocity	7.31	9.14	8.88	8.71	8.35	8.06	8.01	7.80	7.53	7.11	6.79	7.87		8.91	8.14	7.47
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	153				

Hemeida, Bassem (QAT) (2000)														H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Repechage 1 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	07-Aug-24	time	5.93	9.75	13.70	17.62	21.66		25.94	30.34	34.93	39.56	44.31		49.64	2 / 6														
reaction time	0.146	interval		3.82	3.95	3.92	4.04		4.28	4.40	4.59	4.63	4.75	5.33			11.69	12.72	13.97											
		velocity	7.59	9.16	8.86	8.93	8.66		8.18	7.95	7.63	7.56	7.37	7.50	8.06		8.98	8.25	7.52											
H1 lead leg	R	strides	21			13	13		14	14	14	14	14	18	135															
Heat 1 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>																
date	05-Aug-24	time	5.89	9.62	13.43	17.32	21.35		25.66	30.18	34.87	39.66	44.39		49.82	5 / 5														
reaction time	0.141	interval		3.73	3.81	3.89	4.03		4.31	4.52	4.69	4.79	4.73	5.43			11.43	12.86	14.21											
		velocity	7.64	9.38	9.19	9.00	8.68		8.12	7.74	7.46	7.31	7.40	7.37	8.03		9.19	8.16	7.39											
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18	164															
FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>																
date	02-Jun-24	time	6.00	9.83			21.76		30.68	35.27	40.10	44.96		50.38	1 / 8															
reaction time	0.154	interval		3.83			11.93		8.92	4.59	4.83	4.86	5.42						14.28											
		velocity	7.50	9.14			8.80		7.85	7.63	7.25	7.20	7.38	7.94					7.35											
H1 lead leg	R	strides	21	13					14	15	15	15	18	96																
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)														<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>																
date	30-May-24	time	6.00	9.77	13.71	17.62		26.16		35.53	40.54		52.41	2 / 8																
reaction time	0.171	interval		3.77	3.94	3.91		8.54		9.37	5.01						11.62													
		velocity	7.50	9.28	8.88	8.95		8.20		7.47	6.99		7.63				9.04													
H1 lead leg	R	strides	21	13	13	14					15		76																	
Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
date	21-Aug-23	time	5.96	9.80	13.63	17.36	21.26		25.50	29.83	34.40	39.06	43.97		49.50	4 / 7														
reaction time	0.172	interval		3.84	3.83	3.73	3.90		4.24	4.33	4.57	4.66	4.91	5.53			11.40	12.47	14.14											
		velocity	7.55	9.11	9.14	9.38	8.97		8.25	8.08	7.66	7.51	7.13	7.23	8.08		9.21	8.42	7.43											
H1 lead leg	R	strides	21	13	14	13	13		14		14	14	15	17.7	148.7															
Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)														<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																
date	20-Aug-23	time	6.03	9.93	13.90	17.73	21.66		25.83	30.23	34.72	39.47	44.20		49.50	2 / 3														
reaction time	0.156	interval		3.90	3.97	3.83	3.93		4.17	4.40	4.49	4.75	4.73	5.30			11.70	12.50	13.97											
		velocity	7.46	8.97	8.82	9.14	8.91		8.39	7.95	7.80	7.37	7.40	7.55	8.08		8.97	8.40	7.52											
H1 lead leg	R	strides	21	13	13	13	14		14	14	14	14	14	17	161															
Hemery, David (GBR) (1944)														<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>																
FINAL - 1972 Olympic Games (Munich, FRG)																														
date	03-Sep-72	time	6.1	9.8	13.4	17.2	21.1	22.8	25.1	29.3	33.6	38.2	43.0		48.52	5 / 3														
reaction time		interval		3.70	3.60	3.80	3.90		4.00	4.20	4.30	4.60	4.80	5.52			11.10	12.10	13.70											
		velocity	7.38	9.46	9.72	9.21	8.97	8.77	8.75	8.33	8.14	7.61	7.29	7.25	8.24		9.46	8.68	7.66											
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	18.2	164.2															
Heat 2 - 1972 Olympic Games (Munich, FRG)														<i>Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden</i>																
date	01-Sep-72	time					21.8		30.3			44.3		49.72	5 / 1															
reaction time		interval							8.50			14.00	5.42						14.00											
		velocity					8.49		8.24			7.50	7.38	8.05					7.50											
H1 lead leg		strides																												
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)														<i>McFarlane (1981) - understanding the 400m hurdles (in Jarver (ed) - the hurdles, 1981)</i>																
date	15-Oct-68	time	6.0	9.8	13.6	17.5	21.5	23.3	25.4	29.6	33.9	38.3	42.8		48.1	6 / 1														
reaction time		interval		3.80	3.80	3.90	4.00		3.90	4.20	4.30	4.40	4.50	5.30	WR		11.50	12.10	13.20											
		velocity	7.50	9.21	9.21	8.97	8.75	8.58	8.97	8.33	8.14	7.95	7.78	7.55	8.32	(48.12)	9.13	8.68	7.95											
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	18	164															
Heat 4 - 1968 Olympic Games (Mexico City, MEX) (Altitude)														<i>Jonath (1969) - wie gerhard hennige trainiert</i>																
date	13-Oct-68	time	6.0	10.0	14.0	18.1	22.2	23.7	26.7	30.8	35.0	39.5	44.1		50.3	1 / 2														
reaction time		interval		4.00	4.00	4.10	4.10		4.50	4.10	4.20	4.50	4.60	6.20	(50.33)		12.10	12.70	13.30											
		velocity	7.50	8.75	8.75	8.54	8.54	8.44	7.78	8.54	8.33	7.78	7.61	6.45	7.95		8.68	8.27	7.89											
H1 lead leg		strides																												
Hennige, Gerhard (FRG) (1940)														<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>																
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)																														
date	15-Oct-68	time	6.0	9.9	13.8	17.8	21.9	23.8	26.1	30.5	34.9	39.4	44.0		49.0	2 / 2														
reaction time		interval		3.90	3.90	4.00	4.10		4.20	4.40	4.40	4.50	4.60	5.00	(49.02)		11.80	12.70	13.50											
		velocity	7.50	8.97	8.97	8.75	8.54	8.40	8.33	7.95	7.95	7.78	7.61	8.00	8.16		8.90	8.27	7.78											
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	18.2	164															
Semi-Final 2 - 1968 Olympic Games (Mexico City, MEX) (Altitude)														<i>Jonath (1969) - wie gerhard hennige trainiert</i>																
date	14-Oct-68	time	6.1	9.9	13.7	17.7	21.9	23.6	26.0	30.3	34.6	39.0	43.6		49.1	1 / 1														
reaction time		interval		3.80	3.80	4.00	4.20		4.10	4.30	4.30	4.40	4.60	5.50	(49.16)		11.60	12.60	13.30											
		velocity	7.38	9.21	9.21	8.75	8.33	8.47	8.54	8.14	8.14	7.95	7.61	7.27	8.15		9.05	8.33	7.89											
H1 lead leg		strides																												
Heat 1 - 1968 Olympic Games (Mexico City, MEX) (Altitude)														<i>Jonath (1969) - wie gerhard hennige trainiert</i>																

date	13-Oct-68	time	5.9	9.8	13.6	17.6	21.8	23.5	25.8	30.0	34.5	39.1	43.5		49.5	/ 1			
reaction time		interval		3.90	3.80	4.00	4.20		4.00	4.20	4.50	4.60	4.40	6.00	(49.57)		11.70	12.40	13.50
		velocity	7.63	8.97	9.21	8.75	8.33	8.51	8.75	8.33	7.78	7.61	7.95	6.67	8.08		8.97	8.47	7.78
H1 lead leg		strides																	

Herbert, Llewellyn (RSA) (1977)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2003 IAAF World Championships (Paris, FRA)																			
<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>																			
date	29-Aug-03	time	6.1	9.8	13.7	17.6	21.6		25.5	29.6	33.7	38.0	42.8		72.10	8 / 8			
reaction time	0.149	interval		3.70	3.90	3.90	4.00		3.90	4.10	4.10	4.30	4.80	29.30			11.50	12.00	13.20
		velocity	7.38	9.46	8.97	8.97	8.75		8.97	8.54	8.54	8.14	7.29	1.37	5.55		9.13	8.75	7.95
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	16		152				
FINAL - 2002 IAAF World Cup (Madrid, ESP)																			
<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>																			
date	20-Sep-02	time	6.06	9.90	13.94	17.93	21.98		26.20	30.53	35.03	39.76	44.75		50.52	2 / 7			
reaction time	0.136	interval		3.84	4.04	3.99	4.05		4.22	4.33	4.50	4.73	4.99	5.77			11.87	12.60	14.22
		velocity	7.43	9.11	8.66	8.77	8.64		8.29	8.08	7.78	7.40	7.01	6.93	7.92		8.85	8.33	7.38
H1 lead leg	L	strides	22	14	14	14	14		14	15	16	16	16	18.5	173.5				
FINAL - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	27-Sep-00	time	5.98	9.78	13.62	17.50	21.46	22.98	25.50	29.54	33.70	38.06	42.54		47.81	6 / 3			
reaction time	0.169	interval		3.80	3.84	3.88	3.96		4.04	4.04	4.16	4.36	4.48	5.27	NR		11.52	12.04	13.00
		velocity	7.53	9.21	9.11	9.02	8.84	8.70	8.66	8.66	8.41	8.03	7.81	7.59	8.37		9.11	8.72	8.08
H1 lead leg		strides	22	14	14	14	14		14	14	15	15	15	18.2	169.2				
Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	25-Sep-00	time	5.96	9.80	13.80	17.72	21.72	23.38	25.80	29.96	34.16	38.56	43.12		48.38	4 / 1			
reaction time	0.153	interval		3.84	4.00	3.92	4.00		4.08	4.16	4.20	4.40	4.56	5.26			11.76	12.24	13.16
		velocity	7.55	9.11	8.75	8.93	8.75	8.55	8.58	8.41	8.33	7.95	7.68	7.60	8.27		8.93	8.58	7.98
H1 lead leg		strides		13	13	13	14		14	14	15	15	15	18.2	144.2				
Heat 1 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	5.98	9.82	13.62	17.50	21.42		25.58	29.82	34.18	38.74	43.62		49.25	8 / 1			
reaction time	0.171	interval		3.84	3.80	3.88	3.92		4.16	4.24	4.36	4.56	4.88	5.63			11.52	12.32	13.80
		velocity	7.53	9.11	9.21	9.02	8.93		8.41	8.25	8.03	7.68	7.17	7.10	8.12		9.11	8.52	7.61
H1 lead leg		strides	22	14	14	14	14		15	15	15	15	16	19.2	173.2				
FINAL - 1997 IAAF World Championships (Athens, GRE)																			
<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>																			
date	04-Aug-97	time	5.96	9.62	13.46	17.32	21.48		25.64	29.86	34.14	38.48	42.87		47.86	1 / 2			
reaction time	0.147	interval		3.66	3.84	3.86	4.16		4.16	4.22	4.28	4.34	4.39	4.99	NR		11.36	12.54	13.01
		velocity	7.55	9.56	9.11	9.07	8.41		8.41	8.29	8.18	8.06	7.97	8.02	8.36		9.24	8.37	8.07
H1 lead leg		strides																	
Herrero, Juan (ESP) (1976)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 1998 Spanish National Championships (San Sebastián, ESP)																			
<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>																			
date	02-Aug-98	time	6.03	10.02	14.18	18.37	22.62		26.87	31.25	35.77	40.38	45.15		50.96	3 / 2			
reaction time		interval		3.99	4.16	4.19	4.25		4.25	4.38	4.52	4.61	4.77	5.81			12.34	12.88	13.90
		velocity	7.46	8.77	8.41	8.35	8.24		8.24	7.99	7.74	7.59	7.34	6.88	7.85		8.51	8.15	7.55
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	15	19	171				
Housse, Jean-Laurent (FRA) (1974)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)																			
<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																			
date	25-Aug-99	time	5.75	9.54	13.44	17.45	21.57		25.82	30.25	34.73	39.34	44.21		50.47	1 / 8			
reaction time	0.141	interval		3.79	3.90	4.01	4.12		4.25	4.43	4.48	4.61	4.87	6.26			11.70	12.80	13.96
		velocity	7.83	9.23	8.97	8.73	8.50		8.24	7.90	7.81	7.59	7.19	6.39	7.93		8.97	8.20	7.52
H1 lead leg	R	strides	21	13	13	13	14		14	15	15	15	15	19	167				
Hinti, Saad (MAR) (2002)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)																			
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																			
date	05-Jun-22	time	5.83	9.63	13.57	17.67	22.00	23.85	26.43	31.00	35.63				52.98	3 / 6			
reaction time	0.191	interval		3.80	3.94	4.10	4.33		4.43	4.57	4.63						11.84	13.33	
		velocity	7.72	9.21	8.88	8.54	8.08	8.39	7.90	7.66	7.56				7.55		8.87	7.88	
H1 lead leg	R	strides	21	14	14	15	15		15	15	15				124				
Hirata, Ai (JPN) (2004)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)																			
<i>Kishima (2022) - national high school championships biomechanics data collection</i>																			
date	05-Aug-22	time	6.15	10.03	14.05	18.08	22.27		26.57	30.98	35.53	40.25	45.20		51.01	5 / 2			
reaction time	0.185	interval		3.88	4.02	4.03	4.19		4.30	4.41	4.55	4.72	4.95	5.81	PB		11.93	12.90	14.22
		velocity	7.32	9.02	8.71	8.68	8.35		8.14	7.94	7.69	7.42	7.07	6.88	7.84		8.80	8.14	7.38
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	20	177				
Holmes, TJ (USA) (1995)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																			
<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																			
date	25-Jun-21	time	6.07	9.93	13.73	17.53	21.53		25.83	30.57	35.33	40.43	45.93		53.98	5 / 8			
reaction time	0.189	interval		3.86	3.80	3.80	4.00		4.30	4.74	4.76	5.10	5.50	8.05			11.46	13.04	15.36
		velocity	7.41	9.07	9.21	9.21	8.75		8.14	7.38	7.35	6.86	6.36	4.97	7.41		9.16	8.05	6.84
H1 lead leg	L	strides	19	12	12	13	13		13	14	14	14	15		139				

FINAL - 2019 IAAF World Championships (Doha, QAT)*Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	30-Sep-19	time	6.00	9.63	13.36	17.08	20.96	25.06	29.34	33.76	38.48	43.10	48.20	3 / 5			
reaction time	0.193	interval		3.63	3.73	3.72	3.88	4.10	4.28	4.42	4.72	4.62	5.10	PB	11.08	12.26	13.76
		velocity	7.50	9.64	9.38	9.41	9.02	8.54	8.18	7.92	7.42	7.58	7.84	8.30		9.48	8.56
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17	157			

Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)*Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	5.90	9.49	13.18	16.95	20.97	25.16	29.45	34.05	38.59	43.38	48.67	7 / 3			
reaction time	0.258	interval		3.59	3.69	3.77	4.02	4.19	4.29	4.60	4.54	4.79	5.29		11.05	12.50	13.93
		velocity	7.63	9.75	9.49	9.28	8.71	8.35	8.16	7.61	7.71	7.31	7.56	8.22		9.50	8.40
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	17	157			

FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	24-Aug-19	time	5.86	9.56	13.30	17.32	21.46	23.2	25.62	29.94	34.40	39.12	43.80	49.04	6 / 5		
reaction time	0.197	interval		3.70	3.74	4.02	4.14	4.16	4.32	4.46	4.72	4.68	5.24		11.46	12.62	13.86
		velocity	7.68	9.46	9.36	8.71	8.45	8.62	8.41	8.10	7.85	7.42	7.48	7.63	8.16		9.16
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	17	156			

FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	30-Jun-19	time	5.90	9.46	13.30	17.13	21.10	25.46	29.86	34.56	39.16	44.03	49.79	8 / 5			
reaction time	0.282	interval		3.56	3.84	3.83	3.97	4.36	4.40	4.70	4.60	4.87	5.76		11.23	12.73	14.17
		velocity	7.63	9.83	9.11	9.14	8.82	8.03	7.95	7.45	7.61	7.19	6.94	8.03		9.35	8.25
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	15	116				

FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	13-Jun-19	time	6.05	9.71	13.48		21.35	23.0	25.48	29.86	34.26	39.44	44.48	50.60	5 / 7		
reaction time	0.292	interval		3.66	3.77		7.87	4.13	4.38	4.40	5.18	5.04	6.12			14.62	
		velocity	7.44	9.56	9.28		8.89	8.70	8.47	7.99	7.95	6.76	6.94	6.54	7.91		7.18
H1 lead leg	L	strides	19	13	13			13	13	13	15	15	18	132			

FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	30-May-19	time	5.86	9.52	13.32	17.15	21.11	22.7	25.26	29.62	34.06	38.90	43.62	49.25	6 / 2			
reaction time	0.156	interval		3.66	3.80	3.83	3.96		4.15	4.36	4.44	4.84	4.72	5.63		11.29	12.47	14.00
		velocity	7.68	9.56	9.21	9.14	8.84	8.81	8.43	8.03	7.88	7.23	7.42	7.10	8.12		9.30	8.42
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17.2	156.2			

FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	30-Aug-18	time	5.76	9.32	13.08	16.96	21.00	22.8	25.16	29.44	34.00	39.04	44.48	51.39	6 / 8			
reaction time	0.186	interval		3.56	3.76	3.88	4.04		4.16	4.28	4.56	5.04	5.44	6.91		11.20	12.48	15.04
		velocity	7.81	9.83	9.31	9.02	8.66	8.77	8.41	8.18	7.68	6.94	6.43	5.79	7.78		9.38	8.41
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	16	128					

FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	21-Jul-18	time	5.92	9.64		21.24		25.40	29.76	34.40	39.12	44.00	49.66	4 / 7			
reaction time	0.211	interval		3.72		11.60		4.16	4.36	4.64	4.72	4.88	5.66		14.24		
		velocity	7.60	9.41		9.05		8.41	8.03	7.54	7.42	7.17	7.07	8.05		7.37	
H1 lead leg	L	strides	20	13				13	13	14	14	15	102				

FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	05-Jul-18	time	5.84	9.56	13.28	17.12	21.16	25.40	29.76	34.20	38.92	43.64	48.94	7 / 4				
reaction time	0.188	interval		3.72	3.72	3.84	4.04		4.24	4.36	4.44	4.72	4.72	5.30		11.28	12.64	13.88
		velocity	7.71	9.41	9.41	9.11	8.66		8.25	8.03	7.88	7.42	7.42	7.55	8.17		9.31	8.31
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17	156			

FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	30-Jun-18	time	5.96	9.60	13.32	17.12	21.04	22.8	25.16	29.48	33.92	38.56	43.12	48.30	4 / 4			
reaction time	0.230	interval		3.64	3.72	3.80	3.92		4.12	4.32	4.44	4.64	4.56	5.18		11.16	12.36	13.64
		velocity	7.55	9.62	9.41	9.21	8.93	8.77	8.50	8.10	7.88	7.54	7.68	7.72	8.28		9.41	8.50
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17	158			

FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	07-Jun-18	time	5.76	9.36		20.84	22.6	24.96	29.36	33.84	38.56	43.24	48.64	3 / 4			
reaction time	0.210	interval		3.60		11.48		4.12	4.40	4.48	4.72	4.68	5.40		13.88		
		velocity	7.81	9.72		9.15	8.85	8.50	7.95	7.81	7.42	7.48	7.41	8.22		7.56	
H1 lead leg	L	strides	20	13	13			13	14	14	14	14	17	132			

FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	31-May-18	time	5.96	9.72	13.60	17.56	21.60	25.88	30.20	34.68	39.40	43.92	49.00	3 / 4				
reaction time	0.194	interval		3.76	3.88	3.96	4.04		4.28	4.32	4.48	4.72	4.52	5.08		11.60	12.64	13.72
		velocity	7.55	9.31	9.02	8.84	8.66		8.18	8.10	7.81	7.42	7.74	7.87	8.16		9.05	8.31
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	17	156				

FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	09-Aug-17	time	6.04	9.88	13.84	17.80	21.84	25.92	30.24	34.64	39.20	43.72	49.00	7 / 5				
reaction time	0.210	interval		3.84	3.96	3.96	4.04		4.08	4.32	4.40	4.56	4.52	5.28		11.76	12.44	13.48
		velocity	7.45	9.11	8.84	8.84	8.66		8.58	8.10	7.95	7.68	7.74	7.58	8.16		8.93	8.44
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	17.2	158.2				

FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	25-Jun-17	time	5.93	9.65	13.41	17.07	20.93	24.86	29.31	33.65	38.34	43.14		48.44	2 / 3			
reaction time		interval		3.72	3.76	3.66	3.86	3.93	4.45	4.34	4.69	4.80	5.30	PB	11.14	12.24	13.83	
		velocity	7.59	9.41	9.31	9.56	9.07	8.91	7.87	8.06	7.46	7.29	7.55	8.26	9.43	8.58	7.59	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161				
Holub, Krzysztof (POL) (2000)																		
Heat 3 - 2024 European Athletics Championships (Roma, ITA)														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	09-Jun-24	time	6.00	9.77	13.77	17.74	21.86	26.23	30.87	35.22	40.18	44.98		50.42	5 / 6			
reaction time	0.160	interval		3.77	4.00	3.97	4.12	4.37	4.64	4.35	4.96	4.80	5.44		11.74	13.13	14.11	
		velocity	7.50	9.28	8.75	8.82	8.50	8.01	7.54	8.05	7.06	7.29	7.35	7.93	8.94	8.00	7.44	
H1 lead leg		strides											0					
Holúbek, Radoslav (SVK) (1975)																		
Heat 7 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.04	10.08	14.16	18.36	22.56	26.88	31.36	35.92	40.68		51.18	2 / 7				
reaction time	0.127	interval		4.04	4.08	4.20	4.20	4.32	4.48	4.56	4.76			12.32	13.00			
		velocity	7.45	8.66	8.58	8.33	8.33	8.10	7.81	7.68	7.35		7.82	8.52	8.08			
H1 lead leg		strides	22	14	14	14	14	14	14	15	15		136					
Honma, Ryota (JPN)																		
FINAL - 2016 Japanese National High School Championships (Okayama, JPN)														<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>				
date	31-Jul-16	time	6.47	10.63	14.90	19.24	23.62	28.23	32.86	37.89	42.98	47.98		53.23	3 / 7			
reaction time	0.167	interval		4.16	4.27	4.34	4.38	4.61	4.63	5.03	5.09	5.00	5.25		12.77	13.62	15.12	
		velocity	6.96	8.41	8.20	8.06	7.99	7.59	7.56	6.96	6.88	7.00	7.62	7.51	8.22	7.71	6.94	
H1 lead leg		strides		15	15	15	15	15	15	17	17	17	141					
Horbenko, Hennadiy (UKR) (1975)																		
FINAL - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2004) - analysis of the race distribution for male 400m hurdlers at the sydney olympics (in Jarver (ed) - the hurdles, 2004)</i>				
date	27-Sep-00	time	6.26	10.02	13.90	17.70	21.70	23.18	25.70	29.90	34.34	38.90	43.58	49.01	7 / 8			
reaction time	0.395	interval		3.76	3.88	3.80	4.00	4.00	4.20	4.44	4.56	4.68	5.43		11.44	12.20	13.68	
		velocity	7.19	9.31	9.02	9.21	8.75	8.63	8.75	8.33	7.88	7.68	7.48	7.37	8.16	9.18	8.61	7.68
H1 lead leg		strides	20	13	13	13	13	13	13	13	14	14	14	140				
Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	25-Sep-00	time	5.94	9.86	13.70	17.62	21.82	23.10	25.62	29.66	34.10	38.50	43.18	48.40	5 / 3			
reaction time	0.478	interval		3.92	3.84	3.92	4.20	3.80	4.04	4.44	4.40	4.68	5.22	PB	11.68	12.04	13.52	
		velocity	7.58	8.93	9.11	8.93	8.33	8.66	9.21	8.66	7.88	7.95	7.48	7.66	8.26	8.99	8.72	7.77
H1 lead leg		strides	21	13	13	13	13	13	13	13	14	14	14	17.4	158.4			
Heat 7 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	6.08	9.88	13.80	17.76	21.76	25.84	30.12	34.48	39.00	43.72	49.12	5 / 2				
reaction time	0.406	interval		3.80	3.92	3.96	4.00	4.08	4.28	4.36	4.52	4.72	5.40	PB	11.68	12.36	13.60	
		velocity	7.40	9.21	8.93	8.84	8.75	8.58	8.18	8.03	7.74	7.42	7.41	8.14	8.99	8.50	7.72	
H1 lead leg		strides	20	13	13	13	13	13	13	14	14	14	17.4	157.4				
Houston, Victor (BAR) (1974)																		
Heat 1 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>				
date	24-Sep-00	time	5.90	9.58	13.34	17.22	21.22	25.54	30.10	34.86	39.98	45.34	51.51	2 / 7				
reaction time	0.179	interval		3.68	3.76	3.88	4.00	4.32	4.56	4.76	5.12	5.36	6.17		11.32	12.88	15.24	
		velocity	7.63	9.51	9.31	9.02	8.75	8.10	7.68	7.35	6.84	6.53	6.48	7.77	9.28	8.15	6.89	
H1 lead leg		strides		13	13	13	13	14	14	15	15	16	126					
Hughes, David (GBR) (1984)																		
FINAL - 2010 Commonwealth Games (Dehli, IND)														<i>Arnold (2010) - 400mH planning and peaking</i>				
date	10-Oct-10	time	6.0	9.9	13.7	17.8	21.9	23.7	26.1	30.6	35.3	40.1	44.9	50.48	2 / 8			
reaction time	0.170	interval		3.90	3.80	4.08	4.12	4.20	4.50	4.70	4.80	4.80	5.58		11.78	12.82	14.30	
		velocity	7.50	8.97	9.21	8.58	8.50	8.44	8.33	7.78	7.45	7.29	7.29	7.17	7.92	8.91	8.19	7.34
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	15	15	15	17.7	160.7			
Heat 3 - 2010 Commonwealth Games (Dehli, IND)														<i>Arnold (2010) - 400mH planning and peaking</i>				
date	09-Oct-10	time	5.9	9.8	13.8	17.8	21.9	23.7	26.2	30.6	35.2	40.0	44.8	50.55	6 / 3			
reaction time	0.180	interval		3.90	4.00	4.00	4.10	4.30	4.40	4.60	4.80	4.80	5.75		11.90	12.80	14.20	
		velocity	7.63	8.97	8.75	8.75	8.54	8.44	8.14	7.95	7.61	7.29	7.29	6.96	7.91	8.82	8.20	7.39
H1 lead leg		strides																
Hussein, Kariem (SUI) (1989)																		
FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)														<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	04-May-18	time	6.04	9.88	13.84	17.88	22.00	26.28	30.72	35.36	40.32		51.40	7 / 8				
reaction time	0.230	interval		3.84	3.96	4.04	4.12	4.28	4.44	4.64	4.96			11.84	12.84			
		velocity	7.45	9.11	8.84	8.66	8.50	8.18	7.88	7.54	7.06		7.78	8.87	8.18			
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	141					
FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	24-Aug-17	time	6.00	9.72	13.56		21.56	25.68	29.84	34.20	38.60	43.12	48.45	3 / 3				
reaction time	0.148	interval		3.72	3.84		8.00	4.12	4.16	4.36	4.40	4.52	5.33	=PB			13.28	

H1 lead leg	L	velocity	7.50	9.41	9.11		8.75	8.50	8.41	8.03	7.95	7.74	7.50	8.26	7.91	
		strides	20	13	13			14	14	14	14	14	17.2	133.2		
FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>		
date	09-Aug-17	time	6.00	9.84	13.72	17.72	21.80	26.00	30.40	34.92	39.52	44.28		50.07	9 / 8	
reaction time	0.163	interval		3.84	3.88	4.00	4.08	4.20	4.40	4.52	4.60	4.76	5.79		11.72 12.68 13.88	
		velocity	7.50	9.11	9.02	8.75	8.58	8.33	7.95	7.74	7.61	7.35	6.91	7.99	8.96 8.28 7.56	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	14	17.2	159.2		
FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>		
date	06-Jul-17	time	5.96	9.76	13.68	17.68	21.72	25.88	30.16	34.48	39.00	43.56		48.79	5 / 1	
reaction time	0.170	interval		3.80	3.92	4.00	4.04	4.16	4.28	4.32	4.52	4.56	5.23		11.72 12.48 13.40	
		velocity	7.55	9.21	8.93	8.75	8.66	8.41	8.18	8.10	7.74	7.68	7.65	8.20	8.96 8.41 7.84	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17	158		
FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>		
date	15-Jun-17	time	6.03	9.70	13.53	17.56		25.86	30.20	34.53	39.03	43.73		49.37	2 / 6	
reaction time	0.162	interval		3.67	3.83	4.03		8.30	4.34	4.33	4.50	4.70	5.64		11.53 12.64 13.53	
		velocity	7.46	9.54	9.14	8.68		8.43	8.06	8.08	7.78	7.45	7.09	8.10	9.11 8.31 7.76	
H1 lead leg	L	strides	20	13	13	13			14	14	14	15	17.2	133.2		
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)														<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>		
date	13-May-17	time	6.04	9.92	13.92	18.08	22.24	26.40	30.72	35.12				50.02	9 / 6	
reaction time	0.177	interval		3.88	4.00	4.16	4.16	4.16	4.32	4.40					12.04 12.64	
		velocity	7.45	9.02	8.75	8.41	8.41	8.41	8.10	7.95				8.00	8.72 8.31	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14				113		
FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>		
date	01-Sep-16	time	5.76	9.40	13.12	16.96	20.92	25.00	29.32	33.72	38.40	43.32		49.21	7 / 5	
reaction time	0.147	interval		3.64	3.72	3.84	3.96	4.08	4.32	4.40	4.68	4.92	5.89		11.20 12.36 14.00	
		velocity	7.81	9.62	9.41	9.11	8.84	8.58	8.10	7.95	7.48	7.11	6.79	8.13	9.38 8.50 7.50	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161		
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>		
date	08-Jul-16	time	5.88	9.64	13.52	17.60	21.72	25.88	29.92	34.36	38.92	43.68		49.10	3 / 3	
reaction time	0.134	interval		3.76	3.88	4.08	4.12	4.16	4.04	4.44	4.56	4.76	5.42		11.72 12.32 13.76	
		velocity	7.65	9.31	9.02	8.58	8.50	8.41	8.66	7.88	7.68	7.35	7.38	8.15	8.96 8.52 7.63	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	15	18	162		
FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>		
date	28-May-16	time	6.00	9.80	13.72	17.72		26.04	30.20	34.08	39.32	44.08		49.47	8 / 6	
reaction time		interval		3.80	3.92	4.00		8.32	4.16	3.88	5.24	4.76	5.39		11.72 12.48 13.88	
		velocity	7.50	9.21	8.93	8.75		8.41	8.41	7.73	7.63	7.35	7.42	8.09	8.96 8.41 7.56	
H1 lead leg	L	strides	20	13	13	13			13	13		15	17.7	117.7		
FINAL - 2014 European Championships (Zurich, SUI)														<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>		
date	15-Aug-14	time	6.04	9.80	13.72	17.72	21.76	25.88	30.08	34.40	38.80	43.44		48.96	/ 1	
reaction time	0.169	interval		3.76	3.92	4.00	4.04	4.12	4.20	4.32	4.40	4.64	5.52	PB	11.68 12.36 13.36	
		velocity	7.45	9.31	8.93	8.75	8.66	8.50	8.33	8.10	7.95	7.54	7.25	8.17	8.99 8.50 7.86	
H1 lead leg	L	strides		13	13	13	13	14	14	14	14	15		123		
Hutcherson, Orentheus (USA) (1976) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																
Heat 4 - 2007 USATF National Championships (Indianapolis, IN)														<i>USATF Men's Hurdle Development (2007)</i>		
date	21-Jun-07	time	5.91	9.74	13.69	17.76	21.97	26.35	30.81	35.24	39.82	44.50		49.93	8 / 4	
reaction time		interval		3.83	3.95	4.07	4.21	4.38	4.46	4.43	4.58	4.68	5.43		11.85 13.05 13.69	
		velocity	7.61	9.14	8.86	8.60	8.31	7.99	7.85	7.90	7.64	7.48	7.37	8.01	8.86 8.05 7.67	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15		153		
Hyde, Jaheel (JAM) (1997) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)														<i>Omega Timing (2023) - diamond league race analysis</i>		
date	25-Aug-24	time	5.76	9.55	13.53	17.57	21.77	26.14	30.68	35.30	39.97	44.68		50.57	2 / 9	
reaction time	0.151	interval		3.79	3.98	4.04	4.20	4.37	4.54	4.62	4.67	4.71	5.89		12.22 13.11 14.00	
		velocity	7.81	9.23	8.79	8.66	8.33	8.01	7.71	7.58	7.49	7.43	6.79	7.91	8.59 8.01 7.50	
H1 lead leg	L	strides	22	14	14	14	14	14	14	14	14	14		134		
Semi-Final 1 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>		
date	07-Aug-24	time	5.64	9.26	12.92	16.70	20.69	24.82	29.16	33.66	38.50	43.62		50.03	8 / 7	
reaction time	0.239	interval		3.62	3.66	3.78	3.99	4.13	4.34	4.50	4.84	5.12	6.41		11.06 12.46 14.46	
		velocity	7.98	9.67	9.56	9.26	8.77	8.47	8.06	7.78	7.23	6.84	6.24	8.00	9.49 8.43 7.26	
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15		131			
Heat 1 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>		
date	05-Aug-24	time	5.72	9.40	13.16	17.05	21.09	25.30	29.58	34.03	38.73	43.55		49.08	6 / 2	
reaction time	0.175	interval		3.68	3.76	3.89	4.04	4.21	4.28	4.45	4.70	4.82	5.53		11.33 12.53 13.97	
		velocity	7.87	9.51	9.31	9.00	8.66	8.31	8.18	7.87	7.45	7.26	7.23	8.15	9.27 8.38 7.52	
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15	15	18	164		

FINAL - 2024 Prefontaine Classic (Eugene, OR)

Omega Timing (2024) - diamond league race analysis

date	25-May-24	time	5.79	9.68	13.70	17.65	21.63	25.81	30.10	34.60	39.29	44.07	49.83	9 / 7			
reaction time	0.188	interval		3.89	4.02	3.95	3.98	4.18	4.29	4.50	4.69	4.78	5.76		11.86	12.45	13.97
		velocity	7.77	9.00	8.71	8.86	8.79	8.37	8.16	7.78	7.46	7.32	6.94	8.03	8.85	8.43	7.52
H1 lead leg		strides		14	14	14		14	14	14	15	15	114				

Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

Henson (2023) - Athlete First: 2023 year end hurdle report

date	21-Aug-23	time	5.90	9.66	13.43	17.13	21.00	25.13	29.46	34.16	38.83	43.55	48.94	3 / 5			
reaction time	0.205	interval		3.76	3.77	3.70	3.87	4.13	4.33	4.70	4.67	4.72	5.39		11.23	12.33	14.09
		velocity	7.63	9.31	9.28	9.46	9.04	8.47	8.08	7.45	7.49	7.42	7.42	8.17	9.35	8.52	7.45
H1 lead leg	R	strides	20	13	13	13	13	13		14	15	15	18	147			

Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

Henson (2023) - Athlete First: 2023 year end hurdle report

date	20-Aug-23	time	5.80	9.46	13.23	17.00	20.83	25.03	29.26	33.80	38.40	43.20	48.63	9 / 2			
reaction time	0.182	interval		3.66	3.77	3.77	3.83	4.20	4.23	4.54	4.60	4.80	5.43		11.20	12.26	13.94
		velocity	7.76	9.56	9.28	9.28	9.14	8.33	8.27	7.71	7.61	7.29	7.37	8.23	9.38	8.56	7.53
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	14	15	18	163			

FINAL - 2022 World Athletics Championships (Eugene, OR)

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

date	19-Jul-22	time	5.71	9.26	12.86	16.52	20.25	21.86	24.27	28.40	32.83	37.47	42.33	48.03	7 / 6			
reaction time	0.149	interval		3.55	3.60	3.66	3.73	4.02	4.13	4.43	4.64	4.86	5.70	PB	10.81	11.88	13.93	
		velocity	7.88	9.86	9.72	9.56	9.38	9.15	8.71	8.47	7.90	7.54	7.20	7.02	8.33	9.71	8.84	7.54
H1 lead leg	L	strides	22	13	13	13	13	14	14	15	15	15	18.2	165.2				

Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	17-Jul-22	time	5.77	9.46	13.33	17.27	21.33	23.13	25.53	29.80	34.30	38.90	43.60	49.09	8 / 2			
reaction time	0.149	interval		3.69	3.87	3.94	4.06	4.20	4.27	4.50	4.60	4.70	5.49		11.50	12.53	13.80	
		velocity	7.80	9.49	9.04	8.88	8.62	8.65	8.33	8.20	7.78	7.61	7.45	7.29	8.15	9.13	8.38	7.61
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	14	15	18	163				

Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	16-Jul-22	time	5.80	9.63	13.63	17.63	21.70	23.51	26.03	30.26	34.80	39.53	44.37	50.03	6 / 3			
reaction time	0.187	interval		3.83	4.00	4.00	4.07	4.33	4.23	4.54	4.73	4.84	5.66		11.83	12.63	14.11	
		velocity	7.76	9.14	8.75	8.75	8.60	8.51	8.08	8.27	7.71	7.40	7.23	7.07	8.00	8.88	8.31	7.44
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169				

FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	05-Jun-22	time	5.67	9.23	12.90	16.67	20.50	22.22	24.67	28.97	33.50	38.27	43.37	49.35	8 / 5			
reaction time	0.150	interval		3.56	3.67	3.77	3.83	4.17	4.30	4.53	4.77	5.10	5.98		11.00	12.30	14.40	
		velocity	7.94	9.83	9.54	9.28	9.14	9.00	8.39	8.14	7.73	7.34	6.86	6.69	8.11	9.55	8.54	7.29
H1 lead leg	L	strides	22	13	13	13	13	14	14	14	15	15	146					

FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	28-May-22	time	5.73	9.50	13.40	17.30	21.27	23.07	25.50	29.93	34.57	39.50	50.38	2 / 7			
reaction time	0.157	interval		3.77	3.90	3.90	3.97	4.23	4.43	4.64	4.93				11.57	12.63	
		velocity	7.85	9.28	8.97	8.97	8.82	8.67	8.27	7.90	7.54	7.10	7.94		9.08	8.31	
H1 lead leg	L	strides	21	13	13	13	13	14	15	15	15	15	132				

FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	13-May-22	time	5.87	9.67	13.71	17.81	22.05	24.2	26.52	30.96	35.40	39.90	50.23	8 / 5			
reaction time	0.167	interval		3.80	4.04	4.10	4.24	4.47	4.44	4.44	4.50				11.94	13.15	
		velocity	7.67	9.21	8.66	8.54	8.25	8.26	7.83	7.88	7.88	7.78	7.96		8.79	7.98	
H1 lead leg	L	strides	22	14	14	14	14	15	14	14	14	14	135				

FINAL - 2021 ISTAF (Berlin, GER) (TV Analysis)

Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season

date	12-Sep-21	time	5.80		13.28	17.12		25.32	29.68	34.08	38.68	43.44	48.95	4 / 3			
reaction time	0.180	interval			7.48	3.84		8.20	4.36	4.40	4.60	4.76	5.51		11.32	12.56	13.76
		velocity	7.76		9.36	9.11		8.54	8.03	7.95	7.61	7.35	7.26	8.17	9.28	8.36	7.63
H1 lead leg	L	strides	21			13			14	14		15	18	95			

FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	03-Sep-21	time	5.84	9.56	13.36	17.24	21.32	23.1	25.52	29.72	34.04	38.60	43.32	48.91	7 / 4			
reaction time	0.166	interval		3.72	3.80	3.88	4.08		4.20	4.20	4.32	4.56	4.72	5.59		11.40	12.48	13.60
		velocity	7.71	9.41	9.21	9.02	8.58	8.66	8.33	8.33	8.10	7.68	7.42	7.16	8.18	9.21	8.41	7.72
H1 lead leg	L	strides	22	13	13	13	13		14	14	14	15	15	18	164			

FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)

Henson (2020) - Athlete First: 2019 year end hurdle report

date	20-Jul-19	time	5.96	9.80	13.80	17.76	21.88	23.6	26.16		34.92	39.56	44.28	49.79	2 / 6		
reaction time	0.159	interval		3.84	4.00	3.96	4.12		4.28		8.76	4.64	4.72	5.51		11.80	
		velocity	7.55	9.11	8.75	8.84	8.50	8.47	8.18		7.99	7.54	7.42	7.26	8.03	8.90	
H1 lead leg	L	strides	22	14	14	13	13		14			15	15	18	138		

FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)

Henson (2020) - Athlete First: 2018 year end hurdle report

date	12-Apr-18	time	5.80	9.54	13.24	17.08	21.15	25.22	29.49	34.03	38.67	43.47	49.16	3 / 3			
reaction time	0.157	interval		3.74	3.70	3.84	4.07	4.07	4.27	4.54	4.64	4.80	5.69		11.28	12.41	13.98
		velocity	7.76	9.36	9.46	9.11	8.60	8.60	8.20	7.71	7.54	7.29	7.03	8.14	9.31	8.46	7.51
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18.7	169.7			

FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)

date	20-May-17	time	5.84	9.64	13.51	17.48	21.55	25.62	29.86	34.16	38.57	43.21	<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
reaction time		interval		3.80	3.87	3.97	4.07	4.07	4.24	4.30	4.41	4.64	5.31	48.52	3 / 2	
		velocity	7.71	9.21	9.04	8.82	8.60	8.60	8.25	8.14	7.94	7.54	7.53	8.24		11.64 12.38 13.35
H1 lead leg	L	strides	22	14	14	13	14		14	14	15	15	18.5	153.5		

lakovákis, Periklís (GRE) (1979)

FINAL - 2009 IAAF World Championships (Berlin, GER)																		
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																		
date	18-Aug-09	time	6.17	9.87	13.67	17.55	21.57	25.71	29.94	34.24	38.63	43.15	48.42			7 / 5		
reaction time	0.189	interval		3.70	3.80	3.88	4.02	4.14	4.23	4.30	4.39	4.52	5.27				11.38 12.39 13.21	
		velocity	7.29	9.46	9.21	9.02	8.71	8.45	8.27	8.14	7.97	7.74	7.59	8.26				9.23 8.47 7.95
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	15	18.5	162.5				

Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)

<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																		
date	16-Aug-09	time	6.09	9.74	13.49	17.35	21.39	25.38	29.66	33.98	38.48	43.22	48.73			3 / 3		
reaction time	0.180	interval		3.65	3.75	3.86	4.04	3.99	4.28	4.32	4.50	4.74	5.51				11.26 12.31 13.56	
		velocity	7.39	9.59	9.33	9.07	8.66	8.77	8.18	8.10	7.78	7.38	7.26	8.21				9.33 8.53 7.74
H1 lead leg		strides						14	14	14	14	15	19	90				

Heat 1 - 2009 IAAF World Championships (Berlin, GER)

<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																		
date	15-Aug-09	time	6.13	10.87	13.68	17.52	21.43	25.53	29.80	34.14	38.74	43.53	49.12			4 / 2		
reaction time	0.179	interval		4.74	2.81	3.84	3.91	4.10	4.27	4.34	4.60	4.79	5.59				11.39 12.28 13.73	
		velocity	7.34	7.38	12.46	9.11	8.95	8.54	8.20	8.06	7.61	7.31	7.16	8.14				9.22 8.55 7.65
H1 lead leg		strides																

FINAL - 2008 Olympic Games (Beijing, CHN)

<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>																		
date	18-Aug-08	time	5.9	9.7	13.3	17.1	20.9	25.0	29.5	34.0	38.7	43.6	49.96			2 / 8		
reaction time	0.195	interval		3.80	3.60	3.80	3.80	4.10	4.50	4.50	4.70	4.90	6.36				11.20 12.40 14.10	
		velocity	7.63	9.21	9.72	9.21	9.21	8.54	7.78	7.78	7.45	7.14	6.29	8.01				9.38 8.47 7.45
H1 lead leg	L	strides	21	13	13	13	14	14	14	15	16	16	18.5	168				

FINAL - 2007 IAAF World Championships (Osaka, JPN)

<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																		
date	28-Aug-07	time	5.98	9.67	13.42	17.27	21.26	25.40	29.82	34.27	38.94	43.69	49.25			2 / 6		
reaction time	0.154	interval		3.69	3.75	3.85	3.99	4.14	4.42	4.45	4.67	4.75	5.56				11.29 12.55 13.87	
		velocity	7.53	9.49	9.33	9.09	8.77	8.45	7.92	7.87	7.49	7.37	7.19	8.12				9.30 8.37 7.57
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	14	142				

FINAL - 2007 European Cup (Munich, GER)

<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																		
date	23-Jun-07	time	6.13	9.95	13.73	17.54	21.42	25.48	29.70	34.02	38.44	43.03	48.35			1 / 1		
reaction time	0.165	interval		3.82	3.78	3.81	3.88	4.06	4.22	4.32	4.42	4.59	5.32				11.41 12.16 13.33	
		velocity	7.34	9.16	9.26	9.19	9.02	8.62	8.29	8.10	7.92	7.63	7.52	8.27				9.20 8.63 7.88
H1 lead leg		strides																

FINAL - 2006 IAAF World Athletic Final (Stuttgart, GER) (TV Analysis)

<i>Graubner (2006) - http://www.fgs.uni-halle.de</i>																		
date	10-Sep-06	time	5.97	9.65	13.39	17.23	21.17	25.22	29.44	33.75	38.19	42.77	47.92			3 / 1		
reaction time	0.158	interval		3.68	3.74	3.84	3.94	4.05	4.22	4.31	4.44	4.58	5.15				11.26 12.21 13.33	
		velocity	7.54	9.51	9.36	9.11	8.88	8.64	8.29	8.12	7.88	7.64	7.77	8.35				9.33 8.60 7.88
H1 lead leg		strides																

FINAL - 2006 European Championships (Göteborg, SWE)

<i>Behm (2006) - Göteborg 2006: Le quatrache</i>																		
date	10-Aug-06	time	5.8	9.4	13.0	16.8	20.7	24.7	29.0	33.4	37.8	42.8	48.46			1 / 1		
reaction time		interval		3.60	3.60	3.80	3.90	4.00	4.30	4.40	4.40	5.00	5.66				11.00 12.20 13.80	
		velocity	7.76	9.72	9.72	9.21	8.97	8.75	8.14	7.95	7.95	7.00	7.07	8.25				9.55 8.61 7.61
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	15	19	163				

FINAL - 2006 Osaka Grand Prix (Osaka, JPN)

<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>																		
date	06-May-06	time	6.06	9.70	13.44	17.21	21.04	25.08	29.23	33.49	37.93	42.60	47.82			1 / 2		
reaction time		interval		3.64	3.74	3.77	3.83	4.04	4.15	4.26	4.44	4.67	5.22	NR				11.15 12.02 13.37
		velocity	7.43	9.62	9.36	9.28	9.14	8.66	8.43	8.22	7.88	7.49	7.66	8.36				9.42 8.74 7.85
H1 lead leg		strides		13	13	13	13	14	14	14	14	15	15	123				

FINAL - 2003 IAAF World Championships (Paris, FRA)

<i>Behm (2003) - Paris 2003: Le quatrache masculin - féminin</i>																		
date	29-Aug-03	time	5.9	9.5	13.2	17.1	21.0	25.0	29.4	33.8	38.3	42.9	48.24			4 / 3		
reaction time	0.174	interval		3.60	3.70	3.90	3.90	4.00	4.40	4.40	4.50	4.60	5.34				11.20 12.30 13.50	
		velocity	7.63	9.72	9.46	8.97	8.97	8.75	7.95	7.95	7.78	7.61	7.49	8.29				9.38 8.54 7.78
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	18	160				

FINAL - 2002 European Championships (Munich, GER)

<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																		
date	09-Aug-02	time	6.11	9.91	13.75	17.69	21.67	25.75	30.05	34.42	39.02	43.78	49.07			1 / 5		
reaction time	0.163	interval		3.80	3.84	3.94	3.98	4.08	4.30	4.37	4.60	4.76	5.29				11.58 12.36 13.73	
		velocity	7.36	9.21	9.11	8.88	8.79	8.58	8.14	8.01	7.61	7.35	7.56	8.15				9.07 8.50 7.65
H1 lead leg		strides																

Semi-Final 1 - 2002 European Championships (Munich, GER)

<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																	
date	08-Aug-02	time	6.15	9.99	13.87	17.82	21.83	25.95	30.15	34.53	39.05	43.71	48.99			1 / 4	
reaction time		interval		3.84	3.88	3.95	4.01	4.12	4.20	4.38	4.52	4.66	5.28				11.67 12.33 13.56

H1 lead leg	velocity	7.32	9.11	9.02	8.86	8.73		8.50	8.33	7.99	7.74	7.51	7.58	8.16		9.00	8.52	7.74	
	strides																		
Heat 1 - 2002 European Championships (Munich, GER)																			
<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																			
date	07-Aug-02	time		13.85	17.89	21.97		26.19	30.77	34.88	39.43	44.07		49.24					
reaction time		interval		4.04	4.08			4.22	4.58	4.11	4.55	4.64	5.17				12.88	13.30	
		velocity		8.30	8.66	8.58		8.29	7.64	8.52	7.69	7.54	7.74	8.12			8.15	7.89	
H1 lead leg		strides																	
FINAL - 2001 European Cup (Bremen, GER)																			
<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																			
date	23-Jun-01	time	6.30	10.18	14.02	18.02	21.96		26.08	30.56	35.26	40.08	44.86		50.28				
reaction time		interval		3.88	3.84	4.00	3.94		4.12	4.48	4.70	4.82	4.78	5.42			11.72	12.54	14.30
		velocity	7.14	9.02	9.11	8.75	8.88		8.50	7.81	7.45	7.26	7.32	7.38	7.96		8.96	8.37	7.34
H1 lead leg		strides																	
Heat 4 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	6.00	9.84	13.76	17.72	21.72		25.72	30.12	34.72	39.68	44.72		50.20				
reaction time	0.165	interval		3.84	3.92	3.96	4.00		4.00	4.40	4.60	4.96	5.04	5.48			11.72	12.40	14.60
		velocity	7.50	9.11	8.93	8.84	8.75		8.75	7.95	7.61	7.06	6.94	7.30	7.97		8.96	8.47	7.19
H1 lead leg		strides	22	14	14	14	14		14	14	15	16	16	18.6	171.6				
Ibañez Guevara, Pablo Andres (ESA)																			
FINAL - 2023 FBK Games (Hengelo, NED)																			
<i>Omega Timing (2023) - continental tour race analysis</i>																			
date	04-Jun-23	time	5.99	9.94	13.93	17.94	21.97		26.21	30.61	35.05	39.63	44.22		49.63				
reaction time	0.156	interval		3.95	3.99	4.01	4.03		4.24	4.40	4.44	4.58	4.59	5.41			11.95	12.67	13.61
		velocity	7.51	8.86	8.77	8.73	8.68		8.25	7.95	7.88	7.64	7.63	7.39	8.06		8.79	8.29	7.71
H1 lead leg	L	strides	21	14								15	15	18.2	83.2				
Ibrahim, Marc Anthony (LBN) (2002)																			
FINAL - West Asian Championships - 2024 Seashore Doha Meeting (Doha, QAT)																			
<i>Omega Timing (2024) - diamond league race analysis</i>																			
date	10-May-24	time	5.34	9.35	13.42	17.45	21.60		26.06	30.62	35.30	40.10	44.89		49.84				
reaction time	0.173	interval		4.01	4.07	4.03	4.15		4.46	4.56	4.68	4.80	4.79	4.95			12.11	13.17	14.27
		velocity	8.43	8.73	8.60	8.68	8.43		7.85	7.68	7.48	7.29	7.31	8.08	8.03		8.67	7.97	7.36
H1 lead leg		strides												0					
Ideura, Noriuki (JPN) (1987)																			
C FINAL - 2014 Shizuoka International Athletics Meeting (Fukuoki, JPN)																			
<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																			
date	03-May-14	time	6.36	10.40	14.47	18.61	22.78		26.95	31.22	35.59	40.19	45.01		50.59				
reaction time		interval		4.04	4.07	4.14	4.17		4.17	4.27	4.37	4.60	4.82	5.58			12.25	12.61	13.79
		velocity	7.08	8.66	8.60	8.45	8.39		8.39	8.20	8.01	7.61	7.26	7.17	7.91		8.57	8.33	7.61
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
FINAL - 2011 Japanese National Championships (Kumagaya, JPN)																			
<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	11-Jun-11	time	6.27	10.24	14.24	18.29	22.44		26.66	30.98	35.40	39.92	44.57		49.87				
reaction time		interval		3.97	4.00	4.05	4.15		4.22	4.32	4.42	4.52	4.65	5.30	PB		12.02	12.69	13.59
		velocity	7.18	8.82	8.75	8.64	8.43		8.29	8.10	7.92	7.74	7.53	7.55	8.02		8.74	8.27	7.73
H1 lead leg		strides		14	14	14	14		14	15	15	15	15	130					
Ito, Takahiro (JPN) (1999)																			
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)																			
<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>																			
date	31-Jul-17	time	6.21	10.36	14.61	19.00	23.56		28.28	32.87	37.75	42.69	47.80		53.27				
reaction time	0.143	interval		4.15	4.25	4.39	4.56		4.72	4.59	4.88	4.94	5.11	5.47			12.79	13.87	14.93
		velocity	7.25	8.43	8.24	7.97	7.68		7.42	7.63	7.17	7.09	6.85	7.31	7.51		8.21	7.57	7.03
H1 lead leg		strides		15	15	15	15		15	15	15	15	15	135					
Ikwaokor, Akovunndu (USA) (1984)																			
FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)																			
<i>USATF Women's Sprint Development (2003)</i>																			
date	22-Jun-03	time	6.01	9.88	13.93	18.01	22.30		27.03	31.70	36.62	41.81	47.31		54.25				
reaction time		interval		3.87	4.05	4.08	4.29		4.73	4.67	4.92	5.19	5.50	6.94			12.00	13.69	15.61
		velocity	7.49	9.04	8.64	8.58	8.16		7.40	7.49	7.11	6.74	6.36	5.76	7.37		8.75	7.67	6.73
H1 lead leg		strides																	
Imaka, Kaito (JPN)																			
Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)																			
<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>																			
date	23-Oct-16	time				24.08						38.27			55.86				
reaction time		interval										14.19							
		velocity				7.68						7.40			7.16				
H1 lead leg		strides																	
Imanishi, Ryota (JPN) (2004)																			
FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)																			
<i>Kishima (2022) - national high school championships biomechanics data collection</i>																			
date	03-Jun-23	time	6.16	10.01	13.86	17.82	21.91		26.13	30.58	35.19	39.99	44.93		50.94				
reaction time	0.177	interval		3.85	3.85	3.96	4.09		4.22	4.45	4.61	4.80	4.94	6.01	PB		11.66	12.76	14.35
		velocity	7.31	9.09	9.09	8.84	8.56		8.29	7.87	7.59	7.29	7.09	6.66	7.85		9.01	8.23	7.32
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.7	170.7				
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)																			
<i>Kishima (2022) - national high school championships biomechanics data collection</i>																			

date	05-Aug-22	time	6.27	10.18	14.08	18.27	22.67	27.15	31.73	36.55	41.65	47.10	54.00	9 / 8				
reaction time	0.181	interval		3.91	3.90	4.19	4.40	4.48	4.58	4.82	5.10	5.45	6.90		12.00	13.46	15.37	
		velocity	7.18	8.95	8.97	8.35	7.95	7.81	7.64	7.26	6.86	6.42	5.80	7.41	8.75	7.80	6.83	
H1 lead leg	L	strides	22	14	14	15	15	15	15	15	15	16	156					

Imazeki, Yuta (JPN) (1987)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2012 Japanese National Championships (Osaka, JPN)																			
<i>Yasuori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																			
date	09-Jun-12	time	6.19	10.14	14.11	18.25	22.48		26.72	30.96	35.25	39.69	44.21		49.50	8 / 4			
reaction time		interval		3.95	3.97	4.14	4.23		4.24	4.24	4.29	4.44	4.52	5.29			12.06	12.71	13.25
		velocity	7.27	8.86	8.82	8.45	8.27		8.25	8.25	8.16	7.88	7.74	7.56	8.08		8.71	8.26	7.92
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.7	172				

FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)																			
<i>Yasuori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																			
date	03-May-12	time	6.22	10.11	14.01	18.00	22.15		26.30	30.59	35.08	39.68	44.38		49.76	1 / 3			
reaction time		interval		3.89	3.90	3.99	4.15		4.15	4.29	4.49	4.60	4.70	5.38			11.78	12.59	13.79
		velocity	7.23	9.00	8.97	8.77	8.43		8.43	8.16	7.80	7.61	7.45	7.43	8.04		8.91	8.34	7.61
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					

FINAL - 2011 Japanese National Championships (Kumagaya, JPN)																			
<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	11-Jun-11	time	6.21	10.15	14.19	18.21	22.26		26.33	30.53	34.93	39.52	44.22		49.61	1 / 2			
reaction time		interval		3.94	4.04	4.02	4.05		4.07	4.20	4.40	4.59	4.70	5.39			12.00	12.32	13.69
		velocity	7.25	8.88	8.66	8.71	8.64		8.60	8.33	7.95	7.63	7.45	7.42	8.06		8.75	8.52	7.67
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					

Race A - 2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)																			
<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	03-May-11	time	6.21	10.16	14.13	18.17	22.32		26.56	30.85	35.29	39.84	44.46		49.71	1 / 3			
reaction time		interval		3.95	3.97	4.04	4.15		4.24	4.29	4.44	4.55	4.62	5.25			11.96	12.68	13.61
		velocity	7.25	8.86	8.82	8.66	8.43		8.25	8.16	7.88	7.69	7.58	7.62	8.05		8.78	8.28	7.71
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					

FINAL - 2010 Japanese National Championships (Marugume, JPN)																			
<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	05-Jun-10	time	6.17	10.19	14.36	18.55	22.85		27.20	31.54	35.93	40.36	44.79		49.81	1 / 4			
reaction time	0.181	interval		4.02	4.17	4.19	4.30		4.35	4.34	4.39	4.43	4.43	5.02			12.38	12.99	13.25
		velocity	7.29	8.71	8.39	8.35	8.14		8.05	8.06	7.97	7.90	7.90	7.97	8.03		8.48	8.08	7.92
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					

FINAL - 2010 Osaka Grand Prix (Osaka, JPN)																			
<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	08-May-10	time	6.29	10.26	14.21	18.28	22.42		26.69	31.06	35.60	40.10	44.64		49.77	1 / 4			
reaction time		interval		3.97	3.95	4.07	4.14		4.27	4.37	4.54	4.50	4.54	5.13			11.99	12.78	13.58
		velocity	7.15	8.82	8.86	8.60	8.45		8.20	8.01	7.71	7.78	7.71	7.80	8.04		8.76	8.22	7.73
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					

Race A - 2010 Shizuoka International Athletics Meeting (Fukuroi, JPN)																			
<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																			
date	03-May-10	time	6.42	10.37	14.41	18.51	22.71		26.96	31.25	35.69	40.21	44.81		50.09	1 / 1			
reaction time		interval		3.95	4.04	4.10	4.20		4.25	4.29	4.44	4.52	4.60	5.28			12.09	12.74	13.56
		velocity	7.01	8.86	8.66	8.54	8.33		8.24	8.16	7.88	7.74	7.61	7.58	7.99		8.68	8.24	7.74
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					

Ina, Sota (JPN) (2000)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
B FINAL - 2020 World Athletics Trials (Fuji, JPN)																			
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																			
date	06-Sep-20	time	6.24	10.26	14.18	18.28	22.51		26.78	31.18	35.84	40.59	45.33		50.67	7 / 3			
reaction time		interval		4.02	3.92	4.10	4.23		4.27	4.40	4.66	4.75	4.74	5.34			12.04	12.90	14.15
		velocity	7.21	8.71	8.93	8.54	8.27		8.20	7.95	7.51	7.37	7.38	7.49	7.89		8.72	8.14	7.42
H1 lead leg	R	strides	21	13	13	14	14		14	14	15	15	15	18	166				

Inoue, Daichi (JPN) (1999)

FINAL - 2017 Tokyo High School Championships (Tokyo, JPN)																			
<i>(2017) - tfdata-store.com/2017/05/14/post-470/</i>																			
date	14-May-17	time	6.25	10.05	13.95	17.90	21.88		26.05	30.69	35.34	40.18	45.08		50.37	5 / 1			
reaction time		interval		3.80	3.90	3.95	3.98		4.17	4.64	4.65	4.84	4.90	5.29	PB		11.65	12.79	14.39
		velocity	7.20	9.21	8.97	8.86	8.79		8.39	7.54	7.53	7.23	7.14	7.56	7.94		9.01	8.21	7.30
H1 lead leg		strides		13	13	13	13		13	15	15	15	15	125					

U19 FINAL - 2016 National Sports Festival (Kitakami, JPN)																			
<i>(2017) - tfdata-store.com/2017/05/14/post-470/</i>																			
date	08-Oct-16	time	6.26	10.01	13.94	18.09	22.44		27.02	31.70	36.47	41.21	45.98		51.36	7 / 1			
reaction time		interval		3.75	3.93	4.15	4.35		4.58	4.68	4.77	4.74	4.77	5.38	PB		11.83	13.61	14.28
		velocity	7.19	9.33	8.91	8.43	8.05		7.64	7.48	7.34	7.38	7.34	7.43	7.79		8.88	7.71	7.35
H1 lead leg	R	strides	21	13	13	14	14		15	15	15	15	15	19	169				

Inoue, Kakeru (JPN) (1996)

FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	01-Jun-21	time	6.04	9.76	13.61	17.52	21.55		25.73	30.08	34.58	39.27	44.18		49.80	8 / 1			
reaction time	0.258	interval		3.72	3.85	3.91	4.03		4.18	4.35	4.50	4.69	4.91	5.62			11.48	12.56	14.10
		velocity	7.45	9.41	9.09	8.95	8.68		8.37	8.05	7.78	7.46	7.13	7.12	8.03		9.15	8.36	7.45
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	19	165				

B FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)																			
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																			
date	24-Oct-20	time	6.18	10.09	14.13	18.18	22.34		26.68	31.13	35.72	40.44	45.20		50.60	1 / 1			

reaction time	interval	3.91	4.04	4.05	4.16		4.34	4.45	4.59	4.72	4.76	5.40		12.00	12.95	14.07	
	velocity	7.28	8.95	8.66	8.64	8.41	8.06	7.87	7.63	7.42	7.35	7.41	7.91	8.75	8.11	7.46	
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	18.7	164.7				
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)																	
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	20-Sep-20	time	6.17	10.06	14.00	18.07	22.41	26.88	31.61	36.54	41.66	46.93	53.05	2 / 8			
reaction time	0.220	interval	3.89	3.94	4.07	4.34	4.47	4.73	4.93	5.12	5.27	6.12		11.90	13.54	15.32	
		velocity	7.29	9.00	8.88	8.60	8.06	7.83	7.40	7.10	6.84	6.64	6.54	7.54	8.82	7.75	6.85
H1 lead leg		strides	13	13	13	14	14	15	15	15	15	15	127				
B FINAL - 2020 World Athletics Trials (Fuji, JPN)																	
<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	06-Sep-20	time	6.12	10.01	13.96	18.03	22.17	26.43	30.86	35.49	40.31	45.31	51.11	6 / 4			
reaction time		interval	3.89	3.95	4.07	4.14	4.26	4.43	4.63	4.82	5.00	5.80		11.91	12.83	14.45	
		velocity	7.35	9.00	8.86	8.60	8.45	8.22	7.90	7.56	7.26	7.00	6.90	7.83	8.82	8.18	7.27
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	18.7	164.7				
FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)																	
<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>																	
date	19-May-19	time	6.09	9.94	13.86	17.87	22.06	26.34	30.86	35.57	40.44	45.35	50.97	9 / 4			
reaction time	0.175	interval	3.85	3.92	4.01	4.19	4.28	4.52	4.71	4.87	4.91	5.62		11.78	12.99	14.49	
		velocity	7.39	9.09	8.93	8.73	8.35	8.18	7.74	7.43	7.19	7.13	7.12	7.85	8.91	8.08	7.25
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	19	165				
A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)																	
<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>																	
date	03-May-19	time	6.14	9.94	13.88	17.90	21.99	26.26	30.68	35.22	39.97	44.84	50.34	8 / 3			
reaction time		interval	3.80	3.94	4.02	4.09	4.27	4.42	4.54	4.75	4.87	5.50		11.76	12.78	14.16	
		velocity	7.33	9.21	8.88	8.71	8.56	8.20	7.92	7.71	7.37	7.19	7.27	7.95	8.93	8.22	7.42
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	146				
C FINAL - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)																	
<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018</i>																	
date	03-May-18	time	6.14	9.99	13.86	17.76	21.75	25.94	30.26	34.78	39.45	44.19	49.54	5 / 1			
reaction time	0.182	interval	3.85	3.87	3.90	3.99	4.19	4.32	4.52	4.67	4.74	5.35	PB	11.62	12.50	13.93	
		velocity	7.33	9.09	9.04	8.97	8.77	8.35	8.10	7.74	7.49	7.38	7.48	8.07	9.04	8.40	7.54
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	18.5	169.5				
Inoue, Shunta (JPN) (2002)																	
<i>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</i>																	
FINAL - 2023 Japanese National Championships (Osaka, JPN)																	
<i>Wamani (2023) - race analysis of men's and women's 400m hurdlers in the 2022 season</i>																	
date	03-Jun-23	time	5.92	9.63	13.33	17.13	21.12	25.44	29.91	34.62	39.41	44.39	50.03	5 / 4			
reaction time	0.211	interval	3.71	3.70	3.80	3.99	4.32	4.47	4.71	4.79	4.98	5.64		11.21	12.78	14.48	
		velocity	7.60	9.43	9.46	9.21	8.77	8.10	7.83	7.43	7.31	7.03	7.09	8.00	9.37	8.22	7.25
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	18	164				
Isakov, Erkinjon (UZB) (1974)																	
<i>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</i>																	
Heat 3 - 2000 Olympic Games (Sydney, AUS)																	
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	6.10	10.14	14.14	18.30	22.62	26.70	31.18	35.74	40.34	45.02	50.71	5 / 5			
reaction time	0.182	interval	4.04	4.00	4.16	4.32	4.08	4.48	4.56	4.60	4.68	5.69		12.20	12.88	13.84	
		velocity	7.38	8.66	8.75	8.41	8.10	8.58	7.81	7.68	7.61	7.48	7.03	7.89	8.61	8.15	7.59
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	151				
Ishida, Yusuke (JPN) (1995)																	
<i>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</i>																	
FINAL - 2017 Japanese National Championships (Osaka, JPN)																	
<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdlers in Japan</i>																	
date	24-Jun-17	time	6.16	9.96	13.86	17.77	21.76	26.06	30.38	34.90	39.59	44.34	49.79	1 / 2			
reaction time	0.185	interval	3.80	3.90	3.91	3.99	4.30	4.32	4.52	4.69	4.75	5.45		11.61	12.61	13.96	
		velocity	7.31	9.21	8.97	8.95	8.77	8.14	8.10	7.74	7.46	7.37	7.34	8.03	9.04	8.33	7.52
H1 lead leg		strides	13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2017 Nambu Memorial (Sapporo, JPN)																	
<i>(2017) - tfdata-store.com/2017/07/11/post-1019/</i>																	
date	09-Jul-17	time	6.14	9.93	13.82	17.77	21.79	26.06	30.35	34.87	39.53	44.20	49.35	6 / 1			
reaction time		interval	3.79	3.89	3.95	4.02	4.27	4.29	4.52	4.66	4.67	5.15	PB	11.63	12.58	13.85	
		velocity	7.33	9.23	9.00	8.86	8.71	8.20	8.16	7.74	7.51	7.49	7.77	8.11	9.03	8.35	7.58
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164			
Ito, Masahiro (JPN) (1999)																	
<i>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</i>																	
Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)																	
<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>																	
date	23-Oct-16	time				23.65				38.41			55.05	7 / 2			
reaction time		interval								14.76							
		velocity				7.82				7.11			7.27				
H1 lead leg		strides															
Itt, Edgar (FRG) (1967)																	
<i>H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10</i>																	
FINAL - 1988 Olympic Games (Seoul, KOR)																	
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																	
date	25-Sep-88	time	6.04	9.90	13.77	17.69	21.77	25.98	30.26	34.63	39.07	43.59	48.78	8 / 8			
reaction time	0.187	interval	3.86	3.87	3.92	4.08	4.21	4.28	4.37	4.44	4.52	5.19		11.65	12.57	13.33	
		velocity	7.45	9.07	9.04	8.93	8.58	8.31	8.18	8.01	7.88	7.74	7.71	8.20	9.01	8.35	7.88
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	16.8	159.8			
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)																	
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																	
date	24-Sep-88	time	6.08	9.79	13.65	17.56	21.58	25.78	30.14	34.60	39.15	43.69	48.86	2 / 4			

reaction time	interval	3.71	3.86	3.91	4.02		4.20	4.36	4.46	4.55	4.54	5.17			11.48	12.58	13.55	
	velocity	7.40	9.43	9.07	8.95	8.71	8.33	8.03	7.85	7.69	7.71	7.74	8.19		9.15	8.35	7.75	
H1 lead leg	strides	21	13	13	13	13	14	14	14	14	14	17.3	160.3					
Iwabuchi, Soya (JPN)																		
	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)							<i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>											
date	04-Aug-18	time	6.34	10.51	14.86	19.18	23.53	28.04	32.50	36.97	41.47	46.08	51.37	5 / 2				
reaction time	interval		4.17	4.35	4.32	4.35	4.51	4.46	4.47	4.50	4.61	5.29	PB		12.84	13.32	13.58	
	velocity	7.10	8.39	8.05	8.10	8.05	7.76	7.85	7.83	7.78	7.59	7.56	7.79		8.18	7.88	7.73	
H1 lead leg	strides		15	15	15	15	15	15	15	15	15	15	135					
Iwamoto, Takeshi (JPN) (1996)																		
	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
B FINAL - 2020 World Athletics Trials (Fuji, JPN)							<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>											
date	06-Sep-20	time	6.14	9.98	13.93	17.92	22.09	26.36	30.83	35.41	40.32	45.28	50.56	4 / 2				
reaction time	interval		3.84	3.95	3.99	4.17	4.27	4.47	4.58	4.91	4.96	5.28			11.78	12.91	14.45	
	velocity	7.33	9.11	8.86	8.77	8.39	8.20	7.83	7.64	7.13	7.06	7.58	7.91		8.91	8.13	7.27	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	16.2	155.2				
Iwasaka, Shuto (JPN) (2001)																		
	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)							<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection</i>											
date	06-Aug-19	time	6.26	10.46	14.73	19.13	23.52	28.08	32.48	36.97	41.64	46.55	51.99	6 / 2				
reaction time	interval		4.20	4.27	4.40	4.39	4.56	4.40	4.49	4.67	4.91	5.44			12.87	13.35	14.07	
	velocity	7.19	8.33	8.20	7.95	7.97	7.68	7.95	7.80	7.49	7.13	7.35	7.69		8.16	7.87	7.46	
H1 lead leg		strides	15	15	15	15	15	15	15	15	15	15	135					
Iwasaki, Takafumi (JPN) (1997)																		
	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)							<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>											
date	06-Jun-21	time	6.06	9.91	13.91	17.97	22.15	26.41	30.76	35.19	39.77	44.43	49.73	7 / 3				
reaction time	interval		3.85	4.00	4.06	4.18	4.26	4.35	4.43	4.58	4.66	5.30			11.91	12.79	13.67	
	velocity	7.43	9.09	8.75	8.62	8.37	8.22	8.05	7.90	7.64	7.51	7.55	8.04		8.82	8.21	7.68	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	18.2	169.2				
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)							<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>											
date	09-May-21	time	5.99	9.81	13.73	17.77	21.92	26.26	30.68	35.14	39.72	44.34	49.64	2 / 5				
reaction time	0.183	interval		3.82	3.92	4.04	4.15	4.34	4.42	4.46	4.58	4.62	5.30	PB		11.78	12.91	13.66
	velocity	7.51	9.16	8.93	8.66	8.43	8.06	7.92	7.85	7.64	7.58	7.55	8.06		8.91	8.13	7.69	
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	15	130					
C FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)							<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>											
date	03-May-21	time	6.01	9.86	13.88	17.97	22.09	26.41	30.85	35.42	40.11	44.84	50.44	4 / 1				
reaction time	0.192	interval		3.85	4.02	4.09	4.12	4.32	4.44	4.57	4.69	4.73	5.60			11.96	12.88	13.99
	velocity	7.49	9.09	8.71	8.56	8.50	8.10	7.88	7.66	7.46	7.40	7.14	7.93		8.78	8.15	7.51	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	19	170				
Jabir, Madari Pillyalil (IND) (1996)																		
	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)							<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>											
date	28-Sep-19	time	5.95	9.82	13.69	17.64	21.74	25.92	30.19	34.61	39.24	44.12	49.71	9 / 5				
reaction time	0.199	interval		3.87	3.87	3.95	4.10	4.18	4.27	4.42	4.63	4.88	5.59			11.69	12.55	13.93
	velocity	7.56	9.04	9.04	8.86	8.54	8.37	8.20	7.92	7.56	7.17	7.16	8.05		8.98	8.37	7.54	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19.7	178.7				
Jackson, Bershawn (USA) (1983)																		
	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)							<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>											
date	30-Aug-18	time	5.76	9.68	13.80	18.00	22.32	24.2	26.56	30.84	39.80	44.72	50.63	2 / 7				
reaction time	0.140	interval		3.92	4.12	4.20	4.32	4.24	4.28	4.28	4.48	4.80	5.91			12.24	12.84	13.88
	velocity	7.81	8.93	8.50	8.33	8.10	8.26	8.25	8.18	7.81	7.11	6.77	7.90		8.58	8.18	7.56	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	113					
FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)							<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>											
date	05-Jul-18	time	5.60	9.44	13.44	17.52	21.64	25.72	29.84	34.12	38.60	43.40	49.31	8 / 6				
reaction time	0.129	interval		3.84	4.00	4.08	4.12	4.08	4.12	4.28	4.48	4.80	5.91			11.92	12.32	13.56
	velocity	8.04	9.11	8.75	8.58	8.50	8.58	8.50	8.18	7.81	7.29	6.77	8.11		8.81	8.52	7.74	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	157					
FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)							<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>											
date	05-Jul-18	time	5.68	9.44	13.40	17.44	21.56	23.4	25.64	29.76	34.04	38.52	43.32	49.16	2 / 6			
reaction time	0.140	interval		3.76	3.96	4.04	4.12	4.08	4.12	4.28	4.48	4.80	5.84			11.76	12.32	13.56
	velocity	7.92	9.31	8.84	8.66	8.50	8.55	8.58	8.50	8.18	7.81	7.29	6.85	8.14		8.93	8.52	7.74
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176				
FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)							<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>											
date	04-May-18	time	5.72	9.56	13.64	17.84	22.04	26.20	30.32	34.56	39.00	43.60	49.08	2 / 2				
reaction time	0.176	interval		3.84	4.08	4.20	4.20	4.16	4.12	4.24	4.44	4.60	5.48			12.12	12.48	13.28
	velocity	7.87	9.11	8.58	8.33	8.33	8.41	8.50	8.25	7.88	7.61	7.30	8.15		8.66	8.41	7.91	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	161				
FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)							<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>											

date	24-Aug-17	time	5.60	9.36	13.32		21.52	25.64	29.80	34.16	38.88	43.96		50.02	2 / 8					
reaction time	0.127	interval		3.76	3.96		8.20	4.12	4.16	4.36	4.72	5.08	6.06						14.16	
		velocity	8.04	9.31	8.84		8.54	8.50	8.41	8.03	7.42	6.89	6.60	8.00					7.42	
H1 lead leg	L	strides	22	15	15			15	15	15		17	20	134						
FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>						
date	06-Jul-17	time	5.72	9.64	13.84	18.12	22.32	26.44	30.56	34.76	39.12	43.64		49.04	3 / 4					
reaction time	0.140	interval		3.92	4.20	4.28	4.20	4.12	4.12	4.20	4.36	4.52	5.40					12.40	12.44	13.08
		velocity	7.87	8.93	8.33	8.18	8.33	8.50	8.50	8.33	8.03	7.74	7.41	8.16				8.47	8.44	8.03
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176						
FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>						
date	25-Jun-17	time	5.79	9.69	13.79	17.93	22.14		30.31	34.58	39.03	43.83		49.51	1 / 8					
reaction time		interval		3.90	4.10	4.14	4.21		8.17	4.27	4.45	4.80	5.68					12.14	12.38	13.52
		velocity	7.77	8.97	8.54	8.45	8.31		8.57	8.20	7.87	7.29	7.04	8.08				8.65	8.48	7.77
H1 lead leg	L	strides	22	15		15	15			15	15	17	19.2	133.2						
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>						
date	18-Jun-17	time	5.72	9.52		17.68	21.80	25.92	30.12	34.64	39.36	44.08		50.28	4 / 6					
reaction time	0.135	interval		3.80		8.16	4.12	4.12	4.20	4.52	4.72	4.72	6.20					11.96	12.44	13.96
		velocity	7.87	9.21		8.58	8.50	8.50	8.33	7.74	7.42	7.42	6.45	7.96				8.78	8.44	7.52
H1 lead leg	L	strides	22	15		15	15	15	15		16	15	113							
FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)														<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>						
date	20-May-17	time	5.74	9.54	13.54	17.65	21.75	25.86	29.93	34.16	38.54	43.21		48.63	4 / 3					
reaction time		interval		3.80	4.00	4.11	4.10	4.11	4.07	4.23	4.38	4.67	5.42					11.91	12.28	13.28
		velocity	7.84	9.21	8.75	8.52	8.54	8.52	8.60	8.27	7.99	7.49	7.38	8.23				8.82	8.55	7.91
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	19	161						
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)														<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>						
date	13-May-17	time	5.64	9.40	13.40	17.56	21.60	25.68	29.76	33.96	38.40	43.04		48.63	4 / 1					
reaction time	0.127	interval		3.76	4.00	4.16	4.04	4.08	4.08	4.20	4.44	4.64	5.59					11.92	12.20	13.28
		velocity	7.98	9.31	8.75	8.41	8.66	8.58	8.58	8.33	7.88	7.54	7.16	8.23				8.81	8.61	7.91
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176						
FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	10-Jul-16	time	5.90	9.68	13.61	17.68	21.82	25.86	30.00	34.30	39.07	43.98		49.96	1 / 8 7					
reaction time	0.233	interval		3.78	3.93	4.07	4.14	4.04	4.14	4.30	4.77	4.91	5.98					11.78	12.32	13.98
		velocity	7.63	9.26	8.91	8.60	8.45	8.66	8.45	8.14	7.34	7.13	6.69	8.01				8.91	8.52	7.51
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19.5	178.5						
FINAL - 2016 Prefontaine Classic (Eugene, OR) (TV Analysis)														<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	28-May-16	time	5.76	9.60	13.72	17.96	22.24	26.40	30.48	34.24	39.16	43.72		49.04	4 / 3					
reaction time		interval		3.84	4.12	4.24	4.28	4.16	4.08	3.76	4.92	4.56	5.32					12.20	12.52	13.24
		velocity	7.81	9.11	8.50	8.25	8.18	8.41	8.58	7.98	8.13	7.68	7.52	8.16				8.61	8.39	7.93
H1 lead leg	L	strides	22	15	15	15	15	15		17	15	19	148							
FINAL - 2011 IAAF World Championships (Daegu, KOR)														<i>Behm (2011) - Le quatrache: Démus enfin!</i>						
date	01-Sep-11	time	5.7	9.3	13.3	17.2	21.2	25.4	29.6	33.8	38.4	43.3		49.24	5 / 6					
reaction time	0.151	interval		3.60	4.00	3.90	4.00	4.20	4.20	4.20	4.60	4.90	5.94					11.50	12.40	13.70
		velocity	7.89	9.72	8.75	8.97	8.75	8.33	8.33	8.33	7.61	7.14	6.73	8.12				9.13	8.47	7.66
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	17	20	179						
FINAL - 2009 IAAF World Championships (Berlin, GER)														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>						
date	18-Aug-09	time	5.76	9.63	13.59	17.71	21.87	26.01	30.17	34.43	38.79	43.22		48.23	5 / 3					
reaction time	0.141	interval		3.87	3.96	4.12	4.16	4.14	4.16	4.26	4.36	4.43	5.01					11.95	12.46	13.05
		velocity	7.81	9.04	8.84	8.50	8.41	8.45	8.41	8.22	8.03	7.90	7.98	8.29				8.79	8.43	8.05
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	19	172						
Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>						
date	16-Aug-09	time	5.74	9.58	13.50	17.61	21.70	25.87	30.04	34.28	38.64	43.09		48.23	5 / 1					
reaction time	0.146	interval		3.84	3.92	4.11	4.09	4.17	4.17	4.24	4.36	4.45	5.14					11.87	12.43	13.05
		velocity	7.84	9.11	8.93	8.52	8.56	8.39	8.39	8.25	8.03	7.87	7.78	8.29				8.85	8.45	8.05
H1 lead leg	L	strides	22	14	14			15	15	15	15	15	18.7	143.7						
Heat 2 - 2009 IAAF World Championships (Berlin, GER)														<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>						
date	15-Aug-09	time	6.14	10.20	14.38	18.60	22.89	27.07	31.28	35.58	40.00	44.44		49.34	2 / 2					
reaction time	0.151	interval		4.06	4.18	4.22	4.29	4.18	4.21	4.30	4.42	4.44	4.90					12.46	12.68	13.16
		velocity	7.33	8.62	8.37	8.29	8.16	8.37	8.31	8.14	7.92	7.88	8.16	8.11				8.43	8.28	7.98
H1 lead leg		strides																		
FINAL - 2008 Olympic Games (Beijing, CHN)														<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>						
date	18-Aug-08	time	5.6	9.2	13.2	17.3	21.5	25.5	29.5	33.7	38.0	42.6		48.06	7 / 3					
reaction time	0.145	interval		3.60	4.00	4.10	4.20	4.00	4.00	4.20	4.30	4.60	5.46					11.70	12.20	13.10
		velocity	8.04	9.72	8.75	8.54	8.33	8.75	8.75	8.33	8.14	7.61	7.33	8.32				8.97	8.61	8.02
H1 lead leg	R	strides	23	15	15	15	15	15	15	15	15	15	19.5	177.5						

FINAL - 2008 USA Olympic Trials (Eugene, OR)

USATF Hurdle Development (2008)

date	29-Jun-08	time	5.79	9.54	13.61	17.87	22.19	26.18	30.25	34.45	38.71	43.13	48.17	4 / 1			
reaction time		interval		3.75	4.07	4.26	4.32	3.99	4.07	4.20	4.26	4.42	5.04		12.08	12.38	12.88
		velocity	7.77	9.33	8.60	8.22	8.10	8.77	8.60	8.33	8.22	7.92	7.94	8.30	8.69	8.48	8.15
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	158				

FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)Graubner (2007) - <http://www.fgs.uni-halle.de>

date	22-Sep-07	time	5.86	9.68	13.68	17.80	21.96	26.02	30.14	34.38	38.72	43.33	48.58	2 / 4			
reaction time	0.167	interval		3.82	4.00	4.12	4.16	4.06	4.12	4.24	4.34	4.61	5.25		11.94	12.34	13.19
		velocity	7.68	9.16	8.75	8.50	8.41	8.62	8.50	8.25	8.06	7.59	7.62	8.23	8.79	8.51	7.96
H1 lead leg		strides															

FINAL - 2007 Osaka Grand Prix (Osaka, JPN)

Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers

date	05-May-07	time	5.71	9.40	13.29	17.36	21.48	25.47	29.57	33.81	38.23	42.88	48.13	/ 1			
reaction time		interval		3.69	3.89	4.07	4.12	3.99	4.10	4.24	4.42	4.65	5.25		11.65	12.21	13.31
		velocity	7.88	9.49	9.00	8.60	8.50	8.77	8.54	8.25	7.92	7.53	7.62	8.31	9.01	8.60	7.89
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135				

FINAL - 2006 USATF National Championships (Indianapolis, IN)

USATF Men's Hurdle Development (2006)

date	24-Jun-06	time	5.72	9.49	13.31	17.25	21.29	25.16	29.23	33.32	37.64	42.16	47.48	6 / 2			
reaction time		interval		3.77	3.82	3.94	4.04	3.87	4.07	4.09	4.32	4.52	5.32		11.53	11.98	12.93
		velocity	7.87	9.28	9.16	8.88	8.66	9.04	8.60	8.56	8.10	7.74	7.52	8.42	9.11	8.76	8.12
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	19.7	178			

FINAL - 2006 Osaka Grand Prix (Osaka, JPN)

Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers

date	06-May-06	time	6.04	10.06	14.15	18.29	22.36	26.28	30.22	34.22	38.43	42.73	47.60	/ 1			
reaction time		interval		4.02	4.09	4.14	4.07	3.92	3.94	4.00	4.21	4.30	4.87		12.25	11.93	12.51
		velocity	7.45	8.71	8.56	8.45	8.60	8.93	8.88	8.75	8.31	8.14	8.21	8.40	8.57	8.80	8.39
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135				

FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	19-Sep-05	time	5.92	9.89	14.08	18.27	22.36	26.30	30.30	34.49	38.76	43.15	48.24	/ 1			
reaction time		interval		3.97	4.19	4.19	4.09	3.94	4.00	4.19	4.27	4.39	5.09		12.35	12.03	12.85
		velocity	7.60	8.82	8.35	8.35	8.56	8.88	8.75	8.35	8.20	7.97	7.86	8.29	8.50	8.73	8.17
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	135				

FINAL - 2005 IAAF World Championships (Helsinki, FIN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	09-Aug-05	time	5.73	9.50	13.30	17.34	21.41	25.38	29.42	33.59	37.86	42.25	47.30	6 / 1			
reaction time	0.153	interval		3.77	3.80	4.04	4.07	3.97	4.04	4.17	4.27	4.39	5.05	PB	11.61	12.08	12.83
		velocity	7.85	9.28	9.21	8.66	8.60	8.82	8.66	8.39	8.20	7.97	7.92	8.46	9.04	8.69	8.18
H1 lead leg		strides		13	13	15	15	15	15	15	15	15	19	150			

FINAL - 2003 USATF National Championships (Palo Alto, CA)

USATF Women's Sprint Development (2003)

date	22-Jun-03	time	5.97	9.84	13.85	17.92	22.04	26.18	30.30	34.47	38.91	43.56	49.01	4 / 2-1			
reaction time		interval		3.87	4.01	4.07	4.12	4.14	4.12	4.17	4.44	4.65	5.45		11.95	12.38	13.26
		velocity	7.54	9.04	8.73	8.60	8.50	8.45	8.50	8.39	7.88	7.53	7.34	8.16	8.79	8.48	7.92
H1 lead leg		strides															

James-King, Malik (JAM) (1999)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

date	14-Sep-24	time	6.00	9.74	13.58	17.40	21.44	25.68	30.06	34.51	39.08	43.74	49.37	7 / 6			
reaction time	0.153	interval		3.74	3.84	3.82	4.04	4.24	4.38	4.45	4.57	4.66	5.63		11.70	12.66	13.68
		velocity	7.50	9.36	9.11	9.16	8.66	8.25	7.99	7.87	7.66	7.51	7.10	8.10	8.97	8.29	7.68
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	18	171			

Semi-Final 2 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympic Games - Results Book (2024)

date	07-Aug-24	time	6.00	9.77	13.46	17.19	21.09	25.13	29.29	33.60	38.08	42.65	48.85	6 / 7			
reaction time	0.222	interval		3.77	3.69	3.73	3.90	4.04	4.16	4.31	4.48	4.57	6.20		11.19	12.10	13.36
		velocity	7.50	9.28	9.49	9.38	8.97	8.66	8.41	8.12	7.81	7.66	6.45	8.19	9.38	8.68	7.86
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19	172			

Heat 5 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympic Games - Results Book (2024)

date	05-Aug-24	time	5.94	9.64	13.38	17.08	20.93	25.04	29.31	33.71	38.32	42.90	48.21	2 / 1			
reaction time	0.150	interval		3.70	3.74	3.70	3.85	4.11	4.27	4.40	4.61	4.58	5.31		11.14	12.23	13.59
		velocity	7.58	9.46	9.36	9.46	9.09	8.52	8.20	7.95	7.59	7.64	7.53	8.30	9.43	8.59	7.73
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	16	15	18	171			

FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)

Omega Timing (2024) - diamond league race analysis

date	12-Jul-24	time	6.02	9.78	13.47	17.22	21.01	25.00	29.06	33.22	37.52	42.00	47.73	3 / 4			
reaction time	0.150	interval		3.76	3.69	3.75	3.79	3.99	4.06	4.16	4.30	4.48	5.73		11.20	11.84	12.94
		velocity	7.48	9.31	9.49	9.33	9.23	8.77	8.62	8.41	8.14	7.81	6.98	8.38	9.38	8.87	8.11
H1 lead leg	L	strides	23	14	14	14	14	14		15	15	15	19.5	157.5			

FINAL - 2024 Meeting de Paris (Paris, FRA)

Omega Timing (2024) - diamond league race analysis

date	07-Jul-24	time	5.92	9.69	13.44	17.28	21.34	25.42	29.60	34.00	38.39	42.89	48.37	7 / 3			
reaction time	0.172	interval		3.77	3.75	3.84	4.06	4.08	4.18	4.40	4.39	4.50	5.48		11.36	12.32	13.29
		velocity	7.60	9.28	9.33	9.11	8.62	8.58	8.37	7.95	7.97	7.78	7.30	8.27	9.24	8.52	7.90

H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	18	170
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FINAL - 2024 Prefontaine Classic (Eugene, OR)

Omega Timing (2024) - diamond league race analysis

date	25-May-24	time	6.07	10.00	14.03	18.06	22.19	26.40	30.68	35.09	39.66	44.20	49.51	3 / 5	11.99	12.62	13.52
reaction time	0.144	interval	3.93	4.03	4.03	4.13	4.21	4.28	4.41	4.57	4.54	5.31	8.08	8.76	8.32	7.77	
		velocity	7.41	8.91	8.68	8.68	8.47	8.31	8.18	7.94	7.66	7.71	7.53				

H1 lead leg	L	strides	23	15	15	14	15	15	15	15	15	15	142
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Januszewski, Paweł (POL) (1972)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2002 European Championships (Munich, GER)Graubner (2009) - <http://www.fgs.uni-halle.de>

date	09-Aug-02	time	6.10	9.93	13.69	17.49	21.37	25.45	29.61	33.98	38.46	43.12	48.46	/ 3	11.39	12.12	13.51
reaction time	0.145	interval	3.83	3.76	3.80	3.88	4.08	4.16	4.37	4.48	4.66	5.34	8.25	9.22	8.66	7.77	
		velocity	7.38	9.14	9.31	9.21	9.02	8.58	8.41	8.01	7.81	7.51	7.49				
H1 lead leg		strides	14	14	14	14	14	14	14	14	15	15	128				

Semi-Final 1 - 2002 European Championships (Munich, GER)Graubner (2009) - <http://www.fgs.uni-halle.de>

date	08-Aug-02	time	6.04	9.93	13.73	17.59	21.55	25.67	29.83	34.15	38.65	43.23	48.60	/ 2	11.55	12.24	13.40
reaction time		interval	3.89	3.80	3.86	3.96	4.12	4.16	4.32	4.50	4.58	5.37	8.23	9.09	8.58	7.84	
		velocity	7.45	9.00	9.21	9.07	8.84	8.50	8.41	8.10	7.78	7.64	7.45				
H1 lead leg		strides															

Heat 1 - 2002 European Championships (Munich, GER)Graubner (2009) - <http://www.fgs.uni-halle.de>

date	07-Aug-02	time	6.09	10.06	13.97	17.85	21.89	26.03	30.31	34.71	39.32	43.87	49.17	/ 1	11.76	12.46	13.56
reaction time		interval	3.97	3.91	3.88	4.04	4.14	4.28	4.40	4.61	4.55	5.30	8.14	8.93	8.43	7.74	
		velocity	7.39	8.82	8.95	9.02	8.66	8.45	8.18	7.95	7.59	7.69	7.55				
H1 lead leg		strides															

FINAL - 2001 IAAF World Championships (Edmonton, CAN)

Behm (2001) - Edmonton: Le quatrache: les finales

date	10-Aug-01	time	5.9	9.8	13.5	17.5	21.4	25.5	29.8	34.1	38.7	43.3	48.57	7 / 7 6	11.60	12.30	13.50
reaction time	0.175	interval	3.90	3.70	4.00	3.90	4.10	4.30	4.30	4.60	4.60	5.27	8.24	9.05	8.54	7.78	
		velocity	7.63	8.97	9.46	8.75	8.97	8.54	8.14	8.14	7.61	7.61	7.59				
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	152				

FINAL - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	27-Sep-00	time	5.98	9.86	13.66	17.50	21.46	22.94	25.62	29.82	34.10	38.66	43.18	48.44	2 / 6	11.52	12.32	13.36
reaction time	0.149	interval	3.88	3.80	3.84	3.96	4.16	4.20	4.28	4.56	4.52	5.26	8.26	9.11	8.52	7.86		
		velocity	7.53	9.02	9.21	9.11	8.84	8.72	8.41	8.33	8.18	7.68	7.74	7.60				
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	18.1	169.1				

Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	6.02	9.86	13.70	17.62	21.58	23.14	25.70	29.94	34.26	38.66	43.22	48.42	7 / 4	11.60	12.32	13.28
reaction time	0.244	interval	3.84	3.84	3.92	3.96	4.12	4.24	4.32	4.40	4.56	5.20	8.26	9.05	8.52	7.91		
		velocity	7.48	9.11	9.11	8.93	8.84	8.64	8.50	8.25	8.10	7.95	7.68	7.69				
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	18.2	169.2				

Heat 5 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.08	9.88	13.64	17.48	21.44	25.60	30.08	34.80	40.04	45.28	51.40	2 / 2	11.40	12.60	15.20
reaction time	0.163	interval	3.80	3.76	3.84	3.96	4.16	4.48	4.72	5.24	5.24	6.12	7.78	9.21	8.33	6.91	
		velocity	7.40	9.21	9.31	9.11	8.84	8.41	7.81	7.42	6.68	6.68	6.54				
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	19.7	170.7			

FINAL - 2000 ISTAF (Berlin, GER)Graubner (2009) - <http://www.fgs.uni-halle.de>

date	01-Sep-00	time	6.07	9.93	13.76	17.69	21.67	25.81	29.98	34.28	38.76	43.34	48.49	/ 3	11.62	12.29	13.36
reaction time		interval	3.86	3.83	3.93	3.98	4.14	4.17	4.30	4.48	4.58	5.15	8.25	9.04	8.54	7.86	
		velocity	7.41	9.07	9.14	8.91	8.79	8.45	8.39	8.14	7.81	7.64	7.77				
H1 lead leg		strides															

FINAL - 1999 IAAF World Championships (Sevilla, ESP)

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date	27-Aug-99	time	5.54	9.24	13.00	16.77	20.74	24.77	29.00	33.21	37.64	42.27	48.19	4 / 5	11.23	12.23	13.27
reaction time	0.138	interval	3.70	3.76	3.77	3.97	4.03	4.23	4.21	4.43	4.63	5.92	8.30	9.35	8.59	7.91	
		velocity	8.12	9.46	9.31	9.28	8.82	8.68	8.27	8.31	7.90	7.56	6.76				
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5			

Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date	25-Aug-99	time	5.81	9.59	13.39	17.21	21.25	25.30	29.51	33.85	38.20	42.79	48.63	7 / 2	11.40	12.30	13.28
reaction time	0.255	interval	3.78	3.80	3.82	4.04	4.05	4.21	4.34	4.35	4.59	5.84	8.23	9.21	8.54	7.91	
		velocity	7.75	9.26	9.21	9.16	8.66	8.64	8.31	8.06	8.05	7.63	6.85				
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168			

FINAL - 1998 European Championships (Budapest, HUN)

Behm (1998) - analyse et commentaires: le 400m haies: Pavel la surprise!

date	20-Aug-98	time	5.9	9.8	13.6	17.4	21.2	25.2	29.3	33.6	38.1	42.7	48.17	3 / 1	11.50	11.90	13.40
reaction time		interval	3.9	3.8	3.8	3.8	4.0	4.1	4.3	4.5	4.6	5.47	NR / PB	8.30	9.13	8.82	7.84
		velocity	7.63	8.97	9.21	9.21	9.21	8.75	8.54	8.14	7.78	7.61	7.31				
H1 lead leg	L	strides	21	14	14	14	14	13	14	14	15	15	18.5	166.5			

Johnson, Brandon (USA) (1985)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2008 USA Olympic Trials (Eugene, OR)

USATF Hurdle Development (2008)

date	29-Jun-08	time	5.84	9.59	13.41	17.37	21.54		25.64	29.96	34.38	38.89	43.38		48.72	2 / 6			
reaction time		interval		3.75	3.82	3.96	4.17		4.10	4.32	4.42	4.51	4.49	5.34			11.53	12.59	13.42
		velocity	7.71	9.33	9.16	8.84	8.39		8.54	8.10	7.92	7.76	7.80	7.49	8.21		9.11	8.34	7.82
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14		142				

Heat 3 - 2007 USATF National Championships (Indianapolis, IN)

USATF Men's Hurdle Development (2007)

date	21-Jun-07	time	5.87	9.58	13.51	17.48	21.60		25.86	30.46	35.07	39.01	44.69		50.04	5 / 1			
reaction time		interval		3.71	3.93	3.97	4.12		4.26	4.60	4.61	3.94	5.68	5.35			11.61	12.98	14.23
		velocity	7.67	9.43	8.91	8.82	8.50		8.22	7.61	7.59	8.88	6.16	7.48	7.99		9.04	8.09	7.38
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15		144				

Jonot, Franck (FRA) (1961)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1986 French National Championships (Aix les Bains, FRA)																	Veney - split times from PJ		
date	10-Aug-86	time	6.05	10.02	13.86	17.80	21.94		26.03	30.53	34.95	39.57	44.39		50.21	/ 2			
reaction time		interval		3.97	3.84	3.94	4.14		4.09	4.50	4.42	4.62	4.82	5.82			11.75	12.73	13.86
		velocity	7.44	8.82	9.11	8.88	8.45		8.56	7.78	7.92	7.58	7.26	6.87	7.97		8.94	8.25	7.58
H1 lead leg		strides																	

Jordan-Bacot, Quivell (USA) (1999)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)																	Henson (2023) - Athlete First: 2023 year end hurdle report		
date	09-Jul-23	time	5.94	9.67	13.61	17.58	21.65		26.06		35.16	39.97	44.84		50.73	2 / 8			
reaction time		interval		3.73	3.94	3.97	4.07		4.41		9.10	4.81	4.87	5.89			11.64		
		velocity	7.58	9.38	8.88	8.82	8.60		7.94		7.69	7.28	7.19	6.79	7.88		9.02		
H1 lead leg	L	strides	21	13	13	13	13					15	15		103				

Jordan, Quivell (USA) (1999)

Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																	Henson (2021) - Athlete First: 2021 year end hurdle report		
date	25-Jun-21	time	5.93	9.77	13.87	18.03	22.27		26.57	31.07	35.63	40.37	45.17		50.94	2 / 7			
reaction time	0.178	interval		3.84	4.10	4.16	4.24		4.30	4.50	4.56	4.74	4.80	5.77			12.10	13.04	14.10
		velocity	7.59	9.11	8.54	8.41	8.25		8.14	7.78	7.68	7.38	7.29	6.93	7.85		8.68	8.05	7.45
H1 lead leg	L	strides	21	13	14	14	14			15	15	15	15		136				

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	11-Jun-21	time	6.00	9.75		17.73	21.80			30.57	35.20	40.00		50.54	1 / 9				
reaction time	0.166	interval		3.75		7.98	4.07			8.77	4.63	4.80					11.73	12.84	
		velocity	7.50	9.33		8.77	8.60			7.98	7.56	7.29		7.91			8.95	8.18	
H1 lead leg	L	strides	21	13		14					15	15		78					

Juan, Jaime (ESP) (1977)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1998 Spanish National Championships (San Sebastián, ESP)																	Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas		
date	02-Aug-98	time	6.22	10.26	14.35	18.57	22.96		27.51	32.00	36.51	41.27	46.19		52.40	8 / 6			
reaction time		interval		4.04	4.09	4.22	4.39		4.55	4.49	4.51	4.76	4.92	6.21			12.35	13.43	14.19
		velocity	7.23	8.66	8.56	8.29	7.97		7.69	7.80	7.76	7.35	7.11	6.44	7.63		8.50	7.82	7.40
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5				

Juránek, Martin (CZE) (1991)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)																	Henson (2020) - Athlete First: 2020 year end hurdle report		
date	08-Sep-20	time	6.10	10.04	13.98	17.95	22.09			30.63	35.30	40.24		51.71	2 / 7				
reaction time	0.166	interval		3.94	3.94	3.97	4.14			8.54	4.67	4.94					11.85	12.68	
		velocity	7.38	8.88	8.88	8.82	8.45			8.20	7.49	7.09		7.74			8.86	8.28	
H1 lead leg	L	strides	22	15		15	15					17	17		101				

Juricic, Darko (CRO) (1969)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 5 - 2000 Olympic Games (Sydney, AUS)																	Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games		
date	24-Sep-00	time	6.04	9.92	13.76	17.72	21.80		25.96	30.64	35.60	40.88	46.16		52.39	1 / 6			
reaction time	0.167	interval		3.88	3.84	3.96	4.08		4.16	4.68	4.96	5.28	5.28	6.23			11.68	12.92	15.52
		velocity	7.45	9.02	9.11	8.84	8.58		8.41	7.48	7.06	6.63	6.63	6.42	7.64		8.99	8.13	6.77
H1 lead leg		strides	22	14	14	14	14		14	16	17	18	18	21.9	182.9				

Kageyama, Ayata (JPN) (2000)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)																	Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection		
date	04-Aug-18	time	6.49	10.73	15.28	19.92	24.61		29.31	34.00	38.61	43.36	48.25		53.79	7 / 8			
reaction time		interval		4.24	4.55	4.64	4.69		4.70	4.69	4.61	4.75	4.89	5.54			13.43	14.08	14.25
		velocity	6.93	8.25	7.69	7.54	7.46		7.45	7.46	7.59	7.37	7.16	7.22	7.44		7.82	7.46	7.37
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135				

Kajiki, Ryo (JPN) (1995)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

C FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)																	Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season		
date	06-Jun-21	time	5.96	9.78	13.66	17.65	21.79		26.13	30.58	35.19	39.92	44.81		50.33	9 / 1			
reaction time		interval		3.82	3.88	3.99	4.14		4.34	4.45	4.61	4.73	4.89	5.52			11.69	12.93	14.23
		velocity	7.55	9.16	9.02	8.77	8.45		8.06	7.87	7.59	7.40	7.16	7.25	7.95		8.98	8.12	7.38
H1 lead leg		strides		14	14	14	14		14	14	15	15	15		129				

B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

date	01-Jun-21	time	6.04	9.79	13.61	17.60	21.64		25.88	30.35	34.90	39.69	44.58		50.16	7 / 3			
reaction time	0.248	interval		3.75	3.82	3.99	4.04		4.24	4.47	4.55	4.79	4.89	5.58			11.56	12.75	14.23
		velocity	7.45	9.33	9.16	8.77	8.66		8.25	7.83	7.69	7.31	7.16	7.17	7.97		9.08	8.24	7.38
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	15	15	18.5	161.5				

FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>									
date	20-Sep-20	time	6.14	9.99	13.95	18.02	22.24	26.66	31.13	35.89	40.86	46.01	51.89	8 / 7					
reaction time	0.258	interval	3.85	3.96	4.07	4.22	4.42	4.47	4.76	4.97	5.15	5.88	11.88	13.11	14.88				
		velocity	7.33	9.09	8.84	8.60	8.29	7.92	7.83	7.35	7.04	6.80	7.71	8.84	8.01	7.06			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15	123							

FINAL - 2018 National Sports Festival (Fukui, JPN)										<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018</i>									
date	08-Oct-18	time	6.04	9.86	13.76	17.73	21.83	26.15	30.64	35.14	39.78	44.50	49.61	6 / 1					
reaction time	0.190	interval	3.82	3.90	3.97	4.10	4.32	4.49	4.50	4.64	4.72	5.11	11.69	12.91	13.86				
		velocity	7.45	9.16	8.97	8.82	8.54	8.10	7.80	7.78	7.54	7.42	7.83	8.98	8.13	7.58			
H1 lead leg		strides	13	13	13	13	13	13	14	14	15	15	123						

Kakimori, Hiroshi (JPN) (1968)										<i>Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races</i>									
FINAL - 1986 IAAF World Junor Championships (Athens, GRE)																			
date	18-Jul-86	time	6.21	9.92	13.94	18.30	21.95	26.08	30.48	34.98	39.68	44.50	50.09	/ 2					
reaction time		interval	3.71	4.02	4.36	3.65	4.13	4.40	4.50	4.70	4.82	5.59	12.09	12.18	14.02				
		velocity	7.25	9.43	8.71	8.03	9.59	8.47	7.95	7.78	7.45	7.26	7.16	7.99	8.68	8.62	7.49		
H1 lead leg		strides	22	13	13	13	13	15	15	15	15	15	19	168					

Kamani, Bayano (PAN) (1980)										<i>Behm (2005) - Athènes 2004: Les Haies Basses</i>									
FINAL - 2004 Olympic Games (Athina, GRE)																			
date	26-Aug-04	time	5.9	9.5	13.2	17.0	21.1	25.1	29.3	33.9	38.3	42.9	48.74	2 / 5					
reaction time	0.233	interval	3.60	3.70	3.80	4.10	4.00	4.20	4.60	4.40	4.60	5.84	11.10	12.30	13.60				
		velocity	7.63	9.72	9.46	9.21	8.54	8.75	8.33	7.61	7.95	7.61	6.85	8.21	9.46	8.54	7.72		
H1 lead leg	L	strides	20	13	13	13	14	14	15	15	15	15	19	166					

Kanbara, Daichi (JPN)										<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>									
Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)																			
date	23-Oct-16	time					23.85						38.93	56.20	5 / 4				
reaction time		interval											15.08						
		velocity					7.76						6.96	7.12					
H1 lead leg		strides																	

Kanno, Kohei (JPN) (2002)										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>									
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)																			
date	26-Jun-21	time	6.46	10.51	14.60	18.67	22.84	27.08	31.38	35.77	40.37	45.31	50.88	9 / 4					
reaction time	0.200	interval	4.05	4.09	4.07	4.17	4.24	4.30	4.39	4.60	4.94	5.57	12.21	12.71	13.93				
		velocity	6.97	8.64	8.56	8.60	8.39	8.25	8.14	7.97	7.61	7.09	7.18	7.86	8.60	8.26	7.54		
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	17	19.5	178.5					

Kasai, Yuki (JPN) (2006)										<i>Takashima (2024) - national high school sports festival - biomechanics data</i>									
FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)																			
date	30-Jul-24	time	6.22	10.21	14.33	18.55	22.76	26.93	31.33	35.94	40.67	45.68	51.54	4 / 3					
reaction time	0.217	interval	3.99	4.12	4.22	4.21	4.17	4.40	4.61	4.73	5.01	5.86	12.33	12.78	14.35				
		velocity	7.23	8.77	8.50	8.29	8.31	8.39	7.95	7.59	7.40	6.99	6.83	7.76	8.52	8.22	7.32		
H1 lead leg		strides	20	15	15	15	15	15	15	15	15	15	18	173					

Kato, Seiya (JPN) (1992)										<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>									
C FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)																			
date	03-May-14	time	6.17	10.01	13.93	17.93	22.13	26.35	30.74	35.26	39.90	44.74	50.40	/ 1					
reaction time		interval	3.84	3.92	4.00	4.20	4.22	4.39	4.52	4.64	4.84	5.66	PB	11.76	12.81	14.00			
		velocity	7.29	9.11	8.93	8.75	8.33	8.29	7.97	7.74	7.54	7.23	7.07	7.94	8.93	8.20	7.50		
H1 lead leg		strides	13	13	13	14	14	14	15	15	15	15	15	127					

FINAL - 2010 Japanese National High School Championships (Okinawa, JPN)										<i>Matsuo (2010) - 63rd high school championships: JAF scientific committee- biomechanics data</i>									
date	31-Jul-10	time	6.37	10.32	14.27	18.24	22.41	26.63	30.98	35.62	40.46	45.45	51.04	/ 1					
reaction time		interval	3.95	3.95	3.97	4.17	4.22	4.35	4.64	4.84	4.99	5.59	11.87	12.74	14.47				
		velocity	7.06	8.86	8.86	8.82	8.39	8.29	8.05	7.54	7.23	7.01	7.16	7.84	8.85	8.24	7.26		
H1 lead leg		strides	13	13	13	14	14	14	15	15	15	15	15	127					

FINAL - 2009 Japanese National High School Championships (Nara, JPN)										<i>Matsuo (2009) - 62nd high school championships: JAF scientific committee- biomechanics data</i>									
date	31-Jul-09	time	6.32	10.46	14.73	19.05	23.45	28.05	32.74	37.47	42.24	47.00	52.42	/ 3					
reaction time		interval	4.14	4.27	4.32	4.40	4.60	4.69	4.73	4.77	4.76	5.42	12.73	13.69	14.26				
		velocity	7.12	8.45	8.20	8.10	7.95	7.61	7.46	7.40	7.34	7.35	7.38	8.25	7.67	7.36			
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	15	131						

Kawagoe, Hiroya (JPN) (1997)										<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>									
B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)																			
date	07-May-23	time	6.09	9.99	14.10	18.25	22.47	26.83	31.26	35.79	40.41	45.13	50.46	2 / 3					
reaction time	0.166	interval	3.90	4.11	4.15	4.22	4.36	4.43	4.53	4.62	4.72	5.33	12.16	13.01	13.87				
		velocity	7.39	8.97	8.52	8.43	8.29	8.03	7.90	7.73	7.58	7.42	7.50	7.93	8.63	8.07	7.57		
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	15	131						

FINAL - 2022 Japanese National Championships (Osaka, JPN)										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>									
date	11-Jun-22	time	6.01	9.84	13.76	17.82	21.94	26.21	30.63	35.10	39.66	44.33	49.72	4 / 2					
reaction time	0.193	interval	3.83	3.92	4.06	4.12	4.27	4.42	4.47	4.56	4.67	5.39	PB	11.81	12.81	13.70			

H1 lead leg	L	velocity	7.49	9.14	8.93	8.62	8.50	8.20	7.92	7.83	7.68	7.49	7.42	8.05	8.89	8.20	7.66	
		strides	21	14	14	14	14	15	15	15	15	15	18.7	170.7				
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)																		
date	08-May-22	time	5.97	9.73	13.70	17.67	21.79	26.21	30.76	35.40	40.12	45.01	50.66	8 / 9				
reaction time	0.177	interval	3.76	3.97	3.97	4.12	4.42	4.55	4.64	4.72	4.89	5.65			11.70	13.09	14.25	
		velocity	7.54	9.31	8.82	8.82	8.50	7.92	7.69	7.54	7.42	7.16	7.08	7.90	8.97	8.02	7.37	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.2	170.2				
FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)																		
date	01-May-22	time	6.02	9.84	13.85	17.92	22.07	26.39	30.88	35.47	40.14	44.91	50.36	8 / 6				
reaction time	0.167	interval	3.82	4.01	4.07	4.15	4.32	4.49	4.59	4.67	4.77	5.45			11.90	12.96	14.03	
		velocity	7.48	9.16	8.73	8.60	8.43	8.10	7.80	7.63	7.49	7.34	7.94		8.82	8.10	7.48	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					
FINAL - 2021 Japanese National Championships (Osaka, JPN)																		
date	26-Jun-21	time	6.06	9.93	13.96	18.05	22.26	26.64	31.16	35.82	40.57	45.40	50.71	3 / 7				
reaction time	0.191	interval	3.87	4.03	4.09	4.21	4.38	4.52	4.66	4.75	4.83	5.31			11.99	13.11	14.24	
		velocity	7.43	9.04	8.68	8.56	8.31	7.99	7.74	7.51	7.37	7.25	7.53	7.89	8.76	8.01	7.37	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	152					
FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)																		
date	06-Jun-21	time	6.09	10.03	14.03	18.07	22.19	26.51	30.88	35.35	39.97	44.68	50.11	8 / 4				
reaction time		interval	3.94	4.00	4.04	4.12	4.32	4.37	4.47	4.62	4.71	5.43			11.98	12.81	13.80	
		velocity	7.39	8.88	8.75	8.66	8.50	8.10	8.01	7.83	7.58	7.43	7.37	7.98	8.76	8.20	7.61	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	152					
FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)																		
date	01-Jun-21	time	6.21	10.14	14.11	18.17	22.36	26.63	31.06	35.59	40.29	45.10	50.61	4 / 3				
reaction time	0.182	interval	3.93	3.97	4.06	4.19	4.27	4.43	4.53	4.70	4.81	5.51			11.96	12.89	14.04	
		velocity	7.25	8.91	8.82	8.62	8.35	8.20	7.90	7.73	7.45	7.28	7.26	7.90	8.78	8.15	7.48	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5				
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)																		
date	09-May-21	time	5.96	9.79	13.75	17.75	21.86	26.16	30.50	35.04	39.62	44.29	49.76	9 / 6				
reaction time	0.142	interval	3.83	3.96	4.00	4.11	4.30	4.34	4.54	4.58	4.67	5.47	PB		11.79	12.75	13.79	
		velocity	7.55	9.14	8.84	8.75	8.52	8.14	8.06	7.71	7.64	7.49	7.31	8.04	8.91	8.24	7.61	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					
B FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)																		
date	03-May-21	time	6.09	9.96	13.91	17.95	22.07	26.36	30.76	35.24	39.77	44.48	49.91	5 / 1				
reaction time	0.184	interval	3.87	3.95	4.04	4.12	4.29	4.40	4.48	4.53	4.71	5.43			11.86	12.81	13.72	
		velocity	7.39	9.04	8.86	8.66	8.50	8.16	7.95	7.81	7.73	7.43	7.37	8.01	8.85	8.20	7.65	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171				
FINAL - 2020 Japanese National Championships (Niigata, JPN)																		
date	02-Oct-20	time	6.07	9.96	13.98	18.02	22.19	26.59	31.05	35.57	40.24	45.05	50.61	7 / 6				
reaction time	0.170	interval	3.89	4.02	4.04	4.17	4.40	4.46	4.52	4.67	4.81	5.56			11.95	13.03	14.00	
		velocity	7.41	9.00	8.71	8.66	8.39	7.95	7.85	7.74	7.49	7.28	7.19	7.90	8.79	8.06	7.50	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171				
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)																		
date	23-Aug-20	time	5.92	9.76	13.65	17.63	21.74	26.01	30.38	34.87	39.56	44.93	52.17	3 / 8				
reaction time	0.142	interval	3.84	3.89	3.98	4.11	4.27	4.37	4.49	4.69	5.37	7.24			11.71	12.75	14.55	
		velocity	7.60	9.11	9.00	8.79	8.52	8.20	8.01	7.80	7.46	6.52	5.52	7.67	8.97	8.24	7.22	
H1 lead leg		strides		14	14	14	14	15	15	15	15	17	133					
Kawaguchi, Takuto (JPN)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)																		
date	23-Oct-16	time					24.15				39.79			58.08	6 / 6			
reaction time		interval									15.64							
		velocity					7.66				6.71			6.89				
H1 lead leg		strides																
Kawakami, Daichi (JPN) (2006)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)																		
date	30-Jul-24	time	6.34	10.41	14.56	18.87	23.26	27.66	32.13	36.85	41.71	46.65	52.32	3 / 5				
reaction time	0.240	interval	4.07	4.15	4.31	4.39	4.40	4.47	4.72	4.86	4.94	5.67			12.53	13.26	14.52	
		velocity	7.10	8.60	8.43	8.12	7.97	7.95	7.83	7.42	7.20	7.09	7.05	7.65	8.38	7.92	7.23	
H1 lead leg		strides	20	14	14	14	14	15	15	15	15	15	18	169				
Kawakita, Naohiro (JPN) (1980)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2010 Japanese National Championships (Marugume, JPN)																		
date	05-Jun-10	time	6.16	10.07	13.98	17.95	22.02	26.31	30.65	35.19	39.78	44.42	49.63	1 / 2				
reaction time	0.169	interval	3.91	3.91	3.97	4.07	4.29	4.34	4.54	4.59	4.64	5.21			11.79	12.70	13.77	
		velocity	7.31	8.95	8.95	8.82	8.60	8.16	8.06	7.71	7.63	7.54	7.68	8.06	8.91	8.27	7.63	
H1 lead leg		strides		13	13	13	13	14	14	14	15	15	124					

FINAL - 2009 Japanese National Championships (Hiroshima, JPN)						Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11												
date	27-Jun-09	time	6.13	9.97	13.86	17.85	21.95	26.30	30.75	35.30	39.94	44.59	49.74	4 / 3				
reaction time		interval		3.84	3.89	3.99	4.10	4.35	4.45	4.55	4.64	4.65	5.15		11.72	12.90	13.84	
		velocity	7.34	9.11	9.00	8.77	8.54	8.05	7.87	7.69	7.54	7.53	7.77	8.04	8.96	8.14	7.59	
H1 lead leg		strides		13	13	13	13	14	14	14	15	15	124					

FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)						Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers												
date	24-Sep-06	time	6.06	9.83	13.63	17.57	21.66	26.04	30.41	34.88	39.47	44.09	49.30	/ 2				
reaction time		interval		3.77	3.80	3.94	4.09	4.38	4.37	4.47	4.59	4.62	5.21		11.51	12.84	13.68	
		velocity	7.43	9.28	9.21	8.88	8.56	7.99	8.01	7.83	7.63	7.58	7.68	8.11	9.12	8.18	7.68	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

FINAL - 2006 Japanese National Championships (Kobe, JPN)						Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers												
date	01-Jul-06	time	6.16	10.01	13.95	17.94	22.01	26.25	30.69	35.33	39.98	44.63	49.70	/ 3				
reaction time		interval		3.85	3.94	3.99	4.07	4.24	4.44	4.64	4.65	4.65	5.07		11.78	12.75	13.94	
		velocity	7.31	9.09	8.88	8.77	8.60	8.25	7.88	7.54	7.53	7.53	7.89	8.05	8.91	8.24	7.53	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

FINAL - 2006 Osaka Grand Prix (Osaka, JPN)						Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers												
date	06-May-06	time	6.12	9.89	13.78	17.67	21.67	25.81	30.20	34.70	39.36	44.01	49.25	/ 7				
reaction time		interval		3.77	3.89	3.89	4.00	4.14	4.39	4.50	4.66	4.65	5.24	PB	11.55	12.53	13.81	
		velocity	7.35	9.28	9.00	9.00	8.75	8.45	7.97	7.78	7.51	7.53	7.63	8.12	9.09	8.38	7.60	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

FINAL - 2005 Japanese National Championships (Tokyo, JPN)						Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers												
date	04-Jun-05	time	6.14	10.06	14.06	18.10	22.22	26.52	31.07	35.71	40.40	45.24	50.66	/ 3				
reaction time		interval		3.92	4.00	4.04	4.12	4.30	4.55	4.64	4.69	4.84	5.42		11.96	12.97	14.17	
		velocity	7.33	8.93	8.75	8.66	8.50	8.14	7.69	7.54	7.46	7.23	7.38	7.90	8.78	8.10	7.41	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

Kawamura, Hideaki (JPN) (1974)						Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers												
date	05-Jun-04	time	5.97	9.77	13.64	17.68	21.92	26.27	30.72	35.16	39.70	44.34	49.66	/ 3				
reaction time		interval		3.80	3.87	4.04	4.24	4.35	4.45	4.44	4.54	4.64	5.32		11.71	13.04	13.62	
		velocity	7.54	9.21	9.04	8.66	8.25	8.05	7.87	7.88	7.71	7.54	7.52	8.05	8.97	8.05	7.71	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					

FINAL - 2004 Osaka Grand Prix (Osaka, JPN)						Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers												
date	08-May-04	time	6.10	9.90	13.87	17.99	22.28	26.63	31.00	35.40	39.95	44.62	50.01	/ 6				
reaction time		interval		3.80	3.97	4.12	4.29	4.35	4.37	4.40	4.55	4.67	5.39		11.89	13.01	13.62	
		velocity	7.38	9.21	8.82	8.50	8.16	8.05	8.01	7.95	7.69	7.49	7.42	8.00	8.83	8.07	7.71	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					

Heat 4 - 2000 Olympic Games (Sydney, AUS)						Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games												
date	24-Sep-00	time	5.96	9.68	13.80	17.52	21.52	25.64	30.04	34.60	39.68	44.72	50.68	/ 4				
reaction time	0.172	interval		3.72	4.12	3.72	4.00	4.12	4.40	4.56	5.08	5.04	5.96		11.56	12.52	14.68	
		lead leg	7.55	9.41	8.50	9.41	8.75	8.50	7.95	7.68	6.89	6.94	6.71	7.89	9.08	8.39	7.15	
H1 lead leg		strides	21	14	14	14	14	15	15	15	17	16	20	175				

Kechi, Heni (FRA) (1980)						Behm (2010) - les haies bases												
date	31-Jul-10	time	6.1	10.0	14.0	18.1	22.3	26.5	30.7	35.0	39.4	44.0	49.34	/ 4				
reaction time	0.186	interval		3.90	4.00	4.10	4.20	4.20	4.20	4.30	4.40	4.60	5.34		12.00	12.60	13.30	
		velocity	7.38	8.97	8.75	8.54	8.33	8.33	8.33	8.14	7.95	7.61	7.49	8.11	8.75	8.33	7.89	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	19.5	176.5				

Keïta, Naman (FRA) (1978)						Graubner (2007) - http://www.fgs.uni-halle.de												
date	23-Jun-07	time	6.25	9.94	13.60	17.68	21.63	25.72	29.98	34.32	38.73	43.50	48.90	/ 3				
reaction time	0.248	interval		3.69	3.66	4.08	3.95	4.09	4.26	4.34	4.41	4.77	5.40		11.43	12.30	13.52	
		velocity	7.20	9.49	9.56	8.58	8.86	8.56	8.22	8.06	7.94	7.34	7.41	8.18	9.19	8.54	7.77	
H1 lead leg		strides																

FINAL - 2006 European Championships (Göteborg, SWE)						Behm (2006) - Göteborg 2006: Le quatrache												
date	10-Aug-06	time	5.9	9.4	13.1	17.0	20.9	25.0	29.5	34.0	38.7	43.5	49.13	/ 4				
reaction time		interval		3.50	3.70	3.90	3.90	4.10	4.50	4.50	4.70	4.80	5.63		11.10	12.50	14.00	
		velocity	7.63	10.00	9.46	8.97	8.97	8.54	7.78	7.78	7.45	7.29	7.10	8.14	9.46	8.40	7.50	
H1 lead leg	R	strides	20	12	12	12	12	13	13	14	14	14	136					

FINAL - 2004 Olympic Games (Athens, GRE)						Ruiz (2004) - las carreras con vallas de juegos olímpicos de atenas '04												
date	26-Aug-04	time	6.00	9.62	13.46	17.26	21.41	25.50	29.68	33.99	38.32	42.92	48.26	/ 3				
reaction time	0.268	interval		3.62	3.84	3.80	4.15	4.09	4.18	4.31	4.33	4.60	5.34		11.26	12.42	13.24	
		velocity	7.50	9.67	9.11	9.21	8.43	8.56	8.37	8.12	8.08	7.61	7.49	8.29	9.33	8.45	7.93	
H1 lead leg	R	strides	20	12	12	12	13	13	13	13	13	13	17	151				

Semi-Final 2 - 2003 IAAF World Championships (Paris, FRA)						Behm (2003) - Paris 2003:Le quatrache masculin - féminin									
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date	27-Aug-03	time	6.0	9.8	13.6	17.8	22.0	26.3	30.6	35.1	39.7	49.57	1 / 8	
reaction time	0.169	interval		3.80	3.80	4.20	4.20	4.30	4.30	4.50	4.60	9.87	11.80 12.80	
		velocity	7.50	9.21	9.21	8.33	8.33	8.14	8.14	7.78	7.61	7.60	8.07	8.90 8.20
H1 lead leg		strides	21	12	12	13	12	13	13	13	13	14	18	154

Heat 2 - 2003 IAAF World Championships (Paris, FRA)

Behm (2003) - Paris 2003:Le quatrache masculin - féminin

date	26-Aug-03	time	5.7	9.7	13.4	17.3	21.3	25.5	29.7	34.2	38.8	43.6	49.08	5 / 5	
reaction time	0.232	interval		4.00	3.70	3.90	4.00	4.20	4.20	4.50	4.60	4.80	5.48	11.60 12.40 13.90	
		velocity	7.89	8.75	9.46	8.97	8.75	8.33	8.33	7.78	7.61	7.29	7.30	8.15	9.05 8.47 7.55
H1 lead leg		strides	21	12	12	13	12	13	13	13	13	14	17.5	153.5	

Kendziera, Dave (USA) (1994)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	30-Jun-24	time	5.78	9.41	13.29	17.16	21.06	22.82	25.13	29.31	33.83	38.68	43.65	49.84	2 / 7	
reaction time		interval		3.63	3.88	3.87	3.90		4.07	4.18	4.52	4.85	4.97	6.19	11.38 12.15 14.34	
		velocity	7.79	9.64	9.02	9.04	8.97	8.76	8.60	8.37	7.74	7.22	7.04	6.46	8.03	9.23 8.64 7.32
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	15	16	18	161	

Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	28-Jun-24	time	5.90	9.58	13.34	17.21	21.08	22.91	25.24	29.53	34.05	38.86	43.58	49.22	8 / 4	
reaction time		interval		3.68	3.76	3.87	3.87		4.16	4.29	4.52	4.81	4.72	5.64	PB 11.31 12.32 14.05	
		velocity	7.63	9.51	9.31	9.04	9.04	8.73	8.41	8.16	7.74	7.28	7.42	7.09	8.13	9.28 8.52 7.47
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	17.5	137.5	

Heat 5 - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	27-Jun-24	time	5.84	9.56	13.52	17.56	21.62	23.48	25.83	30.28	35.05	39.98	44.96	50.72	3 / 2	
reaction time		interval		3.72	3.96	4.04	4.06		4.21	4.45	4.77	4.93	4.98	5.76	11.72 12.72 14.68	
		velocity	7.71	9.41	8.84	8.66	8.62	8.52	8.31	7.87	7.34	7.10	7.03	6.94	7.89	8.96 8.25 7.15
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159	

FINAL - 2024 Seashore Doha Meeting (Doha, QAT)

Omega Timing (2024) - diamond league race analysis

date	10-May-24	time	5.81	9.52	13.30	17.16	21.15	25.29	29.59	34.13	38.79	43.57	49.29	8 / 4		
reaction time	0.165	interval		3.71	3.78	3.86	3.99		4.14	4.30	4.54	4.66	4.78	5.72	11.35 12.43 13.98	
		velocity	7.75	9.43	9.26	9.07	8.77		8.45	8.14	7.71	7.51	7.32	6.99	8.12	9.25 8.45 7.51
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	18	158	

FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)

Henson (2023) - Athlete First: 2023 year end hurdle report

date	09-Jul-23	time	6.00	9.84	13.58	17.35	21.25	25.29	29.59	34.13	38.90	49.74	8 / 7		
reaction time		interval		3.84	3.74	3.77	3.90		4.04	4.30	4.54	4.77	10.84	11.35 12.24	
		velocity	7.50	9.11	9.36	9.28	8.97		8.66	8.14	7.71	7.34	6.92	8.04	9.25 8.58
H1 lead leg	L	strides	21	14	13	13	13			14	14	15		117	

FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	26-Jun-21	time	5.80	9.57	13.41	17.38	21.38	25.52	29.73	34.16	38.57	43.06	48.38	4 / 3		
reaction time	0.172	interval		3.77	3.84	3.97	4.00		4.14	4.21	4.43	4.41	4.49	5.32	PB 11.58 12.35 13.33	
		velocity	7.76	9.28	9.11	8.82	8.75		8.45	8.31	7.90	7.94	7.80	7.52	8.27	9.07 8.50 7.88
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	18.2	158.2	

Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	25-Jun-21	time	6.00	9.82	13.70	17.58	21.55	25.72	30.10	34.56	39.10	43.91	49.05	8 / 3		
reaction time	0.190	interval		3.82	3.88	3.88	3.97		4.17	4.38	4.46	4.54	4.81	5.14	11.58 12.52 13.81	
		velocity	7.50	9.16	9.02	9.02	8.82		8.39	7.99	7.85	7.71	7.28	7.78	8.15	9.07 8.39 7.60
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	18	138	

Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	24-Jun-21	time	5.94	9.74	13.61	17.58	21.65	25.89	30.23	34.67	39.17	43.78	49.19	8 / 2		
reaction time	0.250	interval		3.80	3.87	3.97	4.07		4.24	4.34	4.44	4.50	4.61	5.41	11.64 12.65 13.55	
		velocity	7.58	9.21	9.04	8.82	8.60		8.25	8.06	7.88	7.78	7.59	7.39	8.13	9.02 8.30 7.75
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	17.5	137.5	

FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	28-May-21	time	5.90	9.84	13.85	17.88	22.02	23.7	26.26	30.60	35.20	39.94	44.74	50.39	8 / 8	
reaction time	0.197	interval		3.94	4.01	4.03	4.14		4.24	4.34	4.60	4.74	4.80	5.65	11.98 12.72 14.14	
		velocity	7.63	8.88	8.73	8.68	8.45	8.44	8.25	8.06	7.61	7.38	7.29	7.08	7.94	8.76 8.25 7.43
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	140		

FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

Henson (2020) - Athlete First: 2020 year end hurdle report

date	17-Sep-20	time	5.81	9.58	13.35	17.25	21.25	23.0	25.36	29.73	34.30	39.04	43.84	49.35	9 / 4	
reaction time	0.172	interval		3.77	3.77	3.90	4.00		4.11	4.37	4.57	4.74	4.80	5.51	11.44 12.48 14.11	
		velocity	7.75	9.28	9.28	8.97	8.75	8.70	8.52	8.01	7.66	7.38	7.29	7.26	8.11	9.18 8.41 7.44
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18.2	159.2	

FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)

Henson (2020) - Athlete First: 2020 year end hurdle report

date	13-Sep-20	time	5.88	13.56	17.40	25.60	29.96	34.52	39.32	44.36	50.28	4 / 3	
reaction time	0.198	interval		7.68	3.84	8.20	4.36	4.56	4.80	5.04	5.92	11.52 12.56 14.40	
		velocity	7.65	9.11	9.11	8.54	8.03	7.68	7.29	6.94	6.76	7.96	9.11 8.36 7.29
H1 lead leg	L	strides	21		13				14	15	15		78

FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
date	23-Aug-20	time	5.68	9.46	13.30	17.28	21.34	23.1	25.50	29.78	34.24	38.94	43.68	49.47	7 / 5					
reaction time	0.170	interval		3.78	3.84	3.98	4.06		4.16	4.28	4.46	4.70	4.74	5.79				11.60	12.50	13.90
		velocity	7.92	9.26	9.11	8.79	8.62	8.66	8.41	8.18	7.85	7.45	7.38	6.91	8.09			9.05	8.40	7.55
H1 lead leg	R	strides		13	13	13	13		13		13	14	14	18.5	124.5					
FINAL - 2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	10-Sep-19	time	5.80	9.56	13.40	17.23	21.20		25.33	29.73	34.16	38.76	43.46	48.99	6 / 1					
reaction time	0.157	interval		3.76	3.84	3.83	3.97		4.13	4.40	4.43	4.60	4.70	5.53				11.43	12.50	13.73
		velocity	7.76	9.31	9.11	9.14	8.82		8.47	7.95	7.90	7.61	7.45	7.23	8.16			9.19	8.40	7.65
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	18.2	138.2					
FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	29-Aug-19	time	5.80	9.52		17.30	21.28	22.9	25.40	29.68		38.80	43.56	48.98	3 / 5					
reaction time	0.156	interval		3.72		7.78	3.98		4.12	4.28		9.12	4.76	5.42				11.50	12.38	13.88
		velocity	7.76	9.41		9.00	8.79	8.73	8.50	8.18		7.68	7.35	7.38	8.17			9.13	8.48	7.56
H1 lead leg	R	strides	20	13		13	13	13	13	13		14	14	86						
FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	24-Aug-19	time	5.80	9.60	13.52	17.42	21.50	23.2	25.66	30.00	34.44	39.08	43.78	49.16	5 / 6					
reaction time	0.152	interval		3.80	3.92	3.90	4.08		4.16	4.34	4.44	4.64	4.70	5.38				11.62	12.58	13.78
		velocity	7.76	9.21	8.93	8.97	8.58	8.62	8.41	8.06	7.88	7.54	7.45	7.43	8.14			9.04	8.35	7.62
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17.5	156.5					
FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	18-Aug-19	time	5.84	9.68	13.52	17.36	21.28	23.1	25.40	29.76	34.32	38.92	43.68	49.29	7 / 3					
reaction time	0.130	interval		3.84	3.84	3.84	3.92		4.12	4.36	4.56	4.60	4.76	5.61				11.52	12.40	13.92
		velocity	7.71	9.11	9.11	9.11	8.93	8.66	8.50	8.03	7.68	7.61	7.35	7.13	8.12			9.11	8.47	7.54
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18.5	159.5					
FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	30-Jun-19	time	5.73	9.50	13.43	17.43	21.46		25.70	30.10	34.66	39.30	43.97	49.46	7 / 4					
reaction time	0.247	interval		3.77	3.93	4.00	4.03		4.24	4.40	4.56	4.64	4.67	5.49				11.70	12.67	13.87
		velocity	7.85	9.28	8.91	8.75	8.68		8.25	7.95	7.68	7.54	7.49	7.29	8.09			8.97	8.29	7.57
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	127						
FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	13-Jun-19	time	5.88	9.68	13.58		21.55	23.3	25.69	30.02	34.39	39.04	43.74	49.27	4 / 4					
reaction time	0.163	interval		3.80	3.90		7.97		4.14	4.33	4.37	4.65	4.70	5.53						13.72
		velocity	7.65	9.21	8.97		8.78	8.58	8.45	8.08	8.01	7.53	7.45	7.23	8.12					7.65
H1 lead leg	R	strides	20	13	13		13	13	13	13	13	14	14	18	131					
FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>					
date	06-Jun-19	time	5.82	9.65	13.49	17.50	21.55		25.76	29.99	34.46	39.01	43.67	48.99	9 / 2					
reaction time	0.142	interval		3.83	3.84	4.01	4.05		4.21	4.23	4.47	4.55	4.66	5.32				11.68	12.49	13.68
		velocity	7.73	9.14	9.11	8.73	8.64		8.31	8.27	7.83	7.69	7.51	7.52	8.16			8.99	8.41	7.68
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17	157					
FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>					
date	21-Jul-18	time	5.80	9.64			21.60		25.72	30.04	34.52	39.04	43.64	49.02	3 / 4					
reaction time	0.167	interval		3.84			11.96		4.12	4.32	4.48	4.52	4.60	5.38						13.60
		velocity	7.76	9.11			8.78		8.50	8.10	7.81	7.74	7.61	7.43	8.16					7.72
H1 lead leg	R	strides	20	13			13		13	13	14	14	15	18	120					
FINAL - 2018 NCAA Championships (Eugene, OR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>					
date	08-Jun-18	time	5.86		13.43	17.20	21.03		25.06			38.43	43.03	48.42	3 / 3					
reaction time		interval			7.57	3.77	3.83		4.03			13.37	4.60	5.39	PB			11.34		
		velocity	7.68		9.25	9.28	9.14		8.68			7.85	7.61	7.42	8.26			9.26		
H1 lead leg	R	strides				13	13		13				15	19	73					
Keter, Erick (KEN) (1966)																				
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	25-Sep-00	time	6.14	9.90	13.70	17.70	21.98	26.26	30.74	35.34				51.25	7 / 8					
reaction time	0.202	interval		3.76	3.80	4.00	4.28	4.28	4.48	4.60								11.56	13.04	
		velocity	7.33	9.31	9.21	8.75	8.18	8.18	7.81	7.61				7.80				9.08	8.05	
H1 lead leg		strides	21	13	13	15	15	15	15	15				122						
Heat 2 - 2000 Olympic Games (Sydney, AUS)															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.18	10.02	13.90	17.98	22.10	26.34		35.22	39.86	44.58		50.06	3 / 6					
reaction time	0.269	interval		3.84	3.88	4.08	4.12	4.24		8.88	4.64	4.72	5.48					11.80		
		velocity	7.28	9.11	9.02	8.58	8.50	8.25		7.88	7.54	7.42	7.30	7.99				8.90		
H1 lead leg		strides	21	13	15	15	15	15	15	15	15	15	15	18.1	172.1					
Khartov, Aleksandr (URS) (1958)																				
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
FINAL - 1983 IAAF World Championships (Helsinki, FIN)															<i>McFarlane (1988) - The Science of Hurdling</i>					
date	09-Aug-83	time	5.79	9.58	13.75		21.80	25.80	29.97	34.47	39.05	43.76		49.03	1 / 3					

reaction time	interval	3.79	4.17		8.05		4.00	4.17	4.50	4.58	4.71	5.27						13.79	
	velocity	7.77	9.23	8.39		8.70		8.75	8.39	7.78	7.64	7.43	7.59		8.16			7.61	
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	13	13	17	155					
Kikuta, Kyo (JPN) (2006)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)		<i>Takashima (2024) - national high school sports festival - biomechanics data</i>																	
date	30-Jul-24	time	5.97	9.93	13.93	18.12	22.31	26.58	31.01	35.52	40.06	44.86		50.14	7 / 1				
reaction time	0.179	interval		3.96	4.00	4.19	4.19	4.27	4.43	4.51	4.54	4.80	5.28			12.15	12.89	13.85	
		velocity	7.54	8.84	8.75	8.35	8.35	8.20	7.90	7.76	7.71	7.29	7.58	7.98		8.64	8.15	7.58	
H1 lead leg		strides	21	15	15	15	15	15	15	15	17	17	21	181					
Kino, Tomoharu (JPN) (1989)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
D FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)		<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																	
date	03-May-12	time	6.07	9.92	13.87	17.87	21.97	26.26	30.68	35.28	40.07	44.83		50.08	/ 1				
reaction time		interval		3.85	3.95	4.00	4.10	4.29	4.42	4.60	4.79	4.76	5.25			11.80	12.81	14.15	
		velocity	7.41	9.09	8.86	8.75	8.54	8.16	7.92	7.61	7.31	7.35	7.62	7.99		8.90	8.20	7.42	
H1 lead leg		strides		13	13	13	14	14	15	15	15	15	15	127					
Kinoshita, Seita (JPN)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)		<i>Takashima (2023) - national high school sports festival - biomechanics data</i>																	
date	04-Aug-23	time	6.32	10.41	14.61	18.95	23.41	27.98	32.67	37.50	42.48	47.50		52.93	2 / 8				
reaction time	0.277	interval		4.09	4.20	4.34	4.46	4.57	4.69	4.83	4.98	5.02	5.43			12.63	13.72	14.83	
		velocity	7.12	8.56	8.33	8.06	7.85	7.66	7.46	7.25	7.03	6.97	7.37	7.56		8.31	7.65	7.08	
H1 lead leg		strides	21	15	15	15	15	15	15	15	15	15	19	175					
Kishimoto, Takayuki (JPN) (1990)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2023 Japanese National Championships (Osaka, JPN)		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
date	03-Jun-23	time	5.87	9.56	13.35	17.27	21.39	25.66	30.10	34.75	39.62	44.71		50.80	4 / 8				
reaction time	0.156	interval		3.69	3.79	3.92	4.12	4.27	4.44	4.65	4.87	5.09	6.09			11.40	12.83	14.61	
		velocity	7.67	9.49	9.23	8.93	8.50	8.20	7.88	7.53	7.19	6.88	6.57	7.87		9.21	8.18	7.19	
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	19	164					
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	21-May-23	time	5.84	9.51	13.31	17.35	21.50	25.71	29.91	34.32	38.97	43.78		49.28	8 / 3				
reaction time	0.138	interval		3.67	3.80	4.04	4.15	4.21	4.20	4.41	4.65	4.81	5.50			11.51	12.56	13.87	
		velocity	7.71	9.54	9.21	8.66	8.43	8.31	8.33	7.94	7.53	7.28	7.27	8.12		9.12	8.36	7.57	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164					
B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	07-May-23	time	5.97	9.81	13.83	17.98	22.31	26.64	31.05	35.62	40.27	45.01		50.49	9 / 4				
reaction time	0.136	interval		3.84	4.02	4.15	4.33	4.33	4.41	4.57	4.65	4.74	5.48			12.01	13.07	13.96	
		velocity	7.54	9.11	8.71	8.43	8.08	8.08	7.94	7.66	7.53	7.38	7.30	7.92		8.74	8.03	7.52	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125					
B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)		<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	03-May-23	time	5.90	9.66	13.55	17.48	21.52	25.72	30.14	34.70	39.34	44.11		49.61	9 / 3				
reaction time	0.152	interval		3.76	3.89	3.93	4.04	4.20	4.42	4.56	4.64	4.77	5.50			11.58	12.66	13.97	
		velocity	7.63	9.31	9.00	8.91	8.66	8.33	7.92	7.68	7.54	7.34	7.27	8.06		9.07	8.29	7.52	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18	164					
Heat 2 - 2022 World Athletics Championships (Eugene, OR)		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
date	16-Jul-22	time	5.99	9.81	13.75	17.82	22.06	23.76	26.39	30.83	35.47	40.17	45.03		50.66	2 / 6			
reaction time	0.117	interval		3.82	3.94	4.07	4.24	4.33	4.44	4.64	4.70	4.86	5.63			11.83	13.01	14.20	
		velocity	7.51	9.16	8.88	8.60	8.25	8.42	8.08	7.88	7.54	7.45	7.20	7.10	7.90		8.88	8.07	7.39
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125					
FINAL - 2022 Japanese National Championships (Osaka, JPN)		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
date	11-Jun-22	time	5.96	9.73	13.65	17.71	21.94	26.26	30.61	35.19	39.79	44.51		49.99	6 / 4				
reaction time	0.164	interval		3.77	3.92	4.06	4.23	4.32	4.35	4.58	4.60	4.72	5.48			11.75	12.90	13.90	
		velocity	7.55	9.28	8.93	8.62	8.27	8.10	8.05	7.64	7.61	7.42	7.30	8.00		8.94	8.14	7.55	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2					
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
date	08-May-22	time	5.91	9.69	13.58	17.60	21.74	26.03	30.43	35.02	39.61	44.41		49.86	5 / 5				
reaction time	0.138	interval		3.78	3.89	4.02	4.14	4.29	4.40	4.59	4.59	4.80	5.45			11.69	12.83	13.98	
		velocity	7.61	9.26	9.00	8.71	8.45	8.16	7.95	7.63	7.63	7.29	7.34	8.02		8.98	8.18	7.51	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2					
FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)		<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
date	01-May-22	time	5.94	9.79	13.76	17.83	21.96	26.18	30.46	34.97	39.57	44.34		49.84	9 / 4				
reaction time	0.125	interval		3.85	3.97	4.07	4.13	4.22	4.28	4.51	4.60	4.77	5.50			11.89	12.63	13.88	
		velocity	7.58	9.09	8.82	8.60	8.47	8.29	8.18	7.76	7.61	7.34	7.27	8.03		8.83	8.31	7.56	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125					
FINAL - 2021 Japanese National Championships (Osaka, JPN)		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																	
date	26-Jun-21	time	5.92	9.71	13.61	17.63	21.72	25.93	30.23	34.70	39.20	43.88		49.29	8 / 3				
reaction time	0.156	interval		3.79	3.90	4.02	4.09	4.21	4.30	4.47	4.50	4.68	5.41			11.71	12.60	13.65	

H1 lead leg	R	velocity	7.60	9.23	8.97	8.71	8.56	8.31	8.14	7.83	7.78	7.48	7.39	8.12	8.97	8.33	7.69
		strides	21	13	13	13	13	14	14	15	15	15	18	164			
FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)																	
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																	
date	06-Jun-21	time	5.96	9.79	13.66	17.67	21.76	25.93	30.18	34.70	39.27	43.98	49.38	3 / 1			
reaction time		interval		3.83	3.87	4.01	4.09	4.17	4.25	4.52	4.57	4.71	5.40		11.71	12.51	13.80
		velocity	7.55	9.14	9.04	8.73	8.56	8.39	8.24	7.74	7.66	7.43	7.41	8.10	8.97	8.39	7.61
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				
FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)																	
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																	
date	01-Jun-21	time	6.01	9.79	13.66	17.62	21.67	25.99	30.25	34.73	39.55	44.44	49.97	5 / 2			
reaction time	0.140	interval		3.78	3.87	3.96	4.05	4.32	4.26	4.48	4.82	4.89	5.53		11.61	12.63	14.19
		velocity	7.49	9.26	9.04	8.84	8.64	8.10	8.22	7.81	7.26	7.16	7.23	8.00	9.04	8.31	7.40
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	18.2	163.2			
B FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)																	
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																	
date	03-May-21	time	5.99	9.83	13.75	17.83	22.04	26.39	30.81	35.39	40.06	44.91	50.56	4 / 3			
reaction time	0.145	interval		3.84	3.92	4.08	4.21	4.35	4.42	4.58	4.67	4.85	5.65		11.84	12.98	14.10
		velocity	7.51	9.11	8.93	8.58	8.31	8.05	7.92	7.64	7.49	7.22	7.08	7.91	8.87	8.09	7.45
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5			
FINAL - 2018 Japanese National Championships (Yamaguchi, JPN)																	
<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>																	
date	23-Jun-18	time	5.82	9.52	13.36	17.30	21.44	25.71	30.05	34.57	39.14	43.86	49.30	4 / 1			
reaction time	0.148	interval		3.70	3.84	3.94	4.14	4.27	4.34	4.52	4.57	4.72	5.44		11.48	12.75	13.81
		velocity	7.73	9.46	9.11	8.88	8.45	8.20	8.06	7.74	7.66	7.42	7.35	8.11	9.15	8.24	7.60
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5			
FINAL - 2018 Seiko Golden Grand Prix (Osaka, JPN)																	
<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>																	
date	20-May-18	time	5.85	9.54	13.33	17.22	21.24	25.44	29.91	34.51	39.13	43.88	49.36	5 / 2			
reaction time	0.140	interval		3.69	3.79	3.89	4.02	4.20	4.47	4.60	4.62	4.75	5.48		11.37	12.69	13.97
		velocity	7.69	9.49	9.23	9.00	8.71	8.33	7.83	7.61	7.58	7.37	7.30	8.10	9.23	8.27	7.52
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18.2	163.2			
A FINAL - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)																	
<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>																	
date	03-May-18	time	5.89	9.68	13.53	17.50	21.55	25.74	30.16	34.70	39.29	43.98	49.33	1 / 2			
reaction time	0.170	interval		3.79	3.85	3.97	4.05	4.19	4.42	4.54	4.59	4.69	5.35		11.61	12.66	13.82
		velocity	7.64	9.23	9.09	8.82	8.64	8.35	7.92	7.71	7.63	7.46	7.48	8.11	9.04	8.29	7.60
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2			
FINAL - 2017 National Sport Festival (Matsuyama, JPN)																	
<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>																	
date	07-Oct-17	time	5.84	9.54	13.41	17.41	21.51	25.78	30.08	34.60	39.27	44.01	49.39	/ 1			
reaction time	0.149	interval		3.70	3.87	4.00	4.10	4.27	4.30	4.52	4.67	4.74	5.38		11.57	12.67	13.93
		velocity	7.71	9.46	9.04	8.75	8.54	8.20	8.14	7.74	7.49	7.38	7.43	8.10	9.08	8.29	7.54
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				
A FINAL - 2017 Shizuoka International Athletics Meeting (Fukuroi, JPN)																	
<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan</i>																	
date	03-May-17	time	5.93	9.65	13.50	17.44	21.51	25.76	30.16	34.73	39.42	44.26	49.93	/ 1			
reaction time		interval		3.72	3.85	3.94	4.07	4.25	4.40	4.57	4.69	4.84	5.67		11.51	12.72	14.10
		velocity	7.59	9.41	9.09	8.88	8.60	8.24	7.95	7.66	7.46	7.23	7.05	8.01	9.12	8.25	7.45
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				
FINAL - 2015 Japanese National Championships (Niigata, JPN)																	
<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>																	
date	28-Jun-15	time	6.01	9.76	13.61	17.55	21.64	25.91	30.26	34.78	39.42	44.26	49.81	5 / 2			
reaction time	0.134	interval		3.75	3.85	3.94	4.09	4.27	4.35	4.52	4.64	4.84	5.55		11.54	12.71	14.00
		velocity	7.49	9.33	9.09	8.88	8.56	8.20	8.05	7.74	7.54	7.23	7.21	8.03	9.10	8.26	7.50
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165			
FINAL - 2014 Japanese National Championships (Fukushima, JPN)																	
<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																	
date	08-Jun-14	time	5.89	9.64	13.53	17.52	21.62	25.89	30.28	34.75	39.32	44.01	49.49	4 / 1			
reaction time		interval		3.75	3.89	3.99	4.10	4.27	4.39	4.47	4.57	4.69	5.48		11.63	12.76	13.73
		velocity	7.64	9.33	9.00	8.77	8.54	8.20	7.97	7.83	7.66	7.46	7.30	8.08	9.03	8.23	7.65
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	165			
FINAL - 2014 Seiko Golden Grand Prix (Tokyo, JPN)																	
<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																	
date	11-May-14	time	5.92	9.64	13.46	17.41	21.60	25.97	30.47	34.97	39.61	44.33	49.81	/ 4			
reaction time		interval		3.72	3.82	3.95	4.19	4.37	4.50	4.50	4.64	4.72	5.48		11.49	13.06	13.86
		velocity	7.60	9.41	9.16	8.86	8.35	8.01	7.78	7.78	7.54	7.42	7.30	8.03	9.14	8.04	7.58
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				
A FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)																	
<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																	
date	03-May-14	time	5.96	9.71	13.56	17.60	21.75	26.07	30.49	35.03	39.70	44.42	49.75	/ 1			
reaction time		interval		3.75	3.85	4.04	4.15	4.32	4.42	4.54	4.67	4.72	5.33		11.64	12.89	13.93
		velocity	7.55	9.33	9.09	8.66	8.43	8.10	7.92	7.71	7.49	7.42	7.50	8.04	9.02	8.15	7.54
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125				
FINAL - 2012 Japanese National Championships (Osaka, JPN)																	
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																	
date	09-Jun-12	time	5.76	9.43	13.25	17.15	21.25	25.49	29.74	34.16	38.66	43.28	48.41	5 / 1			

reaction time	interval	3.67	3.82	3.90	4.10		4.24	4.25	4.42	4.50	4.62	5.13	PB	11.39	12.59	13.54	
	velocity	7.81	9.54	9.16	8.97	8.54	8.25	8.24	7.92	7.78	7.58	7.80	8.26	9.22	8.34	7.75	
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	18	164				
FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN) <i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																	
date	03-May-12	time	5.77	9.51	13.31	17.25	21.35	25.69	30.04	34.54	39.09	43.69	48.88	/ 1			
reaction time	interval		3.74	3.80	3.94	4.10	4.34	4.35	4.50	4.55	4.60	5.19		11.48	12.79	13.65	
	velocity	7.80	9.36	9.21	8.88	8.54	8.06	8.05	7.78	7.69	7.61	7.71	8.18	9.15	8.21	7.69	
H1 lead leg	strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2011 Japanese National Championships (Kumagaya, JPN) <i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	11-Jun-11	time	5.94	9.74	13.63	17.62	21.81	25.91	30.21	34.63	39.23	43.92	49.28	/ 1			
reaction time	interval		3.80	3.89	3.99	4.19	4.10	4.30	4.42	4.60	4.69	5.36		11.68	12.59	13.71	
	velocity	7.58	9.21	9.00	8.77	8.35	8.54	8.14	7.92	7.61	7.46	7.46	8.12	8.99	8.34	7.66	
H1 lead leg	strides		13	13	13	14	14	14	14	15	15	15	125				
Race A - 2011 Shizuoka International Athletics Meeting (Fukuroi, JPN) <i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	03-May-11	time	5.97	9.76	13.66	17.66	21.85	26.09	30.38	34.75	39.35	43.96	49.27	/ 2			
reaction time	interval		3.79	3.90	4.00	4.19	4.24	4.29	4.37	4.60	4.61	5.31	PB	11.69	12.72	13.58	
	velocity	7.54	9.23	8.97	8.75	8.35	8.25	8.16	8.01	7.61	7.59	7.53	8.12	8.98	8.25	7.73	
H1 lead leg	strides		13	13	13	14	14	14	14	15	15	15	125				
FINAL - 2010 Osaka Grand Prix (Osaka, JPN) <i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	08-May-10	time	5.97	9.84	13.85	17.86	22.06	26.28	30.60	35.09	39.71	44.45	49.95	/ 6			
reaction time	interval		3.87	4.01	4.01	4.20	4.22	4.32	4.49	4.62	4.74	5.50		11.89	12.74	13.85	
	velocity	7.54	9.04	8.73	8.73	8.33	8.29	8.10	7.80	7.58	7.38	7.27	8.01	8.83	8.24	7.58	
H1 lead leg	strides		13	13	13	14	14	15	15	15	15	15	127				
FINAL - 2008 Japanese National High School Championships (Kumagaya, JPN) <i>Abe (2008) - 61st high school championships: JAF scientific committee- biomechanics data</i>																	
date	31-Jul-08	time	6.06	10.08	14.24	18.51	22.91	27.37	31.75	36.21	40.75	45.40	50.64	/ 1			
reaction time	interval		4.02	4.16	4.27	4.40	4.46	4.38	4.46	4.54	4.65	5.24		12.45	13.24	13.65	
	velocity	7.43	8.71	8.41	8.20	7.95	7.85	7.99	7.85	7.71	7.53	7.63	7.90	8.43	7.93	7.69	
H1 lead leg	strides		15	15	15	15	15	15	15	15	15	15	135				
Kitur, Simon (KEN) (1959) <i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																	
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)																	
date	24-Sep-88	time	6.12	9.92	13.81	17.81	21.90	26.10	30.45	34.91	39.63	44.45	49.74	/ 6			
reaction time	interval		3.80	3.89	4.00	4.09	4.20	4.35	4.46	4.72	4.82	5.29		11.69	12.64	14.00	
	velocity	7.35	9.21	9.00	8.75	8.56	8.33	8.05	7.85	7.42	7.26	7.56	8.04	8.98	8.31	7.50	
H1 lead leg	strides		22	15	15	15	15	15	15	15	16	16	18.1	177.1			
Kjerpeset, Øyrind Strømmen (NOR) (1959) <i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>																	
FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)																	
date	09-Jun-16	time	6.08	9.92	13.84	17.92	22.24	26.56	31.00	35.48	40.24	45.16	50.98	/ 8			
reaction time	0.153	interval		3.84	3.92	4.08	4.32	4.32	4.44	4.48	4.76	4.92	5.82		11.84	13.08	14.16
	velocity	7.40	9.11	8.93	8.58	8.10	8.10	7.88	7.81	7.35	7.11	6.87	7.85	8.87	8.03	7.42	
H1 lead leg	L	strides	21	13		13	13	14	14	14	14	15	131				
Knoke, Gary (AUS) (1942) <i>Breitschaft (1965) - die leichtathletik wettkampfe der 1964 olympischen sommerspielen - 400m hürdenlauf</i>																	
FINAL - 1964 Olympic Games (Tokyo, JPN)																	
date	16-Oct-64	time	5.8		13.7	21.8		30.6		40.1		50.4	/ 4				
reaction time	interval			7.90	8.10		8.80		9.50		10.30						
	velocity	7.76		8.86	8.64		7.95		7.37		7.28	7.94					
H1 lead leg	strides																
Kodama, Yusaka (JPN) (2000) <i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
FINAL - 2023 Japanese National Championships (Osaka, JPN)																	
date	03-Jun-23	time	5.91	9.63	13.41	17.25	21.37	25.58	29.90	34.37	39.04	44.01	49.83	/ 3			
reaction time	0.198	interval		3.72	3.78	3.84	4.12	4.21	4.32	4.47	4.67	4.97	5.82		11.34	12.65	14.11
	velocity	7.61	9.41	9.26	9.11	8.50	8.31	8.10	7.83	7.49	7.04	6.87	8.03	9.26	8.30	7.44	
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	19.7	167.7			
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN) <i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	21-May-23	time	5.86	9.53	13.30	17.23	21.34	25.53	29.85	34.28	38.77	43.39	48.77	/ 1			
reaction time	0.180	interval		3.67	3.77	3.93	4.11	4.19	4.32	4.43	4.49	4.62	5.38	PB	11.37	12.62	13.54
	velocity	7.68	9.54	9.28	8.91	8.52	8.35	8.10	7.90	7.80	7.58	7.43	8.20	9.23	8.32	7.75	
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	15	19	167			
C FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN) <i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	07-May-23	time	5.97	9.76	13.61	17.58	21.72	25.99	30.40	34.97	39.64	44.51	50.10	/ 1			
reaction time	0.163	interval		3.79	3.85	3.97	4.14	4.27	4.41	4.57	4.67	4.87	5.59		11.61	12.82	14.11
	velocity	7.54	9.23	9.09	8.82	8.45	8.20	7.94	7.66	7.49	7.19	7.16	7.98	9.04	8.19	7.44	
H1 lead leg	strides		13	13	13	14	14	15	15	15	15	15	127				
A FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN) <i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	03-May-23	time	5.91	9.71	13.55	17.42	21.47	25.61	29.93	34.34	38.88	43.58	49.01	/ 1			
reaction time	0.171	interval		3.80	3.84	3.87	4.05	4.14	4.32	4.41	4.54	4.70	5.43	PB	11.51	12.51	13.65

H1 lead leg	R	velocity	7.61	9.21	9.11	9.04	8.64		8.45	8.10	7.94	7.71	7.45	7.37	8.16		9.12	8.39	7.69
		strides	21	13	13	13	14		14	15	15	15	15	19	167				

Koeh, Haron (KEN) (1990)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)										<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>								
date	19-May-19	time	6.46	10.44	14.51	18.65	22.89	27.34	31.92	36.72	41.65	46.63		52.48	5 / 7			
reaction time	0.174	interval		3.98	4.07	4.14	4.24	4.45	4.58	4.80	4.93	4.98	5.85			12.19	13.27	14.71
		velocity	6.97	8.79	8.60	8.45	8.25	7.87	7.64	7.29	7.10	7.03	6.84	7.62		8.61	7.91	7.14
H1 lead leg	R	strides	23	13	15	13	13	15	15	15	15	15	18.7	170.7				

Köhldorfer, Leo (AUT) (2001)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 2 - 2024 European Athletics Championships (Roma, ITA)										<i>European Athletics (2024) - 2024 european athletics championships - results book</i>								
date	09-Jun-24	time	5.92	9.73	13.63	17.65	21.83	26.17	30.69	35.39	40.37	45.42		51.52	9 / 7			
reaction time	0.198	interval		3.81	3.90	4.02	4.18	4.34	4.52	4.70	4.98	5.05	6.10			11.73	13.04	14.73
		velocity	7.60	9.19	8.97	8.71	8.37	8.06	7.74	7.45	7.03	6.93	6.56	7.76		8.95	8.05	7.13
H1 lead leg		strides												0				

Köhler, Hermann (FRG) (1950)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)										<i>Helbig (1975) - 400-m-hürdenlauf</i>								
date	28-Jun-75	time	6.1	10.2	14.2	18.3	22.6	24.6	27.0	32.0	36.1	40.8	45.6	51.37	3 / 3			
reaction time		interval		4.11	4.02	4.13	4.26	4.38	5.00	4.16	4.65	4.78	5.82			12.26	13.64	13.59
		velocity	7.43	8.52	8.71	8.47	8.22	8.14	7.99	7.00	8.41	7.53	7.32	7.79		8.56	7.70	7.73
H1 lead leg		strides																

Köhrbrück, Carsten (FRG) (1967)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1985 European Junior Championships (Cottbus, GDR)										<i>Warburton (1985) - 1985 european junior championships - hurdles</i>								
date	25-Aug-85	time	6.46	10.09	14.09	18.37	22.66	27.21	31.50	36.24	40.78	45.63		51.23	1 / 3			
reaction time		interval		3.63	4.00	4.28	4.29	4.55	4.29	4.74	4.54	4.85	5.60			11.91	13.13	14.13
		velocity	6.97	9.64	8.75	8.18	8.16	7.69	8.16	7.38	7.71	7.22	7.14	7.81		8.82	8.00	7.43
H1 lead leg		strides																

Koike, Takayuki (JPN) (1984)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2010 Japanese National Championships (Marugume, JPN)										<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>								
date	05-Jun-10	time	6.02	9.79	13.71	17.66	21.78	26.03	30.40	34.94	39.51	44.23		49.76	1 / 3			
reaction time	0.197	interval		3.77	3.92	3.95	4.12	4.25	4.37	4.54	4.57	4.72	5.53			11.64	12.74	13.83
		velocity	7.48	9.28	8.93	8.86	8.50	8.24	8.01	7.71	7.66	7.42	7.23	8.04		9.02	8.24	7.59
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				

FINAL - 2010 Osaka Grand Prix (Osaka, JPN)										<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>								
date	08-May-10	time	6.11	9.91	13.75	17.59	21.59	25.76	30.08	34.53	39.03	43.85		49.42	1 / 3			
reaction time		interval		3.80	3.84	3.84	4.00	4.17	4.32	4.45	4.50	4.82	5.57			11.48	12.49	13.77
		velocity	7.36	9.21	9.11	9.11	8.75	8.39	8.10	7.87	7.78	7.26	7.18	8.09		9.15	8.41	7.63
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				

FINAL - 2009 Osaka Grand Prix (Osaka, JPN)										<i>Yasuori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>								
date	09-May-09	time	6.02	9.79	13.63	17.57	21.59	25.78	30.15	34.77	39.44	44.28		49.93	1 / 7			
reaction time		interval		3.77	3.84	3.94	4.02	4.19	4.37	4.62	4.67	4.84	5.65			11.55	12.58	14.13
		velocity	7.48	9.28	9.11	8.88	8.71	8.35	8.01	7.58	7.49	7.23	7.08	8.01		9.09	8.35	7.43
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	15	129				

FINAL - 2008 Japanese National Championships (Kawasaki, JPN)										<i>Yasuori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>								
date	27-Jun-08	time	5.92	9.62	13.44	17.31	21.36	25.56	29.93	34.40	39.07	44.11		50.09	1 / 3			
reaction time		interval		3.70	3.82	3.87	4.05	4.20	4.37	4.47	4.67	5.04	5.98			11.39	12.62	14.18
		velocity	7.60	9.46	9.16	9.04	8.64	8.33	8.01	7.83	7.49	6.94	6.69	7.99		9.22	8.32	7.40
H1 lead leg		strides		13	13	13	13	13	14	14	15	15	15	123				

FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)										<i>Yasuori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>								
date	24-Sep-06	time	6.06	9.85	13.70	17.62	21.72	25.99	30.36	34.81	39.33	43.95		49.45	1 / 3			
reaction time		interval		3.79	3.85	3.92	4.10	4.27	4.37	4.45	4.52	4.62	5.50			11.56	12.74	13.59
		velocity	7.43	9.23	9.09	8.93	8.54	8.20	8.01	7.87	7.74	7.58	7.27	8.09		9.08	8.24	7.73
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				

Kong Jie (CHN) (2003)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2021 National Grand Prix (Chengdu, CHN)										<i>CAA Hurdle Development (2021)</i>								
date	02-Apr-21	time	6.33	10.43	14.71	19.08	23.48	28.09	32.92	37.90	43.07	48.43		54.89	1 / 7			
reaction time	0.264	interval		4.10	4.28	4.37	4.40	4.61	4.83	4.98	5.17	5.36	6.46			12.75	13.84	15.51
		velocity	7.11	8.54	8.18	8.01	7.95	7.59	7.25	7.03	6.77	6.53	6.19	7.29		8.24	7.59	6.77
H1 lead leg	L	strides	21	17	15	15	15	15	15	15	15	15	19	177				

Heat 1 - 2021 National Grand Prix (Chengdu, CHN)										<i>CAA Hurdle Development (2021)</i>								
date	01-Apr-21	time	6.28	10.46	14.80	19.08	23.54	28.10	32.82	37.68	42.70	47.96		53.91	6 / 4			
reaction time	0.233	interval		4.18	4.34	4.28	4.46	4.56	4.72	4.86	5.02	5.26	5.95			12.80	13.74	15.14
		velocity	7.17	8.37	8.06	8.18	7.85	7.68	7.42	7.20	6.97	6.65	6.72	7.42		8.20	7.64	6.94
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18	174				

Königsmark, Varg (GER) (1992)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2014 European Championships (Zurich, SUI)										<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>								

date	15-Aug-14	time	6.03	9.79	13.71	17.59	21.51	25.71	30.03	34.55	39.31	44.35	49.91	/ 7				
reaction time	0.190	interval		3.76	3.92	3.88	3.92	4.20	4.32	4.52	4.76	5.04	5.56		11.56	12.44	14.32	
		velocity	7.46	9.31	8.93	9.02	8.93	8.33	8.10	7.74	7.35	6.94	7.19	8.01	9.08	8.44	7.33	
H1 lead leg	L	strides		13	13	13	13	14	14	14	15	15	124					

FINAL - 2011 DLV Junioren-Gala (Mannheim, GER) *Beck (2011) - 400-meter-hürdensprinter im aufschwung*

date	03-Jul-11	time	6.12	10.02	14.06	18.10	22.22	26.44	30.74	35.22	39.97	44.86	50.46	/ 1				
reaction time		interval		3.90	4.04	4.04	4.12	4.22	4.30	4.48	4.75	4.89	5.60		11.98	12.64	14.12	
		velocity	7.35	8.97	8.66	8.66	8.50	8.29	8.14	7.81	7.37	7.16	7.14	7.93	8.76	8.31	7.44	
H1 lead leg		strides	20	13	13	13	13	13	14	14	15	15	143					

FINAL - 2011 German National Junior Championships (Bremen, GER) *Beck (2011) - 400-meter-hürdensprinter im aufschwung*

date	26-Jun-11	time	6.22	10.12	14.14	18.21	22.40	26.84	31.38	35.98	40.54	45.18	50.24	/ 1				
reaction time		interval		3.90	4.02	4.07	4.19	4.44	4.54	4.60	4.56	4.64	5.06		11.99	13.17	13.80	
		velocity	7.23	8.97	8.71	8.60	8.35	7.88	7.71	7.61	7.68	7.54	7.91	7.96	8.76	7.97	7.61	
H1 lead leg		strides	20	13	13	13	13	14	14	14	14	14	142					

Konishi, Yuta (JPN) (1990)**FINAL - 2017 Seiko Golden Grand Prix (Kawasaki, JPN)** *(2017) - tfdata-store.com/2017/05/22/post-605/*

date	21-May-17	time	6.13	9.99	13.86	17.82	21.94	26.18	30.45	34.89	39.54	44.38	49.95	4 / 5				
reaction time	0.146	interval		3.86	3.87	3.96	4.12	4.24	4.27	4.44	4.65	4.84	5.57		11.69	12.63	13.93	
		velocity	7.34	9.07	9.04	8.84	8.50	8.25	8.20	7.88	7.53	7.23	7.18	8.01	8.98	8.31	7.54	
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	19	164				

FINAL - 2016 Japanese National Championships (Nagoya, JPN) *Morioka (2016) - race pattern of top 400m hurdlers in japan*

date	24-Jun-16	time	6.08	9.90	13.77	17.67	21.62	25.84	30.09	34.56	39.16	43.98	49.55	4 / 3				
reaction time	0.165	interval		3.82	3.87	3.90	3.95	4.22	4.25	4.47	4.60	4.82	5.57		11.59	12.42	13.89	
		velocity	7.40	9.16	9.04	8.97	8.86	8.29	8.24	7.83	7.61	7.26	7.18	8.07	9.06	8.45	7.56	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

FINAL - 2016 Kansai Business Championships (Osaka, JPN) *(2017) - tfdata-store.com/2017/05/22/post-605/*

date	20-May-16	time	6.12	10.01	13.90	17.83	21.95	26.32	30.64	35.10	39.72	44.44	49.76	5 / 1				
reaction time		interval		3.89	3.89	3.93	4.12	4.37	4.32	4.46	4.62	4.72	5.32		11.71	12.81	13.80	
		velocity	7.35	9.00	9.00	8.91	8.50	8.01	8.10	7.85	7.58	7.42	7.52	8.04	8.97	8.20	7.61	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					

FINAL - 2015 Japanese National Championships (Niigata, JPN) *Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date	28-Jun-15	time	6.21	10.05	14.00	18.02	22.12	26.37	30.71	35.21	39.86	44.58	50.06	4 / 3				
reaction time	0.166	interval		3.84	3.95	4.02	4.10	4.25	4.34	4.50	4.65	4.72	5.48		11.81	12.69	13.87	
		velocity	7.25	9.11	8.86	8.71	8.54	8.24	8.06	7.78	7.53	7.42	7.30	7.99	8.89	8.27	7.57	
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165				

FINAL - 2015 Seiko Golden Grand Prix (Kawasaki, JPN) *Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date	10-May-15	time	6.17	10.14	14.16	18.30	22.42	26.57	30.79	35.21	39.71	44.38	49.70	/ 2				
reaction time		interval		3.97	4.02	4.14	4.12	4.15	4.22	4.42	4.50	4.67	5.32		12.13	12.49	13.59	
		velocity	7.29	8.82	8.71	8.45	8.50	8.43	8.29	7.92	7.78	7.49	7.52	8.05	8.66	8.41	7.73	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131					

FINAL - 2015 Shizuoka International Athletics Meeting (Fukuroi, JPN) *Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan*

date	03-May-15	time	6.17	10.04	13.98	18.00	22.15	26.32	30.76	35.30	39.97	44.64	49.98	/ 3				
reaction time	0.189	interval		3.87	3.94	4.02	4.15	4.17	4.44	4.54	4.67	4.67	5.34		11.83	12.76	13.88	
		velocity	7.29	9.04	8.88	8.71	8.43	8.39	7.88	7.71	7.49	7.49	7.49	8.00	8.88	8.23	7.56	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	130					

FINAL - 2014 Japanese National Championships (Fukushima, JPN) *Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions*

date	08-Jun-14	time	5.99	9.83	13.68	17.58	21.55	25.74	30.06	34.60	39.27	44.19	49.97	7 / 3				
reaction time		interval		3.84	3.85	3.90	3.97	4.19	4.32	4.54	4.67	4.92	5.78		11.59	12.48	14.13	
		velocity	7.51	9.11	9.09	8.97	8.82	8.35	8.10	7.71	7.49	7.11	6.92	8.00	9.06	8.41	7.43	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.2	171				

Konno, Ryoma (JPN) (2004)**FINAL - 2022 Japanese National High School Championships (Naruto, JPN)** *Kishima (2022) - national high school championships biomechanics data collection*

date	05-Aug-22	time	6.07	9.93	13.85	17.95	22.13	26.42	30.82	35.25	39.67	44.67	50.46	4 / 1				
reaction time	0.161	interval		3.86	3.92	4.10	4.18	4.29	4.40	4.43	4.42	5.00	5.79		11.88	12.87	13.85	
		velocity	7.41	9.07	8.93	8.54	8.37	8.16	7.95	7.90	7.92	7.00	6.91	7.93	8.84	8.16	7.58	
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	19	175				

FINAL - 2022 Japanese U20 National Championships (Osaka, JPN) *Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	11-Jun-22	time	6.21	10.24	14.36	18.59	22.76	27.03	31.35	35.72	40.14	44.73	50.17	9 / 1				
reaction time	0.177	interval		4.03	4.12	4.23	4.17	4.27	4.32	4.37	4.42	4.59	5.44		12.38	12.76	13.38	
		velocity	7.25	8.68	8.50	8.27	8.39	8.20	8.10	8.01	7.92	7.63	7.35	7.97	8.48	8.23	7.85	
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	18.5	174.5				

Kono, Shoma (JPN) (2000)**FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)** *Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection*

date	04-Aug-18	time	6.39	10.58	14.98	19.37	23.81	28.28	32.83	37.42	42.09	46.88	52.12	3 / 5				
reaction time		interval		4.19	4.40	4.39	4.44	4.47	4.55	4.59	4.67	4.79	5.24		12.98	13.46	14.05	

H1 lead leg	velocity	7.04	8.35	7.95	7.97	7.88		7.83	7.69	7.63	7.49	7.31	7.63	7.67		8.09	7.80	7.47	
	strides		15	15	15	15		15	15	15	15	15	15	135					
Kostić, Nikola (SRB) (2004)																			
Heat 1 - 2024 European Athletics Championships (Roma, ITA)																			
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																			
date	09-Jun-24	time	5.90	9.66	13.61	17.72	21.92		26.33	30.72	35.29	39.99	44.78		50.48		2 / 5		
reaction time	0.142	interval		3.76	3.95	4.11	4.20		4.41	4.39	4.57	4.70	4.79	5.70			11.82	13.00	14.06
		velocity	7.63	9.31	8.86	8.52	8.33		7.94	7.97	7.66	7.45	7.31	7.02	7.92		8.88	8.08	7.47
H1 lead leg		strides												0					
Kucej, Jožef (TCH) (1965)																			
FINAL - 1991 European Cup (Frankfurt, GER)																			
<i>Federle (2003) - http://www.fgs.uni-halle.de</i>																			
date	29-Jun-91	time	6.09	9.93	13.82	17.82	21.96		26.24	30.55	35.04	39.75	44.63		50.27		/ 5		
reaction time		interval		3.84	3.89	4.00	4.14		4.28	4.31	4.49	4.71	4.88	5.64			11.73	12.73	14.08
		velocity	7.39	9.11	9.00	8.75	8.45		8.18	8.12	7.80	7.43	7.17	7.09	7.96		8.95	8.25	7.46
H1 lead leg		strides																	
Kučera, Martin (SVK) (1990)																			
FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>																			
date	08-Sep-20	time	6.17	10.08	14.11	18.12	22.25		26.59	31.06	35.90	40.57		50.84		7 / 5			
reaction time	0.185	interval		3.91	4.03	4.01	4.13		4.34	4.47	4.84	4.67					11.95	12.94	
		velocity	7.29	8.95	8.68	8.73	8.47		8.06	7.83	7.23	7.49		7.87			8.79	8.11	
H1 lead leg	R	strides	20	13		13	13			14		14		87					
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																			
date	08-Jul-16	time	6.08	9.96	13.92	18.08	22.20			30.60	35.00	39.64	44.52		49.82		1 / 7		
reaction time	0.121	interval		3.88	3.96	4.16	4.12		8.40	4.40	4.64	4.88	5.30				12.00	12.52	13.92
		velocity	7.40	9.02	8.84	8.41	8.50		8.33	7.95	7.54	7.17	7.55	8.03			8.75	8.39	7.54
H1 lead leg	R	strides	20	13		13	13				13	14	14	16.7		116.7			
Kudryavtsev, Denis (RUS) (1992)																			
FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)																			
<i>Henson (2021) - Athlete First: major championships report</i>																			
date	25-Aug-15	time	5.84	9.48	13.20	16.96	20.84		24.84	29.08	33.40	37.96	42.68		48.05		6 / 2		
reaction time	0.146	interval		3.64	3.72	3.76	3.88		4.00	4.24	4.32	4.56	4.72	5.37	NR PB		11.12	12.12	13.60
		velocity	7.71	9.62	9.41	9.31	9.02		8.75	8.25	8.10	7.68	7.42	7.45	8.32		9.44	8.66	7.72
H1 lead leg	L	strides		13	13	13	13		13	14	14	15	15	19	142				
FINAL - 2014 European Championships (Zurich, SUI)																			
<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>																			
date	15-Aug-14	time	6.12	9.92	13.80	17.68	21.64		25.76	30.12	34.48	39.08	43.84		49.16		/ 3		
reaction time	0.158	interval		3.80	3.88	3.88	3.96		4.12	4.36	4.36	4.60	4.76	5.32			11.56	12.44	13.72
		velocity	7.35	9.21	9.02	9.02	8.84		8.50	8.03	8.03	7.61	7.35	7.52	8.14		9.08	8.44	7.65
H1 lead leg	L	strides		13	13	13	13		13	14	14	15	15	123					
Kunkel, Adam (CAN) (1981)																			
FINAL - 2007 IAAF World Championships (Osaka, JPN)																			
<i>Behm (2007) - Osaka 2007: Le quatrace</i>																			
date	28-Aug-07	time	5.8	9.5	13.3	17.3	21.9								dnf		3 / --		
reaction time	0.181	interval		3.70	3.80	4.00	4.60										11.50		
		velocity	7.76	9.46	9.21	8.75	7.61										9.13		
H1 lead leg	L	strides	21	13	14	14	14								76				
Kuribayashi, Toshimasa (JPN) (2001)																			
A FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)																			
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																			
date	07-May-23	time	6.22	10.19	14.30	18.49	22.71		27.03	31.45	35.87	40.34	45.01		50.43		8 / 3		
reaction time	0.154	interval		3.97	4.11	4.19	4.22		4.32	4.42	4.42	4.47	4.67	5.42			12.27	12.96	13.56
		velocity	7.23	8.82	8.52	8.35	8.29		8.10	7.92	7.92	7.83	7.49	7.38	7.93		8.56	8.10	7.74
H1 lead leg		strides		14	14	14	14		15	15	15	15	15	131					
Kurokawa, Kazuki (JPN) (2001)																			
Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																			
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																			
date	21-Aug-23	time	5.77	9.47	13.21	16.88	20.89		25.09	29.33	33.81	38.44	43.21		48.58		5 / 4		
reaction time	0.144	interval		3.70	3.74	3.67	4.01		4.20	4.24	4.48	4.63	4.77	5.37	PB		11.11	12.45	13.88
		velocity	7.80	9.46	9.36	9.54	8.73		8.33	8.25	7.81	7.56	7.34	7.45	8.23		9.45	8.43	7.56
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	19	165				
Heat 5 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																			
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																			
date	20-Aug-23	time	5.73	9.46	13.20	17.00	20.83		25.03	29.36	33.83	38.46	43.23		48.71		3 / 3		
reaction time	0.158	interval		3.73	3.74	3.80	3.83		4.20	4.33	4.47	4.63	4.77	5.48			11.27	12.36	13.87
		velocity	7.85	9.38	9.36	9.21	9.14		8.33	8.08	7.83	7.56	7.34	7.30	8.21		9.32	8.50	7.57
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.7		164.7			
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)																			
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																			
date	21-May-23	time	5.79	9.39	13.11	17.02	21.12		25.36	29.65	34.03	38.64	43.39		49.03		5 / 2		
reaction time	0.141	interval		3.60	3.72	3.91	4.10		4.24	4.29	4.38	4.61	4.75	5.64			11.23	12.63	13.74
		velocity	7.77	9.72	9.41	8.95	8.54		8.25	8.16	7.99	7.59	7.37	7.09	8.16		9.35	8.31	7.64
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.5		164.5			
B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)																			
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																			

date	07-May-23	time	5.91	9.61	13.46	17.47	21.59	25.91	30.21	34.73	39.39	44.19	49.81	6 / 1			
reaction time	0.158	interval		3.70	3.85	4.01	4.12	4.32	4.30	4.52	4.66	4.80	5.62		11.56	12.74	13.98
		velocity	7.61	9.46	9.09	8.73	8.50	8.10	8.14	7.74	7.51	7.29	7.12	8.03	9.08	8.24	7.51
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125			

B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)*Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season*

date	03-May-23	time	5.91	9.71	13.54	17.43	21.44	25.64	29.88	34.36	38.99	43.71	49.06	5 / 1			
reaction time	0.191	interval		3.80	3.83	3.89	4.01	4.20	4.24	4.48	4.63	4.72	5.35		11.52	12.45	13.83
		velocity	7.61	9.21	9.14	9.00	8.73	8.33	8.25	7.81	7.56	7.42	7.48	8.15	9.11	8.43	7.59
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164			

Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	17-Jul-22	time	5.81	9.49	13.35	17.18	21.14	22.76	25.33	29.68	34.25	39.02	43.93	49.69	1 / 6			
reaction time	0.136	interval		3.68	3.86	3.83	3.96	4.22	4.19	4.35	4.57	4.77	4.91	5.76		11.37	12.50	14.25
		velocity	7.75	9.51	9.07	9.14	8.84	8.79	8.35	8.05	7.66	7.34	7.13	6.94	8.05	9.23	8.40	7.37
H1 lead leg	L	strides		13	13	13	13	14	14	15	15	15	18	143				

Heat 1 - 2022 World Athletics Championships (Eugene, OR)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	16-Jul-22	time	5.86	9.53	13.31	17.20	21.42	23.14	25.76	30.23	34.87	39.64	44.51	50.02	3 / 4			
reaction time	0.142	interval		3.67	3.78	3.89	4.22	4.34	4.47	4.64	4.77	4.87	5.51		11.34	13.03	14.28	
		velocity	7.68	9.54	9.26	9.00	8.29	8.64	8.06	7.83	7.54	7.34	7.19	7.26	8.00	9.26	8.06	7.35
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	15	18	166				

FINAL - 2022 Japanese National Championships (Osaka, JPN)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	11-Jun-22	time	5.77	9.38	13.10	16.97	20.99	25.23	29.48	34.00	38.64	43.38	48.89	5 / 1			
reaction time	0.192	interval		3.61	3.72	3.87	4.02	4.24	4.25	4.52	4.64	4.74	5.51		11.20	12.51	13.90
		velocity	7.80	9.70	9.41	9.04	8.71	8.25	8.24	7.74	7.54	7.38	7.26	8.18	9.38	8.39	7.55
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2			

FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	08-May-22	time	5.86	9.57	13.26	17.05	21.02	25.19	29.48	33.98	38.69	43.54	49.08	7 / 2			
reaction time	0.206	interval		3.71	3.69	3.79	3.97	4.17	4.29	4.50	4.71	4.85	5.54		11.19	12.43	14.06
		velocity	7.68	9.43	9.49	9.23	8.82	8.39	8.16	7.78	7.43	7.22	7.22	8.15	9.38	8.45	7.47
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5			

FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	01-May-22	time	5.91	9.54	13.28	17.08	21.02	25.21	29.48	33.95	38.64	43.44	48.90	6 / 1			
reaction time	0.157	interval		3.63	3.74	3.80	3.94	4.19	4.27	4.47	4.69	4.80	5.46		11.17	12.40	13.96
		velocity	7.61	9.64	9.36	9.21	8.88	8.35	8.20	7.83	7.46	7.29	7.33	8.18	9.40	8.47	7.52
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125			

FINAL - 2021 Japanese National Championships (Osaka, JPN)*Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	26-Jun-21	time	5.83	9.43	13.10	16.87	20.79	24.94	29.21	33.61	38.26	43.10	48.69	7 / 1			
reaction time	0.202	interval		3.60	3.67	3.77	3.92	4.15	4.27	4.40	4.65	4.84	5.59		11.04	12.34	13.89
		velocity	7.72	9.72	9.54	9.28	8.93	8.43	8.20	7.95	7.53	7.23	7.16	8.22	9.51	8.51	7.56
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165			

FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)*Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	09-May-21	time	5.77	9.36	13.06	16.92	20.97	25.23	29.40	33.80	38.36	43.14	48.68	6 / 1			
reaction time	0.150	interval		3.59	3.70	3.86	4.05	4.26	4.17	4.40	4.56	4.78	5.54	PB	11.15	12.48	13.74
		velocity	7.80	9.75	9.46	9.07	8.64	8.22	8.39	7.95	7.68	7.32	7.22	8.22	9.42	8.41	7.64
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19	165			

FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	03-May-21	time	5.96	9.61	13.43	17.38	21.54	25.94	30.28	34.80	39.46	44.36	50.20	6 / 1			
reaction time	0.185	interval		3.65	3.82	3.95	4.16	4.40	4.34	4.52	4.66	4.90	5.84		11.42	12.90	14.08
		velocity	7.55	9.59	9.16	8.86	8.41	7.95	8.06	7.74	7.51	7.14	6.85	7.97	9.19	8.14	7.46
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	20	166			

FINAL - 2020 Japanese National Championships (Niigata, JPN)*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date	02-Oct-20	time	6.09	9.94	13.93	18.00	22.26	26.71	31.26	36.02	41.04	46.15	52.46	2 / 8			
reaction time	0.184	interval		3.85	3.99	4.07	4.26	4.45	4.55	4.76	5.02	5.11	6.31		11.91	13.26	14.89
		velocity	7.39	9.09	8.77	8.60	8.22	7.87	7.69	7.35	6.97	6.85	6.34	7.62	8.82	7.92	7.05
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	146				

FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)*Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection*

date	06-Aug-19	time	6.18	10.23	14.33	18.78	23.43	28.29	32.97	37.69	42.43	47.17	52.27	5 / 3			
reaction time		interval		4.05	4.10	4.45	4.65	4.86	4.68	4.72	4.74	4.74	5.10		12.60	14.19	14.20
		velocity	7.28	8.64	8.54	7.87	7.53	7.20	7.48	7.42	7.38	7.38	7.84	7.65	8.33	7.40	7.39
H1 lead leg		strides		13	13	14	14	14	14	14	14	15	125				

Kyotake, Taiga (JPN) (2003)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)***Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	11-Jun-22	time	6.29	10.31	14.38	18.49	22.76	27.08	31.46	36.10	40.85	45.60	50.96	4 / 4			
reaction time	0.203	interval		4.02	4.07	4.11	4.27	4.32	4.38	4.64	4.75	4.75	5.36	PB	12.20	12.97	14.14
		velocity	7.15	8.71	8.60	8.52	8.20	8.10	7.99	7.54	7.37	7.37	7.46	7.85	8.61	8.10	7.43
H1 lead leg	L	strides	22	14	14	15	15	15	15	15	15	15	19	174			

Lahoulou, Abdelmalik (ALG) (1992)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2023 Bislett Games (Oslo, NOR)																		
<i>Omega Timing (2023) - diamond league race analysis</i>																		
date	15-Jun-23	time	5.94	9.59	13.26	17.04	20.97	25.07	29.40	33.90	38.57	43.47		49.27	8 / 7			
reaction time	0.178	interval		3.65	3.67	3.78	3.93	4.10	4.33	4.50	4.67	4.90	5.80			11.10	12.36	14.07
		velocity	7.58	9.59	9.54	9.26	8.91	8.54	8.08	7.78	7.49	7.14	6.90	8.12		9.46	8.50	7.46
H1 lead leg	L	strides	22	13	13	13	13	14			15			103				
FINAL - 2023 FBK Games (Hengelo, NED)																		
<i>Omega Timing (2023) - continental tour race analysis</i>																		
date	04-Jun-23	time	5.98	9.68	13.48	17.34	21.27	25.42	29.90	34.54	39.40	44.28		49.96	1 / 8			
reaction time	0.173	interval		3.70	3.80	3.86	3.93	4.15	4.48	4.64	4.86	4.88	5.68			11.36	12.56	14.38
		velocity	7.53	9.46	9.21	9.07	8.91	8.43	7.81	7.54	7.20	7.17	7.04	8.01		9.24	8.36	7.30
H1 lead leg	L	strides	22	13							15	15	18	83				
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)																		
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																		
date	21-May-23	time	6.16	9.78	13.51	17.33	21.30	25.38	29.56	34.08	38.96	44.06		49.71	3 / 6			
reaction time	0.195	interval		3.62	3.73	3.82	3.97	4.08	4.18	4.52	4.88	5.10	5.65			11.17	12.23	14.50
		velocity	7.31	9.67	9.38	9.16	8.82	8.58	8.37	7.74	7.17	6.86	7.08	8.05		9.40	8.59	7.24
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	15	16	18	162				
Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																		
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																		
date	17-Jul-22	time	6.03	9.67	13.43	17.16	21.07	22.79	25.17	29.53	33.97	38.63	43.47	48.90	3 / 5			
reaction time	0.157	interval		3.64	3.76	3.73	3.91	4.10	4.36	4.44	4.66	4.84	5.43			11.13	12.37	13.94
		velocity	7.46	9.62	9.31	9.38	8.95	8.78	8.54	8.03	7.88	7.51	7.23	7.37	8.18	9.43	8.49	7.53
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	15	15	17.2	162.2				
Heat 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																		
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																		
date	16-Jul-22	time	6.10	9.86	13.70	17.66	21.76	23.44	30.16	34.67	39.43	44.26		49.58	6 / 2			
reaction time	0.171	interval		3.76	3.84	3.96	4.10		8.40	4.51	4.76	4.83	5.32			11.56	12.50	14.10
		velocity	7.38	9.31	9.11	8.84	8.54	8.53	8.33	7.76	7.35	7.25	7.52	8.07		9.08	8.40	7.45
H1 lead leg	L	strides	22	13	13	13	13			14		15	17	120				
FINAL - 2019 IAAF World Championships (Doha, QAT)																		
<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>																		
date	30-Sep-19	time	6.02	9.60	13.23	16.96	20.84	24.97	29.36	33.94	38.72	43.67		49.46	8 / 8			
reaction time	0.187	interval		3.58	3.63	3.73	3.88	4.13	4.39	4.58	4.78	4.95	5.79			10.94	12.40	14.31
		velocity	7.48	9.78	9.64	9.38	9.02	8.47	7.97	7.64	7.32	7.07	6.91	8.09		9.60	8.47	7.34
H1 lead leg	L	strides	22	13	13	13	13	14	14	15	15	15	18	165				
Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)																		
<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>																		
date	28-Sep-19	time	6.05	9.67	13.30	17.03	20.93	25.05	29.38	33.90	38.48	43.11		48.39	6 / 2			
reaction time	0.159	interval		3.62	3.63	3.73	3.90	4.12	4.33	4.52	4.58	4.63	5.28	NR PB		10.98	12.35	13.73
		velocity	7.44	9.67	9.64	9.38	8.97	8.50	8.08	7.74	7.64	7.56	7.58	8.27		9.56	8.50	7.65
H1 lead leg	L	strides	22	13	13	13	13	13	13	14	14	14	18	160				
FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																		
date	30-May-19	time	6.06	9.80	13.80	17.93	22.06	23.7	26.40	31.00	35.66	40.80	45.86	51.82	3 / 8			
reaction time	0.151	interval		3.74	4.00	4.13	4.13	4.34	4.60	4.66	5.14	5.06	5.96			11.87	13.07	14.86
		velocity	7.43	9.36	8.75	8.47	8.47	8.44	8.06	7.61	7.51	6.81	6.92	6.71	7.72	8.85	8.03	7.07
H1 lead leg	L	strides	22	13	14	14	14	14	15		15	15		136				
FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)																		
<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>																		
date	08-Sep-18	time	6.04	9.76	13.44	17.24	21.16	25.32	29.68	34.24	38.96	43.76		49.12	6 / 5			
reaction time	0.179	interval		3.72	3.68	3.80	3.92	4.16	4.36	4.56	4.72	4.80	5.36			11.20	12.44	14.08
		velocity	7.45	9.41	9.51	9.21	8.93	8.41	8.03	7.68	7.42	7.29	7.46	8.14		9.38	8.44	7.46
H1 lead leg	L	strides	23	13	13	13	13		14	15	15	15	17.2	151.2				
FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																		
date	27-Aug-16	time	6.08	9.84	13.60	17.48	21.48	25.60	29.96	34.44	39.08	43.84		48.92	8 / 6			
reaction time	0.191	interval		3.76	3.76	3.88	4.00	4.12	4.36	4.48	4.64	4.76	5.08			11.40	12.48	13.88
		velocity	7.40	9.31	9.31	9.02	8.75	8.50	8.03	7.81	7.54	7.35	7.87	8.18		9.21	8.41	7.56
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15		144				
Lambrugh, Mario (ITA) (1992)																		
Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	10-Jun-24	time	5.84	9.61	13.44	17.43	21.60	26.05	30.71	35.15	39.86	44.56		50.03	9 / 6			
reaction time	0.147	interval		3.77	3.83	3.99	4.17	4.45	4.66	4.44	4.71	4.70	5.47			11.59	13.28	13.85
		velocity	7.71	9.28	9.14	8.77	8.39	7.87	7.51	7.88	7.43	7.45	7.31	8.00		9.06	7.91	7.58
H1 lead leg		strides												0				
Heat 3 - 2024 European Athletics Championships (Roma, ITA)																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	09-Jun-24	time	5.88	9.63	13.56	17.47	21.52	25.72	30.09	34.77	39.69	44.48		49.74	8 / 1			
reaction time	0.208	interval		3.75	3.93	3.91	4.05	4.20	4.37	4.68	4.92	4.79	5.26			11.59	12.62	14.39
		velocity	7.65	9.33	8.91	8.95	8.64	8.33	8.01	7.48	7.11	7.31	7.60	8.04		9.06	8.32	7.30
H1 lead leg		strides												0				
Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																		
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																		
date	20-Aug-23	time	5.90	9.86	13.66	17.56	21.40	25.53		34.40	39.03	43.73		49.05	1 / 6			

reaction time	0.129	interval	3.96	3.80	3.90	3.84	4.13	8.87	4.63	4.70	5.32	11.66		
		velocity	7.63	8.84	9.21	8.97	9.11	8.47	7.89	7.56	7.45	7.52	8.15	9.01
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	18.5	140.5		

FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)*Henson (2020) - Athlete First: 2020 year end hurdle report*

date	17-Sep-20	time	5.94	9.74	21.79	23.6	30.46	35.03	39.74	44.54	49.87	2 / 6	
reaction time	0.136	interval	3.80	12.05	8.67	4.57	4.71	4.80	5.33	14.08			
		velocity	7.58	9.21	8.71	8.47	8.07	7.66	7.43	7.29	7.50	8.02	7.46
H1 lead leg	R	strides	22	14	15	15	15	15	18.5				

FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)*Henson (2020) - Athlete First: 2018 year end hurdle report*

date	31-May-18	time	5.84	9.80	13.76	17.88	dnf	1 / --
reaction time	0.135	interval	3.96	3.96	4.12	12.04		
		velocity	7.71	8.84	8.84	8.50	8.72	
H1 lead leg	R	strides	22	14	14	14	64	

Lan Jie (CHN) (2000)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)																	
<i>CAA Hurdle Development (2019)</i>																	
date	17-Aug-19	time	6.32	10.45	14.72	18.95	23.26	27.69	32.30	37.28	42.45	47.78	53.70	7 / 4			
reaction time	0.203	interval	4.13	4.27	4.23	4.31	4.43	4.61	4.98	5.17	5.33	5.92	12.63	13.35	15.48		
		velocity	7.12	8.47	8.20	8.27	8.12	7.90	7.59	7.03	6.77	6.57	6.76	7.45	8.31	7.87	6.78
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	17	20.5	181.5				

Langford, Noah (USA) (1999)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Heat 1 - 2024 USA Olympic Trials (Eugene, OR)																		
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																		
date	27-Jun-24	time	6.01	9.74	13.63	17.49	21.49	23.33	25.73	30.21	34.97	39.90	45.10	53.27	3 / 6			
reaction time		interval	3.73	3.89	3.86	4.00	4.24	4.48	4.76	4.93	5.20	8.17	11.48	12.72	14.89			
		velocity	7.49	9.38	9.00	9.07	8.75	8.57	8.25	7.81	7.35	7.10	6.73	4.90	7.51	9.15	8.25	7.05
H1 lead leg	R	strides	21	13	13	13	13	13	15	15	15	15	146					

Lattin, Amere (USA) (1997)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)																	
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																	
date	21-May-23	time	5.86	9.56	13.41	17.32	21.39	25.69	30.06	34.65	39.32	44.13	49.65	6 / 5			
reaction time	0.146	interval	3.70	3.85	3.91	4.07	4.30	4.37	4.59	4.67	4.81	5.52	11.46	12.74	14.07		
		velocity	7.68	9.46	9.09	8.95	8.60	8.14	8.01	7.63	7.49	7.28	7.25	8.06	9.16	8.24	7.46
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	14	14	17	159			

FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	06-Aug-22	time	5.77	9.43	13.16	17.07	21.03	22.71	34.10	38.73	43.43	48.79	2 / 4	
reaction time	0.147	interval	3.66	3.73	3.91	3.96	13.07	4.63	4.70	5.36	11.30			
		velocity	7.80	9.56	9.38	8.95	8.84	8.81	8.03	7.56	7.45	7.46	8.20	9.29
H1 lead leg	L	strides	20	13	13	13	14	14	14	14	17	104		

FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	26-Jun-22	time	5.87	9.51	13.28	17.08	21.05	22.70	25.12	29.56	34.06	38.73	43.37	48.53	2 / 6			
reaction time		interval	3.64	3.77	3.80	3.97	4.07	4.44	4.50	4.67	4.64	5.16	PB	11.21	12.48	13.81		
		velocity	7.67	9.62	9.28	9.21	8.82	8.81	8.60	7.88	7.78	7.49	7.54	7.75	8.24	9.37	8.41	7.60
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17	158				

FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)*Henson (2021) - Athlete First: 2021 year end hurdle report*

date	04-Jul-21	time	5.72	9.44	13.24	17.20	21.28	23.1	25.64	34.64	39.36	44.20	49.87	3 / 7		
reaction time	0.140	interval	3.72	3.80	3.96	4.08	4.36	9.00	4.72	4.84	5.67	11.48				
		velocity	7.87	9.41	9.21	8.84	8.58	8.66	8.03	7.78	7.42	7.23	7.05	8.02	9.15	
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	15	17	133		

Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)*Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	5.93	9.71	13.64	17.66	21.74	25.91	30.29	34.66	39.27	43.85	49.20	2 / 6			
reaction time	0.152	interval	3.78	3.93	4.02	4.08	4.17	4.38	4.37	4.61	4.58	5.35	11.73	12.63	13.56		
		velocity	7.59	9.26	8.91	8.71	8.58	8.39	7.99	8.01	7.59	7.64	7.48	8.13	8.95	8.31	7.74
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	17	158			

FINAL - 2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	10-Sep-19	time	5.90	9.63	13.53	17.46	21.60	25.90	30.26	34.76	39.20	43.93	49.12	4 / 2			
reaction time	0.171	interval	3.73	3.90	3.93	4.14	4.30	4.36	4.50	4.44	4.73	5.19	11.56	12.80	13.67		
		velocity	7.63	9.38	8.97	8.91	8.45	8.14	8.03	7.78	7.88	7.40	7.71	8.14	9.08	8.20	7.68
H1 lead leg	L	strides	13	13	13	14	14	14	14	14	15	17.2	127.2				

FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	18-Aug-19	time	5.76	9.64	13.48	17.32	21.28	23.1	25.60	30.04	34.64	39.48	44.88	51.15	5 / 8			
reaction time	0.145	interval	3.88	3.84	3.84	3.96	4.32	4.44	4.60	4.84	5.40	6.27	11.56	12.72	14.84			
		velocity	7.81	9.02	9.11	9.11	8.84	8.66	8.10	7.88	7.61	7.23	6.48	6.38	7.82	9.08	8.25	7.08
H1 lead leg	L	strides	20	13	13	13	13	14	14	14	15	16	145					

FINAL - 2019 Pan American Games (Lima, PER) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	08-Aug-19	time	5.80	9.57	13.38	17.25	21.15	25.36	29.69	34.06	48.98	7 / 2	
reaction time	0.175	interval	3.77	3.81	3.87	3.90	4.21	4.33	4.37	11.45	12.44		
		velocity	7.76	9.28	9.19	9.04	8.97	8.31	8.08	8.01	8.17	9.17	8.44

H1 lead leg L strides 20 13 13 13 13 14 14 100

FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)

Henson (2020) - Athlete First: 2019 year end hurdle report

date	20-Jul-19	time	5.88	9.56	13.32	17.16	21.12	22.9	25.28	34.20	38.96	43.80	49.18	8 / 3	11.28
reaction time	0.140	interval		3.68	3.76	3.84	3.96		4.16	8.92	4.76	4.84	5.38		9.31
		velocity	7.65	9.51	9.31	9.11	8.84	8.73	8.41	7.85	7.35	7.23	7.43	8.13	
H1 lead leg	L	strides	21	13	13	13	13	13	13	15	15	17.7	146.7		

FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)

Henson (2020) - Athlete First: 2019 year end hurdle report

date	30-Jun-19	time	5.73	9.43	13.33	17.26	21.26	25.50	30.10	34.80	39.53	44.36	50.01	1 / 7	11.53	12.84	14.26
reaction time	0.183	interval		3.70	3.90	3.93	4.00	4.24	4.60	4.70	4.73	4.83	5.65		9.11	8.18	7.36
		velocity	7.85	9.46	8.97	8.91	8.75	8.25	7.61	7.45	7.40	7.25	7.08	8.00			
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	118				

FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)

Henson (2020) - Athlete First: 2019 year end hurdle report

date	07-Jun-19	time	6.00	9.76	13.63	17.50	21.40	25.46	34.20	38.83	43.56	48.72	4 / 3	11.50
reaction time	0.212	interval		3.76	3.87	3.87	3.90	4.06	8.74	4.63	4.73	5.16	PB	9.13
		velocity	7.50	9.31	9.04	9.04	8.97	8.62	8.01	7.56	7.40	7.75	8.21	
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	17	133		

Ledgister, Leonardo (JAM) (1999)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	11-Jun-21	time	5.97	9.60	17.17	21.10	25.20	29.50	34.03	38.80	43.77	49.28	3 / 6	11.20	12.33	14.27
reaction time	0.228	interval		3.63	7.57	3.93	4.10	4.30	4.53	4.77	4.97	5.51		9.38	8.52	7.36
		velocity	7.54	9.64	9.25	8.91	8.54	8.14	7.73	7.34	7.04	7.26	8.12			
H1 lead leg	R	strides	22	14	14	14	14	15	15	16	16	18.2	144.2			

Lee, David (USA) (1959)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1982 TAC Naitonal Championships (Knoxville, TN)

Mann (1987) - the elite athlete program biomechanical analysis of the long hurdles: tac championship meet

date	20-Jun-82	time	6.36	10.18	14.08	17.94	21.80	25.82	30.00	34.44	38.98	43.80	48.96	/ 3	11.58	12.06	13.80
reaction time		interval		3.82	3.90	3.86	3.86	4.02	4.18	4.44	4.54	4.82	5.16		9.07	8.71	7.61
		velocity	7.08	9.16	8.97	9.07	9.07	8.71	8.37	7.88	7.71	7.26	7.75	8.17			
H1 lead leg		strides															

Lee Doo-Yeon (KOR) (1975)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 4 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.12	10.04	14.04	18.16	22.32	26.60	31.40	36.20	52.61	5 / 8	12.04	13.24
reaction time	0.192	interval		3.92	4.00	4.12	4.16	4.28	4.80	4.80	7.60		8.72	7.93
		velocity	7.35	8.93	8.75	8.50	8.41	8.18	7.29	7.29	7.60			
H1 lead leg		strides	21	13	13	13	13	13	15	15	116			

Leger, Stéphane (FRA) (1968)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1987 European Junior Championships (Birmingham, GBR)

Veney - split times from PJ

date	09-Aug-87	time	6.26	10.18	14.30	18.33	22.49	26.72	31.34	35.88	40.72	46.02	51.37	/ 3	12.07	13.01	14.68
reaction time		interval		3.92	4.12	4.03	4.16	4.23	4.62	4.54	4.84	5.30	5.35		8.70	8.07	7.15
		velocity	7.19	8.93	8.50	8.68	8.41	8.27	7.58	7.71	7.23	6.60	7.48	7.79			
H1 lead leg		strides		15	15	15	15	15	15	15	15	16	136				

Lehtonen, Toumas (FIN) (1998)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 2 - 2024 European Athletics Championships (Roma, ITA)

European Athletics (2024) - 2024 european athletics championships - results book

date	09-Jun-24	time	5.95	9.87	13.92	18.02	22.29	26.70	31.17	35.70	40.36	45.02	50.50	8 / 6	12.07	13.15	13.85
reaction time	0.190	interval		3.92	4.05	4.10	4.27	4.41	4.47	4.53	4.66	4.66	5.48		8.70	7.98	7.58
		velocity	7.56	8.93	8.64	8.54	8.20	7.94	7.83	7.73	7.51	7.51	7.30	7.92			
H1 lead leg		strides											0				

Leng Ziheng (CHN) (2000)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.40	10.64	15.01	19.34	23.80	28.48	33.28	38.18	43.58	49.16	55.34	3 / 8	12.94	13.94	15.88
reaction time	0.195	interval		4.24	4.37	4.33	4.46	4.68	4.80	4.90	5.40	5.58	6.18		8.11	7.53	6.61
		velocity	7.03	8.25	8.01	8.08	7.85	7.48	7.29	7.14	6.48	6.27	6.47	7.23			
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	17	19	179			

U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)

CAA Hurdle Development (2019)

date	17-Aug-19	time	6.35	10.55	14.83	19.20	23.68	28.33	33.10	37.88	43.02	48.03	53.51	3 / 3	12.85	13.90	14.93
reaction time	0.202	interval		4.20	4.28	4.37	4.48	4.65	4.77	4.78	5.14	5.01	5.48	PB	8.17	7.55	7.03
		velocity	7.09	8.33	8.18	8.01	7.81	7.53	7.34	7.32	6.81	6.99	7.30	7.48			
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	16	16	19.5	177.5			

Levantinos, Dimitris (GRE) (1997)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 1 - 2024 European Athletics Championships (Roma, ITA)

European Athletics (2024) - 2024 european athletics championships - results book

date	09-Jun-24	time	6.07	9.91	14.09	18.25	22.46	26.79	31.19	35.71	40.51	45.41	51.13	8 / 6	12.18	12.94	14.22
reaction time	0.171	interval		3.84	4.18	4.16	4.21	4.33	4.40	4.52	4.80	4.90	5.72		8.62	8.11	7.38
		velocity	7.41	9.11	8.37	8.41	8.31	8.08	7.95	7.74	7.29	7.14	6.99	7.82			
H1 lead leg		strides											0				

Livingston, Isaiah (USA) (1998)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	26-Jun-21	time	5.80	9.61	13.51	17.65	21.95	26.29	30.66	39.40	43.94	49.25	9 / 6				
reaction time	0.231	interval		3.81	3.90	4.14	4.30	4.34	4.37	8.74	4.54	5.31		11.85	13.01	13.28	
		velocity	7.76	9.19	8.97	8.45	8.14	8.06	8.01	8.01	7.71	7.53	8.12	8.86	8.07	7.91	
H1 lead leg	L	strides		13	13	13	13	13	13	13	13	104					

Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	25-Jun-21	time	6.13	10.00	13.90	18.00	22.20	26.47	30.77	35.13	39.60	44.10	49.34	8 / 3			
reaction time	0.247	interval		3.87	3.97	4.10	4.20	4.27	4.30	4.36	4.47	4.50	5.24		11.87	12.77	13.33
		velocity	7.34	9.04	8.97	8.54	8.33	8.20	8.14	8.03	7.83	7.78	7.63	8.11	8.85	8.22	7.88
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	13	31	16.2	172.2			

Heat 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	24-Jun-21	time	5.97	9.84	13.81	17.85	21.99	26.20	30.46	34.80	39.20	43.78	49.06	8 / 2			
reaction time	0.192	interval		3.87	3.97	4.04	4.14	4.21	4.26	4.34	4.40	4.58	5.28		11.88	12.61	13.32
		velocity	7.54	9.04	8.82	8.66	8.45	8.31	8.22	8.06	7.95	7.64	7.58	8.15	8.84	8.33	7.88
H1 lead leg	L	strides		13	13	13	13	13	13	13	13	13	16	133			

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	11-Jun-21	time	5.97	9.77		17.75	21.80		30.16	34.57	39.07	43.57	48.49	9 / 2				
reaction time	0.233	interval		3.80		7.98	4.05		8.36	4.41	4.50	4.50	4.92	PB		11.78	12.41	13.41
		velocity	7.54	9.21		8.77	8.64		8.37	7.94	7.78	7.78	8.13	8.25		8.91	8.46	7.83
H1 lead leg	L	strides	21	13		13				13	14	14	16.5	104.5				

Li Guancheng (CHN) (2002)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.22	10.43	14.81	19.28	23.96	28.56	33.68	39.41			58.41	2 / 6			
reaction time	0.211	interval		4.21	4.38	4.47	4.68	4.60	5.12	5.73					13.06	14.40	
		velocity	7.23	8.31	7.99	7.83	7.48	7.62	6.83	6.11			6.85		8.04	7.29	
H1 lead leg	L	strides	21	14	14	14	14	14	16				107				

FINAL - 2021 National Grand Prix (Chengdu, CHN)

CAA Hurdle Development (2021)

date	02-Apr-21	time	6.21	10.40	14.68	19.03	23.46	27.99	32.59	37.32	42.35	47.83	54.09	4 / 6				
reaction time	0.204	interval		4.19	4.28	4.35	4.43	4.53	4.60	4.73	5.03	5.48	6.26		12.82	13.56	15.24	
		velocity	7.25	8.35	8.18	8.05	7.90	7.73	7.61	7.40	6.96	6.39	6.39	7.40		8.19	7.74	6.89
H1 lead leg	L	strides	21	14	14	13	13	14	14	14	14	15	18	164				

Heat 1 - 2021 National Grand Prix (Chengdu, CHN)

CAA Hurdle Development (2021)

date	01-Apr-21	time	6.12	10.32	14.64	19.04	23.48	27.92	32.40	36.98	41.82	46.88	52.61	5 / 2				
reaction time	0.212	interval		4.20	4.32	4.40	4.44	4.44	4.48	4.58	4.84	5.06	5.73	PB		12.92	13.36	14.48
		velocity	7.35	8.33	8.10	7.95	7.88	7.88	7.81	7.64	7.23	6.92	6.98	7.60		8.13	7.86	7.25
H1 lead leg	L	strides	21	14	14	14	14	14	14	14	15	15	18	167				

Li Guangzhen (CHN) (1995)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2021 Chinese National Championships (Chongqing, CHN)

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.40	10.51	14.65	18.83	23.24	27.86	32.51	37.27	42.01	46.66	51.72	4 / 4-3			
reaction time	0.218	interval		4.11	4.14	4.18	4.41	4.62	4.65	4.76	4.74	4.65	5.06		12.43	13.68	14.15
		velocity	7.03	8.52	8.45	8.37	7.94	7.58	7.53	7.35	7.38	7.53	7.91	7.73	8.45	7.68	7.42
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	17.2	169.2			

Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)

CAA Hurdle Development (2021)

date	26-Jun-21	time	6.16	10.11	14.26	18.57	23.07	27.68	32.25	36.89	41.57	46.16	51.33	5 / 1			
reaction time	0.183	interval		3.95	4.15	4.31	4.50	4.61	4.57	4.64	4.68	4.59	5.17		12.41	13.68	13.91
		velocity	7.31	8.86	8.43	8.12	7.78	7.59	7.66	7.54	7.48	7.63	7.74	7.79	8.46	7.68	7.55
H1 lead leg	L	strides	22	14	14	14	14	15	15	14	15	15	17.2	169.2			

FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)

CAA Hurdle Development (2021)

date	13-Jun-21	time	6.19	10.16	14.18	18.28	22.52	26.83	31.35	36.04	40.67	45.33	50.58	3 / 2				
reaction time	0.195	interval		3.97	4.02	4.10	4.24	4.31	4.52	4.69	4.63	4.66	5.25	PB		12.09	13.07	13.98
		velocity	7.27	8.82	8.71	8.54	8.25	8.12	7.74	7.46	7.56	7.51	7.62	7.91	8.68	8.03	7.51	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	17.7	170.7				

FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)

CAA Hurdle Development (2021)

date	20-May-21	time	6.47	10.49	14.48	18.55	22.76	27.19	31.75	36.37	41.02	45.86	51.17	7 / 1			
reaction time	0.210	interval		4.02	3.99	4.07	4.21	4.43	4.56	4.62	4.65	4.84	5.31		12.08	13.20	14.11
		velocity	6.96	8.71	8.77	8.60	8.31	7.90	7.68	7.58	7.53	7.23	7.53	7.82	8.69	7.95	7.44
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18	169			

FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)

CAA Hurdle Development (2019)

date	23-Aug-19	time	6.74	10.51	14.48	18.67	22.89	27.21	31.70	36.37	41.02	45.75	51.02	6 / 2			
reaction time	0.213	interval		3.77	3.97	4.19	4.22	4.32	4.49	4.67	4.65	4.73	5.27		11.93	13.03	14.05
		velocity	6.68	9.28	8.82	8.35	8.29	8.10	7.80	7.49	7.53	7.40	7.59	7.84	8.80	8.06	7.47
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169			

Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)

CAA Hurdle Development (2019)

date	22-Aug-19	time	6.66	10.90	15.12	19.50	23.95	28.45	32.96	37.67	42.36	47.05	52.20	9 / 1			
reaction time	0.258	interval		4.24	4.22	4.38	4.45	4.50	4.51	4.71	4.69	4.69	5.15		12.84	13.46	14.09
		velocity	6.76	8.25	8.29	7.99	7.87	7.78	7.76	7.43	7.46	7.46	7.77	7.66	8.18	7.80	7.45

H1 lead leg L strides 22 14 14 14 14 14 14 15 15 15 18 169

FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)

CAA Hurdle Development (2019)

date	03-Aug-19	time	6.14	10.17	14.08	18.17	22.59	27.03	31.57	36.19	40.81	45.58	50.92	4 / 3	12.03	13.40	14.01
reaction time	0.174	interval	4.03	3.91	4.09	4.42	4.44	4.54	4.62	4.62	4.77	5.34	PB				
		velocity	7.33	8.68	8.95	8.56	7.92	7.88	7.71	7.58	7.58	7.34	7.49	7.86		8.73	7.84

H1 lead leg L strides 22 14 14 13 14 14 15 15 15 15 15 18 169

Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)

CAA Hurdle Development (2019)

date	03-Aug-19	time	6.40	10.63	14.88	19.12	23.40	27.75	32.13	36.64	41.60	46.52	51.88	6 / 1	12.72	13.01	14.39
reaction time	0.186	interval	4.23	4.25	4.24	4.28	4.35	4.38	4.51	4.96	4.92	5.36	PB				
		velocity	7.03	8.27	8.24	8.25	8.18	8.05	7.99	7.76	7.06	7.11	7.46	7.71		8.25	8.07

H1 lead leg L strides 22 14 14 14 14 15 15 15 15 15 18 171

Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)

CAA Hurdle Development (2019)

date	09-Jul-19	time	6.45	10.51	14.59	18.73	22.86	27.15	31.53	36.02	40.62	45.36	50.83	3 / 4	12.28	12.80	13.83
reaction time	0.276	interval	4.06	4.08	4.14	4.13	4.29	4.38	4.49	4.60	4.74	5.47	DQ				
		velocity	6.98	8.62	8.58	8.45	8.47	8.16	7.99	7.80	7.61	7.38	7.31	7.87		8.55	8.20

H1 lead leg L strides 22 14 14 14 14 14 15 15 15 15 17.5 168.5

Li Zhilong (CHN) (1988)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2013 Chinese National Grand Prix Final (Shenyang, CHN)

Li (2008) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles

date	16-Jun-13	time	6.16	10.08	14.08	18.12	22.28	26.56	30.92	35.36	39.96	44.72	49.96	/ 1	11.96	12.80	13.80
reaction time		interval	3.92	4.00	4.04	4.16	4.28	4.36	4.44	4.60	4.76	5.24					
		velocity	7.31	8.93	8.75	8.66	8.41	8.18	8.03	7.88	7.61	7.35	7.63	8.01		8.78	8.20

H1 lead leg strides

FINAL - 2013 Chinese National Championships (Suzhou, CHN)

Li (2008) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles

date	30-May-13	time	6.08	9.96	13.96	18.00	22.16	26.48	30.92	35.52	40.32	45.56	51.41	/ 3	11.92	12.92	14.64
reaction time		interval	3.88	4.00	4.04	4.16	4.32	4.44	4.60	4.80	5.24	5.85					
		velocity	7.40	9.02	8.75	8.66	8.41	8.10	7.88	7.61	7.29	6.68	6.84	7.78		8.81	8.13

H1 lead leg strides

FINAL - 2013 Chinese National Grand Prix (Zhaoqing, CHN)

Li (2008) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles

date	28-Apr-13	time	6.24	10.16	14.20	18.28	22.44	26.72	31.16	35.76	40.48	45.44	50.95	/ 2	12.04	12.88	14.28
reaction time		interval	3.92	4.04	4.08	4.16	4.28	4.44	4.60	4.72	4.96	5.51					
		velocity	7.21	8.93	8.66	8.58	8.41	8.18	7.88	7.61	7.42	7.06	7.26	7.85		8.72	8.15

H1 lead leg strides

FINAL - 2012 Chinese National Championships (Kunshan, CHN)

Li (2008) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles

date	23-Sep-12	time	6.04	9.88	13.84	17.88	22.00	26.28	30.72	35.24	39.92	44.76	50.25	/ 1	11.84	12.84	14.04
reaction time		interval	3.84	3.96	4.04	4.12	4.28	4.44	4.52	4.68	4.84	5.49					
		velocity	7.45	9.11	8.84	8.66	8.50	8.18	7.88	7.74	7.48	7.23	7.29	7.96		8.87	8.18

H1 lead leg strides

FINAL - 2011 Chinese National Championships (Hefei, CHN)

Li (2008) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles

date	09-Sep-11	time	6.08	9.92	13.92	17.92	22.04	26.36	30.68	35.08	39.60	44.20	49.47	/ 1	11.84	12.76	13.52
reaction time		interval	3.84	4.00	4.00	4.12	4.32	4.32	4.40	4.52	4.60	5.27	PB				
		velocity	7.40	9.11	8.75	8.75	8.50	8.10	8.10	7.95	7.74	7.61	7.59	8.09		8.87	8.23

H1 lead leg strides 22 15 15 15 15 15 15 15 15 15 18 175

FINAL - 2011 Chinese National Grand Prix (Fuzhou, CHN)

Li (2008) - research on training characteristics of Li Zhilong's of Chinese men's 400m hurdles

date	26-Jun-11	time	6.08	9.88	13.84	17.80	21.88	26.16	30.48	35.04	39.68	44.48	49.58	/ 2	11.72	12.68	14.00
reaction time		interval	3.80	3.96	3.96	4.08	4.28	4.32	4.56	4.64	4.80	5.10	PB				
		velocity	7.40	9.21	8.84	8.84	8.58	8.18	8.10	7.68	7.54	7.29	7.84	8.07		8.96	8.28

H1 lead leg strides

Liang Chao (CHN) (2000)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)

CAA Hurdle Development (2021)

date	25-Apr-21	time	6.22	10.34	14.54	18.92	23.38	28.06	32.85	37.74	42.81	48.01	53.86	8 / 5	12.70	13.93	15.16
reaction time	0.168	interval	4.12	4.20	4.38	4.46	4.68	4.79	4.89	5.07	5.20	5.85					
		velocity	7.23	8.50	8.33	7.99	7.85	7.48	7.31	7.16	6.90	6.73	6.84	7.43		8.27	7.54

H1 lead leg L strides 21 14 14 14 14 15 15 15 15 15 19 171

Lima, Matheus (BRA) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)

Omega Timing (2023) - diamond league race analysis

date	25-Aug-24	time	5.96	9.69	13.45	17.30	21.30	25.42	29.71	34.06	38.47	42.95	48.12	4 / 6	11.61	12.41	13.24
reaction time	0.175	interval	3.73	3.76	3.85	4.00	4.12	4.29	4.35	4.41	4.48	5.17	PB				
		velocity	7.55	9.38	9.31	9.09	8.75	8.50	8.16	8.05	7.94	7.81	7.74	8.31		9.04	8.46

H1 lead leg L strides 20 13 13 13 13 13 13 13 13 14 14 16.2 155.2

Semi-Final 3 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympic Games - Results Book (2024)

date	07-Aug-24	time	5.93	9.73	13.51	17.34	21.38	25.48	29.65	34.05	38.80	43.56	49.08	6 / 4	11.41	12.31	13.91
reaction time	0.191	interval	3.80	3.78	3.83	4.04	4.10	4.17	4.40	4.75	4.76	5.52					
		velocity	7.59	9.21	9.26	9.14	8.66	8.54	8.39	7.95	7.37	7.35	7.25	8.15		9.20	8.53

H1 lead leg L strides 21 13 13 13 13 13 13 13 13 14 14 17 157

Heat 5 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympic Games - Results Book (2024)

date	05-Aug-24	time	6.09	9.91	13.78	17.71	21.76	26.01	30.35	34.72	39.22	43.77	48.90	6 / 2				
reaction time	0.180	interval		3.82	3.87	3.93	4.05	4.25	4.34	4.37	4.50	4.55	5.13		11.62	12.64	13.42	
		velocity	7.39	9.16	9.04	8.91	8.64	8.24	8.06	8.01	7.78	7.69	7.80	8.18	9.04	8.31	7.82	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	14	17	155				

Lin Yingxian (CHN) (2002)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)																	
CAA Hurdle Development (2019)																	
date	17-Aug-19	time	6.50	10.65	14.90	19.16	23.62	28.26	33.02	37.68	42.68	47.62	53.18	5 / 3			
reaction time	0.211	interval		4.15	4.25	4.26	4.46	4.64	4.76	4.66	5.00	4.94	5.56		12.66	13.86	14.60
		velocity	6.92	8.43	8.24	8.22	7.85	7.54	7.35	7.51	7.00	7.09	7.19	7.52	8.29	7.58	7.19
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	19.5	177.5			

Lin Zhikai (CHN) (2001)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)																	
CAA Hurdle Development (2021)																	
date	26-Jun-21	time	6.23	10.23	14.27	18.43	22.70	27.11	31.63	36.29	41.09	46.05	51.70	6 / 2			
reaction time	0.187	interval		4.00	4.04	4.16	4.27	4.41	4.52	4.66	4.80	4.96	5.65		12.20	13.20	14.42
		velocity	7.22	8.75	8.66	8.41	8.20	7.94	7.74	7.51	7.29	7.06	7.08	7.74	8.61	7.95	7.28
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.2	175.2			

FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)

date	13-Jun-21	time	6.19	10.19	14.30	18.45	22.74	27.16	31.72	36.40	41.19	46.13	51.81	3 / 3			
reaction time	0.168	interval		4.00	4.11	4.15	4.29	4.42	4.52	4.66	4.80	4.97	5.92		12.26		
		velocity	7.27	8.75	8.52	8.43	8.16	7.92	7.58	7.22	7.04	6.76	7.67		8.56		
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			

FINAL - 2021 East China District Meeting (Zhaoqing, CHN)

date	25-Apr-21	time	6.30	10.28	14.35	18.50	22.79	27.17	31.72	36.40	41.19	46.13	51.81	3 / 3			
reaction time	0.201	interval		3.98	4.07	4.15	4.29	4.38	4.55	4.68	4.79	4.94	5.68		12.20	13.22	14.41
		velocity	7.14	8.79	8.60	8.43	8.16	7.99	7.69	7.48	7.31	7.09	7.04	7.72	8.61	7.94	7.29
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5	175.5			

Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)

date	25-Apr-21	time	6.30	10.34	14.46	18.66	23.00	27.42	31.98	36.62	41.42	46.42	52.54	7 / 2			
reaction time	0.203	interval		4.04	4.12	4.20	4.34	4.42	4.56	4.64	4.80	5.00	6.12		12.36	13.32	14.44
		velocity	7.14	8.66	8.50	8.33	8.06	7.92	7.68	7.54	7.29	7.00	6.54	7.61	8.50	7.88	7.27
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176			

FINAL - 2020 Chinese National Championships (Shaoxing, CHN)

date	17-Sep-20	time	6.08	10.21	14.29	18.42	22.75	27.21	31.75	36.42	41.08	45.87	51.33	3 / 4			
reaction time		interval		4.13	4.08	4.13	4.33	4.46	4.54	4.67	4.66	4.79	5.46		12.34	13.33	14.12
		velocity	7.40	8.47	8.58	8.47	8.08	7.85	7.71	7.49	7.51	7.31	7.33	7.79	8.51	7.88	7.44
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18	175			

U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)

date	17-Aug-19	time	6.44	10.58	14.79	19.02	23.38	27.90	32.50	37.22	41.96	46.74	51.95	2 / 5			
reaction time	0.203	interval		4.14	4.21	4.23	4.36	4.52	4.60	4.72	4.74	4.78	5.21		12.58	13.48	14.24
		velocity	6.99	8.45	8.31	8.27	8.03	7.74	7.61	7.42	7.38	7.32	7.68	7.70	8.35	7.79	7.37
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18	175			

U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)

date	17-Aug-19	time	6.65	10.98	15.24	19.58	24.00	28.56	33.14	37.84	42.62	47.56	53.12	7 / 3			
reaction time	0.197	interval		4.33	4.26	4.34	4.42	4.56	4.58	4.70	4.78	4.94	5.56		12.93	13.56	14.42
		velocity	6.77	8.08	8.22	8.06	7.92	7.68	7.64	7.45	7.32	7.09	7.19	7.53	8.12	7.74	7.28
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	17.8	175.8			

Lituyev, Yury (URS) (1925)

FINAL - 1953 Hungary vs. USSR (Budapest, HUN)																	
Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)																	
date	20-Sep-53	time					23.5						50.4	/ 1			
reaction time		interval											WR				
		velocity					8.51						7.94				
H1 lead leg		strides		13	13	13	13	13	13	13	15	15	121				

Liu Shuang (CHN) (2000)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)																	
CAA Hurdle Development (2019)																	
date	17-Aug-19	time	6.20	10.08	14.02	18.10	22.32	26.66	31.16	35.88	40.76	46.04	51.84	9 / 4			
reaction time	0.173	interval		3.88	3.94	4.08	4.22	4.34	4.50	4.72	4.88	5.28	5.80		11.90	13.06	14.88
		velocity	7.26	9.02	8.88	8.58	8.29	8.06	7.78	7.42	7.17	6.63	6.90	7.72	8.82	8.04	7.06
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	17	19.5	179.5			

U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)

date	17-Aug-19	time	6.41	10.41	14.46	18.64	22.96	27.41	32.05	36.78	41.73	47.06	53.11	5 / 2			
reaction time	0.203	interval		4.00	4.05	4.18	4.32	4.45	4.64	4.73	4.95	5.33	6.05		12.23	13.41	15.01
		velocity	7.02	8.75	8.64	8.37	8.10	7.87	7.54	7.40	7.07	6.57	6.61	7.53	8.59	7.83	7.00
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	17	19.5	179.5			

Liu Yangyang (CHN) (1995)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
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Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)

date	26-Jun-21	time	6.42	10.59	14.85	19.22	23.81	28.40	33.17	37.82	42.63	47.50	52.90	3 / 6	CAA Hurdle Development (2021)		
reaction time	0.222	interval		4.17	4.26	4.37	4.59	4.59	4.77	4.65	4.81	4.87	5.40		12.80	13.95	14.33
		velocity	7.01	8.39	8.22	8.01	7.63	7.63	7.34	7.53	7.28	7.19	7.41		8.20	7.53	7.33
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19				

Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)

date	22-Aug-19	time	6.45	10.59	14.85	19.24	23.67	28.22	32.87	37.64	42.44	47.25	52.44	5 / 4	CAA Hurdle Development (2019)		
reaction time	0.200	interval		4.14	4.26	4.39	4.43	4.55	4.65	4.77	4.80	4.81	5.19		12.79	13.63	14.38
		velocity	6.98	8.45	8.22	7.97	7.90	7.69	7.53	7.34	7.29	7.28	7.71		8.21	7.70	7.30
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5				

FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)

date	03-Aug-19	time	6.26	10.30	14.46	18.64	22.97	27.36	31.80	36.20	40.64	45.16	50.32	7 / 1	CAA Hurdle Development (2019)		
reaction time	0.177	interval		4.04	4.16	4.18	4.33	4.39	4.44	4.40	4.44	4.52	5.16		12.38	13.16	13.36
		velocity	7.19	8.66	8.41	8.37	8.08	7.97	7.88	7.95	7.88	7.74	7.75		8.48	7.98	7.86
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5				

Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)

date	03-Aug-19	time	6.66	10.90	15.28	19.68	24.20	28.90	33.58	38.32	43.10	48.08	54.44	8 / 3	CAA Hurdle Development (2019)		
reaction time	0.333	interval		4.24	4.38	4.40	4.52	4.70	4.68	4.74	4.78	4.98	6.36		13.02	13.90	14.50
		velocity	6.76	8.25	7.99	7.95	7.74	7.45	7.48	7.38	7.32	7.03	6.29		8.06	7.55	7.24
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5				

FINAL - 2019 Chinese National Championships (Shenyang, CHN)

date	10-Jul-19	time	6.45	10.56	14.80	19.22	23.70	28.28	32.83	37.46	42.06	46.70	52.00	8 / 7	CAA Hurdle Development (2019)		
reaction time	0.313	interval		4.11	4.24	4.42	4.48	4.58	4.55	4.63	4.60	4.64	5.30		12.77	13.61	13.87
		velocity	6.98	8.52	8.25	7.92	7.81	7.64	7.69	7.56	7.61	7.54	7.55		8.22	7.71	7.57
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	17.8				

Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)

date	09-Jul-19	time	6.36	10.39	14.56	18.81	23.17	27.58	32.14	36.77	41.46	46.13	51.32	2 / 4	CAA Hurdle Development (2019)		
reaction time	0.216	interval		4.03	4.17	4.25	4.36	4.41	4.56	4.63	4.69	4.67	5.19		12.45	13.33	13.99
		velocity	7.08	8.68	8.39	8.24	8.03	7.94	7.68	7.56	7.46	7.49	7.71		8.43	7.88	7.51
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	18.5				

FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)

date	12-Apr-19	time	6.50	10.68	15.10	19.58	24.10	28.70	33.36	38.06	42.76	47.46	52.58	4 / 1	CAA Hurdle Development (2019)		
reaction time	0.204	interval		4.18	4.42	4.48	4.52	4.60	4.66	4.70	4.70	4.70	5.12		13.08	13.78	14.10
		velocity	6.92	8.37	7.92	7.81	7.74	7.61	7.51	7.45	7.45	7.45	7.81		8.03	7.62	7.45
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	19.2				

FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)

date	08-Apr-19	time	6.52	10.51	15.15	19.59	24.06	28.71	33.41	38.02	42.62	47.26	52.30	8 / 5	CAA Hurdle Development (2019)		
reaction time	0.207	interval		3.99	4.64	4.44	4.47	4.65	4.70	4.61	4.60	4.64	5.04		13.07	13.82	13.85
		velocity	6.90	8.77	7.54	7.88	7.83	7.53	7.45	7.59	7.61	7.54	7.94		8.03	7.60	7.58
H1 lead leg	L	strides	22	15	16	16	16	15	15	15	15	15	18				

Liu Yunlang (CHN) (2002)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
CAA Hurdle Development (2019)																			
date	17-Aug-19	time	6.34	10.48	14.72	19.06	23.56	28.24	32.96	37.66	42.60	47.90	53.96	7 / 4					
reaction time	0.190	interval		4.14	4.24	4.34	4.50	4.68	4.72	4.70	4.94	5.30	6.06				12.72	13.90	14.94
		velocity	7.10	8.45	8.25	8.06	7.78	7.48	7.42	7.45	7.09	6.60	6.60	7.41			8.25	7.55	7.03
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	17	19.5						

Long, Corde (USA) (2002)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																			
date	28-Jun-24	time	6.02	9.79	13.58	17.45	21.48	23.31	25.68	30.13	34.73	39.54	44.27	50.05	7 / 4				
reaction time		interval		3.77	3.79	3.87	4.03	4.20	4.45	4.60	4.81	4.73	5.78				11.43	12.68	14.14
		velocity	7.48	9.28	9.23	9.04	8.68	8.58	8.33	7.87	7.61	7.28	7.40	6.92			9.19	8.28	7.43
H1 lead leg	L	strides		13	13	13	13		13	13	14	14	14	16.5					

Heat 1 - 2024 USA Olympic Trials (Eugene, OR)

date	27-Jun-24	time	6.20	10.03	13.90	17.97	22.15	26.47	31.13	35.73	40.50	45.20	50.42	8 / 3	Henson (2024) - Athlete First: 2024 year end hurdle report				
reaction time		interval		3.83	3.87	4.07	4.18	4.32	4.66	4.60	4.77	4.70	5.22				11.77	13.16	14.07
		velocity	7.26	9.14	9.04	8.60	8.37	8.10	7.51	7.61	7.34	7.45	7.66				8.92	7.98	7.46
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	16.2						

FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)

date	07-Jun-24	time	5.99	9.66	13.56	17.45	21.44	25.77	30.21	34.87	39.40	44.18	49.47	3 / 6	Henson (2024) - Athlete First: 2024 year end hurdle report				
reaction time		interval		3.67	3.90	3.89	3.99	4.33	4.44	4.66	4.53	4.78	5.29				11.46	12.76	13.97
		velocity	7.51	9.54	8.97	9.00	8.77	8.08	7.88	7.51	7.73	7.32	7.56				9.16	8.23	7.52
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	17						

FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)

date	09-Jun-23	time	5.99	9.71	13.56	17.46	21.54	25.76	30.28	34.62	39.09	43.49	48.53	5 / 2	Henson (2023) - Athlete First: 2023 year end hurdle report				
reaction time		interval		3.72	3.85	3.90	4.08	4.22	4.52	4.34	4.47	4.40	5.04				11.47	12.82	13.21

H1 lead leg	L	velocity	7.51	9.41	9.09	8.97	8.58		8.29	7.74	8.06	7.83	7.95	7.94	8.24		9.15	8.19	7.95
		strides	21	13	13	13	13		13	14	14	14	13	16.7	157.7				
Long Wei (CHN) (1997)																			
			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)																			
CAA Hurdle Development (2021)																			
date	26-Jun-21	time	6.13	10.08	14.10	18.20	22.47		26.92	31.51	36.18	41.06	46.24		52.33		8 / 5		
reaction time	0.227	interval		3.95	4.02	4.10	4.27		4.45	4.59	4.67	4.88	5.18	6.09			12.07	13.31	14.73
		velocity	7.34	8.86	8.71	8.54	8.20		7.87	7.63	7.49	7.17	6.76	6.57	7.64		8.70	7.89	7.13
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	15	15	19	175				
Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)																			
CAA Hurdle Development (2019)																			
date	22-Aug-19	time	6.36	10.58	14.81	19.12	23.59		28.19	32.88	37.65	42.61	47.68		53.57		3 / 6		
reaction time	0.219	interval		4.22	4.23	4.31	4.47		4.60	4.69	4.77	4.96	5.07	5.89			12.76	13.76	14.80
		velocity	7.08	8.29	8.27	8.12	7.83		7.61	7.46	7.34	7.06	6.90	6.79	7.47		8.23	7.63	7.09
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				
Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)																			
CAA Hurdle Development (2019)																			
date	03-Aug-19	time	7.01	11.70	16.40	21.15	26.09		31.31	36.89	42.34		53.38		59.62		3 / 6		
reaction time	0.252	interval		4.69	4.70	4.75	4.94		5.22	5.58	5.45		11.04	6.24			14.14	15.74	16.49
		velocity	6.42	7.46	7.45	7.37	7.09		6.70	6.27	6.42		6.34	6.41	6.71		7.43	6.67	6.37
H1 lead leg	L	strides	22	15	15	15	15		15	17	17		19.2	150.2					
Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)																			
CAA Hurdle Development (2019)																			
date	09-Jul-19	time	6.04	10.08	14.15	18.28	22.54		26.89	31.28	35.85	40.61	45.58		51.39		4 / 6		
reaction time	0.188	interval		4.04	4.07	4.13	4.26		4.35	4.39	4.57	4.76	4.97	5.81	PB		12.24	13.00	14.30
		velocity	7.45	8.66	8.60	8.47	8.22		8.05	7.97	7.66	7.35	7.04	6.88	7.78		8.58	8.08	7.34
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	15	15	18.8	174.8				
FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)																			
CAA Hurdle Development (2019)																			
date	29-May-19	time	6.22	10.21	14.36	18.58	22.92		27.42	32.04	36.70	41.47	46.34		51.87		2 / 3		
reaction time	0.208	interval		3.99	4.15	4.22	4.34		4.50	4.62	4.66	4.77	4.87	5.53	PB		12.36	13.46	14.30
		velocity	7.23	8.77	8.43	8.29	8.06		7.78	7.58	7.51	7.34	7.19	7.23	7.71		8.50	7.80	7.34
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	15	15	18.2	176.2				
FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)																			
CAA Hurdle Development (2019)																			
date	12-Apr-19	time	6.19	10.19	14.45	18.71	23.14		27.68	32.30	37.09	42.04	47.06		52.83		9 / 3		
reaction time	0.250	interval		4.00	4.26	4.26	4.43		4.54	4.62	4.79	4.95	5.02	5.77			12.52	13.59	14.76
		velocity	7.27	8.75	8.22	8.22	7.90		7.71	7.58	7.31	7.07	6.97	6.93	7.57		8.39	7.73	7.11
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	15	15	19	175				
FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)																			
CAA Hurdle Development (2019)																			
date	08-Apr-19	time	6.21	10.29	14.46	18.68	22.97		27.44	32.08	36.90	41.82	46.86		52.73		9 / 8		
reaction time	0.271	interval		4.08	4.17	4.22	4.29		4.47	4.64	4.82	4.92	5.04	5.87			12.47	13.40	14.78
		velocity	7.25	8.58	8.39	8.29	8.16		7.83	7.54	7.26	7.11	6.94	6.81	7.59		8.42	7.84	7.10
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	15	15	19	175				
López, Guillermo (ESP) (1977)																			
FINAL - 1998 Spanish National Championships (San Sebastián, ESP)																			
Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas																			
date	02-Aug-98	time	6.19	10.32	14.39	18.54	22.87		27.28	31.88	36.59	41.52	46.57		52.50		1 / 7		
reaction time		interval		4.13	4.07	4.15	4.33		4.41	4.60	4.71	4.93	5.05	5.93			12.35	13.34	14.69
		velocity	7.27	8.47	8.60	8.43	8.08		7.94	7.61	7.43	7.10	6.93	6.75	7.62		8.50	7.87	7.15
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	16	20	181				
Lü Baoliang (CHN) (2000)																			
U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)																			
CAA Hurdle Development (2019)																			
date	17-Aug-19	time	6.65	10.98	15.36	19.84	24.41		29.28	34.32	39.37	44.68	49.90		55.71		8 / 5		
reaction time	0.200	interval		4.33	4.38	4.48	4.57		4.87	5.04	5.05	5.31	5.22	5.81			13.19	14.48	15.58
		velocity	6.77	8.08	7.99	7.81	7.66		7.19	6.94	6.93	6.59	6.70	6.88	7.18		7.96	7.25	6.74
H1 lead leg	L	strides	22	15	15	15	15		16	16	16	17	17	19	183				
Lu Shengjing (CHN) (1998)																			
FINAL - 2021 Chinese National Championships (Chongqing, CHN)																			
CAA Hurdle Development (2021)																			
date	26-Jun-21	time	6.24	10.29	14.55	18.88	23.37		27.91	32.45	37.02	41.71	46.48		51.78		1 / 5-4		
reaction time	0.187	interval		4.05	4.26	4.33	4.49		4.54	4.54	4.57	4.69	4.77	5.30			12.64	13.57	14.03
		velocity	7.21	8.64	8.22	8.08	7.80		7.71	7.71	7.66	7.46	7.34	7.55	7.72		8.31	7.74	7.48
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18.5	175.5				
Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)																			
CAA Hurdle Development (2021)																			
date	26-Jun-21	time	6.34	10.37	14.62	18.98	23.39		27.73	32.12	36.60	41.25	46.03		51.54		8 / 2		
reaction time	0.228	interval		4.03	4.25	4.36	4.41		4.34	4.39	4.48	4.65	4.78	5.51	=PB		12.64	13.14	13.91
		velocity	7.10	8.68	8.24	8.03	7.94		8.06	7.97	7.81	7.53	7.32	7.26	7.76		8.31	7.99	7.55
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				
FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)																			
CAA Hurdle Development (2021)																			
date	20-May-21	time	6.17	10.24	14.35	18.53	22.81		27.21	31.68	36.33	41.04	46.06		51.83		6 / 3		
reaction time	0.189	interval		4.07	4.11	4.18	4.28		4.40	4.47	4.65	4.71	5.02	5.77	PB		12.36	13.15	14.38
		velocity	7.29	8.60	8.52	8.37	8.18		7.95	7.83	7.53	7.43	6.97	6.93	7.72		8.50	7.98	7.30

H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 15 15 15 19 176

FINAL - 2021 East China District Meeting (Zhaoqing, CHN)

date 25-Apr-21 time 6.36 10.48 14.77 19.14 23.59 28.06 32.78 37.59 42.39 47.13 52.34

CAA Hurdle Development (2021)

reaction time 0.217 interval 4.12 4.29 4.37 4.45 4.47 4.72 4.81 4.80 4.74 5.21 4 / 5

12.78 13.64 14.35

velocity 7.08 8.50 8.16 8.01 7.87 7.83 7.42 7.28 7.29 7.38 7.68 7.64 8.22 7.70 7.32

H1 lead leg L strides 22 15 15 15 15 15 16 16 15 15 15 18 177

Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN)

date 25-Apr-21 time 6.47 10.64 14.98 19.37 23.79 28.23 32.78 37.33 41.99 46.71 51.96

CAA Hurdle Development (2021)

reaction time 0.240 interval 4.17 4.34 4.39 4.42 4.44 4.55 4.55 4.66 4.72 5.25 PB 3 / 2 12.90 13.41 13.93

velocity 6.96 8.39 8.06 7.97 7.92 7.88 7.69 7.69 7.51 7.42 7.62 7.70 8.14 7.83 7.54

H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 15 18 175

Luck, Jay (USA) (1940)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1964 Olympic Games (Tokyo, JPN)

Breitschaft (1965) - die leichtathletik wettkämpfe der 1964 olympischen sommerspielen - 400m hürdenlauf

date 16-Oct-64 time 5.7 13.8 22.0 30.5 39.6 50.5 3 / 5

reaction time interval 8.10 8.20 8.50 8.50 9.10 10.90 7.92

velocity 7.89 8.64 8.54 8.24 7.69 6.88

H1 lead leg strides

Lunn, Atle (NOR) (1969)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1997 European Cup (Munich, GER)

Jung (2003) - http://www.fgs.uni-halle.de

date 21-Jun-97 time 6.30 10.24 14.29 18.56 22.98 27.62 32.47 36.40 42.56 47.94 54.09 / 7

reaction time interval 3.94 4.05 4.27 4.42 4.64 4.85 3.93 6.16 5.38 6.15 12.26 13.91 15.47

velocity 7.14 8.88 8.64 8.20 7.92 7.54 7.22 8.91 5.68 6.51 6.50 7.40 8.56 7.55 6.79

H1 lead leg strides

Luo Xinyu (CHN) (2002)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2021 National Grand Prix (Chengdu, CHN)

CAA Hurdle Development (2021)

date 02-Apr-21 time 6.21 10.31 14.56 18.83 23.16 27.72 32.44 37.22 42.24 47.17 52.54 6 / 4

reaction time 0.198 interval 4.10 4.25 4.27 4.33 4.56 4.72 4.78 5.02 4.93 5.37 PB 12.62 13.61 14.73

velocity 7.25 8.54 8.24 8.20 8.08 7.68 7.42 7.32 6.97 7.10 7.45 7.61 8.32 7.71 7.13

H1 lead leg L strides 21 14 14 14 14 15 15 15 15 15 18.5 170.5

Heat 2 - 2021 National Grand Prix (Chengdu, CHN)

CAA Hurdle Development (2021)

date 01-Apr-21 time 6.28 10.36 14.60 18.90 23.30 27.84 32.44 37.26 42.22 47.14 52.62 4 / 2

reaction time 0.235 interval 4.08 4.24 4.30 4.40 4.54 4.60 4.82 4.96 4.92 5.48 PB 12.62 13.54 14.70

velocity 7.17 8.58 8.25 8.14 7.95 7.71 7.61 7.26 7.06 7.11 7.30 7.60 8.32 7.75 7.14

H1 lead leg L strides 21 14 14 14 14 15 15 15 15 15 18.5 170.5

Madhida, Reo (JPN) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2021 Japanese High School National Championships (Fukui, JPN)

Shibayama (2021) - national high school and U20 national championships

date 30-Jul-21 time 6.57 10.79 15.32 19.82 24.41 28.98 33.62 38.41 43.34 48.25 53.54 8 / 7

reaction time 0.202 interval 4.22 4.53 4.50 4.59 4.57 4.64 4.79 4.93 4.91 5.29 13.25 13.80 14.63

velocity 6.85 8.29 7.73 7.78 7.63 7.66 7.54 7.31 7.10 7.13 7.56 7.47 7.92 7.61 7.18

H1 lead leg strides 15 15 15 15 15 15 15 15 17 17 139

Madari Palliyalil, Jabir (IND) (1996)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date 13-May-22 time 5.90 9.67 13.68 17.82 22.05 23.8 26.32 35.27 39.97 44.81 50.42 1 / 7

reaction time 0.156 interval 3.77 4.01 4.14 4.23 4.27 8.95 4.70 4.84 5.61 11.92

velocity 7.63 9.28 8.73 8.45 8.27 8.40 8.20 7.82 7.45 7.23 7.13 7.93 8.81

H1 lead leg L strides 22 15 15 15 15 15 15 16 16 129

Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)

Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships

date 28-Sep-19 time 5.95 9.82 13.69 17.64 21.74 25.92 30.19 34.61 39.24 44.12 49.71 9 / 5

reaction time 0.199 interval 3.87 3.87 3.95 4.10 4.18 4.27 4.42 4.63 4.88 5.59 11.69 12.55 13.93

velocity 7.56 9.04 9.04 8.86 8.54 8.37 8.20 7.92 7.56 7.17 7.16 8.05 8.98 8.37 7.54

H1 lead leg L strides 22 15 15 15 15 15 15 15 16 16 19.7 178.7

Maeno, Kei (JPN) (1991)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

B FINAL - 2019 Kinami Memorial (Osaka, JPN)

Matsubayashi (2019) - research on athlete performance and technique- 2019 data book

date 06-May-19 time 6.04 9.83 13.68 17.53 21.67 25.91 30.34 34.87 39.56 44.49 50.37 6 / 2

reaction time interval 3.79 3.85 3.85 4.14 4.24 4.43 4.53 4.69 4.93 5.88 11.49 12.81 14.15

velocity 7.45 9.23 9.09 9.09 8.45 8.25 7.90 7.73 7.46 7.10 6.80 7.94 9.14 8.20 7.42

H1 lead leg R strides 21 13 13 13 14 14 15 15 15 17 19.2 169.2

FINAL - 2018 Japanese National Championships (Yamaguchi, JPN)

Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018

date 23-Jun-18 time 6.02 9.82 13.74 17.76 21.98 26.22 30.62 35.17 39.76 44.45 49.86 5 / 3

reaction time 0.215 interval 3.80 3.92 4.02 4.22 4.24 4.40 4.55 4.59 4.69 5.41 11.74 12.86 13.83

velocity 7.48 9.21 8.93 8.71 8.29 8.25 7.95 7.69 7.63 7.46 7.39 8.02 8.94 8.16 7.59

H1 lead leg R 21 13 13 13 14 14 15 15 15 15 18.2 166.2

FINAL - 2017 Nambu Memorial (Sapporo, JPN)

(2017) - tfdata-store.com/2017/07/11/post-1019/

date 09-Jul-17 time 6.03 9.77 13.64 17.57 21.78 26.03 30.40 34.85 39.44 44.11 49.48 4 / 3

reaction time interval 3.74 3.87 3.93 4.21 4.25 4.37 4.45 4.59 4.67 5.37 11.54 12.83 13.71

H1 lead leg	R	velocity	7.46	9.36	9.04	8.91	8.31		8.24	8.01	7.87	7.63	7.49	7.45	8.08		9.10	8.18	7.66	
		strides	21	13	13	13	14		14	15	15	15	15	18.2	166.2					
Maillard, Sébastien (FRA) (1981)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2006 European Championships (Göteborg, SWE)																<i>Behm (2006) - Göteborg 2006: Le quatrache</i>				
date	10-Aug-06	time	6.0	9.7	13.5	17.6	21.7		25.9	30.2	34.5	39.1	43.9		49.54		/ 5			
reaction time		interval		3.70	3.80	4.10	4.10		4.20	4.30	4.30	4.60	4.80	5.64			11.60	12.60	13.70	
		velocity	7.50	9.46	9.21	8.54	8.54		8.33	8.14	8.14	7.61	7.29	7.09	8.07		9.05	8.33	7.66	
H1 lead leg	L	strides	21	13	14	14	14		14	15	15	15	15	19.5	169.5					
Semi-Final 3 - 2003 IAAF World Championships (Paris, FRA)																<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>				
date	27-Aug-03	time	5.9	9.6	13.4	17.3	21.4		25.6	30.0	34.6				50.70		8 / 8			
reaction time	0.186	interval		3.70	3.80	3.90	4.10		4.20	4.40	4.60		16.10				11.40	12.70		
		velocity	7.63	9.46	9.21	8.97	8.54		8.33	7.95	7.61		6.83	7.89			9.21	8.27		
H1 lead leg		strides	21	14	14	14	14		15	15	15	16	16	19.5	173.5					
Heat 4 - 2003 IAAF World Championships (Paris, FRA)																<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>				
date	26-Aug-03	time	5.9	9.7	13.5	17.4	21.4		25.5	29.6	33.9	38.6	43.5		49.25		7 / 4			
reaction time	0.191	interval		3.80	3.80	3.90	4.00		4.10	4.10	4.30	4.70	4.90	5.75			11.50	12.20	13.90	
		velocity	7.63	9.21	9.21	8.97	8.75		8.54	8.54	8.14	7.45	7.14	6.96	8.12		9.13	8.61	7.55	
H1 lead leg		strides	21	14	14	14	14		15	15	15	16	16	19.5	173.5					
Mägi, Rasmus (EST) (1992)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2024 Memorial van damme (Brussels, BEL)																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	14-Sep-24	time	5.88	9.62	13.45	17.25	21.27		25.38	29.57	33.93	38.40	42.97		48.26		8 / 3			
reaction time	0.160	interval		3.74	3.83	3.80	4.02		4.11	4.19	4.36	4.47	4.57	5.29			11.65	12.32	13.40	
		velocity	7.65	9.36	9.14	9.21	8.71		8.52	8.35	8.03	7.83	7.66	7.56	8.29		9.01	8.52	7.84	
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	17	157					
FINAL - 2024 Weltklasse (Zürich, SUI)																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	05-Sep-24	time	5.89	9.59	13.39	17.21	21.14		25.16	29.35	33.76	38.28	42.81		48.02		8 / 3			
reaction time	0.175	interval		3.70	3.80	3.82	3.93		4.02	4.19	4.41	4.52	4.53	5.21			11.55	12.14	13.46	
		velocity	7.64	9.46	9.21	9.16	8.91		8.71	8.35	7.94	7.74	7.73	7.68	8.33		9.09	8.65	7.80	
H1 lead leg	R	strides	20	13		13			13	13	14		14	17	117					
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	25-Aug-24	time	5.89	9.57	13.25	17.04	20.92		25.00	29.29	33.73	38.17	42.66		47.97		9 / 5			
reaction time	0.178	interval		3.68	3.68	3.79	3.88		4.08	4.29	4.44	4.44	4.49	5.31			11.35	12.25	13.37	
		velocity	7.64	9.51	9.51	9.23	9.02		8.58	8.16	7.88	7.88	7.80	7.53	8.34		9.25	8.57	7.85	
H1 lead leg	R	strides	20	13	13	13	13		13	13		14	17	129						
FINAL - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	09-Aug-24	time	5.95	9.66	13.43	17.20	21.08		25.09	29.24	33.54	38.02	42.53		52.53		4 / 7			
reaction time	0.175	interval		3.71	3.77	3.77	3.88		4.01	4.15	4.30	4.48	4.51	10.00			11.25	12.04	13.29	
		velocity	7.56	9.43	9.28	9.28	9.02		8.73	8.43	8.14	7.81	7.76	4.00	7.61		9.33	8.72	7.90	
H1 lead leg	R	strides	20	13		13	13		13	13	13	14	14	126						
Semi-Final 2 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	07-Aug-24	time	5.94	9.69	13.49	17.36	21.33		25.37	29.57	33.97	38.42	42.89		48.16		7 / 2			
reaction time	0.156	interval		3.75	3.80	3.87	3.97		4.04	4.20	4.40	4.45	4.47	5.27			11.42	12.21	13.32	
		velocity	7.58	9.33	9.21	9.04	8.82		8.66	8.33	7.95	7.87	7.83	7.59	8.31		9.19	8.60	7.88	
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17	158					
Heat 3 - 2024 Olympic Games (Paris, FRA)																<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.98	9.78	13.57	17.43	21.39		25.48	29.70	34.16	38.74	43.34		48.62		5 / 1			
reaction time	0.196	interval		3.80	3.79	3.86	3.96		4.09	4.22	4.46	4.58	4.60	5.28			11.45	12.27	13.64	
		velocity	7.53	9.21	9.23	9.07	8.84		8.56	8.29	7.85	7.64	7.61	7.58	8.23		9.17	8.56	7.70	
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17	156					
FINAL - 2024 Meeting de Paris (Paris, FRA)																<i>Omega Timing (2024) - diamond league race analysis</i>				
date	07-Jul-24	time	5.83	9.62	13.50	17.36	21.24		25.23	29.34	33.62	38.15	42.66		47.95		3 / 2			
reaction time	0.168	interval		3.79	3.88	3.86	3.88		3.99	4.11	4.28	4.53	4.51	5.29			11.53	11.98	13.32	
		velocity	7.72	9.23	9.02	9.07	9.02		8.77	8.52	8.18	7.73	7.76	7.56	8.34		9.11	8.76	7.88	
H1 lead leg	R	strides	20	13	13	13	13				13	14	14	17	130					
FINAL - 2024 European Athletics Championships (Roma, ITA)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	11-Jun-24	time	5.83	9.54	13.38	17.19	21.12		25.15	29.25	33.65	38.22	42.73		48.13		5 / 4			
reaction time	0.138	interval		3.71	3.84	3.81	3.93		4.03	4.10	4.40	4.57	4.51	5.40			11.36	12.06	13.48	
		velocity	7.72	9.43	9.11	9.19	8.91		8.68	8.54	7.95	7.66	7.76	7.41	8.31		9.24	8.71	7.79	
H1 lead leg	R	strides	20	13	13		13		13	13	14	14	14	17.2	144.2					
Semi-Final 2 - 2024 European Athletics Championships (Roma, ITA)																<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.88	9.54	13.41	17.32	21.30		25.44	29.60	33.91	38.55	43.17		48.43		7 / 1			
reaction time	0.185	interval		3.66	3.87	3.91	3.98		4.14	4.16	4.31	4.64	4.62	5.26			11.44	12.28	13.57	
		velocity	7.65	9.56	9.04	8.95	8.79		8.45	8.41	8.12	7.54	7.58	7.60	8.26		9.18	8.55	7.74	
H1 lead leg		strides												0						

FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	02-Jun-24	time	6.06	9.76	13.60	17.40	21.33	25.36	29.60	34.06	38.66	43.33	48.72	3 / 5						
reaction time	0.147	interval	3.70 3.84 3.80 3.93		4.03 4.24 4.46 4.60 4.67		5.39		11.34 12.20 13.73											
		velocity	7.43	9.46	9.11	9.21	8.91	8.68	8.25	7.85	7.61	7.49	7.42	8.21 9.26 8.61 7.65						
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	14	17.7 158.7						
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)																<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>				
date	30-May-24	time	5.97	9.61	13.31	17.15	21.15	25.22	29.53	34.00	38.54	43.21	48.56	8 / 4						
reaction time	0.213	interval	3.64 3.70 3.84 4.00		4.07 4.31 4.47 4.54 4.67		5.35		11.18 12.38 13.68											
		velocity	7.54	9.62	9.46	9.11	8.75	8.60	8.12	7.83	7.71	7.49	7.48	8.24 9.39 8.48 7.68						
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	14	141						
FINAL - 2024 Prefontaine Classic (Eugene, OR)																<i>Omega Timing (2024) - diamond league race analysis</i>				
date	25-May-24	time	6.00	9.81	13.74	17.63	21.54	25.59	29.78	34.23	38.81	43.43	48.85	7 / 2						
reaction time	0.209	interval	3.81 3.93 3.89 3.91		4.05 4.19 4.45 4.58 4.62		5.42		11.63 12.15 13.65											
		velocity	7.50	9.19	8.91	9.00	8.95	8.64	8.35	7.87	7.64	7.58	7.38	8.19 9.03 8.64 7.69						
H1 lead leg		strides	13 13 13 13		13 13 14 14 14		107													
FINAL - 2023 Prefontaine Classic (Eugene, OR)																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	16-Sep-23	time	5.96	9.70	13.46	17.26	21.18	25.26	29.46	33.82	38.28	42.74	47.99	9 / 7						
reaction time	0.155	interval	3.74 3.76 3.80 3.92		4.08 4.20 4.36 4.46 4.46		5.25		11.30 12.20 13.28											
		velocity	7.55	9.36	9.31	9.21	8.93	8.58	8.33	8.03	7.85	7.85	7.62	8.34 9.29 8.61 7.91						
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	14	87						
FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	23-Aug-23	time	6.04	9.86	13.45	17.18	21.09	29.36	33.83	38.41	43.09	48.33	4 / 7							
reaction time	0.161	interval	3.82 3.59 3.73 3.91		8.27 4.47 4.58 4.68 5.24		11.14 12.18 13.73													
		velocity	7.45	9.16	9.75	9.38	8.95	8.46	7.83	7.64	7.48	7.63	8.28	9.43 8.62 7.65						
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	17.2	132.2							
Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	21-Aug-23	time	6.07	10.03	13.77	17.53	21.43	25.50	29.68	34.03	43.13	48.30	7 / 2							
reaction time	0.180	interval	3.96 3.74 3.76 3.90		4.07 4.18 4.35		9.10 5.17		11.46 12.15 13.45											
		velocity	7.41	8.84	9.36	9.31	8.97	8.60	8.37	8.05	7.69	7.74	8.28	9.16 8.64 7.81						
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	17.5	130.5							
Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>				
date	20-Aug-23	time	6.20	10.06	13.70	17.60	21.63	25.70	29.93	34.33	38.86	43.46	48.58	7 / 2						
reaction time	0.205	interval	3.86 3.64 3.90 4.03		4.07 4.23 4.40 4.53 4.60		5.12		11.40 12.33 13.53											
		velocity	7.26	9.07	9.62	8.97	8.68	8.60	8.27	7.95	7.73	7.61	7.81	8.23 9.21 8.52 7.76						
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17	158						
FINAL - 2023 Bauhaus Galan (Stockholm, SWE)																<i>Omega Timing (2023) - diamond league race analysis</i>				
date	02-Jul-23	time	5.92	9.69	13.48	17.27	21.16	25.20	29.50	34.02	38.65	43.38	49.04	3 / 3						
reaction time	0.165	interval	3.77 3.79 3.79 3.89		4.04 4.30 4.52 4.63 4.73		5.66		11.35 12.23 13.88											
		velocity	7.60	9.28	9.23	9.23	9.00	8.66	8.14	7.74	7.56	7.40	7.07	8.16 9.25 8.59 7.56						
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	18	134							
FINAL - 2022 World Athletics Championships (Eugene, OR)																<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	19-Jul-22	time	5.99	9.71	13.50	17.27	21.12	22.71	25.14	29.45	33.87	38.52	43.28	48.92	2 / 8					
reaction time	0.140	interval	3.72 3.79 3.77 3.85		4.02 4.31 4.42 4.65 4.76		5.64		11.28 12.18 13.83											
		velocity	7.51	9.41	9.23	9.28	9.09	8.81	8.71	8.12	7.92	7.53	7.35	7.09	8.18 9.31 8.62 7.59					
H1 lead leg	R	strides	13 13 13 13		13 13 14 14 15 18		139													
Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	17-Jul-22	time	5.93	9.70	13.53	17.33	21.27	23.00	25.33	29.67	33.97	38.46	43.07	48.40	4 / 3					
reaction time	0.137	interval	3.77 3.83 3.80 3.94		4.06 4.34 4.30 4.49 4.61		5.33		11.40 12.34 13.40											
		velocity	7.59	9.28	9.14	9.21	8.88	8.70	8.62	8.06	8.14	7.80	7.59	7.50	8.26 9.21 8.51 7.84					
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.5	158.5						
Heat 4 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jul-22	time	6.13	10.00	13.87	17.73	21.67	23.23	25.73	29.96	34.33	38.87	43.46	48.78	5 / 1					
reaction time	0.169	interval	3.87 3.87 3.86 3.94		4.06 4.23 4.37 4.54 4.59		5.32		11.60 12.23 13.50											
		velocity	7.34	9.04	9.04	9.07	8.88	8.61	8.62	8.27	8.01	7.71	7.63	7.52	8.20 9.05 8.59 7.78					
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	14	17	158					
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	30-Jun-22	time	5.86	9.56	13.28	17.10	20.98	22.58	25.04	29.36	33.90	38.48	43.28	48.77	4 / 4					
reaction time	0.155	interval	3.70 3.72 3.82 3.88		4.06 4.32 4.54 4.58 4.80		5.49		11.24 12.26 13.92											
		velocity	7.68	9.46	9.41	9.16	9.02	8.86	8.62	8.10	7.71	7.64	7.29	8.20	9.34 8.56 7.54					
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	15	17.7	160.7					
FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	16-Jun-22	time	5.84	9.56	13.28	17.12	21.04	22.73	25.22	29.44	33.76	38.28	43.00	48.51	6 / 2					
reaction time	0.165	interval	3.72 3.72 3.84 3.92		4.18 4.22 4.32 4.52 4.72		5.51		11.28 12.32 13.56											
		velocity	7.71	9.41	9.41	9.11	8.93	8.80	8.37	8.29	8.10	7.74	7.42	7.26	8.25 9.31 8.52 7.74					
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	14	18	159					

FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)

date	05-Jun-22	time	5.63	9.50	13.23	17.07	21.00	22.67	25.03	29.37	33.87	38.50	43.23	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
reaction time	0.146	interval		3.87	3.73	3.84	3.93		4.03	4.34	4.50	4.63	4.73	5.50	48.73	4 / 2			
		velocity	7.99	9.04	9.38	9.11	8.91	8.82	8.68	8.06	7.78	7.56	7.40	7.27	8.21		11.44	12.30	13.86
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14		141				

FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)

date	28-May-22	time	5.87	9.66	13.50	17.36	21.30	23.05	25.35	29.60	34.09	38.73	43.33	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
reaction time	0.174	interval		3.79	3.84	3.86	3.94		4.05	4.25	4.49	4.64	4.60	5.33	48.66	3 / 5			
		velocity	7.67	9.23	9.11	9.07	8.88	8.68	8.64	8.24	7.80	7.54	7.61	7.50	8.22		11.49	12.24	13.73
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14		142		9.14	8.58	7.65

FINAL - 2021 ISTAF (Berlin, GER) (TV Analysis)

date	12-Sep-21	time	6.04		13.64	17.52	21.48		25.60	29.92		38.92	43.52	<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>						
reaction time	0.191	interval			7.60	3.88	3.96		4.12	4.32		9.00	4.60	5.21	48.73	6 / 2		11.48	12.40	13.60
		velocity	7.45		9.21	9.02	8.84		8.50	8.10		7.78	7.61	7.68	8.21		9.15	8.47	7.72	
H1 lead leg	R	strides	20			13			13	13	14		14	17	104					

FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)

date	09-Sep-21	time	6.00				21.44	23.0	25.56	29.84		38.80	43.52	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
reaction time	0.158	interval					15.44		4.12	4.28		8.96	4.72	5.32	48.84	3 / 4				13.68	
		velocity	7.50				9.07	8.70	8.50	8.18		7.81	7.42	7.52	8.19						7.68
H1 lead leg	R	strides	20						13	13			14	17	77						

FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)

date	03-Sep-21	time	6.00	9.80	13.64	17.60	21.64	23.4	25.80	30.12	34.64	39.24	43.92	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
reaction time	0.178	interval		3.80	3.84	3.96	4.04		4.16	4.32	4.52	4.60	4.68	5.21	49.13	3 / 5		11.60	12.52	13.80	
		velocity	7.50	9.21	9.11	8.84	8.66	8.55	8.41	8.10	7.74	7.61	7.48	7.68	8.14			9.05	8.39	7.61	
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17	158						

FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)

date	03-Aug-21	time	5.92	9.60	13.32	17.16	21.12		25.28	29.56	33.96	38.44	42.88	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
reaction time	0.167	interval		3.68	3.72	3.84	3.96		4.16	4.28	4.40	4.48	4.44	5.23	48.11	9 / 7		11.24	12.40	13.32	
		velocity	7.60	9.51	9.41	9.11	8.84		8.41	8.18	7.95	7.81	7.88	7.65	8.31			9.34	8.47	7.88	
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	14		140						

FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)

date	09-Jul-21	time	5.92	9.64		17.30	21.25	23.0	25.39	29.64	34.10	38.70	43.41	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
reaction time	0.152	interval		3.72		7.66	3.95		4.14	4.25	4.46	4.60	4.71	5.42	48.83	5 / 3		11.38	12.34	13.77	
		velocity	7.60	9.41		9.14	8.86	8.70	8.45	8.24	7.85	7.61	7.43	7.38	8.19			9.23	8.51	7.63	
H1 lead leg	R	strides	20	13			13		13	13	14	14	14		114						

FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

date	04-Jul-21	time	5.88	9.68	13.44	17.32	21.32	23.1	25.44	29.76	34.24	38.76	43.36	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
reaction time	0.128	interval		3.80	3.76	3.88	4.00		4.12	4.32	4.48	4.52	4.60	5.45	48.81	5 / 4		11.44	12.44	13.60	
		velocity	7.65	9.21	9.31	9.02	8.75	8.66	8.50	8.10	7.81	7.74	7.61	7.34	8.20			9.18	8.44	7.72	
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	17.2	137.2						

FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)

date	01-Jul-21	time	5.90	9.68	13.44	17.30	21.20		25.28		33.98	38.58	43.34	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
reaction time	0.161	interval		3.78	3.76	3.86	3.90		4.08		8.70	4.60	4.76	5.61	48.95	3 / 4		11.40			
		velocity	7.63	9.26	9.31	9.07	8.97		8.58		8.05	7.61	7.35	7.13	8.17			9.21			
H1 lead leg	R	strides	20	13	13		13		13	13		14	14		113						

FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

date	17-Sep-20	time	5.97	9.74			21.45	23.2		29.96	34.43	38.94	43.51	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>							
reaction time	0.150	interval		3.77			11.71			8.51	4.47	4.51	4.57	5.21	48.72	4 / 3				13.55	
		velocity	7.54	9.28			8.97	8.62		8.23	7.83	7.76	7.66	7.68	8.21						7.75
H1 lead leg	R	strides	20	13							14	14	14	17.5	92.5						

FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)

date	13-Sep-20	time	6.00		13.52	17.40			25.60	29.92	34.36	38.92	43.72	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>							
reaction time	0.238	interval			7.52	3.88			8.20	4.32	4.44	4.56	4.80	5.50	49.22	6 / 2		11.40	12.52	13.80	
		velocity	7.50		9.31	9.02			8.54	8.10	7.88	7.68	7.29	7.27	8.13			9.21	8.39	7.61	
H1 lead leg	R	strides	20			13				13	14	14	14		88						

FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)

date	08-Sep-20	time	6.04	9.88		17.52	21.49			30.03	34.87	39.64	44.51	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>							
reaction time	0.177	interval		3.84		7.64	3.97			8.54	4.84	4.77	4.87	5.67	50.18	5 / 3		11.48	12.51	14.48	
		velocity	7.45	9.11		9.16	8.82			8.20	7.23	7.34	7.19	7.05	7.97			9.15	8.39	7.25	
H1 lead leg	L	strides	21	13			13					15	15		77						

FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

date	23-Aug-20	time	5.98		13.68	17.62	21.60	23.4	25.76		34.72	39.32	43.98	<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>							
reaction time	0.159	interval			7.70	3.94	3.98		4.16		8.96	4.60	4.66	5.42	49.40	4 / 4		11.64			
		velocity	7.53		9.09	8.88	8.79	8.55	8.41		7.81	7.61	7.51	7.38	8.10			9.02			

H1 lead leg	L	strides	20	13	13	13	13	13	14	14	17.2	117.2			
FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)													<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>		
date	14-Aug-20	time	6.00	9.74	13.61	17.55	25.79	30.16	34.60	39.24	43.88	49.23	4 / 3		
reaction time	0.146	interval		3.74	3.87	3.94	8.24	4.37	4.44	4.64	4.64	5.35		11.55 12.61 13.72	
		velocity	7.50	9.36	9.04	8.88	8.50	8.01	7.88	7.54	7.54	7.48	8.13	9.09 8.33 7.65	
H1 lead leg	L	strides	21	13	13	13		14	14	14	14	17.2	133.2		
Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>		
date	28-Sep-19	time	6.15	9.94	13.77	17.70	21.77	25.97	30.34	34.72	39.19	43.72	48.93	7 / 4	
reaction time	0.140	interval		3.79	3.83	3.93	4.07	4.20	4.37	4.38	4.47	4.53	5.21	11.55 12.64 13.38	
		velocity	7.32	9.23	9.14	8.91	8.60	8.33	8.01	7.99	7.83	7.73	7.68	8.17 9.09 8.31 7.85	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	17.2	159.2		
FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	20-Jul-19	time	6.12	9.92	13.72	17.64	21.76	23.5	25.96	34.88	39.52	49.71	9 / 5		
reaction time	0.158	interval		3.80	3.80	3.92	4.12	4.20		8.92	4.64			11.52	
		velocity	7.35	9.21	9.21	8.93	8.50	8.51	8.33	7.85	7.54	8.05		9.11	
H1 lead leg	L	strides	21	13	13	13	13		13		14		100		
FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	30-Jun-19	time	6.06	9.93	13.96	18.03	22.16	26.43	31.00	35.50	40.13	44.80	50.25	4 / 9	
reaction time	0.208	interval		3.87	4.03	4.07	4.13	4.27	4.57	4.50	4.63	4.67	5.45	11.97 12.97 13.80	
		velocity	7.43	9.04	8.68	8.60	8.47	8.20	7.66	7.78	7.56	7.49	7.34	7.96 8.77 8.10 7.61	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14		14	128		
FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>		
date	06-Jun-19	time	6.02	9.86	13.86	17.95	22.11	26.36	30.93	35.45	40.21	45.05	50.52	4 / 9	
reaction time	0.150	interval		3.84	4.00	4.09	4.16	4.25	4.57	4.52	4.76	4.84	5.47	11.93 12.98 14.12	
		velocity	7.48	9.11	8.75	8.56	8.41	8.24	7.66	7.74	7.35	7.23	7.31	7.92 8.80 8.09 7.44	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	17.5	161.5	
FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	30-Aug-18	time	5.92	9.68	13.44	17.36	21.40	23.3	25.56	30.04	39.20	43.88	49.28	7 / 4	
reaction time	0.176	interval		3.76	3.76	3.92	4.04	4.16	4.48		9.16	4.68	5.40	11.44 12.68 13.84	
		velocity	7.60	9.31	9.31	8.93	8.66	8.58	8.41	7.81	7.64	7.48	7.41	8.12 9.18 8.28 7.59	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14		14	128		
FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	21-Jul-18	time	5.96	9.84	13.68	17.60	21.56	25.76	30.16	34.56	39.16	43.76	49.11	9 / 5	
reaction time	0.158	interval		3.88	3.84	3.92	3.96	4.20	4.40	4.40	4.60	4.60	5.35	11.64 12.56 13.60	
		velocity	7.55	9.02	9.11	8.93	8.84	8.33	7.95	7.95	7.61	7.61	7.48	8.14 9.02 8.36 7.72	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.2	159.2	
FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	05-Jul-18	time	6.00	9.80	13.72	21.64	25.72	30.16	34.56	39.12	43.72	49.04	2 / 5		
reaction time	0.159	interval		3.80	3.92	7.92	4.08	4.44	4.40	4.56	4.60	5.32		13.56	
		velocity	7.50	9.21	8.93	8.84	8.58	7.88	7.95	7.68	7.61	7.52	8.16	7.74	
H1 lead leg	L	strides	21	13	13		13	14		14	14	17	119		
FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	10-Jun-18	time	6.00	9.88	13.88	17.84	21.96	26.20	30.64	35.20	39.88	44.56	50.11	4 / 7	
reaction time	0.135	interval		3.88	4.00	3.96	4.12	4.24	4.44	4.56	4.68	4.68	5.55	11.84 12.80 13.92	
		velocity	7.50	9.02	8.75	8.84	8.50	8.25	7.88	7.68	7.48	7.48	7.21	7.98 8.87 8.20 7.54	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	14	17.2	160.2	
FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	07-Jun-18	time	5.88	9.60	13.36	17.20	21.28	23.1	25.48	30.00	34.44	39.08	43.80	49.35	8 / 6
reaction time	0.142	interval		3.72	3.76	3.84	4.08	4.20	4.52	4.44	4.64	4.72	5.55	11.32 12.80 13.80	
		velocity	7.65	9.41	9.31	9.11	8.58	8.66	8.33	7.74	7.88	7.54	7.42	7.21 8.11 9.28 8.20 7.61	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	142		
FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>		
date	31-May-18	time	6.04	9.92	13.76	17.68	21.72	25.88	30.28	34.72	39.32	43.92	49.19	9 / 5	
reaction time	0.140	interval		3.88	3.84	3.92	4.04	4.16	4.40	4.44	4.60	4.60	5.27	11.64 12.60 13.64	
		velocity	7.45	9.02	9.11	8.93	8.66	8.41	7.95	7.88	7.61	7.61	7.59	8.13 9.02 8.33 7.70	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159	
FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>		
date	06-Jul-17	time	6.08	9.92	13.80	17.72	21.68	25.84	30.24	34.64	39.20	43.72	48.94	7 / 3	
reaction time	0.127	interval		3.84	3.88	3.92	3.96	4.16	4.40	4.40	4.56	4.52	5.22	11.64 12.52 13.48	
		velocity	7.40	9.11	9.02	8.93	8.84	8.41	7.95	7.95	7.68	7.74	7.66	8.17 9.02 8.39 7.79	
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.2	159.2	
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>		
date	18-Jun-17	time	6.04	9.84	17.64	21.68	25.88	30.24	34.68	39.24	43.84	49.16	3 / 2		
reaction time	0.142	interval		3.80	7.80	4.04	4.20	4.36	4.44	4.56	4.60	5.32		11.60 12.60 13.60	

H1 lead leg	L	velocity	7.45	9.21		8.97	8.66		8.33	8.03	7.88	7.68	7.61	7.52	8.14		9.05	8.33	7.72	
		strides	21	13			13		13	14		14	14	17.5	119.5					
FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)																<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	15-Jun-17	time	6.03	9.83	13.70	17.66	21.73		25.86	30.33	34.73	39.23	43.80		49.10		3 / 5			
reaction time	0.147	interval		3.80	3.87	3.96	4.07		4.13	4.47	4.40	4.50	4.57	5.30				11.63	12.67	13.47
		velocity	7.46	9.21	9.04	8.84	8.60		8.47	7.83	7.95	7.78	7.66	7.55	8.15			9.03	8.29	7.80
H1 lead leg	L	strides	21	13	13	13	13			14	14	14	14	17.2	146.2					
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)																<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>				
date	13-May-17	time	6.08	9.92	13.80	17.76	21.84		26.04	30.44	34.88	39.48	44.12		49.38		8 / 3			
reaction time	0.138	interval		3.84	3.88	3.96	4.08		4.20	4.40	4.44	4.60	4.64	5.26				11.68	12.68	13.68
		velocity	7.40	9.11	9.02	8.84	8.58		8.33	7.95	7.88	7.61	7.54	7.60	8.10			8.99	8.28	7.68
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5					
FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	01-Sep-16	time	6.00	9.76	13.52	17.40	21.40		25.52	29.92	34.44	39.12	43.72		48.90		8 / 4			
reaction time	0.114	interval		3.76	3.76	3.88	4.00		4.12	4.40	4.52	4.68	4.60	5.18				11.40	12.52	13.80
		velocity	7.50	9.31	9.31	9.02	8.75		8.50	7.95	7.74	7.48	7.61	7.72	8.18			9.21	8.39	7.61
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	16	158					
FINAL - 2016 Meeting Paris (Saint-Denis, FRA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	27-Aug-16	time	6.04	9.80		17.48	21.44		25.52		34.28	38.88	43.44		48.66		3 / 5			
reaction time	0.147	interval		3.76		7.68	3.96		4.08		8.76	4.60	4.56	5.22				11.44		
		velocity	7.45	9.31		9.11	8.84		8.58		7.99	7.61	7.68	7.66	8.22			9.18		
H1 lead leg	L	strides	20	13			13		13		14	14	17	104						
FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>				
date	25-Aug-16	time	5.86	9.63	13.43	17.30	21.30		25.46	29.80	34.26	38.80	43.36		48.59		4 / 1			
reaction time	0.113	interval		3.77	3.80	3.87	4.00		4.16	4.34	4.46	4.54	4.56	5.23				11.44	12.50	13.56
		velocity	7.68	9.28	9.21	9.04	8.75		8.41	8.06	7.85	7.71	7.68	7.65	8.23			9.18	8.40	7.74
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2					
FINAL - 2014 European Championships (Zurich, SUI)																<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>				
date	15-Aug-14	time	6.10	9.90	13.78	17.70	21.74		25.86	30.26	34.70	39.30	43.90		49.06		1 / 2			
reaction time	0.156	interval		3.80	3.88	3.92	4.04		4.12	4.40	4.44	4.60	4.60	5.16				11.60	12.56	13.64
		velocity	7.38	9.21	9.02	8.93	8.66		8.50	7.95	7.88	7.61	7.61	7.75	8.15			9.05	8.36	7.70
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	121						
Mann, Ralph (USA) (1949)																				
FINAL - 1972 Olympic Games (Munich, FRG)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
date	03-Sep-72	time	6.0	9.7	13.6	17.6	21.3	23.0	25.4	29.7	33.9	38.4	43.1		48.51	6 / 2				
reaction time		interval		3.70	3.90	4.00	3.70		4.10	4.30	4.20	4.50	4.70	5.41				11.60	12.10	13.40
		velocity	7.50	9.46	8.97	8.75	9.46	8.70	8.54	8.14	8.33	7.78	7.45	7.39	8.25			9.05	8.68	7.84
H1 lead leg	L	strides	21	13	13	13	13		13	13	15	15	15	19	163					
Heat 3 - 1972 Olympic Games (Munich, FRG)																<i>Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden</i>				
date	01-Sep-72	time					21.8						44.6		50.18	5 / 2				
reaction time		interval											22.80	5.58						
		velocity					8.49						7.68	7.17	7.97					
H1 lead leg		strides																		
FINAL - 1972 USA Olympic Trials (Eugene, OR)																<i>(1972) - die große olympia-vorschau: von wettbewerb zu wettbewerb</i>				
date	02-Jul-72	time	5.9	9.5	13.5	17.3	21.2		25.3	29.7	34.0	38.5	42.1		48.4	8 / 1				
reaction time		interval		3.60	4.00	3.80	3.90		4.10	4.40	4.30	4.50	3.60	6.30	(48.34)			11.40	12.40	12.40
		velocity	7.63	9.72	8.75	9.21	8.97		8.54	7.95	8.14	7.78	9.72	6.35	8.26			9.21	8.47	8.47
H1 lead leg	L	strides																		
Mano, Yutaro (JPN) (1996)																				
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
date	29-Jun-19	time	6.02	9.93	13.90	17.97	22.01		26.28	30.66	35.20	39.86	44.59		50.07	2 / 6				
reaction time	0.157	interval		3.91	3.97	4.07	4.04		4.27	4.38	4.54	4.66	4.73	5.48				11.95	12.69	13.93
		velocity	7.48	8.95	8.82	8.60	8.66		8.20	7.99	7.71	7.51	7.40	7.30	7.99			8.79	8.27	7.54
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	152						
A FINAL - 2019 Kinami Memorial (Osaka, JPN)																<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>				
date	06-May-19	time	6.16	10.14	14.11	18.12	22.32		26.63	30.13	35.57	40.27	45.03		50.51	6 / 5				
reaction time		interval		3.98	3.97	4.01	4.20		4.31	3.50	5.44	4.70	4.76	5.48				11.96	12.01	14.90
		velocity	7.31	8.79	8.82	8.73	8.33		8.12	10.00	6.43	7.45	7.35	7.30	7.92			8.78	8.74	7.05
H1 lead leg	R	strides	21	14	14	14	14		14	15	15	15	15	18.5	169.5					
A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuoki, JPN)																<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>				
date	03-May-19	time	6.12	10.01	13.90	17.97	22.12		26.36	30.78	35.30	40.01	44.95		50.57	5 / 4				
reaction time		interval		3.89	3.89	4.07	4.15		4.24	4.42	4.52	4.71	4.94	5.62				11.85	12.81	14.17
		velocity	7.35	9.00	9.00	8.60	8.43		8.25	7.92	7.74	7.43	7.09	7.12	7.91			8.86	8.20	7.41
H1 lead leg	R	strides	21	16	16	16	16		17	17	17	19	19	174						

Maran, Pascal (FRA) (1967)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1986 IAAF World Junior Championships (Athens, GRE)		<i>Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races</i>																
date	18-Jul-86	time	6.09	10.04	14.08	18.17	22.36	26.66	31.10	35.74	40.36	45.08		50.39	/ 3			
reaction time		interval		3.95	4.04	4.09	4.19	4.30	4.44	4.64	4.62	4.72	5.31			12.08	12.93	13.98
		velocity	7.39	8.86	8.66	8.56	8.35	8.14	7.88	7.54	7.58	7.42	7.53	7.94		8.69	8.12	7.51
H1 lead leg		strides	20	13	13	13	14	14	14	15	15	15	18	164				
Maritim, Hillary (KEN) (1973)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 3 - 2000 Olympic Games (Sydney, AUS)		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	24-Sep-00	time	6.10	9.98	13.94	17.98	22.14	26.46	30.90	35.54	40.26	45.34		51.04	3 / 6			
reaction time		interval		3.88	3.96	4.04	4.16	4.32	4.44	4.64	4.72	5.08	5.70			11.88	12.92	14.44
		velocity	7.38	9.02	8.84	8.66	8.41	8.10	7.88	7.54	7.42	6.89	7.02	7.84		8.84	8.13	7.27
H1 lead leg		strides	22	15	15	15	15	15	15	15	15	17	159					
Maritim, Joseph (KEN) (1968)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)		<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	24-Sep-88	time	6.48	10.40	14.44	18.37	22.44	26.62	30.86	35.26	39.79	44.35		49.50	4 / 5			
reaction time	0.180	interval		3.92	4.04	3.93	4.07	4.18	4.24	4.40	4.53	4.56	5.15			11.89	12.49	13.49
		velocity	6.94	8.93	8.66	8.91	8.60	8.37	8.25	7.95	7.73	7.68	7.77	8.08		8.83	8.41	7.78
H1 lead leg		strides	22	15	15	13	13	15	13	15	15	15	18	169				
Maritz, Hardus (NAM) (1990)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)		<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																
date	28-Mar-17	time	6.08	9.96	13.88	17.92	22.12	26.36	30.68	35.12	39.88	44.76		50.38	3 / 3			
reaction time		interval		3.88	3.92	4.04	4.20	4.24	4.32	4.44	4.76	4.88	5.62			11.84	12.76	14.08
		velocity	7.40	9.02	8.93	8.66	8.33	8.25	8.10	7.88	7.35	7.17	7.12	7.94		8.87	8.23	7.46
H1 lead leg	R	strides		13	13	13	13	13	13	13	14	14	119					
Maruyama, Tomoyo (JPN) (2005)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)		<i>Kishima (2022) - national high school championships biomechanics data collection</i>																
date	05-Aug-22	time	6.17	10.22	14.27	18.52	22.95	27.48	32.02	36.77	41.65	46.73		52.86	7 / 6			
reaction time	0.187	interval		4.05	4.05	4.25	4.43	4.53	4.54	4.75	4.88	5.08	6.13			12.35	13.50	14.71
		velocity	7.29	8.64	8.64	8.24	7.90	7.73	7.71	7.37	7.17	6.89	6.53	7.57		8.50	7.78	7.14
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	17	17	161					
Mashchenko, Ruslan (RUS) (1971)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2002 European Championships (Munich, GER)		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	09-Aug-02	time	6.11	9.92	13.73	17.61	21.96	25.75	30.15	34.62	39.34	44.16		50.02	/ 7			
reaction time	0.184	interval		3.81	3.81	3.88	4.35	3.79	4.40	4.47	4.72	4.82	5.86			11.50	12.54	14.01
		velocity	7.36	9.19	9.19	9.02	8.05	9.23	7.95	7.83	7.42	7.26	6.83	8.00		9.13	8.37	7.49
H1 lead leg		strides																
Heat 4 - 2002 European Championships (Munich, GER)		<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																
date	07-Aug-02	time	6.08	9.90	13.74	17.64	21.67	25.80	30.18	34.66	39.30	44.03		49.62	/ 1			
reaction time		interval		3.82	3.84	3.90	4.03	4.13	4.38	4.48	4.64	4.73	5.59			11.56	12.54	13.85
		velocity	7.40	9.16	9.11	8.97	8.68	8.47	7.99	7.81	7.54	7.40	7.16	8.06		9.08	8.37	7.58
H1 lead leg		strides																
FINAL - 2001 European Cup (Bremen, GER)		<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																
date	23-Jun-01	time	6.08	9.90	13.76	17.62	21.62	25.70	30.04	34.46	39.14	43.92		49.53	/ 4			
reaction time		interval		3.82	3.86	3.86	4.00	4.08	4.34	4.42	4.68	4.78	5.61			11.54	12.42	13.88
		velocity	7.40	9.16	9.07	9.07	8.75	8.58	8.06	7.92	7.48	7.32	7.13	8.08		9.10	8.45	7.56
H1 lead leg		strides																
Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	25-Sep-00	time	5.88	9.72	13.44	17.24	21.12	22.64	25.16	29.40	33.80	38.40	43.16	48.94	7 / 3			
reaction time	0.177	interval		3.84	3.72	3.80	3.88	4.04	4.24	4.40	4.60	4.76	5.78			11.36	12.16	13.76
		velocity	7.65	9.11	9.41	9.21	9.02	8.83	8.66	8.25	7.95	7.61	7.35	6.92	8.17	9.24	8.63	7.63
H1 lead leg		strides		13	13	13	13	13	13	14	14	15	18.6	141.6				
Heat 1 - 2000 Olympic Games (Sydney, AUS)		<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	24-Sep-00	time	5.94	9.62	13.38	17.22	21.18	25.34	29.62	34.14	39.06	44.06		50.01	3 / 3			
reaction time	0.225	interval		3.68	3.76	3.84	3.96	4.16	4.28	4.52	4.92	5.00	5.95			11.28	12.40	14.44
		velocity	7.58	9.51	9.31	9.11	8.84	8.41	8.18	7.74	7.11	7.00	6.72	8.00		9.31	8.47	7.27
H1 lead leg		strides	20	13	13	13	13	13	14	14	15	15	18.3	161.3				
FINAL - 1998 European Championships (Budapest, HUN)		<i>Sanchez (1998) - Budapest '98: análisis de la carreras con villas</i>																
date	20-Aug-98	time	5.95	9.75	13.59	17.51	21.38	25.39	29.47	33.70	38.12	42.70		48.25	5 / 2			
reaction time		interval		3.80	3.84	3.92	3.87	4.01	4.08	4.23	4.42	4.58	5.55			11.56	11.96	13.23
		velocity	7.56	9.21	9.11	8.93	9.04	8.73	8.58	8.27	7.92	7.64	7.21	8.29		9.08	8.78	7.94
H1 lead leg	L	strides	19	13	13	13	13	13	14	14	14	14	17	157				
FINAL - 1997 IAAF World Championships (Athens, GRE)		<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>																
date	04-Aug-97	time	5.88	9.60	13.36	17.16	21.02	25.02	29.30	33.61	38.26	43.06		48.62	5 / 6			
reaction time	0.166	interval		3.72	3.76	3.80	3.86	4.00	4.28	4.31	4.65	4.80	5.56			11.28	12.14	13.76
		velocity	7.65	9.41	9.31	9.21	9.07	8.75	8.18	8.12	7.53	7.29	7.19	8.23		9.31	8.65	7.63
H1 lead leg		strides																

FINAL - 1997 European Cup (Munich, GER)														<i>Jung (2003) - http://www.fgs.uni-halle.de</i>					
date	21-Jun-97	time	6.05	9.79	13.70	17.72	21.84		26.06	30.47	34.94	39.60	44.33		49.74	/ 3			
reaction time		interval		3.74	3.91	4.02	4.12		4.22	4.41	4.47	4.66	4.73	5.41			11.67	12.75	13.86
		velocity	7.44	9.36	8.95	8.71	8.50		8.29	7.94	7.83	7.51	7.40	7.39	8.04		9.00	8.24	7.58
H1 lead leg		strides																	

Masui, Koki (JPN) (2004)														<i>Kishima (2022) - national high school championships biomechanics data collection</i>					
FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)																			
date	03-Jun-23	time	6.14	10.06	14.10	18.20	22.51		26.88	31.43	36.32	41.44	46.75		52.37	3 / 4			
reaction time	0.182	interval		3.92	4.04	4.10	4.31		4.37	4.55	4.89	5.12	5.31	5.62	PB		12.06	13.23	15.32
		velocity	7.33	8.93	8.66	8.54	8.12		8.01	7.69	7.16	6.84	6.59	7.12	7.64		8.71	7.94	6.85
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	16	16	19.7	173.7				

Matete, Samuel (ZAM) (1968)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)																			
date	25-Sep-00	time	6.06	9.82	13.70	17.66	21.66	23.18	25.74	29.98	34.38	38.90	43.50		48.98	6 / 3			
reaction time	0.228	interval		3.76	3.88	3.96	4.00		4.08	4.24	4.40	4.52	4.60	5.48			11.60	12.32	13.52
		velocity	7.43	9.31	9.02	8.84	8.75	8.63	8.58	8.25	7.95	7.74	7.61	7.30	8.17		9.05	8.52	7.77
H1 lead leg		strides	21	13	13	13	13		13	13	13	15	15	18	160				

Heat 7 - 2000 Olympic Games (Sydney, AUS)														<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	5.92	9.64	13.52	17.80	21.64		25.80	30.16	34.52	39.04	43.60		48.98	1 / 1			
reaction time	0.184	interval		3.72	3.88	4.28	3.84		4.16	4.36	4.36	4.52	4.56	5.38			11.88	12.36	13.44
		velocity	7.60	9.41	9.02	8.18	9.11		8.41	8.03	8.03	7.74	7.68	7.43	8.17		8.84	8.50	7.81
H1 lead leg		strides	21	13	13	13	13		13	13	15	15	15	17.8	161.8				

FINAL - 2000 ISTAF (Berlin, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
date	01-Sep-00	time	6.21	10.08	13.98	17.92	21.90		25.98	30.18	34.41	38.78	43.26		48.38	/ 2			
reaction time		interval		3.87	3.90	3.94	3.98		4.08	4.20	4.23	4.37	4.48	5.12			11.71	12.26	13.08
		velocity	7.25	9.04	8.97	8.88	8.79		8.58	8.33	8.27	8.01	7.81	7.81	8.27		8.97	8.56	8.03
H1 lead leg		strides																	

Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)														<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>					
date	25-Aug-99	time	5.68	9.44	13.23	17.25	21.31		25.38	29.66	34.10	38.59	43.28		49.28	3 / 6			
reaction time	0.169	interval		3.76	3.79	4.02	4.06		4.07	4.28	4.44	4.49	4.69	6.00			11.57	12.41	13.62
		velocity	7.92	9.31	9.23	8.71	8.62		8.60	8.18	7.88	7.80	7.46	6.67	8.12		9.08	8.46	7.71
H1 lead leg	L	strides	21	13	13	13	13		13	13	13	15	15	18.5	160.5				

FINAL - 1997 IAAF World Championships (Athens, GRE)														<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>					
date	04-Aug-97	time	5.98	9.66	13.41	17.24	21.16		25.18	29.20	33.62	38.10	42.70		48.11	8 / 5			
reaction time	0.237	interval		3.68	3.75	3.83	3.92		4.02	4.02	4.42	4.48	4.60	5.41			11.26	11.96	13.50
		velocity	7.53	9.51	9.33	9.14	8.93		8.71	8.71	7.92	7.81	7.61	7.39	8.31		9.33	8.78	7.78
H1 lead leg		strides																	

FINAL - 1996 Olympic Games (Atlanta, GA)														<i>McFarlane (2000) - the science of hurdling and speed</i>					
date	01-Aug-96	time	5.84	9.61	13.43	17.29	21.24		25.22	29.30	33.44	37.74	42.25		47.78	1 / 2			
reaction time	0.184	interval		3.77	3.82	3.86	3.95		3.98	4.08	4.14	4.30	4.51	5.53			11.45	12.01	12.95
		velocity	7.71	9.28	9.16	9.07	8.86		8.79	8.58	8.45	8.14	7.76	7.23	8.37		9.17	8.74	8.11
H1 lead leg		strides	20	13	13	13	13		13	13	13	15	15	141					

FINAL - 1995 IAAF World Championships (Göteborg, SWE)														<i>Behm (1999) - Les chiffres: Les podiums de tous le championnats</i>					
date	10-Aug-95	time					21.0								48.03	3 / 2			
reaction time		interval																	
		velocity					8.81								8.33				
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18.5	160				

FINAL - 1993 IAAF World Championships (Stuttgart, GER)														<i>Graubner (2008) - http://www.fgs.uni-halle.de</i>					
date	19-Aug-93	time	5.96	9.67	13.42	17.26	21.20		25.16	29.30	33.64	38.13	42.63		47.60	3 / 2			
reaction time	0.265	interval		3.71	3.75	3.84	3.94		3.96	4.14	4.34	4.49	4.50	4.97			11.30	12.04	13.33
		velocity	7.55	9.43	9.33	9.11	8.88		8.84	8.45	8.06	7.80	7.78	8.05	8.40		9.29	8.72	7.88
H1 lead leg	L	strides	21	13	13	13	13		13	13			15	18	119				

Semi-Final 2 - 1993 IAAF World Championships (Stuttgart, GER)														<i>Letzelter (1995) - schrittgestaltung im 400m-hürdenlauf der jugend</i>					
date	17-Aug-93	time	5.74	9.44	13.18	16.96	20.82		24.78	28.96	33.46	38.12	42.74		48.18	3 / 1			
reaction time		interval		3.70	3.74	3.78	3.86		3.96	4.18	4.50	4.66	4.62	5.44			11.22	12.00	13.78
		velocity	7.84	9.46	9.36	9.26	9.07		8.84	8.37	7.78	7.51	7.58	7.35	8.30		9.36	8.75	7.62
H1 lead leg	L	strides	21	13	13	13	13		13	13	15	15	15	17.5	162				

FINAL - 1991 IAAF World Championships (Tokyo, JPN)														<i>Behm (1995) - la tactique du 400 haies</i>					
date	27-Aug-91	time	5.8	9.4	13.1	16.7	20.4		24.3	28.5	32.8	37.4	42.1		47.64	6 / 1			
reaction time		interval		3.60	3.70	3.60	3.70		3.90	4.20	4.30	4.60	4.70	5.54			10.90	11.80	13.60
		velocity	7.76	9.72	9.46	9.72	9.46		8.97	8.33	8.14	7.61	7.45	7.22	8.40		9.63	8.90	7.72
H1 lead leg	L	strides	20	13	13	13	13		13	13	15	15	15	18.5	161.5				

Matsumoto, Takahiro (JPN) (1994)														<i>Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics</i>				
FINAL - 2011 Japanese National High School Championships (Kitakami, JPN)																		

date	05-Aug-11	time	6.22	10.40	14.69	19.02	23.37	27.77	32.19	36.82	41.71	46.74	52.34	6 / 2						
reaction time		interval		4.18	4.29	4.33	4.35	4.40	4.42	4.63	4.89	5.03	5.60		12.80	13.17	14.55			
		velocity	7.23	8.37	8.16	8.08	8.05	7.95	7.92	7.56	7.16	6.96	7.14	7.64	8.20	7.97	7.22			
H1 lead leg		strides																		

Matsushita, Yuki (JPN) (1991)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
FINAL - 2022 Japanese National Championships (Osaka, JPN)																				
date	11-Jun-22	time	6.16	10.04	14.05	18.15	22.29	26.59	31.05	35.72	40.44	45.15	50.57	3 / 7						
reaction time	0.171	interval		3.88	4.01	4.10	4.14	4.30	4.46	4.67	4.72	4.71	5.42		11.99	12.90	14.10			
		velocity	7.31	9.02	8.73	8.54	8.45	8.14	7.85	7.49	7.42	7.43	7.38	7.91	8.76	8.14	7.45			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	146							

													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)																				
date	08-May-22	time	6.16	10.08	14.01	18.02	22.07	26.43	30.91	35.52	40.14	44.84	50.31	2 / 8						
reaction time	0.199	interval		3.92	3.93	4.01	4.05	4.36	4.48	4.61	4.62	4.70	5.47		11.86	12.89	13.93			
		velocity	7.31	8.93	8.91	8.73	8.64	8.03	7.81	7.59	7.58	7.45	7.31	7.95	8.85	8.15	7.54			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165						

													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)																				
date	01-May-22	time	6.14	10.01	13.98	18.07	22.17	26.34	30.95	35.54	40.19	44.99	50.56	2 / 8						
reaction time	0.139	interval		3.87	3.97	4.09	4.10	4.17	4.61	4.59	4.65	4.80	5.57		11.93	12.88	14.04			
		velocity	7.33	9.04	8.82	8.56	8.54	8.39	7.59	7.63	7.53	7.29	7.18	7.91	8.80	8.15	7.48			
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125							

													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>							
B FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)																				
date	06-Jun-21	time	6.16	9.99	13.96	17.97	22.12	26.53	31.01	35.62	40.26	44.94	50.31	5 / 2						
reaction time		interval		3.83	3.97	4.01	4.15	4.41	4.48	4.61	4.64	4.68	5.37		11.81	13.04	13.93			
		velocity	7.31	9.14	8.82	8.73	8.43	7.94	7.81	7.59	7.54	7.48	7.45	7.95	8.89	8.05	7.54			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.2	164.2						

													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>							
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)																				
date	09-May-21	time	5.97	9.71	13.56	17.47	21.59	25.93	30.41	34.97	39.62	44.31	49.88	8 / 7						
reaction time	0.164	interval		3.74	3.85	3.91	4.12	4.34	4.48	4.56	4.65	4.69	5.57		11.50	12.94	13.90			
		velocity	7.54	9.36	9.09	8.95	8.50	8.06	7.81	7.68	7.53	7.46	7.18	8.02	9.13	8.11	7.55			
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125							

													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>							
B FINAL - 2021 Shizuoka International Athletics Meeting (Fukuoki, JPN)																				
date	03-May-21	time	6.19	10.01	13.93	17.92	22.06	26.44	30.90	35.52	40.21	44.98	50.52	9 / 2						
reaction time	0.218	interval		3.82	3.92	3.99	4.14	4.38	4.46	4.62	4.69	4.77	5.54		11.73	12.98	14.08			
		velocity	7.27	9.16	8.93	8.77	8.45	7.99	7.85	7.58	7.46	7.34	7.22	7.92	8.95	8.09	7.46			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5						

													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)																				
date	24-Oct-20	time	6.07	9.93	13.80	17.63	21.60	25.78	30.11	34.68	39.47	44.44	50.34	7 / 4						
reaction time		interval		3.86	3.87	3.83	3.97	4.18	4.33	4.57	4.79	4.97	5.90		11.56	12.48	14.33			
		velocity	7.41	9.07	9.04	9.14	8.82	8.37	8.08	7.66	7.31	7.04	6.78	7.95	9.08	8.41	7.33			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19.2	165.2						

													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)																				
date	20-Sep-20	time	6.22	10.03	13.95	17.93	22.11	26.48	31.05	35.79	40.57	45.40	50.97	9 / 5						
reaction time	0.209	interval		3.81	3.92	3.98	4.18	4.37	4.57	4.74	4.78	4.83	5.57		11.71	13.12	14.35			
		velocity	7.23	9.19	8.93	8.79	8.37	8.01	7.66	7.38	7.32	7.25	7.18	7.85	8.97	8.00	7.32			
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125							

													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)																				
date	23-Aug-20	time	6.14	9.91	13.78	17.82	22.01	26.36	30.83	35.42	40.09	44.89	50.60	7 / 5						
reaction time	0.147	interval		3.77	3.87	4.04	4.19	4.35	4.47	4.59	4.67	4.80	5.71		11.68	13.01	14.06			
		velocity	7.33	9.28	9.04	8.66	8.35	8.05	7.83	7.63	7.49	7.29	7.01	7.91	8.99	8.07	7.47			
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125							

													<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>							
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)																				
date	29-Jun-19	time	6.09	9.84	13.74	17.70	21.71	25.93	30.25	34.75	39.31	43.99	49.47	6 / 3						
reaction time	0.161	interval		3.75	3.90	3.96	4.01	4.22	4.32	4.50	4.56	4.68	5.48		11.61	12.55	13.74			
		velocity	7.39	9.33	8.97	8.84	8.73	8.29	8.10	7.78	7.68	7.48	7.30	8.09	9.04	8.37	7.64			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19.2	165.2						

													<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>							
A FINAL - 2019 Kinami Memorial (Osaka, JPN)																				
date	06-May-19	time	6.11	9.93	13.83	17.74	21.72	25.94	30.23	34.70	39.31	44.01	49.57	3 / 2						
reaction time		interval		3.82	3.90	3.91	3.98	4.22	4.29	4.47	4.61	4.70	5.56		11.63	12.49	13.78			
		velocity	7.36	9.16	8.97	8.95	8.79	8.29	8.16	7.83	7.59	7.45	7.19	8.07	9.03	8.41	7.62			
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165						

													<i>Morioka (2018) - Analysis of the race patterns of the top 400m hurdlers in Japan</i>							
FINAL - 2017 Japanese National Championships (Osaka, JPN)																				
date	24-Jun-17	time	6.14	9.96	13.88	17.80	21.79	26.09	30.43	34.92	39.54	44.33	49.92	/ 3						
reaction time	0.155	interval		3.82	3.92	3.92	3.99	4.30	4.34	4.49	4.62	4.79	5.59		11.66	12.63	13.90			
		velocity	7.33	9.16	8.93	8.93	8.77	8.14	8.06	7.80	7.58	7.31	7.16	8.01	9.01	8.31	7.55			
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125							

FINAL - 2017 Nambu Memorial (Sapporo, JPN)														<i>(2017) - tfdata-store.com/2017/07/11/post-1019/</i>				
date	09-Jul-17	time	6.16	9.90	13.73	17.65	21.68	25.91	30.28	34.80	39.46	44.13	49.41	7 / 2	11.49	12.63	13.85	
reaction time		interval		3.74	3.83	3.92	4.03	4.23	4.37	4.52	4.66	4.67	5.28		9.14	8.31	7.58	
		velocity	7.31	9.36	9.14	8.93	8.68	8.27	8.01	7.74	7.51	7.49	7.58	8.10				
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5				
FINAL - 2016 Japanese National Championships (Nagoya, JPN)														<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>				
date	24-Jun-16	time	6.09	9.93	13.80	17.72	21.74	25.93	30.25	34.75	39.32	43.96	49.31	6 / 2	11.63	12.53	13.71	
reaction time	0.169	interval		3.84	3.87	3.92	4.02	4.19	4.32	4.50	4.57	4.64	5.35		9.03	8.38	7.66	
		velocity	7.39	9.11	9.04	8.93	8.71	8.35	8.10	7.78	7.66	7.54	7.48	8.11				
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
FINAL - 2016 Seiko Golden Grand Prix (Kawasaki, JPN)														<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>				
date	08-May-16	time	6.02	9.82	13.66	17.58	21.57	25.77	30.17	34.69	39.26	43.88	49.10	3 / 3	11.56	12.59	13.71	
reaction time	0.191	interval		3.80	3.84	3.92	3.99	4.20	4.40	4.52	4.57	4.62	5.22		9.08	8.34	7.66	
		velocity	7.48	9.21	9.11	8.93	8.77	8.33	7.95	7.74	7.66	7.58	7.66	8.15				
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	18.5	164.5				
FINAL - 2015 Japanese National Championships (Niigata, JPN)														<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>				
date	28-Jun-15	time	6.11	9.91	13.83	17.78	21.88	26.15	30.57	35.21	39.86	44.55	49.76	6 / 1	11.67	12.79	13.98	
reaction time	0.169	interval		3.80	3.92	3.95	4.10	4.27	4.42	4.64	4.65	4.69	5.21		9.00	8.21	7.51	
		velocity	7.36	9.21	8.93	8.86	8.54	8.20	7.92	7.54	7.53	7.46	7.68	8.04				
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165				
B Race - 2015 Shizuoka International Athletics Meeting (Fukuroi, JPN)														<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>				
date	03-May-15	time	6.04	9.88	13.78	17.72	21.76	26.03	30.40	35.00	39.67	44.47	49.78	1 / 3	11.68	12.68	14.07	
reaction time	0.164	interval		3.84	3.90	3.94	4.04	4.27	4.37	4.60	4.67	4.80	5.31		8.99	8.28	7.46	
		velocity	7.45	9.11	8.97	8.88	8.66	8.20	8.01	7.61	7.49	7.29	7.53	8.04				
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	125					
Matthews, Brian (USA) (2001)																		
Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	28-Jun-24	time	5.90	9.73	13.63	17.61	21.62	23.56	26.06	30.58	35.35	40.26	45.09	50.83	2 / 7	11.71	12.97	14.51
reaction time		interval		3.83	3.90	3.98	4.01	4.44	4.52	4.77	4.91	4.83	5.74		8.97	8.10	7.24	
		velocity	7.63	9.14	8.97	8.79	8.73	8.49	7.88	7.74	7.34	7.13	7.25	6.97	7.87			
H1 lead leg	R	strides	24	15	15	15	15	15	16	16	16	17	21.5	185.5				
Heat 5 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	27-Jun-24	time	5.92	9.81	13.80	17.88	22.05	23.96	26.39	30.94	35.67	40.43	45.18	50.81	4 / 5	11.96	13.06	14.24
reaction time		interval		3.89	3.99	4.08	4.17	4.34	4.55	4.73	4.76	4.75	5.63	PB	8.78	8.04	7.37	
		velocity	7.60	9.00	8.77	8.58	8.39	8.35	8.06	7.69	7.40	7.35	7.37	7.10	7.87			
H1 lead leg	R	strides	24	15	15	15	15	15	16	16	17	17	21	186				
Matulonis, Ryan (USA) (2004)																		
Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	28-Jun-24	time	5.91	9.70	13.55	17.53	21.58	23.57	25.95	30.55	35.31	40.21	45.42	51.30	4 / 8	11.62	13.02	14.87
reaction time		interval		3.79	3.85	3.98	4.05	4.37	4.60	4.76	4.90	5.21	5.88		9.04	8.06	7.06	
		velocity	7.61	9.23	9.09	8.79	8.64	8.49	8.01	7.61	7.35	7.14	6.72	6.80	7.80			
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	16	18	164				
Heat 5 - 2024 USA Olympic Trials (Eugene, OR)														<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>				
date	27-Jun-24	time	5.79	9.54	13.42	17.49	21.76	23.74	26.27	30.85	35.61	40.49	45.14	50.73	6 / 3	11.70	13.36	14.29
reaction time		interval		3.75	3.88	4.07	4.27	4.51	4.58	4.76	4.88	4.65	5.59		8.97	7.86	7.35	
		velocity	7.77	9.33	9.02	8.60	8.20	8.42	7.76	7.64	7.35	7.17	7.53	7.16	7.88			
H1 lead leg	L	strides	20	13	13	13	14	14	14	14	15	15	18	163				
Mbaye, Amadou (SEN) (1964)																		
FINAL - 1996 French National Championships (Evry, FRA)														<i>Veney - split times from PJ</i>				
date	???	time	6.1	9.9	13.9	18.0	22.0	26.2	30.5	35.0	39.6	44.5	50.30	1 / 2	11.90	12.50	14.00	
reaction time		interval		3.80	4.00	4.10	4.00	4.20	4.30	4.50	4.60	4.90	5.80		8.82	8.40	7.50	
		velocity	7.38	9.21	8.75	8.54	8.75	8.33	8.14	7.78	7.61	7.14	6.90	7.95				
H1 lead leg		strides	20	13	13	13	13	13	14	14	14	14	141					
McAlister, Chris (GBR) (1995)																		
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>				
date	30-Jun-22	time	6.12	9.92	13.72	17.60	21.70	23.39	25.92	30.38	34.86	39.48	44.32	49.76	8 / 7	11.48	12.78	13.94
reaction time	0.175	interval		3.80	3.80	3.88	4.10	4.22	4.46	4.48	4.62	4.84	5.44		9.15	8.22	7.53	
		velocity	7.35	9.21	9.21	9.02	8.54	8.55	8.29	7.85	7.81	7.58	7.23	7.35	8.04			
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	15	152				
FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	09-Sep-21	time	6.24				22.40	24.1	26.64			39.88	44.48	49.73	1 / 7			
reaction time	0.168	interval					16.16		4.24			13.24	4.60	5.25				
		velocity	7.21				8.66	8.30	8.25			7.93	7.61	7.62	8.04			
H1 lead leg	R	strides	22						14				15	51				

FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	03-Sep-21	time	6.08	9.92	13.92	18.00	22.08	23.9	26.28	30.72	35.32	39.96	44.80	50.09	1 / 7			
reaction time	0.144	interval		3.84	4.00	4.08	4.08		4.20	4.44	4.60	4.64	4.84	5.29		11.92	12.72	14.08
		velocity	7.40	9.11	8.75	8.58	8.58	8.37	8.33	7.88	7.61	7.54	7.23	7.56	7.99	8.81	8.25	7.46
H1 lead leg	R	strides	22	14	14	14	14		14		15	15	15		137			

FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	09-Jul-21	time	5.97	9.77		17.65		23.5			34.77	39.60	44.57	49.98	2 / 6			
reaction time	0.144	interval		3.80		7.88					17.12	4.83	4.97	5.41		11.68		
		velocity	7.54	9.21		8.88		8.51			8.18	7.25	7.04	7.39	8.00	8.99		
H1 lead leg	R	strides	22	14								16	16	68				

FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	04-Jul-21	time	6.04	9.88	13.84	17.80	21.80	23.6	25.88		34.72	39.36	43.92	49.16	1 / 5			
reaction time	0.134	interval		3.84	3.96	3.96	4.00		4.08		8.84	4.64	4.56	5.24	PB	11.76		
		velocity	7.45	9.11	8.84	8.84	8.75	8.47	8.58		7.92	7.54	7.68	7.63	8.14	8.93		
H1 lead leg	R	strides		14	14	14	14		14			15	15	18.5	118.5			

FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)

Henson (2020) - Athlete First: 2020 year end hurdle report

date	13-Sep-20	time	6.24		14.28	18.44	22.64		26.88		35.84	40.56		51.03	1 / 6			
reaction time	0.188	interval			8.04	4.16	4.20		4.24		8.96	4.72				12.20		
		velocity	7.21		8.71	8.41	8.33		8.25		7.81	7.42		7.84	8.61			
H1 lead leg	R	strides	22		15		15		15			15		67				

Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)

Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships

date	28-Sep-19	time	6.13	9.96	13.84	17.76	21.82		26.01	30.33	34.80	39.32	43.94	49.18	9 / 5			
reaction time	0.165	interval		3.83	3.88	3.92	4.06		4.19	4.32	4.47	4.52	4.62	5.24	PB	11.63	12.57	13.61
		velocity	7.34	9.14	9.02	8.93	8.62		8.35	8.10	7.83	7.74	7.58	7.63	8.13	9.03	8.35	7.71
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15	15	19	171			

FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)

Henson (2020) - Athlete First: 2019 year end hurdle report

date	20-Jul-19	time	6.28	10.08	14.04	18.00	22.12	23.8	26.28		35.04	39.60	44.40	49.93	3 / 8			
reaction time	0.179	interval		3.80	3.96	3.96	4.12		4.16		8.76	4.56	4.80	5.53		11.72		
		velocity	7.17	9.21	8.84	8.84	8.50	8.40	8.41		7.99	7.68	7.29	7.23	8.01	8.96		
H1 lead leg	R	strides	22	14	14	14	14		14			15	15	19.2	141.2			

McAlvey, Jared (USA) (2001)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	28-Jun-24	time	5.88	9.69	13.58	17.56	21.55	23.47	25.84	30.31	35.03	39.98	45.16	51.78	3 / 9			
reaction time		interval		3.81	3.89	3.98	3.99		4.29	4.47	4.72	4.95	5.18	6.62		11.68	12.75	14.85
		velocity	7.65	9.19	9.00	8.79	8.77	8.52	8.16	7.83	7.42	7.07	6.76	6.04	7.72	8.99	8.24	7.07
H1 lead leg	L	strides	21	14	14	14	14		14	15	15	15	15	170				

Heat 2 - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	27-Jun-24	time	6.06	9.98	13.92	17.99	22.18	24.04	26.34	30.83	35.54	40.25	45.14	50.91	8 / 5			
reaction time		interval		3.92	3.94	4.07	4.19		4.16	4.49	4.71	4.71	4.89	5.77		11.93	12.84	14.31
		velocity	7.43	8.93	8.88	8.60	8.35	8.32	8.41	7.80	7.43	7.43	7.16	6.93	7.86	8.80	8.18	7.34
H1 lead leg	L	strides	21	14	14	14	14		14	15	15		18.5	139.5				

McCoy, Reuben (USA) (1986)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2008 USA Olympic Trials (Eugene, OR)

USATF Hurdle Development (2008)

date	29-Jun-08	time	6.07	9.88	13.68	17.67	21.81		26.01	30.31	34.70	39.12	43.71	49.18	6 / 7			
reaction time		interval		3.81	3.80	3.99	4.14		4.20	4.30	4.39	4.42	4.59	5.47		11.60	12.64	13.40
		velocity	7.41	9.19	9.21	8.77	8.45		8.33	8.14	7.97	7.92	7.63	7.31	8.13	9.05	8.31	7.84
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	146				

Heat 3 - 2007 USATF National Championships (Indianapolis, IN)

USATF Men's Hurdle Development (2007)

date	21-Jun-07	time	6.21	9.99	13.93	18.03	22.37		26.86	31.33	35.79	40.32	44.89	50.16	8 / 3			
reaction time		interval		3.78	3.94	4.10	4.34		4.49	4.47	4.46	4.53	4.57	5.27		11.82	13.30	13.56
		velocity	7.25	9.26	8.88	8.54	8.06		7.80	7.83	7.85	7.73	7.66	7.59	7.97	8.88	7.89	7.74
H1 lead leg	R	strides	21	13	13	13	15		15	15	15	15	15	150				

McFarlane, Danny (JAM) (1972)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2009 IAAF World Championships (Berlin, GER)

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

date	18-Aug-09	time	6.01	9.70	13.52	17.42	21.40		25.48	29.79	34.09	38.57	43.26	48.65	1 / 6			
reaction time	0.162	interval		3.69	3.82	3.90	3.98		4.08	4.31	4.30	4.48	4.69	5.39		11.41	12.37	13.47
		velocity	7.49	9.49	9.16	8.97	8.79		8.58	8.12	8.14	7.81	7.46	7.42	8.22	9.20	8.49	7.80
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	15	18	161			

Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

date	16-Aug-09	time	5.99	9.65	13.40	17.29	21.34		25.46	29.78	34.08	38.54	43.16	48.49	4 / 4			
reaction time	0.161	interval		3.66	3.75	3.89	4.05		4.12	4.32	4.30	4.46	4.62	5.33		11.30	12.49	13.38
		velocity	7.51	9.56	9.33	9.00	8.64		8.50	8.10	8.14	7.85	7.58	7.50	8.25	9.29	8.41	7.85
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	15	17.7	139.7			

Heat 3 - 2009 IAAF World Championships (Berlin, GER)

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

date	15-Aug-09	time	6.04	9.76	13.62	17.59	21.65		25.72	29.98	34.26	38.79	43.43	48.65	6 / 2			
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reaction time	0.187	interval	3.72	3.86	3.97	4.06	4.07	4.26	4.28	4.53	4.64	5.22	11.55	12.39	13.45		
		velocity	7.45	9.41	9.07	8.82	8.62	8.60	8.22	8.18	7.73	7.54	7.66	8.22	9.09	8.47	7.81
H1 lead leg		strides															
FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	13-Sep-08	time	6.05	9.78	13.61	17.52	21.54	25.59	29.94	34.33	38.89	43.62	49.00	5 / 2			
reaction time	0.166	interval	3.73	3.83	3.91	4.02	4.05	4.35	4.39	4.56	4.73	5.38	11.47	12.42	13.68		
		velocity	7.44	9.38	9.14	8.95	8.71	8.64	8.05	7.97	7.68	7.40	7.43	8.16	9.15	8.45	7.68
H1 lead leg		strides															
FINAL - 2008 Olympic Games (Beijing, CHN)													<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>				
date	18-Aug-08	time	5.8	9.4	13.2	17.0	20.8	24.9	29.2	33.5	38.0	42.8	48.30	5 / 4			
reaction time	0.213	interval	3.60	3.80	3.80	3.80	4.10	4.30	4.30	4.50	4.80	5.50	11.20	12.20	13.60		
		velocity	7.76	9.72	9.21	9.21	9.21	8.54	8.14	8.14	7.78	7.29	7.27	8.28	9.38	8.61	7.72
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	17	162			
FINAL - 2007 IAAF World Championships (Osaka, JPN)													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>				
date	28-Aug-07	time	6.02	9.76	13.56	17.43	21.43	25.50	29.76	34.06	38.51	43.18	48.59	9 / 5			
reaction time	0.172	interval	3.74	3.80	3.87	4.00	4.07	4.26	4.30	4.45	4.67	5.41	11.41	12.33	13.42		
		velocity	7.48	9.36	9.21	9.04	8.75	8.60	8.22	8.14	7.87	7.49	7.39	8.23	9.20	8.52	7.82
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	18	160			
FINAL - 2004 Olympic Games (Athina, GRE)													<i>Ruiz (2004) - las carreras con vallas de juegos olimpicos de atenas '04</i>				
date	26-Aug-04	time	6.02	9.52	13.23	17.17	21.19	25.21	29.50	33.62	38.23	42.88	48.11	5 / 2			
reaction time	0.256	interval	3.50	3.71	3.94	4.02	4.02	4.29	4.12	4.61	4.65	5.23	11.15	12.33	13.38		
		velocity	7.48	10.00	9.43	8.88	8.71	8.71	8.16	8.50	7.59	7.53	7.65	8.31	9.42	8.52	7.85
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	15	18	161			
FINAL - 2003 IAAF World Championships (Paris, FRA)													<i>Behm (2003) - Paris 2003:Le quatrache masculin - féminin</i>				
date	29-Aug-03	time	5.9	9.6	13.5	17.3	21.2	25.3	29.6	33.9	38.5	43.1	48.30	7 / 4			
reaction time	0.165	interval	3.70	3.90	3.80	3.90	4.10	4.30	4.30	4.60	4.60	5.20	PB	11.40	12.30	13.50	
		velocity	7.63	9.46	8.97	9.21	8.97	8.54	8.14	8.14	7.61	7.61	7.69	8.28	9.21	8.54	7.78
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	15	18	163			
McGuirk, Tom (IRL) (1971)																	
Heat 4 - 2000 Olympic Games (Sydney, AUS)																	
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	5.96	9.80	13.72	17.72	21.84	25.92	30.48	35.40	40.48	45.72	51.73	3 / 7			
reaction time	0.183	interval	3.84	3.92	4.00	4.12	4.08	4.56	4.92	5.08	5.24	6.01	11.76	12.76	15.24		
		velocity	7.55	9.11	8.93	8.75	8.50	8.58	7.68	7.11	6.89	6.68	6.66	7.73	8.93	8.23	6.89
H1 lead leg		strides	22	14	14	14	14	15	17	16	17	18	161				
McLaughlin, Taylor (USA) (1997)																	
FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)																	
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																	
date	09-Jul-23	time	5.97	9.71	13.51	17.38	21.32	25.39	34.06	38.77	43.57	49.14	1 / 5				
reaction time		interval	3.74	3.80	3.87	3.94	4.07	8.67	4.71	4.80	5.57	11.41					
		velocity	7.54	9.36	9.21	9.04	8.88	8.60	8.07	7.43	7.29	7.18	8.14	9.20			
H1 lead leg	R	strides	21	13	13	13	13	13	15	15	18	134					
FINAL - 2019 NCAA Championships (Austin, TX) (TV Analysis)																	
<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																	
date	07-Jun-19	time	5.96	9.66	13.40	17.23	21.16	25.20	29.46	33.96	38.50	43.33	48.85	6 / 5-4			
reaction time	0.199	interval	3.70	3.74	3.83	3.93	4.04	4.26	4.50	4.54	4.83	5.52	PB	11.27	12.23	13.87	
		velocity	7.55	9.46	9.36	9.14	8.91	8.66	8.22	7.78	7.71	7.25	7.25	8.19	9.32	8.59	7.57
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	18	139			
McMaster, Kyron (IVB) (1997)																	
FINAL - 2024 Olympic Games (Paris, FRA)																	
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	09-Aug-24	time	5.64	9.24	12.93	16.67	20.55	24.53	28.69	33.07	37.65	42.27	47.79	6 / 5			
reaction time	0.143	interval	3.60	3.69	3.74	3.88	3.98	4.16	4.38	4.58	4.62	5.52	11.03	12.02	13.58		
		velocity	7.98	9.72	9.49	9.36	9.02	8.79	8.41	7.99	7.64	7.58	7.25	8.37	9.52	8.74	7.73
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159			
Semi-Final 2 - 2024 Olympic Games (Paris, FRA)																	
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	07-Aug-24	time	5.70	9.33	13.07	16.86	20.74	24.77	28.95	33.40	37.92	42.49	48.15	4 / 1			
reaction time	0.160	interval	3.63	3.74	3.79	3.88	4.03	4.18	4.45	4.52	4.57	5.66	11.16	12.09	13.54		
		velocity	7.89	9.64	9.36	9.23	9.02	8.68	8.37	7.87	7.74	7.66	7.07	8.31	9.41	8.68	7.75
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	18	160			
Heat 1 - 2024 Olympic Games (Paris, FRA)																	
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																	
date	05-Aug-24	time	5.71	9.37	13.13	16.94	20.86	25.01	29.38	34.00	38.82	43.71	49.24	2 / 3			
reaction time	0.166	interval	3.66	3.76	3.81	3.92	4.15	4.37	4.62	4.82	4.89	5.53	11.23	12.44	14.33		
		velocity	7.88	9.56	9.31	9.19	8.93	8.43	8.01	7.58	7.26	7.16	7.23	8.12	9.35	8.44	7.33
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159			
FINAL - 2024 London Athletics Meet (London, GBR)																	
<i>Omega Timing (2024) - diamond league race analysis</i>																	
date	20-Jul-24	time	5.73	9.40	13.19	16.98	20.90	24.94	29.09	33.38	37.90	42.43	47.81	5 / 4			
reaction time	0.150	interval	3.67	3.79	3.79	3.92	4.04	4.15	4.29	4.52	4.53	5.38	11.25	12.11	13.34		
		velocity	7.85	9.54	9.23	9.23	8.93	8.66	8.43	8.16	7.74	7.73	7.43	8.37	9.33	8.67	7.87

H1 lead leg	L	strides	21	13	13	13	13	13	13	13	13	14	14	17	157				
FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																	<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>		
date	02-Jun-24	time	5.83	9.46	13.16	16.93	20.87		24.96	29.17	33.66	38.18	42.77		48.05	7 / 2			
reaction time	0.157	interval		3.63	3.70	3.77	3.94		4.09	4.21	4.49	4.52	4.59	5.28			11.10	12.24	13.60
		velocity	7.72	9.64	9.46	9.28	8.88		8.56	8.31	7.80	7.74	7.63	7.58	8.32		9.46	8.58	7.72
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2				
FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)																	<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>		
date	30-May-24	time	5.74	9.21	13.18	16.95	21.02		25.16	29.43	33.93	38.50	43.07		48.49	6 / 3			
reaction time	0.145	interval		3.47	3.97	3.77	4.07		4.14	4.27	4.50	4.57	4.57	5.42			11.21	12.48	13.64
		velocity	7.84	10.09	8.82	9.28	8.60		8.45	8.20	7.78	7.66	7.66	7.38	8.25		9.37	8.41	7.70
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14		141				
FINAL - 2024 USATF LA Grand Prix (Los Angeles, CA) (TV Analysis)																	<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>		
date	18-May-24	time	5.87	9.51	13.28	17.05	21.02		29.26	33.66	38.20	42.94		48.51	7 / 3				
reaction time	0.220	interval		3.64	3.77	3.77	3.97		8.24	4.40	4.54	4.74	5.57				11.18	12.21	13.68
		velocity	7.67	9.62	9.28	9.28	8.82		8.50	7.95	7.71	7.38	7.18	8.25			9.39	8.60	7.68
H1 lead leg	L	strides	21	13	13	13	13				14	14	14	17.2	132.2				
FINAL - 2023 Prefontaine Classic (Eugene, OR)																	<i>Omega Timing (2023) - diamond league race analysis</i>		
date	16-Sep-23	time	5.58	9.11	12.71	16.42	20.29		24.26	28.35	32.59	37.11	41.75		47.31	6 / 3			
reaction time	0.133	interval		3.53	3.60	3.71	3.87		3.97	4.09	4.24	4.52	4.64	5.56			10.84	11.93	13.40
		velocity	8.06	9.92	9.72	9.43	9.04		8.82	8.56	8.25	7.74	7.54	7.19	8.45		9.69	8.80	7.84
H1 lead leg	L	strides	21	13	13	12	13		13	13	13	14	14	17	156				
FINAL - 2023 Weltklasse (Zürich, SUI)																	<i>Omega Timing (2023) - diamond league race analysis</i>		
date	31-Aug-23	time	5.56	9.05	12.66	16.39	20.25		24.26	28.39	32.72	37.25	41.90		47.27	6 / 1			
reaction time	0.149	interval		3.49	3.61	3.73	3.86		4.01	4.13	4.33	4.53	4.65	5.37			10.83	12.00	13.51
		velocity	8.09	10.03	9.70	9.38	9.07		8.73	8.47	8.08	7.73	7.53	7.45	8.46		9.70	8.75	7.77
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2				
FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	23-Aug-23	time	5.67	9.33	12.80	16.45	20.26		24.28	28.39	32.78	37.33	41.98		47.34	8 / 2			
reaction time	0.151	interval		3.66	3.47	3.65	3.81		4.02	4.11	4.39	4.55	4.65	5.36			10.78	11.94	13.59
		velocity	7.94	9.56	10.09	9.59	9.19		8.71	8.52	7.97	7.69	7.53	7.46	8.45		9.74	8.79	7.73
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	17.7	158.7				
Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	21-Aug-23	time	5.73	9.46	13.06	16.63	20.53		24.56	28.67	33.01	37.52	42.17		47.72	8 / 1			
reaction time	0.168	interval		3.73	3.60	3.57	3.90		4.03	4.11	4.34	4.51	4.65	5.55			10.90	12.04	13.50
		velocity	7.85	9.38	9.72	9.80	8.97		8.68	8.52	8.06	7.76	7.53	7.21	8.38		9.63	8.72	7.78
H1 lead leg	L	strides	21	13	13	13	13		13	13	13	14	14	17	157				
Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	20-Aug-23	time	5.80	9.50		16.83		24.70	28.90	33.33	38.00	42.90		48.47	4 / 1				
reaction time	0.156	interval		3.70		7.33		7.87	4.20	4.43	4.67	4.90	5.57				11.03	12.07	14.00
		velocity	7.76	9.46		9.55		8.89	8.33	7.90	7.49	7.14	7.18	8.25			9.52	8.70	7.50
H1 lead leg	L	strides	21	13	13				13	14	14	14	17.2	119.2					
FINAL - 2023 P-T-S Meeting (Banská Bystrica, SVK) (TV Analysis)																	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>		
date	20-Jul-23	time	5.78	9.32	13.00	16.78	20.66		24.66	28.80	33.10	37.58	42.12		47.26	6 / 1			
reaction time	0.210	interval		3.54	3.68	3.78	3.88		4.00	4.14	4.30	4.48	4.54	5.14			11.00	12.02	13.32
		velocity	7.79	9.89	9.51	9.26	9.02		8.75	8.45	8.14	7.81	7.71	7.78	8.46		9.55	8.74	7.88
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	17.2	138.2				
FINAL - 2023 Bauhaus Galan (Stockholm, SWE)																	<i>Omega Timing (2023) - diamond league race analysis</i>		
date	02-Jul-23	time	5.66	9.33	13.08	16.92	20.94		25.08	29.37	33.82	38.44	43.20		48.94	7 / 2			
reaction time	0.147	interval		3.67	3.75	3.84	4.02		4.14	4.29	4.45	4.62	4.76	5.74			11.26	12.45	13.83
		velocity	7.95	9.54	9.33	9.11	8.71		8.45	8.16	7.87	7.58	7.35	6.97	8.17		9.33	8.43	7.59
H1 lead leg	L	strides	21	13		13	13		14	14	14	14	15	17.7	148.7				
FINAL - 2023 Meeting de Paris (Paris, FRA)																	<i>Omega Timing (2023) - diamond league race analysis</i>		
date	09-Jun-23	time	5.70	9.31	13.03	16.79	20.66		24.70	28.90	33.35	38.00	42.81		48.65	8 / 5			
reaction time	0.157	interval		3.61	3.72	3.76	3.87		4.04	4.20	4.45	4.65	4.81	5.84			11.09	12.11	13.91
		velocity	7.89	9.70	9.41	9.31	9.04		8.66	8.33	7.87	7.53	7.28	6.85	8.22		9.47	8.67	7.55
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	15	15	17.5	160.5				
FINAL - 2022 NACAC Championships (Freeport, BAH) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	21-Aug-22	time	5.60	9.23	13.03	16.87	20.77		24.80	28.86	33.06	37.43		47.34	6 / 1				
reaction time		interval		3.63	3.80	3.84	3.90		4.03	4.06	4.20	4.37		CR			11.27	11.99	
		velocity	8.04	9.64	9.21	9.11	8.97		8.68	8.62	8.33	8.01		8.45			9.32	8.76	
H1 lead leg	L	strides		13	13	13	13		13	13	13	14		105					
Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>		
date	16-Jul-22	time	5.73	9.43	13.33	17.23	21.33	23.07	25.53	29.97	34.60	39.40	44.36		49.98	4 / 4			
reaction time	0.157	interval		3.70	3.90	3.90	4.10		4.20	4.44	4.63	4.80	4.96	5.62			11.50	12.74	14.39

H1 lead leg	L	velocity	7.85	9.46	8.97	8.97	8.54	8.67	8.33	7.88	7.56	7.29	7.06	7.12	8.00	9.13	8.24	7.30	
		strides	21	13	13	13	13		13	14	14	14	15	17	160				
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	30-Jun-22	time	5.78	9.42	13.18	16.96	20.86	22.50	24.92	29.24	33.68	38.22	42.96		48.58	5 / 3			
reaction time	0.161	interval		3.64	3.76	3.78	3.90		4.06	4.32	4.44	4.54	4.74	5.62			11.18	12.28	13.72
		velocity	7.79	9.62	9.31	9.26	8.97	8.89	8.62	8.10	7.88	7.71	7.38	7.12	8.23		9.39	8.55	7.65
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	15	17.5	160.5				
FINAL - 2022 Doha Diamond League (Doha, QAT) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	13-May-22	time	5.70	9.37	13.18	17.28	21.52	23.3	25.89		34.93	39.57	44.28		49.93	3 / 4			
reaction time	0.208	interval		3.67	3.81	4.10	4.24		4.37		9.04	4.64	4.71	5.65			11.58		
		velocity	7.89	9.54	9.19	8.54	8.25	8.58	8.01		7.74	7.54	7.43	7.08	8.01		9.07		
H1 lead leg	L	strides	21	13	13	13	13		14		14	14	14	14	115				
FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-Sep-21	time	5.72		13.08	16.88	20.76	22.4	24.80	29.00	33.36	37.88	42.65		48.24	5 / 3			
reaction time	0.160	interval			7.36	3.80	3.88		4.04	4.20	4.36	4.52	4.77	5.59			11.16	12.12	13.65
		velocity	7.87		9.51	9.21	9.02	8.93	8.66	8.33	8.03	7.74	7.34	7.16	8.29		9.41	8.66	7.69
H1 lead leg	L	strides	21		13	13			13	14	14	14	14	17.5	133.5				
FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	03-Sep-21	time	5.76	9.40	13.20	17.04	21.00	22.7	25.12	29.40	33.68	38.16	42.96		48.31	5 / 2			
reaction time	0.176	interval		3.64	3.80	3.84	3.96		4.12	4.28	4.28	4.48	4.80	5.35			11.28	12.36	13.56
		velocity	7.81	9.62	9.21	9.11	8.84	8.81	8.50	8.18	8.18	7.81	7.29	7.48	8.28		9.31	8.50	7.74
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	15	17.5	159.5				
FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	03-Aug-21	time	5.68	9.24	12.96	16.72	20.60		24.60	28.86	33.20	37.60	41.96		47.08	4 / 4			
reaction time	0.157	interval		3.56	3.72	3.76	3.88		4.00	4.26	4.34	4.40	4.36	5.12	NR PB		11.04	12.14	13.10
		velocity	7.92	9.83	9.41	9.31	9.02		8.75	8.22	8.06	7.95	8.03	7.81	8.50		9.51	8.65	8.02
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	14	17	158				
FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	04-Jul-21	time	5.60	9.08	12.76	16.52	20.36	22.1	24.32	28.44	32.80	37.68	42.84		dnf	6 / --			
reaction time	0.177	interval		3.48	3.68	3.76	3.84		3.96	4.12	4.36	4.88	5.16				10.92	11.92	14.40
		velocity	8.04	10.06	9.51	9.31	9.11	9.05	8.84	8.50	8.03	7.17	6.78				9.62	8.81	7.29
H1 lead leg	L	strides		13	13	13	13		13	13	14	15	15		122				
FINAL - 2021 USATF Golden Games (Walnut, CA) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	09-May-21	time	5.80	9.41	13.18	17.02	20.92		24.96	29.19	33.53	37.97	42.47		47.50	6 / 2			
reaction time		interval		3.61	3.77	3.84	3.90		4.04	4.23	4.34	4.44	4.50	5.03	NR PB		11.22	12.17	13.28
		velocity	7.76	9.70	9.28	9.11	8.97		8.66	8.27	8.06	7.88	7.78	7.95	8.42		9.36	8.63	7.91
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	14	16.7	156.7				
FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	28-May-21	time	5.70	9.37	13.21	17.15	21.19	22.9	25.31	29.53	33.87	38.24	42.64		47.82	3 / 3			
reaction time	0.199	interval		3.67	3.84	3.94	4.04		4.12	4.22	4.34	4.37	4.40	5.18			11.45	12.38	13.11
		velocity	7.89	9.54	9.11	8.88	8.66	8.73	8.50	8.29	8.06	8.01	7.95	7.72	8.36		9.17	8.48	8.01
H1 lead leg	R	strides	20	13	13	13			13	13	14	14	14	17	144				
FINAL - 2019 IAAF World Championships (Doha, QAT)																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	30-Sep-19	time	5.75	9.33	13.02	16.78	20.64		24.67	28.85	33.25	37.72	42.49		48.10	2 / 4			
reaction time	0.171	interval		3.58	3.69	3.76	3.86		4.03	4.18	4.40	4.47	4.77	5.61			11.03	12.07	13.64
		velocity	7.83	9.78	9.49	9.31	9.07		8.68	8.37	7.95	7.83	7.34	7.13	8.32		9.52	8.70	7.70
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	18.2	160.2				
Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>			
date	28-Sep-19	time	5.88	9.76	13.51	17.29	21.19		25.24	29.42	33.85	38.35	42.97		48.40	5 / 3			
reaction time	0.229	interval		3.88	3.75	3.78	3.90		4.05	4.18	4.43	4.50	4.62	5.43			11.41	12.13	13.55
		velocity	7.65	9.02	9.33	9.26	8.97		8.64	8.37	7.90	7.78	7.58	7.37	8.26		9.20	8.66	7.75
H1 lead leg	L	strides	21	13	13	13	13		13	13	14	14	14	18	159				
FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	29-Aug-19	time	5.72	9.36	13.06	16.76	20.62	22.3	24.64	28.88	33.30	37.98	42.80		48.58	6 / 3			
reaction time	0.177	interval		3.64	3.70	3.70	3.86		4.02	4.24	4.42	4.68	4.82	5.78			11.04	12.12	13.92
		velocity	7.87	9.62	9.46	9.46	9.07	8.97	8.71	8.25	7.92	7.48	7.26	6.92	8.23		9.51	8.66	7.54
H1 lead leg	L	strides	21	13	13	13	13		13	14	14		15		129				
FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	24-Aug-19	time	5.78	9.48	13.24	17.02	20.92	22.6	24.92	29.12	33.44	38.00	42.72		48.33	8 / 3			
reaction time	0.172	interval		3.70	3.76	3.78	3.90		4.00	4.20	4.32	4.56	4.72	5.61			11.24	12.10	13.60
		velocity	7.79	9.46	9.31	9.26	8.97	8.85	8.75	8.33	8.10	7.68	7.42	7.13	8.28		9.34	8.68	7.72
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	18	160				
FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	20-Jul-19	time	5.88												dnf	6 / --			

reaction time 0.190 interval
velocity 7.65
H1 lead leg L strides 21

FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)

date	30-Jun-19	time	5.93	9.60	13.50	17.53	21.56	25.70	30.00	34.33	38.86	43.40	48.94	6 / 2			
reaction time	0.268	interval		3.67	3.90	4.03	4.03	4.14	4.30	4.33	4.53	4.54	5.54		11.60	12.47	13.40
		velocity	7.59	9.54	8.97	8.68	8.68	8.45	8.14	8.08	7.73	7.71	7.22	8.17	9.05	8.42	7.84
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17.5	159.5			

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)

date	13-Jun-19	time	5.68	9.24	12.88	16.66	20.61	22.3	24.74	29.01	33.45	38.03	43.00	49.12	6 / 3			
reaction time	0.219	interval		3.56	3.64	3.78	3.95	4.13	4.27	4.44	4.58	4.97	6.12		10.98	12.35	13.99	
		velocity	7.92	9.83	9.62	9.26	8.86	8.97	8.47	8.20	7.88	7.64	7.04	6.54	8.14	9.56	8.50	7.51
H1 lead leg	R	strides	20	13	12	13	13	13	13	14	14	14	15	18	159			

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)

date	08-Sep-18	time	5.80	9.52	13.28	17.20	21.28	25.44	29.76	34.56	40.00		52.62	5 / 8			
reaction time	0.166	interval		3.72	3.76	3.92	4.08	4.16	4.32	4.80	5.44				11.40	12.56	
		velocity	7.76	9.41	9.31	8.93	8.58	8.41	8.10	7.29	6.43		7.60		9.21	8.36	
H1 lead leg	R	strides	20	13	12	13	13	13	13	14	15	15	141				

Henson (2021) - Athlete First: 2018 year end hurdle report

FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)

date	30-Aug-18	time	5.80	9.50	13.30	21.16	22.9	25.24	29.44	33.84	38.32	42.88	48.08	3 / 1				
reaction time	0.178	interval		3.70	3.80	7.86	4.08	4.20	4.40	4.48	4.56	5.20					13.44	
		velocity	7.76	9.46	9.21	8.91	8.73	8.58	8.33	7.95	7.81	7.68	7.69	8.32				7.81
H1 lead leg	L	strides	20	13	13			13	13	14	14	14	17	131				

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)

date	05-Jul-18	time	5.60	9.16	12.76	16.48								dnf	4 / --			
reaction time	0.162	interval		3.56	3.60	3.72											10.88	
		velocity	8.04	9.83	9.72	9.41												9.65
H1 lead leg	L	strides	21	13	13	13								60				

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)

date	30-Jun-18	time	5.64	9.24	12.88	16.64	20.48	22.2	24.48	28.64	32.96	37.44	42.04	47.54	6 / 2				
reaction time	0.183	interval		3.60	3.64	3.76	3.84	4.00	4.16	4.32	4.48	4.48	4.60	5.50	NR PB		11.00	12.00	13.40
		velocity	7.98	9.72	9.62	9.31	9.11	9.01	8.75	8.41	8.10	7.81	7.61	7.27	8.41		9.55	8.75	7.84
H1 lead leg	R	strides	20	12	13	13	13	13	13	13	14	14	14	17	156				

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)

date	04-May-18	time	5.92	9.68	13.52	17.44	21.48	25.64	30.00	34.52	39.12	43.84	49.46	5 / 3			
reaction time	0.215	interval		3.76	3.84	3.92	4.04	4.16	4.36	4.52	4.60	4.72	5.62		11.52	12.56	13.84
		velocity	7.60	9.31	9.11	8.93	8.66	8.41	8.03	7.74	7.61	7.42	7.12	8.09	9.11	8.36	7.59
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	14	17	146				

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2018 Commonwealth Games (Gold Coast, AUS) (TV Analysis)

date	12-Apr-18	time	5.94	9.67	13.41	17.28	21.25	25.36	29.56	33.93	38.44	43.04	48.25	5 / 1			
reaction time	0.156	interval		3.73	3.74	3.87	3.97	4.11	4.20	4.37	4.51	4.60	5.21		11.34	12.28	13.48
		velocity	7.58	9.38	9.36	9.04	8.82	8.52	8.33	8.01	7.76	7.61	7.68	8.29	9.26	8.55	7.79
H1 lead leg	L	strides	21	13	13	13	13	13	13	14	14	14	17	158			

Henson (2020) - Athlete First: 2018 year end hurdle report

FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)

date	24-Aug-17	time	5.72	9.42	13.16	21.00	25.08	29.32	33.76	38.24	42.88	48.07	4 / 1					
reaction time	0.153	interval		3.70	3.74	7.84	4.08	4.24	4.44	4.48	4.64	5.19					13.56	
		velocity	7.87	9.46	9.36	8.93	8.58	8.25	7.88	7.81	7.54	7.71	8.32					7.74
H1 lead leg	R	strides	20	13	13		13	13	14	14	14	17.2	131.2					

Henson (2020) - Athlete First: 2017 year end hurdle report

FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)

date	09-Jul-17	time	5.76	9.32	13.04	16.72	20.60	24.68	28.96	33.36	37.92	42.76	48.12	6 / 2			
reaction time	0.164	interval		3.56	3.72	3.68	3.88	4.08	4.28	4.40	4.56	4.84	5.36		10.96	12.24	13.80
		velocity	7.81	9.83	9.41	9.51	9.02	8.58	8.18	7.95	7.68	7.23	7.46	8.31	9.58	8.58	7.61
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	14	15	18	160			

Henson (2020) - Athlete First: 2017 year end hurdle report

FINAL - 2017 Jamaica International Invitational (Kingston, JAM) (TV Analysis)

date	20-May-17	time		9.51	13.28	17.08	21.02	24.99	29.13	33.43	37.90	47.80	5 / 1					
reaction time		interval		3.77	3.80	3.94	3.97	4.14	4.30	4.47		NR PB					12.05	
		velocity		8.41	9.28	9.21	8.88	8.82	8.45	8.14	7.83	8.37						8.71
H1 lead leg	R	strides		13	13	13	13	13	13	14	14	14	107					

Henson (2020) - Athlete First: 2017 year end hurdle report

Melero, Julio (ESP) (1972)

date	02-Aug-98	time	6.07	10.16	14.27	18.50	22.86	27.34	31.86	36.55	41.29	46.08	52.08	4 / 5					
reaction time		interval		4.09	4.11	4.23	4.36	4.48	4.52	4.69	4.74	4.79	6.00				12.43	13.36	14.22
		velocity	7.41	8.56	8.52	8.27	8.03	7.81	7.74	7.46	7.38	7.31	6.67	7.68	8.45	7.86	7.38		
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	18	170					

Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Melnykov, Stanislav (UKR) (1987)																		
FINAL - 2010 European Championships (Barcelona, ESP)															<i>Behm (2010) - les haies bases</i>			
date	31-Jul-10	time	6.1	9.9	13.7	17.5	21.5	25.7	29.9	34.4	39.0	43.7		49.09	6 / 3			
reaction time	0.314	interval		3.80	3.80	3.80	4.00	4.20	4.20	4.50	4.60	4.70	5.39			11.40	12.40	13.80
		velocity	7.38	9.21	9.21	9.21	8.75	8.33	8.33	7.78	7.61	7.45	7.42	8.15		9.21	8.47	7.61
H1 lead leg	R	strides	21	13	13	13	14	14	14	14	15	15	18	164				
Meng Yan (CHN) (1980)																		
FINAL - 2006 Asian Grand Prix (Bengaluru, IND)															<i>Meng (2009) - a comparative study on rhythm changes between hurdles of chinese and foreign 400m hurdlers</i>			
date	22-May-06	time	5.85	9.60	13.47	17.52	21.62	25.87	30.25	34.70	39.20	43.83		49.03	/ 1			
reaction time		interval		3.75	3.87	4.05	4.10	4.25	4.38	4.45	4.50	4.63	5.20	NR PB		11.67	12.73	13.58
		velocity	7.69	9.33	9.04	8.64	8.54	8.24	7.99	7.87	7.78	7.56	7.69	8.16		9.00	8.25	7.73
H1 lead leg		strides	21	13	13	13	13	13	14	14	15	15	18	162				
Melviev, Malik (CAN) (1998)																		
FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)															<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	11-Jun-21	time	5.90	9.57		17.33	21.35	25.60	30.17	34.77	39.43	44.10		49.26	4 / 5			
reaction time	0.144	interval		3.67		7.76	4.02	4.25	4.57	4.60	4.66	4.67	5.16	PB		11.43	12.84	13.93
		velocity	7.63	9.54		9.02	8.71	8.24	7.66	7.61	7.51	7.49	7.75	8.12		9.19	8.18	7.54
H1 lead leg	R	strides	22	13		13	13	14	14	15	15	15	18.2	139.2				
Mfomkpa, Alain-Hervé (SUI) (1996)																		
FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>			
date	06-Jul-17	time	6.04	9.80	13.72	17.64	21.68	25.96	30.36	35.04	40.00	45.24		51.45	1 / 8			
reaction time	0.156	interval		3.76	3.92	3.92	4.04	4.28	4.40	4.68	4.96	5.24	6.21			11.60	12.72	14.88
		velocity	7.45	9.31	8.93	8.93	8.66	8.18	7.95	7.48	7.06	6.68	6.44	7.77		9.05	8.25	7.06
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	16	16	146				
FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>			
date	25-Aug-16	time	5.96	9.83	13.73	17.73	22.10	26.47	30.93	35.67	40.57		51.58	8 / 6				
reaction time	0.182	interval		3.87	3.90	4.00	4.37	4.37	4.46	4.74	4.90					11.77	13.20	
		velocity	7.55	9.04	8.97	8.75	8.01	8.01	7.85	7.38	7.14			7.75		8.92	7.95	
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15			133				
Michishita, Koya (JPN) (1998)																		
FINAL - 2016 Japanese National High School Championships (Okayama, JPN)															<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>			
date	31-Jul-16	time	6.31	10.56	14.80	19.22	23.69	28.28	32.97	37.65	42.43	47.26		52.60	5 / 3			
reaction time	0.168	interval		4.25	4.24	4.42	4.47	4.59	4.69	4.68	4.78	4.83	5.34			12.91	13.75	14.29
		velocity	7.13	8.24	8.25	7.92	7.83	7.63	7.46	7.48	7.32	7.25	7.49	7.60		8.13	7.64	7.35
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				
Mikolajewski, Gabriel (POL) (1999)																		
FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>			
date	08-Sep-20	time	6.14	10.04	14.14	18.12			31.13	35.97	40.84		51.42	3 / 6				
reaction time	0.145	interval		3.90	4.10	3.98			13.01	4.84	4.87					11.98	13.01	
		velocity	7.33	8.97	8.54	8.79			8.07	7.23	7.19			7.78		8.76	8.07	
H1 lead leg	L	strides	21	14		14	14					15		78				
Minato, Ozora (JPN) (1997)																		
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)															<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>			
date	31-Jul-15	time	6.47	10.53	14.70	18.85	23.16	27.66	32.45	37.60	43.04	48.43		54.55	2 / 8			
reaction time		interval		4.06	4.17	4.15	4.31	4.50	4.79	5.15	5.44	5.39	6.12			12.38	13.60	15.98
		velocity	6.96	8.62	8.39	8.43	8.12	7.78	7.31	6.80	6.43	6.49	6.54	7.33		8.48	7.72	6.57
H1 lead leg		strides		15	15	15	15	17	17	16	17	17	17	144				
Mituyana, Haruki (JPN) (2005)																		
FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)															<i>Kishima (2022) - national high school championships biomechanics data collection</i>			
date	03-Jun-23	time	6.21	10.16	14.16	18.27	22.56	27.03	31.73	36.77	42.14	47.58		53.52	2 / 7			
reaction time	0.234	interval		3.95	4.00	4.11	4.29	4.47	4.70	5.04	5.37	5.44	5.94			12.06	13.46	15.85
		velocity	7.25	8.86	8.75	8.52	8.16	7.83	7.45	6.94	6.52	6.43	6.73	7.47		8.71	7.80	6.62
H1 lead leg	L	strides	21	14	14	14	14	15	15	17	17	17	20	178				
Miyako, Kohei (JPN) (1997)																		
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)															<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>			
date	29-Jun-19	time	6.17	10.08	14.20	18.32	22.56	26.96	31.53	36.10	40.82	45.88		51.37	9 / 8			
reaction time	0.149	interval		3.91	4.12	4.12	4.24	4.40	4.57	4.72	4.72	5.06	5.49			12.15	13.21	14.35
		velocity	7.29	8.95	8.50	8.50	8.25	7.95	7.66	7.66	7.42	6.92	7.29	7.79		8.64	7.95	7.32
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	15	157				
Miyazaki, Takumi (JPN) (2001)																		
FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)															<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data</i>			
date	06-Aug-19	time	6.37	10.61	14.96	19.38	23.92	28.60	33.15	37.91	42.80	47.69		53.26	2 / 5			
reaction time		interval		4.24	4.35	4.42	4.54	4.68	4.55	4.76	4.89	4.89	5.57			13.01	13.77	14.54
		velocity	7.06	8.25	8.05	7.92	7.71	7.48	7.69	7.35	7.16	7.16	7.18	7.51		8.07	7.63	7.22
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	15	135				
Miyoshi, Ren (JPN) (1998)																		
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)																		

FINAL - 2016 Japanese National High School Championships (Okayama, JPN)

date	31-Jul-16	time	6.33	10.36	14.48	18.72	23.11	27.63	32.33	37.30	42.39	47.60	53.42	6 / 8			
reaction time	0.200	interval		4.03	4.12	4.24	4.39	4.52	4.70	4.97	5.09	5.21	5.82	12.39	13.61	15.27	
		velocity	7.11	8.68	8.50	8.25	7.97	7.74	7.45	7.04	6.88	6.72	6.87	7.49	8.47	7.71	6.88
H1 lead leg		strides		15	15	15	15	15	15	17	17	17	17	141			

*Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data***Mizuguchi, Kai (JPN) (2001)****B FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)**

date	25-Oct-20	time	6.41	10.64	14.96	19.34	23.89	28.81	34.03	39.37	44.94	50.53	56.84	2 / 4			
reaction time	0.198	interval		4.23	4.32	4.38	4.55	4.92	5.22	5.34	5.57	5.59	6.31	12.93	14.69	16.50	
		velocity	7.02	8.27	8.10	7.99	7.69	7.11	6.70	6.55	6.28	6.26	6.34	7.04	8.12	7.15	6.36
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	17	16	155				

*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season***Mizuno, Tatsuhiko (JPN) (1990)****FINAL - 2008 Japanese National High School Championships (Kumagaya, JPN)**

date	31-Jul-08	time	6.14	10.08	14.20	18.33	22.61	27.12	31.69	36.27	40.96	45.72	51.41	/ 2			
reaction time		interval		3.94	4.12	4.13	4.28	4.51	4.57	4.58	4.69	4.76	5.69	12.19	13.36	14.03	
		velocity	7.33	8.88	8.50	8.47	8.18	7.76	7.66	7.64	7.46	7.35	7.03	7.78	8.61	7.86	7.48
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131				

*Abe (2008) - 61st high school championships: JAF scientific committee- biomechanics data***Monreal, Íñigo (ESP) (1974)****Heat 8 - 2000 Olympic Games (Sydney, AUS)**

date	24-Sep-00	time	6.18	9.94	13.86	17.90	22.02	26.30	30.74	35.58	40.66	45.90	51.32	5 / 4			
reaction time	0.502	interval		3.76	3.92	4.04	4.12	4.28	4.44	4.84	5.08	5.24	5.42	11.72	12.84	15.16	
		velocity	7.28	9.31	8.93	8.66	8.50	8.18	7.88	7.23	6.89	6.68	7.38	7.79	8.96	8.18	6.93
H1 lead leg		strides	20	13	13	13	13	13	14	15	15	15	144				

*Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games***FINAL - 1998 Spanish National Championships (San Sebastián, ESP)**

date	02-Aug-98	time	6.00	9.99	14.04	18.19	22.47	26.95	31.27	35.78	40.41	44.99	50.49	6 / 1			
reaction time		interval		3.99	4.05	4.15	4.28	4.48	4.32	4.51	4.63	4.58	5.50	12.19	13.08	13.72	
		velocity	7.50	8.77	8.64	8.43	8.18	7.81	8.10	7.76	7.56	7.64	7.27	7.92	8.61	8.03	7.65
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17	156			

*Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas***Monteiro, Edivaldo (POR) (1976)****Heat 3 - 2002 European Championships (Munich, GER)**

date	07-Aug-02	time	6.20	10.17	14.07	17.96	22.05	26.31	30.64	36.24	39.81	44.44	49.64	/ 2			
reaction time		interval		3.97	3.90	3.89	4.09	4.26	4.33	5.60	3.57	4.63	5.20	11.76	12.68	13.80	
		velocity	7.26	8.82	8.97	9.00	8.56	8.22	8.08	6.25	9.80	7.56	7.69	8.06	8.93	8.28	7.61
H1 lead leg		strides															

*Graubner (2009) - http://www.fgs.uni-halle.de***Moore, Charlie (USA) (1929)****FINAL - 1952 Olympic Games (Helsinki, FIN)**

date	21-Jul-52	time	6.2	10.3	14.4	18.6	22.7	27.3	31.9	36.5	41.1	45.4	50.8	6 / 1				
reaction time		interval		4.10	4.10	4.20	4.10	4.60	4.60	4.60	4.60	4.30	5.40	=OR	12.40	13.30	13.50	
		velocity	7.26	8.54	8.54	8.33	8.54	7.61	7.61	7.61	7.61	8.14	7.41	7.87	(51.06)	8.47	7.89	7.78
H1 lead leg		strides																

*Mitchell (1967) - future of the one-lap hurdles***Moritaka, Sojiro (JPN) (2003)****FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)**

date	11-Jun-22	time	6.11	10.13	14.20	18.35	22.56	26.92	31.40	36.02	40.61	45.38	50.71	8 / 2			
reaction time	0.216	interval		4.02	4.07	4.15	4.21	4.36	4.48	4.62	4.59	4.77	5.33	PB	12.24	13.05	13.98
		velocity	7.36	8.71	8.60	8.43	8.31	8.03	7.81	7.58	7.63	7.34	7.50	7.89	8.58	8.05	7.51
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	16	20	174			

*Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season***Morale, Salvatore (ITA) (1938)****FINAL - 1964 Olympic Games (Tokyo, JPN)**

date	16-Oct-64	time	5.8		13.8		22.0		30.8		40.0		50.1	8 / 3
reaction time		interval			8.00		8.20		8.80		9.20		10.10	
		velocity	7.76		8.75		8.54		7.95		7.61		7.43	7.98
H1 lead leg		strides												

*Breitschaft (1965) - die leichtathletik wettkampe der 1964 olympischen sommerspielen - 400m hürdenlauf***FINAL - 1962 European Championships (Belgrad, YUG)**

date	14-Sep-62	time	6.0	9.9	14.0	18.0	22.1	26.4	30.8	35.2	39.5	44.1	49.2	/ 1			
reaction time		interval		3.90	4.10	4.00	4.10	4.30	4.40	4.40	4.30	4.60	5.10	=WR	12.00	12.80	13.30
		velocity	7.50	8.97	8.54	8.75	8.54	8.14	7.95	7.95	8.14	7.61	7.84	8.13	8.75	8.20	7.89
H1 lead leg		strides															

*Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf***FINAL - 1961 International Fall Meeting (Rome, ITA)**

date	15-Oct-61	time	5.8	9.8	13.8	17.8	21.8	23.4	26.0	30.2	34.6	39.6	44.4	49.7	6 / 1				
reaction time		interval		4.00	4.00	4.00	4.00	4.20	4.20	4.40	4.40	5.00	4.80	5.30	AR	12.00	12.40	14.20	
		velocity	7.76	8.75	8.75	8.75	8.75	8.55	8.33	8.33	7.95	7.00	7.29	7.55	8.05	(50.1y)	8.75	8.47	7.39
H1 lead leg		strides																	

*Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf***FINAL - 1961 Universiade (Sofia, BUL)**

date	01-Sep-61	time	5.8	9.8	13.9	18.2	22.5	26.8	31.1	35.5	40.0	44.7	50.0	/ 1			
reaction time		interval		4.00	4.10	4.30	4.30	4.30	4.30	4.40	4.50	4.70	5.30	NR	12.40	12.90	13.60
		velocity	7.76	8.75	8.54	8.14	8.14	8.14	8.14	7.95	7.78	7.45	7.55	8.00	8.47	8.14	7.72
H1 lead leg		strides															

Nett (1964) - Training des leichtathleten: Hürdenlauf, sprung, wurf, mehrkampf

H1 lead leg strides

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Morgan, Dinsdale (JAM) (1972)																			
Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	25-Sep-00	time	5.86	9.54	13.34	17.30	21.42	23.02	25.70	30.02	34.70	39.46	44.42	50.23	2 / 7				
reaction time	0.166	interval	3.68	3.80	3.96	4.12		4.28	4.32	4.68	4.76	4.96	5.81			11.44	12.72	14.40	
		velocity	7.68	9.51	9.21	8.84	8.50	8.69	8.18	8.10	7.48	7.35	7.06	6.88		7.96	9.18	8.25	7.29
H1 lead leg		strides	22	14	14	14	14		14	15	15	15	16	19	172				
Heat 3 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	5.90	9.66	13.54	17.54	21.66		25.94	30.34	34.86	39.42	44.14	49.64	6 / 2				
reaction time	0.171	interval	3.76	3.88	4.00	4.12		4.28	4.40	4.52	4.56	4.72	5.50			11.64	12.80	13.80	
		velocity	7.63	9.31	9.02	8.75	8.50		8.18	7.95	7.74	7.68	7.42	7.27		8.06	9.02	8.20	7.61
H1 lead leg		strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
FINAL - 1999 IAAF World Championships (Sevilla, ESP)																			
<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																			
date	27-Aug-99	time	5.46	9.27	12.98	16.90	20.94		25.07	29.42	33.81	38.33	43.09	48.92	2 / 7				
reaction time	0.164	interval	3.81	3.71	3.92	4.04		4.13	4.35	4.39	4.52	4.76	5.83			11.44	12.52	13.67	
		velocity	8.24	9.19	9.43	8.93	8.66		8.47	8.05	7.97	7.74	7.35	6.86		8.18	9.18	8.39	7.68
H1 lead leg	L	strides	22	14	14	14	14		14	15	15	15	16	18.5	171.5				
Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)																			
<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																			
date	25-Aug-99	time	5.58	9.34	13.14	17.06	21.17		25.30	29.62	34.05	38.45	43.12	48.71	3 / 5				
reaction time	0.179	interval	3.76	3.80	3.92	4.11		4.13	4.32	4.43	4.40	4.67	5.59			11.48	12.56	13.50	
		velocity	8.06	9.31	9.21	8.93	8.52		8.47	8.10	7.90	7.95	7.49	7.16		8.21	9.15	8.36	7.78
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.5	169.5				
FINAL - 1997 IAAF World Championships (Athens, GRE)																			
<i>Hommel (1999) - biomechanical research project, athens 1997: final report</i>																			
date	04-Aug-97	time	5.96	9.68	13.52	17.45	21.48		25.56	29.86	34.32	38.96	43.70	49.06	7 / 7				
reaction time	0.152	interval	3.72	3.84	3.93	4.03		4.08	4.30	4.46	4.64	4.74	5.36			11.49	12.41	13.84	
		velocity	7.55	9.41	9.11	8.91	8.68		8.58	8.14	7.85	7.54	7.38	7.46		8.15	9.14	8.46	7.59
H1 lead leg		strides																	
Mori, Fabrizio (ITA) (1969)																			
FINAL - 2002 European Championships (Munich, GER)																			
<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																			
date	09-Aug-02	time	6.24	10.16	14.14	18.20	22.22		26.36	30.64	35.02	39.42	43.88	49.05	1 / 4				
reaction time	0.133	interval	3.92	3.98	4.06	4.02		4.14	4.28	4.38	4.40	4.46	5.17			11.96	12.44	13.24	
		velocity	7.21	8.93	8.79	8.62	8.71		8.45	8.18	7.99	7.95	7.85	7.74		8.15	8.78	8.44	7.93
H1 lead leg		strides																	
Semi-Final 1 - 2002 European Championships (Munich, GER)																			
<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																			
date	08-Aug-02	time	6.17	9.99	13.82	17.66	21.65		25.77	30.16	34.37	38.83	43.43	48.70	1 / 3				
reaction time		interval	3.82	3.83	3.84	3.99		4.12	4.39	4.21	4.46	4.60	5.27			11.49	12.50	13.27	
		velocity	7.29	9.16	9.14	9.11	8.77		8.50	7.97	8.31	7.85	7.61	7.59		8.21	9.14	8.40	7.91
H1 lead leg		strides																	
Heat 1 - 2002 European Championships (Munich, GER)																			
<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																			
date	07-Aug-02	time	6.37	10.33	14.29	18.25	22.28		26.41	30.85	35.82	39.49	43.99	49.20	1 / 2				
reaction time		interval	3.96	3.96	3.96	4.03		4.13	4.44	4.97	3.67	4.50	5.21			11.88	12.60	13.14	
		velocity	7.06	8.84	8.84	8.84	8.68		8.47	7.88	7.04	9.54	7.78	7.68		8.13	8.84	8.33	7.99
H1 lead leg		strides																	
FINAL - 2001 IAAF World Championships (Edmonton, CAN)																			
<i>Behm (2001) - Edmonton: Le quatrache: les finales</i>																			
date	10-Aug-01	time	5.9	9.7	13.5	17.3	21.2		25.2	29.3	33.6	36.9	42.3	47.54	4 / 2				
reaction time	0.158	interval	3.80	3.80	3.80	3.90		4.00	4.10	4.30	3.30	5.40	5.24			NR / PB	11.40	12.00	13.00
		velocity	7.63	9.21	9.21	9.21	8.97		8.75	8.54	8.14	10.61	6.48	7.63		8.41	9.21	8.75	8.08
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	19	170				
FINAL - 2001 European Cup (Bremen, GER)																			
<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																			
date	23-Jun-01	time	6.13	9.95	13.76	17.72	21.71		25.70	30.00	34.34	38.80	43.30	49.39	1 / 1				
reaction time		interval	3.82	3.81	3.96	3.99		3.99	4.30	4.34	4.46	4.50	6.09			11.59	12.28	13.30	
		velocity	7.34	9.16	9.19	8.84	8.77		8.77	8.14	8.06	7.85	7.78	6.57		8.10	9.06	8.55	7.89
H1 lead leg		strides																	
FINAL - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	27-Sep-00	time	6.10	9.94	13.66	17.46	21.46	22.90	25.54	29.70	34.06	38.54	43.22	48.78	3 / 7				
reaction time	0.198	interval	3.84	3.72	3.80	4.00		4.08	4.16	4.36	4.48	4.68	5.56			11.36	12.24	13.52	
		velocity	7.38	9.11	9.41	9.21	8.75	8.73	8.58	8.41	8.03	7.81	7.48	7.19		8.20	9.24	8.58	7.77
H1 lead leg		strides	22	14	14	14	14		14	14	15	15	15	18.5	169.5				
Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	25-Sep-00	time	6.14	10.10	13.90	17.82	21.82	23.42	25.98	30.14	34.50	38.90	43.34	48.40	4 / 2				
reaction time		interval	3.96	3.80	3.92	4.00		4.16	4.16	4.36	4.40	4.44	5.06			11.68	12.32	13.20	
		velocity	7.33	8.84	9.21	8.93	8.75	8.54	8.41	8.41	8.03	7.95	7.88	7.91		8.26	8.99	8.52	7.95
H1 lead leg		strides	22	14	14	14	14		14	14	15	15	15	19	170				
Heat 2 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

date	24-Sep-00	time	6.22	10.06	13.94	17.86	21.94	26.06	34.86	39.38	43.98	49.35	5 / 1
reaction time	0.162	interval		3.84	3.88	3.92	4.08	4.12	8.05	4.52	4.60	5.37	11.64
		velocity	7.23	9.11	9.02	8.93	8.58	8.50	8.70	7.74	7.61	7.45	8.11
H1 lead leg		strides	22	14	14	14	14	14	14	15	15	15	18.3

FINAL - 1999 IAAF World Championships (Sevilla, ESP)

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date	27-Aug-99	time	5.62	9.36	13.12	16.96	20.89	24.92	29.06	33.34	37.68	42.16	47.72	3 / 1
reaction time	0.157	interval		3.74	3.76	3.84	3.93	4.03	4.14	4.28	4.34	4.48	5.56	NR PB
		velocity	8.01	9.36	9.31	9.11	8.91	8.68	8.45	8.18	8.06	7.81	7.19	8.38
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169

Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date	25-Aug-99	time	5.78	9.51	13.31	17.21	21.10	25.14	29.39	33.74	38.12	42.64	48.29	5 / 2
reaction time	0.164	interval		3.73	3.80	3.90	3.89	4.04	4.25	4.35	4.38	4.52	5.65	11.43
		velocity	7.79	9.38	9.21	8.97	9.00	8.66	8.24	8.05	7.99	7.74	7.08	8.28
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169

Heat 3 - 1999 IAAF World Championships (Sevilla, ESP)

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date	24-Aug-99	time	5.96	9.84	13.78	17.68	21.72	25.92	30.22	34.70	39.11	43.59	49.07	6 / 1
reaction time	0.152	interval		3.88	3.94	3.90	4.04	4.20	4.30	4.48	4.41	4.48	5.48	11.72
		velocity	7.55	9.02	8.88	8.97	8.66	8.33	8.14	7.81	7.94	7.81	7.30	8.15
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169

FINAL - 1998 European Championships (Budapest, HUN)

Behm (1998) - analyse et commentaires: le 400m haies: Pavel la surprise!

date	20-Aug-98	time	6.2	10.3	14.2	18.1	22.2	26.3	30.4	34.6	38.9	43.4	48.71	7 / 3
reaction time		interval		4.1	3.9	3.9	4.1	4.1	4.1	4.2	4.3	4.5	5.31	11.90
		velocity	7.26	8.54	8.97	8.97	8.54	8.54	8.54	8.33	8.14	7.78	7.53	8.21
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5

FINAL - 1997 IAAF World Championships (Athens, GRE)

Hommel (1999) - biomechanical research project, athens 1997: final report

date	04-Aug-97	time	6.14	10.02	13.78	17.72	21.72	25.85	30.04	34.40	38.78	43.18	48.05	4 / 4
reaction time	0.156	interval		3.88	3.76	3.94	4.00	4.13	4.19	4.36	4.38	4.40	4.87	NR
		velocity	7.33	9.02	9.31	8.88	8.75	8.47	8.35	8.03	7.99	7.95	8.21	8.32
H1 lead leg		strides												

FINAL - 1997 European Cup (Munich, GER)Jung (2003) - <http://www.fgs.uni-halle.de>

date	21-Jun-97	time	6.22	10.15	14.12	18.24	22.36	26.67	31.00	35.34	39.71	44.11	48.93	1 / 1
reaction time		interval		3.93	3.97	4.12	4.12	4.31	4.33	4.34	4.37	4.40	4.82	12.02
		velocity	7.23	8.91	8.82	8.50	8.50	8.12	8.08	8.06	8.01	7.95	8.30	8.17
H1 lead leg		strides												

FINAL - 1996 Olympic Games (Atlanta, GA)

Behm (1996) - 400m haies

date	01-Aug-96	time	6.0	10.0	14.0	17.9	21.9	26.0	30.1	34.4	38.8	43.4	48.41	7 / 6
reaction time	0.192	interval		4.00	4.00	3.90	4.00	4.10	4.10	4.30	4.40	4.60	5.01	11.90
		velocity	7.50	8.75	8.75	8.97	8.75	8.54	8.54	8.14	7.95	7.61	7.98	8.26
H1 lead leg		strides	21	14	14	14	14	14	14	15	15	15	150	8.82

FINAL - 1991 European Cup (Frankfurt, GER)Federle (2003) - <http://www.fgs.uni-halle.de>

date	29-Jun-91	time	6.43	10.33	14.28	18.27	22.35	26.60	31.01	35.38	40.01	44.65	49.76	1 / 3
reaction time		interval		3.90	3.95	3.99	4.08	4.25	4.41	4.37	4.63	4.64	5.11	11.84
		velocity	7.00	8.97	8.86	8.77	8.58	8.24	7.94	8.01	7.56	7.54	7.83	8.04
H1 lead leg		strides												8.87

Morioka, Yuuki (JPN) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

date	11-Jun-22	time	6.36	10.41	14.51	18.77	23.10	27.48	32.00	36.74	41.39	46.15	51.43	5 / 5
reaction time	0.208	interval		4.05	4.10	4.26	4.33	4.38	4.52	4.74	4.65	4.76	5.28	12.41
		velocity	7.08	8.64	8.54	8.22	8.08	7.99	7.74	7.38	7.53	7.35	7.58	7.78
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18.7	169.7

FINAL - 2021 Japanese High School National Championships (Fukui, JPN)

Shibayama (2021) - national high school and U20 national championships

date	30-Jul-21	time	6.37	10.64	15.18	19.65	24.27	28.95	33.65	38.41	43.16	47.95	53.10	7 / 4
reaction time	0.154	interval		4.27	4.54	4.47	4.62	4.68	4.70	4.76	4.75	4.79	5.15	13.28
		velocity	7.06	8.20	7.71	7.83	7.58	7.48	7.45	7.35	7.37	7.31	7.77	7.53
H1 lead leg		strides		14	15	14	15	15	15	15	15	15	133	7.91

Mörö, Oskari (FIN) (1993)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2016 Athletissime (Laussane, SU) (TV Analysis)

Henson (2020) - Athlete First: 2016 year end hurdle report

date	25-Aug-16	time	6.00	9.83	13.86	17.86	21.96	26.26	30.60	35.06	39.63	44.33	49.81	2 / 4
reaction time	0.129	interval		3.83	4.03	4.00	4.10	4.30	4.34	4.46	4.57	4.70	5.48	11.86
		velocity	7.50	9.14	8.68	8.75	8.54	8.14	8.06	7.85	7.66	7.45	7.30	8.03
H1 lead leg	L	strides	21	14	14	13	13	14	14	15	15	15	18	166

FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)

Henson (2020) - Athlete First: 2016 year end hurdle report

date	08-Jul-16	time	6.04	9.84	13.68	17.64	21.68	25.92	30.16	34.60	39.24	43.92	49.24	7 / 4
reaction time	0.155	interval		3.80	3.84	3.96	4.04	4.24	4.24	4.44	4.64	4.68	5.32	11.60
		velocity	7.45	9.21	9.11	8.84	8.66	8.25	8.25	7.88	7.54	7.48	7.52	8.12
H1 lead leg		strides												9.05

H1 lead leg	L	strides	21	14	14	13	13		14	15	15	15	18.2	152.2										
FINAL - 2014 European Championships (Zurich, SUI)																								
<i>Green (2015) - twitter.com/jackpgreen (from Behm?)</i>																								
date	15-Aug-14	time	6.10	9.86	13.70	17.78	21.90		26.18	30.54	35.02	39.74	44.62		50.14	/ 8								
reaction time	0.149	interval	3.76	3.84	4.08	4.12		4.28	4.36	4.48	4.72	4.88	5.52								11.68	12.76	14.08	
		velocity	7.38	9.31	9.11	8.58	8.50		8.18	8.03	7.81	7.42	7.17	7.25		7.98					8.99	8.23	7.46	
H1 lead leg	R	strides		13	13	13	13		14	14	14	14	15		123									
Moses, Edwin (USA) (1955)																								
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																								
FINAL - 1988 Olympic Games (Seoul, KOR)																								
<i>Gill (1990) - atletismo (l) carreras y marcha</i>																								
date	25-Sep-88	time	5.89	9.56	13.32	17.16	21.00		25.01	29.08	33.26	37.60	42.19		47.56	3 / 3								
reaction time	0.209	interval	3.67	3.76	3.84	3.84		4.01	4.07	4.18	4.34	4.59	5.37								11.27	11.92	13.11	
		velocity	7.64	9.54	9.31	9.11	9.11		8.73	8.60	8.37	8.06	7.63	7.45		8.41					9.32	8.81	8.01	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	16.5	152.5									
Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)																								
<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																								
date	24-Sep-88	time	5.95	9.72	13.68	17.64	21.60		25.65	29.78	33.94	38.35	42.79		47.89	3 / 1								
reaction time		interval	3.77	3.96	3.96	3.96		4.05	4.13	4.16	4.41	4.44	5.10								11.69	12.14	13.01	
		velocity	7.56	9.28	8.84	8.84	8.84		8.64	8.47	8.41	7.94	7.88	7.84		8.35					8.98	8.65	8.07	
H1 lead leg		strides	19.00	13.00	13.00	13.00	13.00		13.00	13.00	13.00	13.00	13.00	16.50	152.50									
FINAL - 1987 IAAF World Championships (Rome, ITA)																								
<i>Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)</i>																								
date	01-Sep-87	time	5.82	9.49	13.21	16.97	20.73		24.58	28.58	32.89	37.42	42.15		47.46	3 / 1								
reaction time		interval	3.67	3.72	3.76	3.76		3.85	4.00	4.31	4.53	4.73	5.31		CR						11.15	11.61	13.57	
		velocity	7.73	9.54	9.41	9.31	9.31		9.09	8.75	8.12	7.73	7.40	7.53		8.43					9.42	9.04	7.74	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	16.7	152.7									
Semi-Final 2 - 1987 IAAF World Championships (Rome, ITA)																								
<i>Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)</i>																								
date	31-Aug-87	time	5.92	9.61	13.37	17.17	21.14		25.26	29.47	33.82	38.37	43.07		48.38	6 / 1								
reaction time		interval	3.69	3.76	3.80	3.97		4.12	4.21	4.35	4.55	4.70	5.31								11.25	12.30	13.60	
		velocity	7.60	9.49	9.31	9.21	8.82		8.50	8.31	8.05	7.69	7.45	7.53		8.27					9.33	8.54	7.72	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	16	152									
Heat 1 - 1987 IAAF World Championships (Rome, ITA)																								
<i>Sušanka (1990) - time analysis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)</i>																								
date	30-Aug-87	time	5.90	9.75	13.69	17.62	21.68		25.77	30.07	34.44	38.96	43.60		49.03	2 / 1								
reaction time		interval	3.85	3.94	3.93	4.06		4.09	4.30	4.37	4.52	4.64	5.43								11.72	12.45	13.53	
		velocity	7.63	9.09	8.88	8.91	8.62		8.56	8.14	8.01	7.74	7.54	7.37		8.16					8.96	8.43	7.76	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	15.8	151.8									
FINAL - 1987 Meeting BNP D'Atletisme (Paris, FRA)																								
<i>Behm (1988) - 45-39</i>																								
date	16-Jul-87	time	5.8	9.4	13.0	16.7	20.4		24.3	28.4	32.8	37.7			dnf	/ --								
reaction time		interval	3.62	3.61	3.67	3.72		3.89	4.15	4.36	4.97				<i>fell</i>						10.90	11.76		
		velocity	7.83	9.67	9.70	9.54	9.41		9.00	8.43	8.03	7.04									9.63	8.93		
H1 lead leg		strides																						
FINAL - 1984 Olympic Games (Los Angeles, CA)																								
<i>Behm (1995) - la tactique du 400 haies</i>																								
date	05-Aug-84	time	5.8	9.5	13.3	17.2	21.1		25.1	29.2	33.4	37.7	42.4		47.75	6 / 1								
reaction time	0.193	interval	3.70	3.80	3.90	3.90		4.00	4.10	4.20	4.30	4.70	5.35								11.40	12.00	13.20	
		velocity	7.76	9.46	9.21	8.97	8.97		8.75	8.54	8.33	8.14	7.45	7.48		8.38					9.21	8.75	7.95	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	16.2	152.2									
FINAL - 1983 Internationale Leichtathletiksportfest (Koblenz, FRG)																								
<i>Arnold (1992) - Hurdling</i>																								
date	31-Aug-83	time	5.9	9.6	13.4	17.1	21.0	22.7	24.9	29.0	33.1	37.4	41.9		47.02	/ 1								
reaction time		interval	3.70	3.80	3.70	3.90		3.90	4.10	4.10	4.30	4.50	5.12		WR						11.20	11.90	12.90	
		velocity	7.63	9.46	9.21	9.46	8.97	8.81	8.97	8.54	8.54	8.14	7.78	7.81		8.51					9.38	8.82	8.14	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	16	152									
FINAL - 1983 IAAF World Championships (Rome, ITA)																								
<i>McFarlane (1988) - The Science of Hurdling</i>																								
date	09-Aug-83	time	5.58	9.29	13.21	16.79	20.71		24.63	28.80	32.97	37.43	41.97		47.50	2 / 1								
reaction time		interval	3.71	3.92	3.58	3.92		3.92	4.17	4.17	4.46	4.54	5.53		CR						11.21	12.01	13.17	
		velocity	8.06	9.43	8.93	9.78	8.93		8.93	8.39	8.39	7.85	7.71	7.23		8.42					9.37	8.74	7.97	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	15.7	151.7									
Semi-Final 1 - 1983 IAAF World Championships (Rome, ITA)																								
<i>Lyle - miscellaneous coaching notes</i>																								
date	08-Aug-83	time	5.59	9.38	13.30	17.18	21.03		25.01	29.16	33.50	37.91	42.32		48.11	1 / 1								
reaction time		interval	3.79	3.92	3.88	3.85		3.98	4.15	4.34	4.41	4.41	5.79								11.59	11.98	13.16	
		velocity	8.05	9.23	8.93	9.02	9.09		8.79	8.43	8.06	7.94	7.94	6.91		8.31					9.06	8.76	7.98	
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	15.5	151.5									
FINAL - 1981 ISTAF (West Berlin, FRG)																								
<i>Behm (1988) - 45-39</i>																								
date	21-Aug-81	time	5.7	9.4	13.3	17.1	20.9		24.9	29.0	33.3	37.7	42.1		47.27	/ 1								
reaction time		interval	3.70	3.90	3.80	3.80		4.00	4.10	4.30	4.40	4.40	5.17								11.40	11.90	13.10	
		velocity	7.89	9.46	8.97	9.21	9.21		8.75	8.54	8.14	7.95	7.95	7.74		8.46					9.21	8.82	8.02	
H1 lead leg		strides		13	12	12	13		13	13	13	13	13		115									
FINAL - 1981 Weltklasse (Zurich, SUI)																								
<i>Behm (1988) - 45-39</i>																								
date	19-Aug-81	time	5.7	9.4	13.1	16.8	20.7		24.7	28.9	33.1	37.7	42.3		47.64	/ 1								

reaction time	interval	3.70	3.70	3.70	3.90		4.00	4.20	4.20	4.60	4.60	5.34		11.10	12.10	13.40		
	velocity	7.89	9.46	9.46	9.46	8.97	8.75	8.33	8.33	7.61	7.61	7.49	8.40	9.46	8.68	7.84		
H1 lead leg	strides		12	12	12	12	13	13	13	13	13	13	113					
FINAL - 1980 Mario Lanzi Memorial (Milan, ITA)														<i>Behm (1995) - la tactique du 400 haies</i>				
date	03-Jul-80	time	5.7	9.4	13.2	17.0	20.9		24.7	28.6	32.8	37.2	41.7	47.13	/ 1			
reaction time		interval		3.70	3.80	3.80	3.90		3.80	3.90	4.20	4.40	4.50	5.43	WR	11.30	11.60	13.10
		velocity	7.89	9.46	9.21	9.21	8.97		9.21	8.97	8.33	7.95	7.78	7.37	8.49	9.29	9.05	8.02
H1 lead leg		strides																
FINAL - 1976 Olympic Games (Montreal, CAN)														<i>McFarlane (1981) - understanding the 400m hurdles (in Jarver (ed) - the hurdles, 1981)</i>				
date	25-Jul-76	time	6.0	9.8	13.6	17.5	21.4	23.1	25.5	29.6	33.9	38.2	42.7	47.64	4 / 1			
reaction time		interval		3.80	3.80	3.90	3.90		4.10	4.10	4.30	4.30	4.50	4.94	WR	11.50	12.10	13.10
		velocity	7.50	9.21	9.21	8.97	8.66	8.66	8.54	8.54	8.14	8.14	7.78	8.10	8.40	9.13	8.68	8.02
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	13	16	153				
Motima, Satoshi (JPN)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2018 Japanese National High School Championships (Nagoya, JPN)																		
date	04-Aug-18	time	6.21	10.24	14.40	18.57	22.92		27.43	31.93	36.54	41.21	46.15	51.66	8 / 3			
reaction time		interval		4.03	4.16	4.17	4.35		4.51	4.50	4.61	4.67	4.94	5.51	PB	12.36	13.36	14.22
		velocity	7.25	8.68	8.41	8.39	8.05		7.76	7.78	7.59	7.49	7.09	7.26	7.74	8.50	7.86	7.38
H1 lead leg		strides		15	15	15	15		15	15	15	15	16	136				
Moumoulidis, Konstadinos (GRE) (1)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1997 European Cup (Munich, GER)																		
date	21-Jun-97	time	6.22	10.13	14.10	18.19	22.42		26.81	31.29	36.04	41.03	46.20	52.01	/ 6			
reaction time		interval		3.91	3.97	4.09	4.23		4.39	4.48	4.75	4.99	5.17	5.81		11.97	13.10	14.91
		velocity	7.23	8.95	8.82	8.56	8.27		7.97	7.81	7.37	7.01	6.77	6.88	7.69	8.77	8.02	7.04
H1 lead leg		strides																
Mowatt, Kemar (JAM) (1995)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																		
date	17-Jul-22	time	5.76	9.33	13.17	16.86	20.77	22.53		29.20	33.73	38.40	43.10	48.59	4 / 4			
reaction time	0.143	interval		3.57	3.84	3.69	3.91		8.43	4.53	4.67	4.70	5.49			11.10	12.34	13.90
		velocity	7.81	9.80	9.11	9.49	8.95	8.88		8.30	7.73	7.49	7.45	7.29	8.23	9.46	8.51	7.55
H1 lead leg	L	strides	21	13	13	13	13				15	15	15	18	136			
Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																		
date	16-Jul-22	time	5.90	9.67	13.53	17.53	21.67	23.51	25.97	30.37	34.93	39.53	44.17	49.44	7 / 2			
reaction time	0.146	interval		3.77	3.86	4.00	4.14		4.30	4.40	4.56	4.60	4.64	5.27		11.63	12.84	13.80
		velocity	7.63	9.28	9.07	8.75	8.45	8.51	8.14	7.95	7.68	7.61	7.54	7.59	8.09	9.03	8.18	7.61
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	14	15	17.2	161.2			
FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)																		
date	28-May-22	time	5.80	9.56	13.36	17.33	21.34	23.20	25.56	30.07	34.73	39.73		50.81	8 / 8			
reaction time	0.157	interval		3.76	3.80	3.97	4.01		4.22	4.51	4.66	5.00				11.53	12.74	
		velocity	7.76	9.31	9.21	8.82	8.73	8.62	8.29	7.76	7.51	7.00		7.87		9.11	8.24	
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	15		130				
FINAL - 2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																		
date	04-Jul-21	time	5.72	9.36	13.08	16.92	20.92	22.7	24.92	29.20	33.68	38.32	43.12	48.75	8 / 3			
reaction time	0.156	interval		3.64	3.72	3.84	4.00		4.00	4.28	4.48	4.64	4.80	5.63		11.20	12.28	13.92
		velocity	7.87	9.62	9.41	9.11	8.75	8.81	8.75	8.18	7.81	7.54	7.29	7.10	8.21	9.38	8.55	7.54
H1 lead leg	L	strides		13	13	13	13		13	14	14	14	14	17.7	138.7			
Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)																		
date	28-Sep-19	time	5.93	9.57	13.25	17.05	20.97		25.15	29.43	33.92	38.54	43.42	49.32	8 / 7			
reaction time	0.163	interval		3.64	3.68	3.80	3.92		4.18	4.28	4.49	4.62	4.88	5.90		11.12	12.38	13.99
		velocity	7.59	9.62	9.51	9.21	8.93		8.37	8.18	7.80	7.58	7.17	6.78	8.11	9.44	8.48	7.51
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164			
FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)																		
date	18-Aug-19	time	5.80	9.48	13.32	17.20	21.16	22.9	25.20	29.64	34.12	38.84	43.64	49.56	3 / 4			
reaction time	0.162	interval		3.68	3.84	3.88	3.96		4.04	4.44	4.48	4.72	4.80	5.92		11.40	12.44	14.00
		velocity	7.76	9.51	9.11	9.02	8.84	8.73	8.66	7.88	7.81	7.42	7.29	6.76	8.07	9.21	8.44	7.50
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18.5	162.5			
FINAL - 2019 Pan American Games (Lima, PER) (TV Analysis)																		
date	08-Aug-19	time	5.77	9.47	13.21	17.08		25.09	29.46	33.93	38.64	43.50		49.09	4 / 3			
reaction time	0.177	interval		3.70	3.74	3.87		8.01	4.37	4.47	4.71	4.86	5.59			11.31	12.38	14.04
		velocity	7.80	9.46	9.36	9.04		8.74	8.01	7.83	7.43	7.20	7.16	8.15		9.28	8.48	7.48
H1 lead leg	L	strides	21	13	13	13			14	14	15	15	18	136				
FINAL - 2018 NCAA Championships (Eugene, OR) (TV Analysis)																		
date	08-Jun-18	time	5.86	9.53	13.23	17.00	21.00		25.13	29.40	33.80	38.36	43.13	48.83	6 / 4			
reaction time		interval		3.67	3.70	3.77	4.00		4.13	4.27	4.40	4.56	4.77	5.70		11.14	12.40	13.73
		velocity	7.68	9.54	9.46	9.28	8.75		8.47	8.20	7.95	7.68	7.34	7.02	8.19	9.43	8.47	7.65

H1 lead leg L strides 13 13 13 13 13 14 14 15 15 18.5 141.5

FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date 09-Aug-17 time 5.92 9.72 13.52 17.40 21.40 25.64 29.92 34.36 39.00 43.64 48.99 3 / 4
 reaction time 0.189 interval 3.80 3.80 3.88 4.00 4.24 4.28 4.44 4.64 4.64 5.35 11.48 12.52 13.72
 velocity 7.60 9.21 9.21 9.02 8.75 8.25 8.18 7.88 7.54 7.54 7.48 8.16 9.15 8.39 7.65
 H1 lead leg L strides 21 13 13 13 13 14 14 15 15 15 18 164

Mpoke, Moitalel (KEN) (2001)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)*Henson (2021) - Athlete First: 2021 year end hurdle report*

date 11-Jun-21 time 6.03 9.83 13.80 17.77 21.70 25.89 30.13 34.63 39.23 43.73 48.70 6 / 4
 reaction time 0.267 interval 3.80 3.97 3.97 3.93 4.19 4.24 4.50 4.60 4.50 4.97 **PB** 11.74 12.36 13.60
 velocity 7.46 9.21 8.82 8.82 8.91 8.36 8.25 7.78 7.61 7.78 8.05 8.21 8.94 8.50 7.72
 H1 lead leg R strides 21 13 14 14 13 14 14 15 15 15 18.5 166.5

Mucheru, Bonface (KEN) (1992)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date 05-May-17 time 6.23 10.16 14.16 18.23 22.40 26.66 31.03 35.50 40.10 44.86 50.61 3 / 7
 reaction time 0.155 interval 3.93 4.00 4.07 4.17 4.26 4.37 4.47 4.60 4.76 5.75 12.00 12.80 13.83
 velocity 7.22 8.91 8.75 8.60 8.39 8.22 8.01 7.83 7.61 7.35 6.96 7.90 8.75 8.20 7.59
 H1 lead leg R strides 22 15 15 15 15 15 15 15 15 15 18.5 175.5

FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date 01-Sep-16 time 6.24 dnf 5 / 8
 reaction time 0.132 interval 7.21
 velocity 7.21
 H1 lead leg R strides 22

FINAL - 2016 Athletissima (Laussane, SUI) (TV Analysis)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date 25-Aug-16 time 5.96 9.67 13.46 17.30 21.20 25.26 29.56 34.00 38.50 44.73 68.05 5 / 7
 reaction time 0.153 interval 3.71 3.79 3.84 3.90 4.06 4.30 4.44 4.50 6.23 23.32 11.34 12.26 15.17
 velocity 7.55 9.43 9.23 9.11 8.97 8.62 8.14 7.88 7.78 5.62 1.72 5.88 9.26 8.56 6.92
 H1 lead leg R strides 22 13 13 13 13 13 15 15 15 17 149

FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date 14-May-16 time 6.04 9.96 14.04 18.12 22.36 26.64 31.00 35.40 50.16 9 / 9
 reaction time 0.123 interval 3.92 4.08 4.08 4.24 4.28 4.36 4.40 4.40 12.08 12.88
 velocity 7.45 8.93 8.58 8.58 8.25 8.18 8.03 7.95 7.97 8.69 8.15
 H1 lead leg R strides 22 15 15 15 15 15 15 15 127

FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)*Henson (2021) - Athlete First: major championships report*

date 25-Aug-15 time 5.96 13.56 17.32 21.20 25.32 29.64 34.04 38.48 43.00 48.33 4 / 5
 reaction time 0.164 interval 7.60 3.76 3.88 4.12 4.32 4.40 4.44 4.52 5.33 11.36 12.32 13.36
 velocity 7.55 9.21 9.31 9.02 8.50 8.10 7.95 7.88 7.74 7.50 8.28 9.24 8.52 7.86
 H1 lead leg R strides 15 13 13 15 15 15 15 15 18.5 119.5

Mukhobe, Wiseman (KEN) (1997)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 3 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympic Games - Results Book (2024)*

date 07-Aug-24 time 5.82 9.51 13.36 17.21 21.28 25.47 29.83 34.35 39.04 43.74 49.22 4 / 5
 reaction time 0.217 interval 3.69 3.85 3.85 4.07 4.19 4.36 4.52 4.69 4.70 5.48 11.39 12.62 13.91
 velocity 7.73 9.49 9.09 9.09 8.60 8.35 8.03 7.74 7.46 7.45 7.30 8.13 9.22 8.32 7.55
 H1 lead leg R strides 22 14 14 14 14 14 14 15 15 15 19 170

Heat 4 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympic Games - Results Book (2024)*

date 05-Aug-24 time 5.68 9.28 13.01 16.86 20.89 25.06 29.32 33.81 38.41 43.06 48.58 5 / 5
 reaction time 0.198 interval 3.60 3.73 3.85 4.03 4.17 4.26 4.49 4.60 4.65 5.52 11.18 12.46 13.74
 velocity 7.92 9.72 9.38 9.09 8.68 8.39 8.22 7.80 7.61 7.53 7.25 8.23 9.39 8.43 7.64
 H1 lead leg R strides 21 14 14 13 14 14 15 15 15 15 19 169

Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date 21-Aug-23 time 5.94 9.81 13.61 17.35 21.55 25.82 30.26 34.83 44.01 49.40 9 / 6
 reaction time 0.196 interval 3.87 3.80 3.74 4.20 4.27 4.44 4.57 9.18 5.39 11.41 12.91 13.75
 velocity 7.58 9.04 9.21 9.36 8.33 8.20 7.88 7.66 7.63 7.42 8.10 9.20 8.13 7.64
 H1 lead leg R strides 22 14 14 13 14 14 15 19 125

Heat 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date 20-Aug-23 time 5.93 17.63 25.83 34.63 39.23 43.83 49.10 1 / 4
 reaction time 0.199 interval 11.70 8.20 8.80 4.60 4.60 5.27 11.70
 velocity 7.59 8.97 8.54 7.95 7.61 7.61 7.59 8.15 8.97
 H1 lead leg R strides 20 69

Müller, Vít (CZE) (1996)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)*Omega Timing (2023) - diamond league race analysis*

date 25-Aug-24 time 5.88 9.58 13.37 17.26 21.24 25.31 29.60 34.19 38.93 43.68 49.20 1 / 8
 reaction time 0.163 interval 3.70 3.79 3.89 3.98 4.07 4.29 4.59 4.74 4.75 5.52 11.66 12.34 14.08
 velocity 7.65 9.46 9.23 9.00 8.79 8.60 8.16 7.63 7.38 7.37 7.25 8.13 9.01 8.51 7.46
 H1 lead leg L strides 20 13 13 13 13 13 14 15 17.5 131.5

Repechage 1 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	07-Aug-24	time	5.90	9.61	13.38	17.22	21.13	25.15	29.35	33.96	38.74	43.53	48.96	7 / 3				
reaction time	0.157	interval		3.71	3.77	3.84	3.91	4.02	4.20	4.61	4.78	4.79	5.43			11.32	12.13	14.18
		velocity	7.63	9.43	9.28	9.11	8.95	8.71	8.33	7.59	7.32	7.31	7.37	8.17		9.28	8.66	7.40
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	18	159				
Heat 2 - 2024 Olympic Games (Paris, FRA)														<i>Paris 2024 Olympc Games - Results Book (2024)</i>				
date	05-Aug-24	time	5.91	9.57	13.29	17.09	21.02	25.15	29.50	34.18	39.03	43.88	49.44	2 / 6				
reaction time	0.150	interval		3.66	3.72	3.80	3.93	4.13	4.35	4.68	4.85	4.85	5.56			11.18	12.41	14.38
		velocity	7.61	9.56	9.41	9.21	8.91	8.47	8.05	7.48	7.22	7.22	7.19	8.09		9.39	8.46	7.30
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	15	17.2	158.2				
Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	10-Jun-24	time	5.94	9.70	13.55	17.38	21.32	25.38	29.75	34.27	38.87	43.59	49.25	9 / 6				
reaction time	0.197	interval		3.76	3.85	3.83	3.94	4.06	4.37	4.52	4.60	4.72	5.66			11.44	12.37	13.84
		velocity	7.58	9.31	9.09	9.14	8.88	8.62	8.01	7.74	7.61	7.42	7.07	8.12		9.18	8.49	7.59
H1 lead leg		strides											0					
Heat 1 - 2024 European Athletics Championships (Roma, ITA)														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>				
date	09-Jun-24	time	5.92	9.64	13.56	17.45	21.47	25.57	29.94	34.48	39.21	44.01	49.38	6 / 2				
reaction time	0.196	interval		3.72	3.92	3.89	4.02	4.10	4.37	4.54	4.73	4.80	5.37			11.53	12.49	14.07
		velocity	7.60	9.41	8.93	9.00	8.71	8.54	8.01	7.71	7.40	7.29	7.45	8.10		9.11	8.41	7.46
H1 lead leg		strides											0					
FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)														<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	13-Sep-20	time	6.12	13.72	17.56		25.76		35.16	40.00			50.47	2 / 5				
reaction time	0.204	interval		7.60	3.84		8.20		9.40	4.84						11.44		
		velocity	7.35	9.21	9.11		8.54		7.45	7.23			7.93			9.18		
H1 lead leg	L	strides	21		13					15			49					
Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)														<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	6.08	9.83	13.56	17.39	21.44	25.60	30.04	34.66	39.36	44.23	49.97	3 / 7				
reaction time	0.178	interval		3.75	3.73	3.83	4.05	4.16	4.44	4.62	4.70	4.87	5.74			11.31	12.65	14.19
		velocity	7.40	9.33	9.38	9.14	8.64	8.41	7.88	7.58	7.45	7.19	6.97	8.00		9.28	8.30	7.40
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	15	18.5	162.5				
Muratomi, Kotaro (JPN) (1998)																		
FINAL - 2016 Japanese National High School Championships (Okayama, JPN)														<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>				
date	31-Jul-16	time	6.17	10.23	14.40	18.70	23.09	27.58	32.33	37.09	41.92	46.93	52.68	4 / 4				
reaction time	0.178	interval		4.06	4.17	4.30	4.39	4.49	4.75	4.76	4.83	5.01	5.75			12.53	13.63	14.60
		velocity	7.29	8.62	8.39	8.14	7.97	7.80	7.37	7.35	7.25	6.99	6.96	7.59		8.38	7.70	7.19
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	130					
Muto, Yuhi (JPN) (2004)																		
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)														<i>Kishima (2022) - national high school championships biomechanics data collection</i>				
date	05-Aug-22	time	6.47	10.43	14.48	18.67	23.03	27.52	32.05	36.63	41.62	46.57	52.14	8 / 5				
reaction time	0.199	interval		3.96	4.05	4.19	4.36	4.49	4.53	4.58	4.99	4.95	5.57			12.20	13.38	14.52
		velocity	6.96	8.84	8.64	8.35	8.03	7.80	7.73	7.64	7.01	7.07	7.18	7.67		8.61	7.85	7.23
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	17	159					
FINAL - 2022 Japanese U20 National Championships (Osaka, JPN)														<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>				
date	11-Jun-22	time	6.39	10.33	14.41	18.52	22.86	27.29	31.82	36.47	41.21	46.06	51.46	3 / 6				
reaction time	0.189	interval		3.94	4.08	4.11	4.34	4.43	4.53	4.65	4.74	4.85	5.40	PB		12.13	13.30	14.24
		velocity	7.04	8.88	8.58	8.52	8.06	7.90	7.73	7.53	7.38	7.22	7.41	7.77		8.66	7.89	7.37
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	19	176				
Mužik, Jirí (CZE) (1976)																		
FINAL - 2002 IAAF World Cup (Madrid, ESP)														<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>				
date	20-Sep-02	time	6.08	9.93	13.91	17.81	21.94	26.05	30.23	34.65	39.23	43.86	49.28	4 / 4				
reaction time	0.185	interval		3.85	3.98	3.90	4.13	4.11	4.18	4.42	4.58	4.63	5.42			11.73	12.42	13.63
		velocity	7.40	9.09	8.79	8.97	8.47	8.52	8.37	7.92	7.64	7.56	7.38	8.12		8.95	8.45	7.70
H1 lead leg	L	strides	21	14	14	14	14	14	14	14	15	15	18.5	167.5				
FINAL - 2002 European Championships (Munich, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	09-Aug-02	time	6.08	9.90	13.80	17.75	21.76	25.80	29.90	34.18	38.60	43.12	48.43	/ 2				
reaction time	0.160	interval		3.82	3.90	3.95	4.01	4.04	4.10	4.28	4.42	4.52	5.31			11.67	12.15	13.22
		velocity	7.40	9.16	8.97	8.86	8.73	8.66	8.54	8.18	7.92	7.74	7.53	8.26		9.00	8.64	7.94
H1 lead leg		strides		14	14	14	14	14	14	14	14	15	15	128				
Semi-Final 1 - 2002 European Championships (Munich, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				
date	08-Aug-02	time	6.15	10.01	13.87	17.81	21.83	25.94	30.08	34.31	38.71	43.25	48.46	/ 1				
reaction time		interval		3.86	3.86	3.94	4.02	4.11	4.14	4.23	4.40	4.54	5.21			11.66	12.27	13.17
		velocity	7.32	9.07	9.07	8.88	8.71	8.52	8.45	8.27	7.95	7.71	7.68	8.25		9.01	8.56	7.97
H1 lead leg		strides																
Heat 2 - 2002 European Championships (Munich, GER)														<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>				

date	07-Aug-02	time	6.24	10.23	14.29	18.37	22.52		26.69	30.95	35.31	39.85	44.47		49.76	/ 1			
reaction time	0.169	interval		3.99	4.06	4.08	4.15		4.17	4.26	4.36	4.54	4.62	5.29			12.13	12.58	13.52
		velocity	7.21	8.77	8.62	8.58	8.43		8.39	8.22	8.03	7.71	7.58	7.56	8.04		8.66	8.35	7.77
H1 lead leg		strides																	

FINAL - 2001 IAAF World Championships (Edmonton, CAN)

Behm (2001) - Edmonton: Le quadrache: les finales

date	10-Aug-01	time	5.9	9.8	13.4	17.3	21.3		25.3	29.5	34.0	38.5	43.2		49.07	8 / 7			
reaction time	0.203	interval		3.90	3.60	3.90	4.00		4.00	4.20	4.50	4.50	4.70	5.87			11.40	12.20	13.70
		velocity	7.63	8.97	9.72	8.97	8.75		8.75	8.33	7.78	7.78	7.45	6.81	8.15		9.21	8.61	7.66
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	146					

Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	5.96	9.88	13.72	17.64	21.76	23.36	25.96	30.24	34.68	39.20	43.92		49.23	5 / 5			
reaction time	0.227	interval		3.92	3.84	3.92	4.12		4.20	4.28	4.44	4.52	4.72	5.31			11.68	12.60	13.68
		velocity	7.55	8.93	9.11	8.93	8.50	8.56	8.33	8.18	7.88	7.74	7.42	7.53	8.13		8.99	8.33	7.68
H1 lead leg		strides		13	13	13	14		14	14	15	15	15	19.2	145.2				

Heat 4 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.00	9.78	13.64	17.60	21.64		25.80	30.20	34.80	39.76	44.68		50.11	8 / 1			
reaction time	0.216	interval		3.78	3.86	3.96	4.04		4.16	4.40	4.60	4.96	4.92	5.43			11.60	12.60	14.48
		velocity	7.50	9.26	9.07	8.84	8.66		8.41	7.95	7.61	7.06	7.11	7.37	7.98		9.05	8.33	7.25
H1 lead leg		strides	21	13	13	13	13		14	14	14	16	16	18.9	165.9				

Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

date	25-Aug-99	time	5.60	9.38	13.18	17.19	21.35		25.51	29.85	34.30	38.82	43.50		49.17	2 / 5			
reaction time	0.179	interval		3.78	3.80	4.01	4.16		4.16	4.34	4.45	4.52	4.68	5.67			11.59	12.66	13.65
		velocity	8.04	9.26	9.21	8.73	8.41		8.41	8.06	7.87	7.74	7.48	7.05	8.14		9.06	8.29	7.69
H1 lead leg	R	strides	21	13	13	13	14		14	14	14	15	15	18.5	164.5				

FINAL - 1998 European Championships (Budapest, HUN)

Sanchez (1998) - Budapest '98: análisis de la carreras con villas

date	20-Aug-98	time	6.01				21.40						44.30		50.51	8 / 7			
reaction time		interval					15.39						22.90	6.21					
		velocity	7.49				9.10						7.64	6.44	7.92				
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	19.5	169.5				

FINAL - 1997 IAAF World Championships (Athens, GRE)

Hommel (1999) - biomechanical research project, athens 1997: final report

date	04-Aug-97	time	6.02	9.78	13.62	17.58	21.80		26.12	30.42	34.92	39.52	44.14		49.51	2 / 8			
reaction time	0.179	interval		3.76	3.84	3.96	4.22		4.32	4.30	4.50	4.60	4.62	5.37	NR		11.56	12.84	13.72
		velocity	7.48	9.31	9.11	8.84	8.29		8.10	8.14	7.78	7.61	7.58	7.45	8.08		9.08	8.18	7.65
H1 lead leg		strides																	

Myburgh, Alwyn (RSA) (1980)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2004 Olympic Games (Athina, GRE)

Behm (2005) - Athènes 2004: Les Haies Basses

date	26-Aug-04	time	5.9	9.5	13.2	17.0	21.2		25.3	29.4	33.9	38.5	43.3		49.07	1 / 7			
reaction time	0.150	interval		3.60	3.70	3.80	4.20		4.10	4.10	4.50	4.60	4.80	5.77			11.10	12.40	13.90
		velocity	7.63	9.72	9.46	9.21	8.33		8.54	8.54	7.78	7.61	7.29	6.93	8.15		9.46	8.47	7.55
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	15	19	169				

Semi-Final 3 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	5.78	9.50	13.34	17.26	21.22	22.74	25.26	29.50	34.06	38.74	43.58		49.25	1 / 4			
reaction time	0.202	interval		3.72	3.84	3.92	3.96		4.04	4.24	4.56	4.68	4.84	5.67			11.48	12.24	14.08
		velocity	7.79	9.41	9.11	8.93	8.84	8.80	8.66	8.25	7.68	7.48	7.23	7.05	8.12		9.15	8.58	7.46
H1 lead leg		strides	22	14	14	14	14		14	14	15	15	15	19	170				

Heat 6 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	5.98	9.82	13.82	17.82	21.94		26.22	30.50	34.98	39.54	44.14		49.57	6 / 3			
reaction time	0.184	interval		3.84	4.00	4.00	4.12		4.28	4.28	4.48	4.56	4.60	5.43			11.84	12.68	13.64
		velocity	7.53	9.11	8.75	8.75	8.50		8.18	8.18	7.81	7.68	7.61	7.37	8.07		8.87	8.28	7.70
H1 lead leg		strides	21	14	14	14	14		14	14	15	15	15	18.7	168.7				

Naadokila, Moitalel Mpoke (KEN) (20)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	17-Jul-22	time		9.90	14.03	18.07	22.27	24.10	26.53	30.93	35.43	39.90	44.37		49.34	1 / 6			
reaction time	0.149	interval			4.13	4.04	4.20		4.26	4.40	4.50	4.47	4.47	4.97				12.86	13.44
		velocity		8.08	8.47	8.66	8.33	8.30	8.22	7.95	7.78	7.83	7.83	8.05	8.11			8.16	7.81
H1 lead leg		strides		14	14	14	14		14	14	14	14	14	17	129				

Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)

Henson (2022) - Athlete First: 2022 year end hurdle report

date	16-Jul-22	time	6.03	10.00	14.03	18.10	22.16	24.03	26.50	30.90	35.46	40.20	44.83		50.19	8 / 4			
reaction time	0.177	interval		3.97	4.03	4.07	4.06		4.34	4.40	4.56	4.74	4.63	5.36			12.07	12.80	13.93
		velocity	7.46	8.82	8.68	8.60	8.62	8.32	8.06	7.95	7.68	7.38	7.56	7.46	7.97		8.70	8.20	7.54
H1 lead leg	L	strides	21	14	14	14	14		14	14	14	14	14	17	164				

Nagano, Yuichi (JPN) (1993)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2010 Japanese National High School Championships (Okinawa, JPN)

Matsuo (2010) - 63rd high school championships: JAF scientific committee- biomechanics data

date	31-Jul-10	time	6.44	10.41	14.45	18.52	22.67		26.97	31.37	35.91	40.90	46.09		52.03	/ 2			
reaction time		interval		3.97	4.04	4.07	4.15		4.30	4.40	4.54	4.99	5.19	5.94			12.08	12.85	14.72

		velocity	6.99	8.82	8.66	8.60	8.43		8.14	7.95	7.71	7.01	6.74	6.73	7.69		8.69	8.17	7.13
H1 lead leg		strides		13	13	13	13		14	14	14	15	15		124				
Nagiko, Kazushi (JPN)																			
Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)																			
<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>																			
date	23-Oct-16	time	6.53	10.87	15.16	19.47	23.86		28.36	32.99	37.95	43.20	48.69		54.86		8 / 1		
reaction time		interval		4.34	4.29	4.31	4.39		4.50	4.63	4.96	5.25	5.49	6.17			12.94	13.52	15.70
		velocity	6.89	8.06	8.16	8.12	7.97		7.78	7.56	7.06	6.67	6.38	6.48	7.29		8.11	7.77	6.69
H1 lead leg		strides																	
Naito, Genichiro (JPN) (2002)																			
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	26-Jun-21	time	6.27	10.24	14.21	18.30	22.54		26.96	31.53	36.17	40.96	45.98		51.70		6 / 5		
reaction time	0.183	interval		3.97	3.97	4.09	4.24		4.42	4.57	4.64	4.79	5.02	5.72			12.03	13.23	14.45
		velocity	7.18	8.82	8.82	8.56	8.25		7.92	7.66	7.54	7.31	6.97	6.99	7.74		8.73	7.94	7.27
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15		152				
Nakai, Shuta (JPN) (2001)																			
FINAL - 2023 Japanese National Championships (Osaka, JPN)																			
<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																			
date	03-Jun-23	time	6.27	10.03	13.81	17.72	21.74		25.99	30.43	35.09	39.91	44.89		50.71		9 / 7		
reaction time	0.222	interval		3.76	3.78	3.91	4.02		4.25	4.44	4.66	4.82	4.98	5.82			11.45	12.71	14.46
		velocity	7.18	9.31	9.26	8.95	8.71		8.24	7.88	7.51	7.26	7.03	6.87	7.89		9.17	8.26	7.26
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15		146				
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)																			
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																			
date	21-May-23	time	6.22	10.06	13.96	18.00	22.16		26.48	30.93	35.45	40.24	45.05		50.72		2 / 8		
reaction time	0.174	interval		3.84	3.90	4.04	4.16		4.32	4.45	4.52	4.79	4.81	5.67			11.78	12.93	14.12
		velocity	7.23	9.11	8.97	8.66	8.41		8.10	7.87	7.74	7.31	7.28	7.05	7.89		8.91	8.12	7.44
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18	164				
A FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)																			
<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																			
date	03-May-23	time	6.20	9.98	13.82	17.73	21.75		25.95	30.23	34.67	39.28	44.01		49.66		9 / 2		
reaction time	0.193	interval		3.78	3.84	3.91	4.02		4.20	4.28	4.44	4.61	4.73	5.65	PB		11.53	12.50	13.78
		velocity	7.26	9.26	9.11	8.95	8.71		8.33	8.18	7.88	7.59	7.40	7.08	8.05		9.11	8.40	7.62
H1 lead leg	R	strides	20	13	13	13	13		14	14	15	15	15	18	163				
Nakamura, Akihiko (JPN) (1990)																			
FINAL - 2014 Japanese National Championships (Fukushima, JPN)																			
<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																			
date	08-Jun-14	time	6.09	10.03	14.05	18.12	22.32		26.62	31.01	35.55	40.19	44.74		49.95		5 / 2		
reaction time		interval		3.94	4.02	4.07	4.20		4.30	4.39	4.54	4.64	4.55	5.21			12.03	12.89	13.73
		velocity	7.39	8.88	8.71	8.60	8.33		8.14	7.97	7.71	7.54	7.69	7.68	8.01		8.73	8.15	7.65
H1 lead leg	R	strides	21	13	13	13	14		14	14	14	15	15	19	165				
FINAL - 2012 Japanese National Championships (Osaka, JPN)																			
<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>																			
date	09-Jun-12	time	6.09	9.96	14.01	18.15	22.34		26.63	30.98	35.42	40.01	44.49		49.38		6 / 2		
reaction time		interval		3.87	4.05	4.14	4.19		4.29	4.35	4.44	4.59	4.48	4.89	PB		12.06	12.83	13.51
		velocity	7.39	9.04	8.64	8.45	8.35		8.16	8.05	7.88	7.63	7.81	8.18	8.10		8.71	8.18	7.77
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	15	15	18.2	163				
Nakamashi, Haruki (JPN) (2004)																			
FINAL - 2021 Japanese High School National Championships (Fukui, JPN)																			
<i>Shibayama (2021) - national high school and U20 national championships</i>																			
date	30-Jul-21	time	6.07	10.04	14.28	18.60	22.97		27.43	31.92	36.50	41.42	46.36		51.70		4 / 2		
reaction time	0.145	interval		3.97	4.24	4.32	4.37		4.46	4.49	4.58	4.92	4.94	5.34			12.53	13.32	14.44
		velocity	7.41	8.82	8.25	8.10	8.01		7.85	7.80	7.64	7.11	7.09	7.49	7.74		8.38	7.88	7.27
H1 lead leg		strides		15	15	15	15		15	15	15	17	17		139				
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)																			
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																			
date	26-Jun-21	time	6.17	10.16	14.18	18.30	22.48		26.78	31.16	35.62	40.34	45.08		50.53		7 / 2		
reaction time	0.181	interval		3.99	4.02	4.12	4.18		4.30	4.38	4.46	4.72	4.74	5.45	PB		12.13	12.86	13.92
		velocity	7.29	8.77	8.71	8.50	8.37		8.14	7.99	7.85	7.42	7.38	7.34	7.92		8.66	8.16	7.54
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	20.7	177.7				
Nakanishi, Teruki (JPN) (2006)																			
FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)																			
<i>Takashima (2024) - national high school sports festival - biomechanics data</i>																			
date	30-Jul-24	time	6.34	10.48	14.66	19.10	23.46		27.88	32.45	37.10	41.89	46.83		52.54		6 / 6		
reaction time	0.192	interval		4.14	4.18	4.44	4.36		4.42	4.57	4.65	4.79	4.94	5.71			12.76	13.35	14.38
		velocity	7.10	8.45	8.37	7.88	8.03		7.92	7.66	7.53	7.31	7.09	7.01	7.61		8.23	7.87	7.30
H1 lead leg		strides	21	15	15	15	15		15	15	15	15	15	19	175				
Nakano, Sota (JPN)																			
FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)																			
<i>Takashima (2023) - national high school sports festival - biomechanics data</i>																			
date	04-Aug-23	time	6.32	10.39	14.55	18.74	23.06		27.61	32.30	37.19	42.21	47.33		52.80		3 / 7		
reaction time	0.249	interval		4.07	4.16	4.19	4.32		4.55	4.69	4.89	5.02	5.12	5.47			12.42	13.56	15.03
		velocity	7.12	8.60	8.41	8.35	8.10		7.69	7.46	7.16	6.97	6.84	7.31	7.58		8.45	7.74	6.99
H1 lead leg		strides	23	15	15	15	15		15	15	17	17	17	20	184				
Nallet, Jean-Claude (FRA) (1947)																			

Semi-Final 2 - 1978 European Championships (Prague, TCH)*Lamare (1978) - championnats d'Europa 1978*

date	30-Aug-78	time	6.23	10.36	14.14	18.16	22.22							49.98	/ 2				
reaction time		interval		4.13	3.78	4.02	4.06												11.93
		velocity	7.22	8.47	9.26	8.71	8.62							8.00					8.80
H1 lead leg		strides																	

Semi-Final 2 - 1976 Olympic Games (Montreal, CAN)*Behm (1995) - la tactique du 400 haies*

date	24-Jul-76	time	5.8	9.8	13.8	17.8	22.0	26.0	30.5	35.0	39.7	44.3		50.08	4 / 5				
reaction time		interval		4.00	4.00	4.00	4.15	4.05	4.50	4.50	4.70	4.60	5.78						12.00
		velocity	7.76	8.75	8.75	8.75	8.43	8.64	7.78	7.78	7.45	7.61	6.92	7.99					8.75
H1 lead leg		strides																	8.27

FINAL - 1971 European Championships (Helsinki, FIN)*Behm (1995) - la tactique du 400 haies*

date	12-Aug-71	time	6.0	10.0	13.8	17.6	21.6	25.7	29.9	34.4	38.9	43.5		49.2	/ 1				
reaction time		interval		4.00	3.80	3.80	4.00	4.10	4.20	4.50	4.50	4.60	5.70	CR					11.60
		velocity	7.50	8.75	9.21	9.21	8.75	8.54	8.33	7.78	7.78	7.61	7.02	8.13					9.05
H1 lead leg		strides	19	13	13	13	13	13	13	15	15	15		142					7.72

FINAL - 1970 France vs. USA (Colombes, FRA)*Behm (1988) - 45-39*

date	08-Jul-70	time	5.9	9.9	13.7	17.4	21.7	25.6	29.8	34.3	38.9	43.4		48.6	/ 1				
reaction time		interval		4.00	3.80	3.70	4.30	3.90	4.20	4.50	4.60	4.50	5.20	PB					11.50
		velocity	7.63	8.75	9.21	9.46	8.14	8.97	8.33	7.78	7.61	7.78	7.69	8.23					9.13
H1 lead leg		strides	19	13	13	13	13	13	13	15	15	15		142					7.72

Narisako, Kenji (JPN) (1984)*Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

date	05-Jun-10	time	6.07	9.86	13.71	17.60	21.59	25.73	30.07	34.51	39.01	43.58		49.01	/ 1				
reaction time	0.165	interval		3.79	3.85	3.89	3.99	4.14	4.34	4.44	4.50	4.57	5.43						11.53
		velocity	7.41	9.23	9.09	9.00	8.77	8.45	8.06	7.88	7.78	7.66	7.37	8.16					9.11
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					7.77

FINAL - 2009 Japanese National Championships (Hiroshima, JPN)*Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

date	27-Jun-09	time	6.02	9.76	13.53	17.38	21.33	25.56	29.90	34.37	39.02	43.86		49.53	6 / 1				
reaction time		interval		3.74	3.77	3.85	3.95	4.23	4.34	4.47	4.65	4.84	5.67						11.36
		velocity	7.48	9.36	9.28	9.09	8.86	8.27	8.06	7.83	7.53	7.23	7.05	8.08					9.24
H1 lead leg		strides		13	13	13	13	14	14	15	15	15		125					7.52

FINAL - 2009 Osaka Grand Prix (Osaka, JPN)*Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

date	09-May-09	time	6.04	9.73	13.50	17.30	21.19	25.28	29.63	34.02	38.61	43.36		48.77	/ 3				
reaction time		interval		3.69	3.77	3.80	3.89	4.09	4.35	4.39	4.59	4.75	5.41						11.26
		velocity	7.45	9.49	9.28	9.21	9.00	8.56	8.05	7.97	7.63	7.37	7.39	8.20					9.33
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					7.65

Race A - 2009 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

date	03-May-09	time	6.06	9.76	13.61	17.48	21.47	25.54	29.81	34.13	38.68	43.43		48.99	/ 1				
reaction time		interval		3.70	3.85	3.87	3.99	4.07	4.27	4.32	4.55	4.75	5.56						11.42
		velocity	7.43	9.46	9.09	9.04	8.77	8.60	8.20	8.10	7.69	7.37	7.19	8.16					9.19
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					7.71

FINAL - 2008 Japanese National Championships (Kawasaki, JPN)*Yasuhori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers*

date	27-Jun-08	time	6.02	9.77	13.61	17.46	21.43	25.50	29.84	34.28	38.88	43.72		49.47	/ 2				
reaction time		interval		3.75	3.84	3.85	3.97	4.07	4.34	4.44	4.60	4.84	5.75						11.44
		velocity	7.48	9.33	9.11	9.09	8.82	8.60	8.06	7.88	7.61	7.23	6.96	8.09					9.18
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					7.56

FINAL - 2008 Osaka Grand Prix (Osaka, JPN)*Yasuhori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers*

date	10-May-08	time	5.97	9.59	13.36	17.16	21.11	25.21	29.56	33.98	38.58	43.37		49.00	9 / 1				
reaction time		interval		3.62	3.77	3.80	3.95	4.10	4.35	4.42	4.60	4.79	5.63						11.19
		velocity	7.54	9.67	9.28	9.21	8.86	8.54	8.05	7.92	7.61	7.31	7.10	8.16					9.38
H1 lead leg		strides		13	13	13	13	13	14	14	15	15		123					7.60

FINAL - 2008 Shizuoka International Athletics Meeting (Fukuroi, JPN)*Yasuhori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers*

date	03-May-08	time	6.04	9.74	13.56	17.40	21.35	25.62	29.92	34.46	39.10	43.82		49.44	/ 1				
reaction time		interval		3.70	3.82	3.84	3.95	4.27	4.30	4.54	4.64	4.72	5.62						11.36
		velocity	7.45	9.46	9.16	9.11	8.86	8.20	8.14	7.71	7.54	7.42	7.12	8.09					9.24
H1 lead leg		strides		13	13	13	13	14	14	15	15	15		125					7.55

Semi-Final 1 - 2007 IAAF World Championships (Osaka, JPN)*Yasuhori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers*

date	26-Aug-07	time	6.02	9.71	13.45	17.24	21.18	25.27	29.58	33.90	38.42	43.04		48.44	7 / 5				
reaction time	0.179	interval		3.69	3.74	3.79	3.94	4.09	4.31	4.32	4.52	4.62	5.40						11.22
		velocity	7.48	9.49	9.36	9.23	8.88	8.56	8.12	8.10	7.74	7.58	7.41	8.26					9.36
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	19.2	163					7.80

Heat 5 - 2007 IAAF World Championships (Osaka, JPN)*Yasuhori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers*

date	25-Aug-07	time	6.00	9.70	13.44	17.28	21.22	25.32	29.72	34.12	38.72	43.39		48.92	2 / 3				
reaction time	0.172	interval		3.70	3.74	3.84	3.94	4.10	4.40	4.40	4.60	4.67	5.53						11.28
		velocity	7.50	9.46	9.36	9.11	8.88	8.54	7.95	7.95	7.61	7.49	7.23	8.18					9.31
		strides																	7.68

H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	19.2	163.2
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FINAL - 2007 Japanese National Championships (Osaka, JPN)

Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers

date	30-Jun-07	time	5.99	9.68	13.42	17.24	21.16	25.23	29.55	34.00	38.59	43.31	49.01	/ 2	11.25	12.31	13.76
reaction time		interval	3.69	3.74	3.82	3.92	4.07	4.32	4.45	4.59	4.72	5.70			9.33	8.53	7.63
		velocity	7.51	9.49	9.36	9.16	8.93	8.60	8.10	7.87	7.63	7.42	7.02	8.16			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

FINAL - 2007 Osaka Grand Prix (Osaka, JPN)

Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers

date	05-May-07	time	5.97	9.66	13.38	17.20	21.14	25.21	29.46	34.08	38.85	43.55	49.20	/ 4	11.23	12.26	14.09
reaction time		interval	3.69	3.72	3.82	3.94	4.07	4.25	4.62	4.77	4.70	5.65			9.35	8.56	7.45
		velocity	7.54	9.49	9.41	9.16	8.88	8.60	8.24	7.58	7.34	7.45	7.08	8.13			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

FINAL - 2006 Japanese National Championships (Kobe, JPN)

Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers

date	01-Jul-06	time	6.07	9.82	13.61	17.51	21.46	25.60	30.02	34.52	39.11	43.75	48.95	/ 1	11.44	12.51	13.73
reaction time		interval	3.75	3.79	3.90	3.95	4.14	4.42	4.50	4.59	4.64	5.20			9.18	8.39	7.65
		velocity	7.41	9.33	9.23	8.97	8.86	8.45	7.92	7.78	7.63	7.54	7.69	8.17			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

FINAL - 2006 Osaka Grand Prix (Osaka, JPN)

Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers

date	06-May-06	time	5.95	9.63	13.41	17.23	21.10	25.12	29.44	33.77	38.17	42.72	47.93	/ 3	11.28	12.21	13.28
reaction time		interval	3.68	3.78	3.82	3.87	4.02	4.32	4.33	4.40	4.55	5.21	PB		9.31	8.60	7.91
		velocity	7.56	9.51	9.26	9.16	9.04	8.71	8.10	8.08	7.95	7.69	7.68	8.35			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	19-Sep-05	time	6.08	9.81	13.68	17.56	21.51	25.56	29.88	34.23	38.67	43.22	48.40	/ 2	11.48	12.32	13.34
reaction time		interval	3.73	3.87	3.88	3.95	4.05	4.32	4.35	4.44	4.55	5.18			9.15	8.52	7.87
		velocity	7.40	9.38	9.04	9.02	8.86	8.64	8.10	8.05	7.88	7.69	7.72	8.26			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

Semi-Final 2 - 2005 IAAF World Championships (Helsinki, FIN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	07-Aug-05	time	6.08	9.88	13.77	17.69	21.66	25.75	30.07	34.47	39.02	43.64	49.00	/ 3	11.61	12.38	13.57
reaction time	0.158	interval	3.80	3.89	3.92	3.97	4.09	4.32	4.40	4.55	4.62	5.36			9.04	8.48	7.74
		velocity	7.40	9.21	9.00	8.93	8.82	8.56	8.10	7.95	7.69	7.58	7.46	8.16			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

FINAL - 2005 Japanese Championships (Tokyo, JPN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	04-Jun-05	time	6.06	9.86	13.76	17.73	21.83	26.15	30.49	35.06	39.58	44.18	49.44	/ 2	11.67	12.76	13.69
reaction time		interval	3.80	3.90	3.97	4.10	4.32	4.34	4.57	4.52	4.60	5.26			9.00	8.23	7.67
		velocity	7.43	9.21	8.97	8.82	8.54	8.10	8.06	7.66	7.74	7.61	7.60	8.09			
H1 lead leg		strides	13	13	13	13	14	14	15	15	15		125				

FINAL - 2005 Osaka Grand Prix (Osaka, JPN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	07-May-05	time	5.99	9.68	13.45	17.25	21.24	25.39	29.81	34.25	38.77	43.37	48.71	/ 3	11.26	12.56	13.56
reaction time		interval	3.69	3.77	3.80	3.99	4.15	4.42	4.44	4.52	4.60	5.34			9.33	8.36	7.74
		velocity	7.51	9.49	9.28	9.21	8.77	8.43	7.92	7.88	7.74	7.61	7.49	8.21			
H1 lead leg		strides	13	13	13	13	13	14	14	15	15		123				

FINAL - 2004 Seiko Super Grand Prix (Yokohama, JPN)

Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers

date	23-Sep-04	time	5.99	9.63	13.43	17.37	21.37	25.52	29.91	34.36	38.91	43.58	49.07	/ 4	11.38	12.54	13.67
reaction time		interval	3.64	3.80	3.94	4.00	4.15	4.39	4.45	4.55	4.67	5.49	PB		9.23	8.37	7.68
		velocity	7.51	9.62	9.21	8.88	8.75	8.43	7.97	7.87	7.69	7.49	7.29	8.15			
H1 lead leg		strides	13	13	13	13	13	15	15	15	15		125				

FINAL - 2004 Japanese National Championships (Tottori, JPN)

Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers

date	05-Jun-04	time	6.02	9.79	13.61	17.61	21.76	26.20	30.57	35.06	39.65	44.34	49.80	/ 4	11.59	12.96	13.77
reaction time		interval	3.77	3.82	4.00	4.15	4.44	4.37	4.49	4.59	4.69	5.46			9.06	8.10	7.63
		velocity	7.48	9.28	9.16	8.75	8.43	7.88	8.01	7.80	7.63	7.46	7.33	8.03			
H1 lead leg		strides	13	13	13	13	14	14	15	15	15		125				

Nataura, Yusuke (JPN)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2016 Japanese National High School Championships (Okayama, JPN)

Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data

date	31-Jul-16	time	6.27	10.41	14.73	19.17	23.62	28.06	32.53	37.12	41.83	46.88	52.93	8 / 5	12.90	13.36	14.35
reaction time	0.151	interval	4.14	4.32	4.44	4.45	4.44	4.47	4.59	4.71	5.05	6.05			8.14	7.86	7.32
		velocity	7.18	8.45	8.10	7.88	7.87	7.88	7.83	7.63	7.43	6.93	6.61	7.56			
H1 lead leg		strides	15	15	15	15	15	15	15	15	16		136				

Nathaniel, Ezekiel (NGR) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 1 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	07-Aug-24	time	5.76	9.43	13.13	16.89	20.85	24.98	29.16	33.51	38.22	43.08	48.65	5 / 5	11.13	12.27	13.92
reaction time	0.170	interval	3.67	3.70	3.76	3.96	4.13	4.18	4.35	4.71	4.86	5.57			9.43	8.56	7.54
		velocity	7.81	9.54	9.46	9.31	8.84	8.47	8.37	8.05	7.43	7.20	7.18	8.22			
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17				

Heat 4 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	05-Aug-24	time	5.84	9.46	13.15	16.93	20.85	25.00	29.32	33.82	38.51	43.10	48.38	3 / 2			
reaction time	0.181	interval		3.62	3.69	3.78	3.92	4.15	4.32	4.50	4.69	4.59	5.28	11.09	12.39	13.78	
		velocity	7.71	9.67	9.49	9.26	8.93	8.43	8.10	7.78	7.46	7.63	7.58	8.27	9.47	8.47	7.62
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17	158			

Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	21-Aug-23	time	6.06	9.97	13.63	17.33	21.26	25.40	29.73	34.23	43.67	49.22	9 / 6			
reaction time	0.209	interval		3.91	3.66	3.70	3.93	4.14	4.33	4.50	9.44	5.55	11.27	12.40	13.94	
		velocity	7.43	8.95	9.56	9.46	8.91	8.45	8.08	7.78	7.42	7.21	8.13	9.32	8.47	7.53
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	17	131				

Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	20-Aug-23	time	6.10	10.03	13.83	17.56	21.33	25.33	29.53	33.90	38.53	43.23	48.47	8 / 4			
reaction time	0.210	interval		3.93	3.80	3.73	3.77	4.00	4.20	4.37	4.63	4.70	5.24	11.46	11.97	13.70	
		velocity	7.38	8.91	9.21	9.38	9.28	8.75	8.33	8.01	7.56	7.45	7.63	8.25	9.16	8.77	7.66
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17	158			

FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	09-Jun-23	time	5.99	9.69	13.50	17.33	21.30	25.39	29.66	34.06	38.66	43.39	48.54	8 / 3			
reaction time		interval		3.70	3.81	3.83	3.97	4.09	4.27	4.40	4.60	4.73	5.15	11.34	12.33	13.73	
		velocity	7.51	9.46	9.19	9.14	8.82	8.56	8.20	7.95	7.61	7.40	7.77	8.24	9.26	8.52	7.65
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17.7	157.7			

Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	5.97	10.33	14.36	18.40	22.60	24.53	31.80	36.77	54.18	7 / 8	
reaction time	0.176	interval		4.36	4.03	4.04	4.20	9.20	4.97			12.43	13.40
		velocity	7.54	8.03	8.68	8.66	8.33	8.15	7.61	7.04	7.38	8.45	7.84
H1 lead leg	R	strides	21	15	14	13	13	14	14	104			

Heat 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jul-22	time	5.90	9.63	13.43	17.40	21.63	23.44	30.40	34.87	39.46	44.20	49.64	1 / 3			
reaction time	0.135	interval		3.73	3.80	3.97	4.23	8.77	4.47	4.59	4.74	5.44	11.50	13.00	13.80		
		velocity	7.63	9.38	9.21	8.82	8.27	8.53	7.98	7.83	7.63	7.38	7.35	8.06	9.13	8.08	7.61
H1 lead leg	R	strides	21	13	13	14	14	14	14	15	17.2	121.2					

Nezir, Ismail (TUR) (2003)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)																	
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																	
date	10-Jun-24	time	6.14	10.08	14.10	18.18	22.41	26.79	31.38	36.08	40.90	45.71	51.29	6 / 8			
reaction time	0.180	interval		3.94	4.02	4.08	4.23	4.38	4.59	4.70	4.82	4.81	5.58		12.04	13.20	14.33
		velocity	7.33	8.88	8.71	8.58	8.27	7.99	7.63	7.45	7.26	7.28	7.17	7.80	8.72	7.95	7.33
H1 lead leg		strides											0				

FINAL - 2023 Doha Diamond League (Doha, QAT)*Omega Timing (2023) - diamond league race analysis*

date	05-May-23	time	6.16	10.10	14.19	18.37	22.62	27.08	31.79	36.37	41.13	45.91	51.40	2 / 8		
reaction time	0.195	interval		3.94	4.09	4.18	4.25	4.46	4.71	4.58	4.76	4.78	5.49	12.21	13.42	14.12
		velocity	7.31	8.88	8.56	8.37	8.24	7.85	7.43	7.64	7.35	7.32	7.29	8.60	7.82	7.44
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	127			

FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	02-Sep-22	time	6.14	10.04	13.98	22.19	23.88	26.36	30.59	35.20	39.87	44.58	49.92	1 / 3 7		
reaction time	0.170	interval		3.90	3.94	8.21	23.88	2.48	4.23	4.61	4.67	4.71	5.34	13.99		
		velocity	7.33	8.97	8.88	8.53	8.38	14.11	8.27	7.59	7.49	7.43	7.49	8.01	7.51	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	114			

Nichols, Regan (USA) (1973)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2003 USATF National Championships (Palo Alto, CA)																	
<i>USATF Women's Sprint Development (2003)</i>																	
date	22-Jun-03	time	5.99	9.88	13.88	17.89	21.91	26.24	30.56	35.08	39.66	44.45	50.08	8 / 5 5			
reaction time		interval		3.89	4.00	4.01	4.02	4.33	4.32	4.52	4.58	4.79	5.63	11.90	12.67	13.89	
		velocity	7.51	9.00	8.75	8.73	8.71	8.08	8.10	7.74	7.64	7.31	7.10	7.99	8.82	8.29	7.56
H1 lead leg		strides															

Nilsson, Anton (SWE) (1992)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2011 Poks Memorial (Hässelholm, SWE)																	
<i>Blomkvist (2011) - www.elitlandslag.se/SprintHack/LangSprintHack.aspx</i>																	
date	12-Jun-11	time	6.42	10.52	14.82	19.14	23.66	28.24	33.02	37.88	42.90	48.24	54.22	1 / 3			
reaction time		interval		4.10	4.30	4.32	4.52	4.58	4.78	4.86	5.02	5.34	5.98	12.72	13.88	15.22	
		velocity	7.01	8.54	8.14	8.10	7.74	7.64	7.32	7.20	6.97	6.55	6.69	7.38	8.25	7.56	6.90
H1 lead leg	L	strides		14	14	14	14	14	15	15	15	16	19	150			

FINAL - 2011 Fridrott (Stockholm, SWE)*Blomkvist (2011) - www.elitlandslag.se/SprintHack/LangSprintHack.aspx*

date	07-Jun-11	time	6.40	10.60	14.84	19.14	23.56	28.16	32.86	37.78	43.20	48.62	54.86	1 / 2			
reaction time		interval		4.20	4.24	4.30	4.42	4.60	4.70	4.92	5.42	5.42	6.24	12.74	13.72	15.76	
		velocity	7.03	8.33	8.25	8.14	7.92	7.61	7.45	7.11	6.46	6.46	6.41	7.29	8.24	7.65	6.66
H1 lead leg	L	strides		14	14	14	14	14	15	15	16	16	19	151			

Nilsson, Vance (USA) (2005)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)																	
<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>																	
date	28-Jun-24	time	6.02	9.79	13.63	17.60	21.63	23.44	25.75	30.20	34.93	39.74	44.49	49.77	8 / 3		

reaction time	interval	3.77	3.84	3.97	4.03		4.12	4.45	4.73	4.81	4.75	5.28	PB	11.58	12.60	14.29			
	velocity	7.48	9.28	9.11	8.82	8.68	8.53	8.50	7.87	7.40	7.28	7.37	7.58	8.04	9.07	8.33	7.35		
H1 lead leg	R	strides	20	13	13	13		13	13	14	14	15	17	158					
Heat 3 - 2024 USA Olympic Trials (Eugene, OR)													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>						
date	27-Jun-24	time	6.03	9.85	13.69	17.60	21.62	23.45	25.79	30.12	34.70	39.56	44.44	50.13	9 / 2				
reaction time		interval	3.82	3.84	3.91	4.02		4.17	4.33	4.58	4.86	4.88	5.69	PB	11.57	12.52	14.32		
		velocity	7.46	9.16	9.11	8.95	8.71	8.53	8.39	8.08	7.64	7.20	7.17	7.03	7.98	9.08	8.39	7.33	
H1 lead leg	R	strides	20	13	13	13		13	13	13	15	15	17	158					
Noda, Keisuke (JPN) (1999)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)													<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>						
date	23-Oct-16	time	6.49	10.65	14.85	19.10	23.43		27.86	32.49	37.47	42.48	47.45	52.99	8 / 1				
reaction time		interval	4.16	4.20	4.25	4.33		4.43	4.63	4.98	5.01	4.97	5.54				12.61	13.39	14.96
		velocity	6.93	8.41	8.33	8.24	8.08		7.90	7.56	7.03	6.99	7.04	7.22	7.55		8.33	7.84	7.02
H1 lead leg		strides																	
Nozawa, Keisuke (JPN) (1991)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>						
date	01-Jun-21	time	6.29	10.16	14.20	18.28	22.51		26.73	31.10	35.60	40.24	45.03	50.56	6 / 4				
reaction time	0.199	interval	3.87	4.04	4.08	4.23		4.22	4.37	4.50	4.64	4.79	5.53				11.99	12.82	13.93
		velocity	7.15	9.04	8.66	8.58	8.27		8.29	8.01	7.78	7.54	7.31	7.23	7.91		8.76	8.19	7.54
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19	169				
FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>						
date	24-Oct-20	time	5.99	9.69	13.43	17.22	21.19		25.28	29.46	33.93	38.74	43.89	50.26	6 / 3				
reaction time		interval	3.70	3.74	3.79	3.97		4.09	4.18	4.47	4.81	5.15	6.37				11.23	12.24	14.43
		velocity	7.51	9.46	9.36	9.23	8.82		8.56	8.37	7.83	7.28	6.80	6.28	7.96		9.35	8.58	7.28
H1 lead leg	L	strides	21	13	13	13	14		14	14	14	15	16	20	167				
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>						
date	20-Sep-20	time	6.21	10.11	14.18	18.30	22.59		26.91	31.41	36.00	40.66	45.48	51.03	3 / 6				
reaction time	0.225	interval	3.90	4.07	4.12	4.29		4.32	4.50	4.59	4.66	4.82	5.55				12.09	13.11	14.07
		velocity	7.25	8.97	8.60	8.50	8.16		8.10	7.78	7.63	7.51	7.26	7.21	7.84		8.68	8.01	7.46
H1 lead leg		strides	14	14	14	14		14	14	15	15	15		129					
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)													<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>						
date	29-Jun-19	time	5.99	9.68	13.53	17.52	21.60		25.76	30.10	34.53	39.21	43.98	49.51	4 / 4				
reaction time	0.179	interval	3.69	3.85	3.99	4.08		4.16	4.34	4.43	4.68	4.77	5.53				11.53	12.58	13.88
		velocity	7.51	9.49	9.09	8.77	8.58		8.41	8.06	7.90	7.48	7.34	7.23	8.08		9.11	8.35	7.56
H1 lead leg	L	strides	21	13	13	14	14		14	14	14	15	15	19	166				
FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)													<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>						
date	19-May-19	time	6.14	9.91	13.88	17.87	21.99		26.14	30.46	35.02	39.98	44.94	50.65	6 / 2				
reaction time	0.254	interval	3.77	3.97	3.99	4.12		4.15	4.32	4.56	4.96	4.96	5.71				11.73	12.59	14.48
		velocity	7.33	9.28	8.82	8.77	8.50		8.43	8.10	7.68	7.06	7.06	7.01	7.90		8.95	8.34	7.25
H1 lead leg	L	strides	21	14	14	14	14		14	14	14	16	15	19	169				
A FINAL - 2019 Kinami Memorial (Osaka, JPN)													<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>						
date	06-May-19	time	6.04	9.79	13.61	17.45	21.47		25.53	29.76	34.18	38.84	43.76	49.52	8 / 1				
reaction time		interval	3.75	3.82	3.84	4.02		4.06	4.23	4.42	4.66	4.92	5.76				11.41	12.31	14.00
		velocity	7.45	9.33	9.16	9.11	8.71		8.62	8.27	7.92	7.51	7.11	6.94	8.08		9.20	8.53	7.50
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15	19	169				
A FINAL - 2019 Shizuoka International Athletics Meeting (Fukuuroi, JPN)													<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>						
date	03-May-19	time	6.12	9.88	13.81	17.78	21.86		25.94	30.15	34.48	39.21	44.13	49.84	9 / 1				
reaction time		interval	3.76	3.93	3.97	4.08		4.08	4.21	4.33	4.73	4.92	5.71				11.66	12.37	13.98
		velocity	7.35	9.31	8.91	8.82	8.58		8.58	8.31	8.08	7.40	7.11	7.01	8.03		9.01	8.49	7.51
H1 lead leg	L	strides	21	14	14	14	14		14	14	14	15	15	19.2	168.2				
FINAL - 2017 Nambu Memorial (Sapporo, JPN)													<i>(2017) - tfdata-store.com/2017/07/11/post-1019/</i>						
date	09-Jul-17	time	5.99	9.69	13.47	17.32	21.34		25.50	29.77	34.25	39.04	44.30	50.68	8 / 6				
reaction time		interval	3.70	3.78	3.85	4.02		4.16	4.27	4.48	4.79	5.26	6.38				11.33	12.45	14.53
		velocity	7.51	9.46	9.26	9.09	8.71		8.41	8.20	7.81	7.31	6.65	6.27	7.89		9.27	8.43	7.23
H1 lead leg	L	strides	21	13	13	13	14		14	14	14	15	16	20	167				
FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>						
date	01-Sep-16	time	5.88	9.68	13.52	17.44	21.48		25.68	29.96	34.40	39.12	43.96	49.42	2 / 7				
reaction time	0.134	interval	3.80	3.84	3.92	4.04		4.20	4.28	4.44	4.72	4.84	5.46				11.56	12.52	14.00
		velocity	7.65	9.21	9.11	8.93	8.66		8.33	8.18	7.88	7.42	7.23	7.33	8.09		9.08	8.39	7.50
H1 lead leg	L	strides	21	13	13	13	14		14	14	14	15	15	17.2	163.2				
FINAL - 2016 Japanese National Championships (Nagoya, JPN)													<i>Morioka (2016) - race pattern of top 400m hurdlers in japan</i>						
date	24-Jun-16	time	5.98	9.63	13.43	17.30	21.27		25.47	29.71	34.16	38.73	43.57	49.14	5 / 1				
reaction time	0.174	interval	3.65	3.80	3.87	3.97		4.20	4.24	4.45	4.57	4.84	5.57				11.32	12.41	13.86
		velocity	7.53	9.59	9.21	9.04	8.82		8.33	8.25	7.87	7.66	7.23	7.18	8.14		9.28	8.46	7.58
H1 lead leg		strides	13	13	13	14		14	14	14	15	15		125					

FINAL - 2016 Seiko Golden Grand Prix (Kawasaki, JPN)

Morioka (2016) - race pattern of top 400m hurdlers in japan

date	08-May-16	time	5.96	9.58	13.27	17.06	21.03	25.05	29.15	33.45	38.05	42.89	48.67	4 / 1						
reaction time	0.155	interval		3.62	3.69	3.79	3.97	4.02	4.10	4.30	4.60	4.84	5.78	PB		11.10	12.09	13.74		
		velocity	7.55	9.67	9.49	9.23	8.82	8.71	8.54	8.14	7.61	7.23	6.92	8.22		9.46	8.68	7.64		
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	19.2	167.2						

FINAL - 2016 Shizuoka International Athletics Meeting (Fukuroi, JPN)

Morioka (2016) - race pattern of top 400m hurdlers in japan

date	03-May-16	time	5.94	9.56	13.26	17.10	21.09	25.13	29.38	33.93	38.68	43.53	49.07	/ 1						
reaction time		interval		3.62	3.70	3.84	3.99	4.04	4.25	4.55	4.75	4.85	5.54	PB		11.16	12.28	14.15		
		velocity	7.58	9.67	9.46	9.11	8.77	8.66	8.24	7.69	7.37	7.22	7.22	8.15		9.41	8.55	7.42		
H1 lead leg		strides		13	13	14	14	14	14	15	15	15	127							

B FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)

Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions

date	03-May-12	time	6.17	10.07	14.07	18.12	22.32	26.54	30.89	35.34	39.98	44.75	50.00	/ 1						
reaction time		interval		3.90	4.00	4.05	4.20	4.22	4.35	4.45	4.64	4.77	5.25			11.95	12.77	13.86		
		velocity	7.29	8.97	8.75	8.64	8.33	8.29	8.05	7.87	7.54	7.34	7.62	8.00		8.79	8.22	7.58		
H1 lead leg		strides		14	14	14	14	14	14	14	14	15	127							

Ntweng, Victor (BOT) (1995)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Repechage 2 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	07-Aug-24	time	5.76	9.54	13.40	17.26	21.22	25.36	29.58	34.06	38.68	43.36	48.88	5 / 3						
reaction time	0.168	interval		3.78	3.86	3.86	3.96	4.14	4.22	4.48	4.62	4.68	5.52			11.50	12.32	13.78		
		velocity	7.81	9.26	9.07	9.07	8.84	8.45	8.29	7.81	7.58	7.48	7.25	8.18		9.13	8.52	7.62		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	14	17	157					

Heat 3 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	05-Aug-24	time	5.79	9.66	13.47	17.24	21.23	25.39	29.78	34.46	39.21	44.05	49.59	3 / 5						
reaction time	0.138	interval		3.87	3.81	3.77	3.99	4.16	4.39	4.68	4.75	4.84	5.54			11.45	12.54	14.27		
		velocity	7.77	9.04	9.19	9.28	8.77	8.41	7.97	7.48	7.37	7.23	7.22	8.07		9.17	8.37	7.36		
H1 lead leg	R	strides	20	13	13	13	13	13	14	14	15	15	17	160						

Nuñez, Yeral (DOM) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Repechage 3 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	06-Aug-24	time	5.83	9.49	13.28	17.34	21.36	25.60	29.89	34.44	39.17	44.21	53.68	7 / 5						
reaction time	0.204	interval		3.66	3.79	4.06	4.02	4.24	4.29	4.55	4.73	5.04	9.47			11.51	12.55	14.32		
		velocity	7.72	9.56	9.23	8.62	8.71	8.25	8.16	7.69	7.40	6.94	4.22	7.45		9.12	8.37	7.33		
H1 lead leg	L	strides	20	13	14	14	14	14	14	15	15	15	148							

Heat 2 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	05-Aug-24	time	5.82	9.44	13.11	16.89	20.85	25.00	29.37	33.87	38.42	43.05	48.67	8 / 4						
reaction time	0.187	interval		3.62	3.67	3.78	3.96	4.15	4.37	4.50	4.55	4.63	5.62			11.07	12.48	13.68		
		velocity	7.73	9.67	9.54	9.26	8.84	8.43	8.01	7.78	7.69	7.56	7.12	8.22		9.49	8.41	7.68		
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	18	164						

Nylander, Sven (SWE) (1962)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1996 Olympic Games (Atlanta, GA)

Behm (1996) - 400m haies

date	01-Aug-96	time	6.0	9.7	13.5	17.3	21.3	25.3	29.4	33.8	38.3	42.9	47.98	4 / 4						
reaction time	0.225	interval		3.70	3.80	3.80	4.00	4.00	4.10	4.40	4.50	4.60	5.08	NR		11.30	12.10	13.50		
		velocity	7.50	9.46	9.21	9.21	8.75	8.75	8.54	7.95	7.78	7.61	7.87	8.34		9.29	8.68	7.78		
H1 lead leg		strides	20	13	13	13	13	13	13	13	13	14	14	139						

FINAL - 1994 European Championships (Helsinki, FIN)

Behm (1995) - la tactique du 400 haies

date	10-Aug-94	time	5.9	9.5	13.3	17.2	21.1	25.3	29.3	33.6	38.2	42.8	48.22	/ 2						
reaction time		interval		3.60	3.80	3.90	3.90	4.20	4.00	4.30	4.60	4.60	5.42	PB		11.30	12.10	13.50		
		velocity	7.63	9.72	9.21	8.97	8.97	8.33	8.75	8.14	7.61	7.61	7.38	8.30		9.29	8.68	7.78		
H1 lead leg		strides	20	13	13	13	13	14	14	14	14	14	142							

FINAL - 1990 European Championships (Split, YUG)

Behm (1995) - la tactique du 400 haies

date	29-Aug-90	time	6.1	9.8	13.6	17.5	21.5	25.6	29.9	34.4	38.8	43.3	48.43	6 / 2						
reaction time		interval		3.70	3.80	3.90	4.00	4.10	4.30	4.50	4.40	4.50	5.13			11.40	12.40	13.40		
		velocity	7.38	9.46	9.21	8.97	8.75	8.54	8.14	7.78	7.95	7.78	7.80	8.26		9.21	8.47	7.84		
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	14	17.2	155.2						

FINAL - 1986 European Championships (Stuttgart, FRG)

Behm (1995) - la tactique du 400 haies

date	28-Aug-86	time	5.9	9.7	13.6	17.6	21.7	26.0	30.4	34.9	39.5	44.1	49.38	/ 3						
reaction time		interval		3.80	3.90	4.00	4.10	4.30	4.40	4.50	4.60	4.60	5.28			11.70	12.80	13.70		
		velocity	7.63	9.21	8.97	8.75	8.54	8.14	7.95	7.78	7.61	7.61	7.58	8.10		8.97	8.20	7.66		
H1 lead leg		strides	20	13	13	13	13	13	13	13	14	14	139							

Nylander, Viktor (SWE) (1998)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)

Henson (2020) - Athlete First: 2017 year end hurdle report

date	23-Jul-17	time	5.88	9.76	13.68	17.80	22.04	26.52	31.24	36.08	41.08	46.24	52.76	2 / 8						
reaction time	0.187	interval		3.88	3.92	4.12	4.24	4.48	4.72	4.84	5.00	5.16	6.52			11.92	13.44	15.00		
		velocity	7.65	9.02	8.93	8.50	8.25	7.81	7.42	7.23	7.00	6.78	6.13	7.58		8.81	7.81	7.00		
H1 lead leg	R	strides		13	14	14	14	14	15	15	15	15	19	148						

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Obayashi, Masayuki (JPN) (1996)		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
FINAL - 2020 World Athletics Trials (Fuji, JPN)		date	06-Sep-20	time	5.96	9.86	13.85	18.00	22.12	26.36	30.63	35.02	39.62	44.53	50.22	1 / 2			
reaction time	interval			3.90	3.99	4.15	4.12	4.24	4.27	4.39	4.60	4.91	5.69			12.04	12.63	13.90	
	velocity	7.55	8.97	8.77	8.43	8.50		8.25	8.20	7.97	7.61	7.13	7.03	7.96		8.72	8.31	7.55	
H1 lead leg	strides		14	14	14	15		15	15	15	15	15		132					
FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)		<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>																	
date	19-May-19	time	6.04	9.96	13.91	18.04	22.21	26.48	30.83	35.40	40.22	45.35		51.45	4 / 6				
reaction time	0.157	interval		3.92	3.95	4.13	4.17	4.27	4.35	4.57	4.82	5.13	6.10			12.00	12.79	14.52	
	velocity	7.45	8.93	8.86	8.47	8.39		8.20	8.05	7.66	7.26	6.82	6.56	7.77		8.75	8.21	7.23	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	17	20.7	175.7					
A FINAL - 2019 Kinami Memorial (Osaka, JPN)		<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>																	
date	06-May-19	time	6.06	10.08	14.08	18.17	22.39	26.63	30.91	35.30	39.89	44.64		50.11	9 / 4				
reaction time		interval		4.02	4.00	4.09	4.22	4.24	4.28	4.39	4.59	4.75	5.47			12.11	12.74	13.73	
	velocity	7.43	8.71	8.75	8.56	8.29		8.25	8.18	7.97	7.63	7.37	7.31	7.98		8.67	8.24	7.65	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19	172					
B FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)		<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>																	
date	03-May-19	time	6.07	10.08	14.11	18.34	22.57	26.88	31.35	35.85	40.47	45.18		50.48	6 / 1				
reaction time		interval		4.01	4.03	4.23	4.23	4.31	4.47	4.50	4.62	4.71	5.30			12.27	13.01	13.83	
	velocity	7.41	8.73	8.68	8.27	8.27		8.12	7.83	7.78	7.58	7.43	7.55	7.92		8.56	8.07	7.59	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	19	172					
B FINAL - 2018 Shizuoka International Athletics Meeting (Fukuroi, JPN)		<i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdlers - main national competitions in 2018</i>																	
date	03-May-18	time	6.01	9.75	13.93	18.07	22.26	26.48	30.77	35.21	39.76	44.48		49.93	6 / 1				
reaction time	0.168	interval		3.74	4.18	4.14	4.19	4.22	4.29	4.44	4.55	4.72	5.45			12.06	12.70	13.71	
	velocity	7.49	9.36	8.37	8.45	8.35		8.29	8.16	7.88	7.69	7.42	7.34	8.01		8.71	8.27	7.66	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	19.7	176.7					
FINAL - 2017 Osaka University Athletics Championships (Osaka, JPN)		<i>(2017.04.13) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>																	
date	05-Apr-17	time	6.02	9.82	13.79	17.86	22.09	26.46	31.03	35.82	40.69	46.01		51.94	7 / 1				
reaction time		interval		3.80	3.97	4.07	4.23	4.37	4.57	4.79	4.87	5.32	5.93			11.84	13.17	14.98	
	velocity	7.48	9.21	8.82	8.60	8.27		8.01	7.66	7.31	7.19	6.58	6.75	7.70		8.87	7.97	7.01	
H1 lead leg		strides																	
FINAL - 2015 Japanese National Junior Championships (Nagoya, JPN)		<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>																	
date	18-Oct-15	time	6.10	9.94	14.08	18.28	22.62	26.89	31.26	35.76	40.30	44.94		50.18	6 / 3				
reaction time		interval		3.84	4.14	4.20	4.34	4.27	4.37	4.50	4.54	4.64	5.24	PB		12.18	12.98	13.68	
	velocity	7.38	9.11	8.45	8.33	8.06		8.20	8.01	7.78	7.71	7.54	7.63	7.97		8.62	8.09	7.68	
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	15	135					
Oda, Atuya (JPN) (2003)		<i>Shibayama (2021) - national high school and U20 national championships</i>																	
FINAL - 2021 Japanese High School National Championships (Fukui, JPN)		date	30-Jul-21	time	6.26	10.39	14.76	19.20	23.77	28.48	33.25	38.19	43.13	48.01	53.18	5 / 5			
reaction time	0.173	interval		4.13	4.37	4.44	4.57	4.71	4.77	4.94	4.94	4.88	5.17			12.94	14.05	14.76	
	velocity	7.19	8.47	8.01	7.88	7.66		7.43	7.34	7.09	7.09	7.17	7.74	7.52		8.11	7.47	7.11	
H1 lead leg		strides		15	15	15	15	15	15	15	15	15	15	135					
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)		<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																	
date	26-Jun-21	time	6.31	10.26	14.23	18.28	22.57	27.08	31.72	36.55	41.57	46.91		52.76	8 / 8				
reaction time	0.166	interval		3.95	3.97	4.05	4.29	4.51	4.64	4.83	5.02	5.34	5.85			11.97	13.44	15.19	
	velocity	7.13	8.86	8.82	8.64	8.16		7.76	7.54	7.25	6.97	6.55	6.84	7.58		8.77	7.81	6.91	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	17	159						
Oda, Masaya (JPN) (1995)		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)		date	24-Oct-20	time	5.99	9.82	13.75	17.68	21.72	25.98	30.35	34.88	39.56	44.33	49.79	2 / 1			
reaction time		interval		3.83	3.93	3.93	4.04	4.26	4.37	4.53	4.68	4.77	5.46			11.69	12.67	13.98	
	velocity	7.51	9.14	8.91	8.91	8.66		8.22	8.01	7.73	7.48	7.34	7.33	8.03		8.98	8.29	7.51	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.2	171.2					
FINAL - 2020 Japanese National Championships (Niigata, JPN)		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	02-Oct-20	time	6.04	9.81	13.66	17.60	21.72	26.09	30.58	35.12	39.84	44.71		50.44	3 / 4				
reaction time	0.178	interval		3.77	3.85	3.94	4.12	4.37	4.49	4.54	4.72	4.87	5.73			11.56	12.98	14.13	
	velocity	7.45	9.28	9.09	8.88	8.50		8.01	7.80	7.71	7.42	7.19	6.98	7.93		9.08	8.09	7.43	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.7	171.7					
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	20-Sep-20	time	6.12	9.94	13.78	17.81	21.94	26.31	30.71	35.24	39.86	44.63		50.18	5 / 2				
reaction time	0.222	interval		3.82	3.84	4.03	4.13	4.37	4.40	4.53	4.62	4.77	5.55			11.69	12.90	13.92	
	velocity	7.35	9.16	9.11	8.68	8.47		8.01	7.95	7.73	7.58	7.34	7.21	7.97		8.98	8.14	7.54	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131					
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	23-Aug-20	time	6.01	9.76	13.56	17.57	21.77	26.08	30.51	35.14	39.92	45.05		50.73	9 / 6				

reaction time	0.159	interval	3.75	3.80	4.01	4.20	4.31	4.43	4.63	4.78	5.13	5.68	11.56	12.94	14.54		
		velocity	7.49	9.33	9.21	8.73	8.33	8.12	7.90	7.56	7.32	6.82	7.04	7.88	9.08	8.11	7.22
H1 lead leg		strides	14	14	14	14	14	14	14	15	15	16	130				

FINAL - 2019 National Sports Festival (Hitachinaka, JPN) *Enomoto (2019) - research on athlete performance and technique- 2019 data book*

date	05-Oct-19	time	5.96	9.68	13.46	17.40	21.52	25.89	30.26	34.65	39.17	43.91	49.42	6 / 1			
reaction time	0.179	interval	3.72	3.78	3.94	4.12	4.37	4.37	4.39	4.52	4.74	5.51	PB	11.44	12.86	13.65	
		velocity	7.55	9.41	9.26	8.88	8.50	8.01	8.01	7.97	7.74	7.38	7.26	8.09	9.18	8.16	7.69
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131				

FINAL - 2019 Japanese National Championships (Fukuoka, JPN) *Yamanaka (2019) - research on athlete performance and technique- 2019 data book*

date	29-Jun-19	time	5.91	9.66	13.58	17.53	21.59	25.84	30.25	34.72	39.34	44.13	49.60	3 / 5			
reaction time	0.201	interval	3.75	3.92	3.95	4.06	4.25	4.41	4.47	4.62	4.79	5.47	PB	11.62	12.72	13.88	
		velocity	7.61	9.33	8.93	8.86	8.62	8.24	7.94	7.83	7.58	7.31	7.31	8.06	9.04	8.25	7.56
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19.2	171.2			

Odate, Yuya (JPN) (2000)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2018 Japanese National High School Championships (Nagoya, JPN) <i>Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection</i>																	
date	04-Aug-18	time	6.46	10.56	14.81	19.12	23.57	28.16	32.87	37.69	42.78	47.88	53.37	2 / 7			
reaction time		interval	4.10	4.25	4.31	4.45	4.59	4.71	4.82	5.09	5.10	5.49			12.66	13.75	15.01
		velocity	6.97	8.54	8.24	8.12	7.87	7.63	7.43	7.26	6.88	6.86	7.29	7.49	8.29	7.64	7.00
H1 lead leg		strides	15	15	15	15	15	15	15	15	16	16	137				

Ogawa, Daiki (JPN) (2003)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Repechage 1 - 2024 Olympic Games (Paris, FRA) <i>Paris 2024 Olympc Games - Results Book (2024)</i>																	
date	07-Aug-24	time	5.84	9.67	13.57	17.57	21.62	25.82	30.13	34.60	39.18	43.85	49.25	3 / 5			
reaction time	0.136	interval	3.83	3.90	4.00	4.05	4.20	4.31	4.47	4.58	4.67	5.40			11.73	12.56	13.72
		velocity	7.71	9.14	8.97	8.75	8.64	8.33	8.12	7.83	7.64	7.49	7.41	8.12	8.95	8.36	7.65
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169			

Heat 1 - 2024 Olympic Games (Paris, FRA) *Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.94	9.76	13.65	17.66	21.80	26.05	30.45	35.03	39.75	44.62	50.21	8 / 6			
reaction time	0.174	interval	3.82	3.89	4.01	4.14	4.25	4.40	4.58	4.72	4.87	5.59			11.72	12.79	14.17
		velocity	7.58	9.16	9.00	8.73	8.45	8.24	7.95	7.64	7.42	7.19	7.16	7.97	8.96	8.21	7.41
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	150				

FINAL - 2023 Japanese National Championships (Osaka, JPN) *Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	03-Jun-23	time	6.06	9.93	13.87	17.90	22.04	26.28	30.58	35.07	39.66	44.33	49.52	3 / 1			
reaction time	0.170	interval	3.87	3.94	4.03	4.14	4.24	4.30	4.49	4.59	4.67	5.19	PB	11.84	12.68	13.75	
		velocity	7.43	9.04	8.88	8.68	8.45	8.25	8.14	7.80	7.63	7.49	7.71	8.08	8.87	8.28	7.64
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	20	172			

FINAL - 2022 Japanese U20 National Championships (Osaka, JPN) *Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season*

date	11-Jun-22	time	6.12	10.14	14.18	18.26	22.46	26.76	31.11	35.74	40.57	45.41	50.72	7 / 3			
reaction time	0.173	interval	4.02	4.04	4.08	4.20	4.30	4.35	4.63	4.83	4.84	5.31			12.14	12.85	14.30
		velocity	7.35	8.71	8.66	8.58	8.33	8.14	8.05	7.56	7.25	7.23	7.53	7.89	8.65	8.17	7.34
H1 lead leg	L	strides	22	14	14	15	15	15	15	15	17	17	20.2	179.2			

FINAL - 2021 Japanese High School National Championships (Fukui, JPN) *Shibayama (2021) - national high school and U20 national championships*

date	30-Jul-21	time	6.29	10.51	14.88	19.30	23.86	28.53	33.23	38.04	42.98	47.96	53.22	2 / 6			
reaction time	0.154	interval	4.22	4.37	4.42	4.56	4.67	4.70	4.81	4.94	4.98	5.26			13.01	13.93	14.73
		velocity	7.15	8.29	8.01	7.92	7.68	7.49	7.45	7.28	7.09	7.03	7.60	7.52	8.07	7.54	7.13
H1 lead leg		strides	14	14	15	15	15	15	15	15	17	17	137				

Okada, Sohei (JPN) (1993)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2011 Japanese National High School Championships (Kitakami, JPN) <i>Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics</i>																	
date	05-Aug-11	time	6.15	10.17	14.27	18.44	22.60	26.86	31.44	36.26	41.26	46.26	51.72	7 / 1			
reaction time		interval	4.02	4.10	4.17	4.16	4.26	4.58	4.82	5.00	5.00	5.46			12.29	13.00	14.82
		velocity	7.32	8.71	8.54	8.39	8.41	8.22	7.64	7.26	7.00	7.00	7.33	7.73	8.54	8.08	7.09
H1 lead leg		strides															

Okamura, Kunihiro (JPN) (2000)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2022 Japanese National Championships (Osaka, JPN) <i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																	
date	11-Jun-22	time	6.16	9.91	13.78	17.77	21.87	26.26	30.70	35.37	40.21	45.10	50.70	2 / 8			
reaction time	0.212	interval	3.75	3.87	3.99	4.10	4.39	4.44	4.67	4.84	4.89	5.60			11.61	12.93	14.40
		velocity	7.31	9.33	9.04	8.77	8.54	7.97	7.88	7.49	7.23	7.16	7.14	7.89	9.04	8.12	7.29
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	146				

Omodiale, Sylvester (NGR) (1977)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 3 - 2000 Olympic Games (Sydney, AUS) <i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																	
date	24-Sep-00	time	5.98	9.78	13.70	17.78	22.06	26.30	30.62	35.30	40.10	45.14	51.06	2 / 7			
reaction time	0.189	interval	3.80	3.92	4.08	4.28	4.24	4.32	4.68	4.80	5.04	5.92			11.80	12.84	14.52
		velocity	7.53	9.21	8.93	8.58	8.18	8.25	8.10	7.48	7.29	6.94	6.76	7.83	8.90	8.18	7.23
H1 lead leg		strides	22	15	15	15	15	15	15	16	16	17	161				

Omura, Haruki (JPN) (2002)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN) <i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																	

date	26-Jun-21	time	6.29	10.18	14.15	18.18	22.39	26.68	31.08	35.62	40.24	44.93	50.27	5 / 1						
reaction time	0.214	interval		3.89	3.97	4.03	4.21	4.29	4.40	4.54	4.62	4.69	5.34		PB	11.89	12.90	13.85		
		velocity	7.15	9.00	8.82	8.68	8.31	8.16	7.95	7.71	7.58	7.46	7.49		7.96	8.83	8.14	7.58		
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	15	19		165					
Onodera, Shota (JPN) (1999)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2022 Japanese National Championships (Osaka, JPN)													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
date	11-Jun-22	time	6.32	10.24	14.30	18.42	22.56	26.74	30.96	35.42	40.11	45.03	50.49	7 / 6						
reaction time	0.192	interval		3.92	4.06	4.12	4.14	4.18	4.22	4.46	4.69	4.92	5.46				12.10	12.54	14.07	
		velocity	7.12	8.93	8.62	8.50	8.45	8.37	8.29	7.85	7.46	7.11	7.33		7.92		8.68	8.37	7.46	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	17	159							
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
date	08-May-22	time	6.39	10.44	14.55	18.64	22.81	26.99	31.31	35.77	40.24	44.88	50.25	1 / 7						
reaction time	0.243	interval		4.05	4.11	4.09	4.17	4.18	4.32	4.46	4.47	4.64	5.37		PB	12.25	12.67	13.57		
		velocity	7.04	8.64	8.52	8.56	8.39	8.37	8.10	7.85	7.83	7.54	7.45		7.96		8.57	8.29	7.74	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	15	20		177					
FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
date	01-May-22	time	6.31	10.28	14.35	18.47	22.62	26.79	31.03	35.57	40.24	45.10	50.52	3 / 7						
reaction time	0.210	interval		3.97	4.07	4.12	4.15	4.17	4.24	4.54	4.67	4.86	5.42				12.16	12.56	14.07	
		velocity	7.13	8.82	8.60	8.50	8.43	8.39	8.25	7.71	7.49	7.20	7.38		7.92		8.63	8.36	7.46	
H1 lead leg		strides		15	15	15	15	15	15	15	15	17	137							
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)													<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>							
date	31-Jul-17	time	6.42	10.51	14.66	19.04	23.59	28.13	32.68	37.34	42.28	47.30	52.56	7 / 4						
reaction time	0.183	interval		4.09	4.15	4.38	4.55	4.54	4.55	4.66	4.94	5.02	5.26				12.62	13.64	14.62	
		velocity	7.01	8.56	8.43	7.99	7.69	7.71	7.69	7.51	7.09	6.97	7.60		7.61		8.32	7.70	7.18	
H1 lead leg		strides		14	14	14	16	15	15	15	17	17	137							
Ören, Sinan (TUR) (1998)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	23-Jul-17	time	5.92	9.68	13.56	17.52	21.68	25.96	30.60	35.28	40.00	44.92	50.84	7 / 4						
reaction time	0.258	interval		3.76	3.88	3.96	4.16	4.28	4.64	4.68	4.72	4.92	5.92		NJR PB	11.60	13.08	14.32		
		velocity	7.60	9.31	9.02	8.84	8.41	8.18	7.54	7.48	7.42	7.11	6.76		7.87		9.05	8.03	7.33	
H1 lead leg	R	strides		14	14	13	13		14	15	15	15	18		131					
Osida, Syuuna (JPN) (2005)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)													<i>Kishima (2022) - national high school championships biomechanics data collection</i>							
date	03-Jun-23	time	6.39	10.54	14.76	18.97	23.41	27.93	32.68	37.59	42.68	47.90	53.49	9 / 6						
reaction time	0.149	interval		4.15	4.22	4.21	4.44	4.52	4.75	4.91	5.09	5.22	5.59		PB	12.58	13.71	15.22		
		velocity	7.04	8.43	8.29	8.31	7.88	7.74	7.37	7.13	6.88	6.70	7.16		7.48		8.35	7.66	6.90	
H1 lead leg	R	strides	23	15	15	15	15	15	15	16	17	18	20		184					
Othman, Ashraf Hussien (QAT) (2001)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	28-May-21	time	6.16	10.20	14.33	18.50	22.67	24.5	26.77	35.30	39.67	44.17	49.58	5 / 1						
reaction time	0.171	interval		4.04	4.13	4.17	4.17	4.10		8.53	4.37	4.50	5.41		PB	12.34				
		velocity	7.31	8.66	8.47	8.39	8.39	8.16	8.54	8.21	8.01	7.78	7.39		8.07		8.51			
H1 lead leg	R	strides	22	14	14	14	14	14	14		15	15	18		140					
Ottoz, Laurent (ITA) (1970)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 1998 European Championships (Budapest, HUN)													<i>Sanchez (1998) - Budapest '98: análisis de la carreras con villas</i>							
date	20-Aug-98	time					21.69					43.62	49.15	2 / 6						
reaction time		interval					15.58					21.93	5.53							
		velocity		7.36			8.99					7.98	7.23		8.14					
H1 lead leg	R	strides	22	14	14	14	14	14	14	14	15	15	15	18	169					
Oyama, Takumi (JPN) (1991)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2009 Japanese National High School Championships (Nara, JPN)													<i>Matsuo (2009) - 62nd high school championships: JAF scientific committee- biomechanics</i>							
date	31-Jul-09	time	6.39	10.51	14.83	19.23	23.64	28.24	32.88	37.52	42.26	47.01	52.26	1 / 2						
reaction time		interval		4.12	4.32	4.40	4.41	4.60	4.64	4.64	4.74	4.75	5.25				12.84	13.65	14.13	
		velocity	7.04	8.50	8.10	7.95	7.94	7.61	7.54	7.54	7.38	7.37	7.62		7.65		8.18	7.69	7.43	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15		131					
Ozaki, Yusuke (JPN) (1994)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
B FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	24-Oct-20	time	6.26	10.11	14.01	18.00	22.16	26.38	30.83	35.37	40.14	44.98	50.63	2 / 2						
reaction time		interval		3.85	3.90	3.99	4.16	4.22	4.45	4.54	4.77	4.84	5.65				11.74	12.83	14.15	
		velocity	7.19	9.09	8.97	8.77	8.41	8.29	7.87	7.71	7.34	7.23	7.08		7.90		8.94	8.18	7.42	
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	15	17	21		182					
Pan Feng (CHN) (2002)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)													<i>CAA Hurdle Development (2019)</i>							
date	17-Aug-19	time	6.52	10.74	15.02	19.38	23.82	28.38	32.98	37.68	42.48	47.48	53.17	6 / 2						
reaction time	0.183	interval		4.22	4.28	4.36	4.44	4.56	4.60	4.70	4.80	5.00	5.69				12.86	13.60	14.50	
		velocity	6.90	8.29	8.18	8.03	7.88	7.68	7.61	7.45	7.29	7.00	7.03		7.52		8.16	7.72	7.24	

H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	16	19.5	176.5				
Patrick, David (USA) (1960)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1982 TAC Naitonal Championships (Knoxville, TN)			<i>Mann (1987) - the elite athlete program biomechanical analysis of the long hurdles: tac championship meet</i>																
date	20-Jun-82	time	6.22	10.16	14.08	17.98	21.94		25.88	30.12	34.52	38.96	43.66		48.57	1 / 1			
reaction time		interval		3.94	3.92	3.90	3.96		3.94	4.24	4.40	4.44	4.70	4.91			11.76	12.14	13.54
		velocity	7.23	8.88	8.93	8.97	8.84		8.88	8.25	7.95	7.88	7.45	8.15	8.24		8.93	8.65	7.75
H1 lead leg		strides																	
Paul, Jacob (GBR) (1995)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2019 Müller Grand Prix (Birmingham, GBR) (TV Analysis)			<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																
date	18-Aug-19	time	6.04	9.92	13.88	17.88	22.04	23.9	26.20		35.20	40.00	44.92		50.71	1 / 7			
reaction time	0.156	interval		3.88	3.96	4.00	4.16		4.16		9.00	4.80	4.92	5.79			11.84		
		velocity	7.45	9.02	8.84	8.75	8.41	8.37	8.41		7.78	7.29	7.11	6.91	7.89		8.87		
H1 lead leg	L	strides	21	14	14	14	14		14	14		15	15		135				
FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)			<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																
date	30-May-19	time	6.06	9.96	14.20	18.33	22.56	24.3	26.97	31.50	36.10	40.96	45.80		51.29	1 / 6			
reaction time	0.185	interval		3.90	4.24	4.13	4.23		4.41	4.53	4.60	4.86	4.84	5.49			12.27	13.17	14.30
		velocity	7.43	8.97	8.25	8.47	8.27	8.23	7.94	7.73	7.61	7.20	7.23	7.29	7.80		8.56	7.97	7.34
H1 lead leg	L	strides	21	14	14	14	14		14			15	15		121				
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)			<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																
date	09-Jul-17	time	6.00	9.72	13.56	17.48	21.56		25.72	30.04	34.48	39.08	43.76		49.49	1 / 8			
reaction time	0.156	interval		3.72	3.84	3.92	4.08		4.16	4.32	4.44	4.60	4.68	5.73	PB		11.48	12.56	13.72
		velocity	7.50	9.41	9.11	8.93	8.58		8.41	8.10	7.88	7.61	7.48	6.98	8.08		9.15	8.36	7.65
H1 lead leg	L	strides	21	14	14	14	14		14	14	15	15	15		150				
FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)			<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																
date	23-Jul-16	time	6.04	9.84	13.76	17.76	21.92		26.24	30.68	35.36	40.16	45.12		50.84	1 / 9			
reaction time	0.136	interval		3.80	3.92	4.00	4.16		4.32	4.44	4.68	4.80	4.96	5.72			11.72	12.92	14.44
		velocity	7.45	9.21	8.93	8.75	8.41		8.10	7.88	7.48	7.29	7.06	6.99	7.87		8.96	8.13	7.27
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15		146				
Peng Ming-Yang (TPE) (1998)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)			<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																
date	03-May-23	time	6.08	9.80	13.57	17.38	21.31		25.51	29.91	34.50	39.20	44.02		49.36	7 / 2			
reaction time	0.190	interval		3.72	3.77	3.81	3.93		4.20	4.40	4.59	4.70	4.82	5.34			11.30	12.53	14.11
		velocity	7.40	9.41	9.28	9.19	8.91		8.33	7.95	7.63	7.45	7.26	7.49	8.10		9.29	8.38	7.44
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164				
FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)			<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																
date	01-May-22	time	6.01	9.71	13.51	17.42	21.42		25.64	29.93	34.55	39.29	44.08		49.32	5 / 3			
reaction time	0.172	interval		3.70	3.80	3.91	4.00		4.22	4.29	4.62	4.74	4.79	5.24	PB		11.41	12.51	14.15
		velocity	7.49	9.46	9.21	8.95	8.75		8.29	8.16	7.58	7.38	7.31	7.63	8.11		9.20	8.39	7.42
H1 lead leg		strides		13	13	13	13		14	14	15	15	15		125				
Peresta, Andrew (USA) (1985)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 3 - 2007 USATF National Championships (Indianapolis, IN)			<i>USATF Men's Hurdle Development (2007)</i>																
date	21-Jun-07	time	5.97	9.91	13.93	18.00	22.21		26.53	30.96	35.39	40.12	44.94		50.22	2 / 4			
reaction time		interval		3.94	4.02	4.07	4.21		4.32	4.43	4.43	4.73	4.82	5.28			12.03	12.96	13.98
		velocity	7.54	8.88	8.71	8.60	8.31		8.10	7.90	7.90	7.40	7.26	7.58	7.96		8.73	8.10	7.51
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	15		158				
Pesa, Sinisa (YUG) (1973)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 8 - 2000 Olympic Games (Sydney, AUS)			<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																
date	24-Sep-00	time	6.06	9.82	13.70	17.62	21.74		25.98	30.38	35.18	40.26		52.14	7 / 5				
reaction time	0.165	interval		3.76	3.88	3.92	4.12		4.24	4.40	4.80	5.08					11.56	12.76	
		velocity	7.43	9.31	9.02	8.93	8.50		8.25	7.95	7.29	6.89		7.67			9.08	8.23	
H1 lead leg		strides	20	13	13	13	14		14	14	14	16	16		147				
Phillips, Andre (USA) (1959)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1988 Olympic Games (Seoul, KOR)			<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	25-Sep-88	time	5.80	9.36	13.13	16.97	20.93		24.98	29.14	33.18	37.45	41.99		47.19	6 / 1			
reaction time	0.150	interval		3.56	3.77	3.84	3.96		4.05	4.16	4.04	4.27	4.54	5.20	OR / PB		11.17	12.17	12.85
		velocity	7.76	9.83	9.28	9.11	8.84		8.64	8.41	8.66	8.20	7.71	7.69	8.48		9.40	8.63	8.17
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	13	13	17.9	153.9				
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)			<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																
date	24-Sep-88	time	5.92	9.61	13.44	17.37	21.34		25.42	29.63	33.86	38.22	42.91		48.19	5 / 1			
reaction time		interval		3.69	3.83	3.93	3.97		4.08	4.21	4.23	4.36	4.69	5.28			11.45	12.26	13.28
		velocity	7.60	9.49	9.14	8.91	8.82		8.58	8.31	8.27	8.03	7.46	7.58	8.30		9.17	8.56	7.91
H1 lead leg		strides	19	13	13	13	13		13	13	13	13	14	18	155				
FINAL - 1982 TAC Naitonal Championships (Knoxville, TN)			<i>Mann (1987) - the elite athlete program biomechanical analysis of the long hurdles: tac championship meet</i>																
date	20-Jun-82	time	6.02	9.88	13.82	17.74	21.70		25.64	29.66	34.04	38.66	43.52		48.62	1 / 2			
reaction time		interval		3.86	3.94	3.92	3.96		3.94	4.02	4.38	4.62	4.86	5.10			11.72	11.92	13.86

	velocity	7.48	9.07	8.88	8.93	8.84		8.88	8.71	7.99	7.58	7.20	7.84	8.23		8.96	8.81	7.58
H1 lead leg	strides																	
Phillips, Isa (JAM) (1984)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 2 - 2009 IAAF World Championships (Berlin, GER)																		
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																		
date	16-Aug-09	time	5.98	9.52	13.19	17.02	20.93	25.04	29.38	33.78	38.48	43.19		48.93	6 / 4			
reaction time	0.238	interval		3.54	3.67	3.83	3.91	4.11	4.34	4.40	4.70	4.71	5.74			11.04	12.36	13.81
		velocity	7.53	9.89	9.54	9.14	8.95	8.52	8.06	7.95	7.45	7.43	6.97			9.51	8.50	7.60
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	15	14	18.7	161.7				
Heat 1 - 2009 IAAF World Championships (Berlin, GER)																		
<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																		
date	15-Aug-09	time	6.05	9.66	13.33	17.18	21.19	25.38	29.79	34.23	38.85	43.55		48.99	8 / 1			
reaction time	0.224	interval		3.61	3.67	3.85	4.01	4.19	4.41	4.44	4.62	4.70	5.44			11.13	12.61	13.76
		velocity	7.44	9.70	9.54	9.09	8.73	8.35	7.94	7.88	7.58	7.45	7.35	8.16		9.43	8.33	7.63
H1 lead leg		strides																
FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)																		
<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>																		
date	13-Sep-08	time	6.09	9.79	13.63	17.63	21.80	26.11	30.35	34.80	39.34	44.00		49.22	2 / 3			
reaction time	0.185	interval		3.70	3.84	4.00	4.17	4.31	4.24	4.45	4.54	4.66	5.22			11.54	12.72	13.65
		velocity	7.39	9.46	9.11	8.75	8.39	8.12	8.25	7.87	7.71	7.51	7.66	8.13		9.10	8.25	7.69
H1 lead leg		strides																
Pineda, David José (ESP) (1998)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		
date	23-Jul-17	time	5.84	9.60	13.44	17.40	21.52	25.80	30.40	34.96	39.68	44.52		50.41	3 / 3			
reaction time	0.283	interval		3.76	3.84	3.96	4.12	4.28	4.60	4.56	4.72	4.84	5.89	NJR PB		11.56	13.00	14.12
		velocity	7.71	9.31	9.11	8.84	8.50	8.18	7.61	7.68	7.42	7.23	6.79	7.93		9.08	8.08	7.44
H1 lead leg	L	strides		15	15	15	15	15	17	17	17	17	21	164				
Pirjahan, Mahdi (IRI) (1999)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - West Asian Championships - 2024 Seashore Doha Meeting (Doha, QAT)																		
<i>Omega Timing (2024) - diamond league race analysis</i>																		
date	10-May-24	time	6.34	10.08	14.00	18.10	22.33	26.50	30.85	35.28	39.82	44.48		50.60	6 / 2			
reaction time	0.166	interval		3.74	3.92	4.10	4.23	4.17	4.35	4.43	4.54	4.66	6.12			11.76	12.75	13.63
		velocity	7.10	9.36	8.93	8.54	8.27	8.39	8.05	7.90	7.71	7.51	6.54	7.91		8.93	8.24	7.70
H1 lead leg		strides												0				
B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)																		
<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																		
date	28-May-21	time	5.97	9.93	13.93	17.97	22.17	24.1	26.50	30.90	35.30	39.90		dnf	7 / --			
reaction time	0.138	interval		3.96	4.00	4.04	4.20	4.33	4.40	4.40	4.60					12.00	12.93	
		velocity	7.54	8.84	8.75	8.66	8.33	8.30	8.08	7.95	7.95	7.61				8.75	8.12	
H1 lead leg	L	strides	20	14	13	13	13	13	13	13	13	13	125					
Pitillas, Oscar (ESP) (1971)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1998 Spanish National Championships (San Sebastián, ESP)																		
<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>																		
date	02-Aug-98	time	5.97	9.96	13.89	17.95	22.15	26.58	31.26	35.91	40.79	45.78		51.79	5 / 4			
reaction time		interval		3.99	3.93	4.06	4.20	4.43	4.68	4.65	4.88	4.99	6.01			11.98	13.31	14.52
		velocity	7.54	8.77	8.91	8.62	8.33	7.90	7.48	7.53	7.17	7.01	6.66	7.72		8.76	7.89	7.23
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	18	161				
FINAL - 1997 European Cup (Munich, GER)																		
<i>Jung (2003) - http://www.fgs.uni-halle.de</i>																		
date	21-Jun-97	time	6.28	10.21	14.18	18.24	22.35	26.66	31.20	35.98	40.54	45.46		51.05	1 / 4			
reaction time		interval		3.93	3.97	4.06	4.11	4.31	4.54	4.78	4.56	4.92	5.59			11.96	12.96	14.26
		velocity	7.17	8.91	8.82	8.62	8.52	8.12	7.71	7.32	7.68	7.11	7.16	7.84		8.78	8.10	7.36
H1 lead leg		strides																
Plawgo, Marek (POL) (1981)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2008 Olympic Games (Beijing, CHN)																		
<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>																		
date	18-Aug-08	time	5.9	9.7	13.4	17.3	21.3	25.4	29.8	34.1	38.6	43.3		48.52	3 / 6			
reaction time	0.226	interval		3.80	3.70	3.90	4.00	4.10	4.40	4.30	4.50	4.70	5.22			11.40	12.50	13.50
		velocity	7.63	9.21	9.46	8.97	8.75	8.54	7.95	8.14	7.78	7.45	7.66	8.24		9.21	8.40	7.78
H1 lead leg	R	strides	20	13	13	13	13	14	14	14	14	14	17	159				
FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)																		
<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																		
date	22-Sep-07	time	5.88	9.62	13.44	17.26	21.36	25.56	30.00	34.43	38.88	43.36		48.35	4 / 1			
reaction time	0.130	interval		3.74	3.82	4.10		4.20	4.44	4.43	4.45	4.48	4.99			11.38	12.74	13.36
		velocity	7.65	9.36	9.16	8.91	8.54	8.33	7.88	7.90	7.87	7.81	8.02	8.27		9.23	8.24	7.86
H1 lead leg		strides																
FINAL - 2007 IAAF World Championships (Osaka, JPN)																		
<i>Ae (2008) - IAAF biomechanics team - a booklet of biomechanics data</i>																		
date	28-Aug-07	time	5.87	9.52	13.28	17.06	20.97	25.15	29.48	33.76	38.22	42.80		48.12	7 / 3			
reaction time	0.157	interval		3.65	3.76	3.78	3.91	4.18	4.33	4.28	4.46	4.58	5.32	NR		11.19	12.42	13.32
		velocity	7.67	9.59	9.31	9.26	8.95	8.37	8.08	8.18	7.85	7.64	7.52	8.31		9.38	8.45	7.88
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17	159				
FINAL - 2007 European Cup (Munich, GER)																		
<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>																		
date	23-Jun-07	time	6.04	9.94	13.82	17.78	21.83	25.84	30.34	34.70	39.20	43.84		48.90	1 / 2			
reaction time	0.151	interval		3.90	3.88	3.96	4.05	4.01	4.50	4.36	4.50	4.64	5.06			11.74	12.56	13.50

H1 lead leg	velocity	7.45	8.97	9.02	8.84	8.64		8.73	7.78	8.03	7.78	7.54	7.91	8.18		8.94	8.36	7.78	
	strides																		
FINAL - 2006 European Championships (Göteborg, SWE)														<i>Behm (2006) - Göteborg 2006: Le quatrache</i>					
date	10-Aug-06	time	5.8	9.5	13.4	17.4	21.5	25.7	30.0	34.5	39.0	43.6		48.71					
reaction time		interval		3.70	3.90	4.00	4.10	4.20	4.30	4.50	4.50	4.60	5.11			11.60	12.60	13.60	
		velocity	7.76	9.46	8.97	8.75	8.54	8.33	8.14	7.78	7.78	7.61	7.83	8.21		9.05	8.33	7.72	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	14	14	18	159					
FINAL - 2004 Olympic Games (Athina, GRE)														<i>Behm (2005) - Athènes 2004: Les Haies Basses</i>					
date	26-Aug-04	time	6.0	9.6	13.3	17.2	21.2	25.3	29.8	34.3	38.9	43.7		49.00		3 / 6			
reaction time	0.242	interval		3.60	3.70	3.90	4.00	4.10	4.50	4.50	4.60	4.80	5.30			11.20	12.60	13.90	
		velocity	7.50	9.72	9.46	8.97	8.75	8.54	7.78	7.78	7.61	7.29	7.55	8.16		9.38	8.33	7.55	
H1 lead leg	L	strides	20	13	13	13	13	13	14	14	15	15	143						
FINAL - 2001 European Cup (Bremen, GER)														<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>					
date	23-Jun-01	time	5.94	9.68	13.54	17.50	21.52	25.60	29.46	34.48	39.10	43.86		48.98					
reaction time		interval		3.74	3.86	3.96	4.02	4.08	3.86	5.02	4.62	4.76	5.12			11.56	11.96	14.40	
		velocity	7.58	9.36	9.07	8.84	8.71	8.58	9.07	6.97	7.58	7.35	7.81	8.17		9.08	8.78	7.29	
H1 lead leg		strides																	
Pochanis, Konstantinos (CYP) (1973) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																			
Heat 6 - 2000 Olympic Games (Sydney, AUS)																			
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																			
date	24-Sep-00	time	6.22	10.02	13.94	17.94	21.98		26.34	30.98	35.70	40.54		51.20		3 / 6			
reaction time	0.244	interval		3.80	3.92	4.00	4.04		4.36	4.64	4.72	4.84				11.72	13.04		
		velocity	7.23	9.21	8.93	8.75	8.66		8.03	7.54	7.42	7.23		7.81		8.96	8.05		
H1 lead leg		strides	22	14	14	14	14		15	16	16	16		141					
Porras, Aleix (ESP) (1999) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																			
FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)																			
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																			
date	23-Jul-17	time	5.80	9.76	13.60	17.60	21.84		26.24	30.92	35.60	40.40	45.32		51.36		8 / 7		
reaction time	0.231	interval		3.96	3.84	4.00	4.24		4.40	4.68	4.68	4.80	4.92	6.04			11.80	13.32	14.40
		velocity	7.76	8.84	9.11	8.75	8.25		7.95	7.48	7.48	7.29	7.11	6.62	7.79		8.90	7.88	7.29
H1 lead leg	R	strides		14	14	15	15			15	15	15	15	18	136				
Porter, Will (USA) (1973) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																			
FINAL - 1996 USA Olympic Trials (Atlanta, GA)																			
<i>McNichols - Hurdle technique study through video analysis</i>																			
date	16-Jun-96	time	6.01	9.93	13.91	17.91	22.01	23.80	26.23	30.59	34.93	39.39	43.94		49.49		1 / 8		
reaction time		interval		3.92	3.98	4.00	4.10		4.22	4.36	4.34	4.46	4.55	5.55			11.90	12.68	13.35
		velocity	7.49	8.93	8.79	8.75	8.54	8.40	8.29	8.03	8.06	7.85	7.69	7.21	8.08		8.82	8.28	7.87
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	138					
Preis, Constantin (GER) (1998) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																			
Repechage 2 - 2024 Olympic Games (Paris, FRA)																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	07-Aug-24	time	6.09	9.93	13.81	17.81	21.96		28.26	30.69	35.32	40.10	44.97		51.02		6 / 5		
reaction time	0.218	interval		3.84	3.88	4.00	4.15		6.30	2.43	4.63	4.78	4.87	6.05			11.72	12.88	14.28
		velocity	7.39	9.11	9.02	8.75	8.43		5.56	14.40	7.56	7.32	7.19	6.61	7.84		8.96	8.15	7.35
H1 lead leg	L	strides	21	13	13	14	14		15	15	15	15	15	150					
Heat 4 - 2024 Olympic Games (Paris, FRA)																			
<i>Paris 2024 Olympic Games - Results Book (2024)</i>																			
date	05-Aug-24	time	6.06	9.85	13.76	17.82	21.96		26.20	30.63	35.23	39.90	44.58		49.99		2 / 8		
reaction time	0.221	interval		3.79	3.91	4.06	4.14		4.24	4.43	4.60	4.67	4.68	5.41			11.76	12.81	13.95
		velocity	7.43	9.23	8.95	8.62	8.45		8.25	7.90	7.61	7.49	7.48	7.39	8.00		8.93	8.20	7.53
H1 lead leg	L	strides	20	13	14	14	14		14	14	15	15	15	133					
Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)														<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	10-Jun-24	time	6.11	9.96	13.93	17.94	22.05		26.33	30.82	35.34	40.02	44.59		49.68		7 / 4		
reaction time	0.226	interval		3.85	3.97	4.01	4.11		4.28	4.49	4.52	4.68	4.57	5.09			11.83	12.88	13.77
		velocity	7.36	9.09	8.82	8.73	8.52		8.18	7.80	7.74	7.48	7.66	7.86	8.05		8.88	8.15	7.63
H1 lead leg		strides												0					
FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)														<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	02-Sep-22	time	6.04	9.74	13.48	17.32	21.29	22.98	25.42	29.69	34.20	38.77	43.44		48.83		8 / 5		
reaction time	0.253	interval		3.70	3.74	3.84	3.97		2.44	4.27	4.51	4.57	4.67	5.39			11.28	12.37	13.75
		velocity	7.45	9.46	9.36	9.11	8.82	8.70	14.34	8.20	7.76	7.66	7.49	7.42	8.19		9.31	8.49	7.64
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	153					
FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	09-Sep-21	time	6.08	9.84	13.84	17.84	21.96	23.7	26.20	30.44	34.84	39.36	43.92		49.08		8 / 5		
reaction time	0.259	interval		3.76	4.00	4.00	4.12		4.24	4.24	4.40	4.52	4.56	5.16			11.76	12.60	13.48
		velocity	7.40	9.31	8.75	8.75	8.50	8.44	8.25	8.25	7.95	7.74	7.68	7.75	8.15		8.93	8.33	7.79
H1 lead leg	L	strides	21	13	14	14	14		14	15	15	15	15	120					
FINAL - 2021 Memorial van Damme (Brussels, BEL) (TV Analysis)														<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	03-Sep-21	time	6.20	10.00	14.00	18.08	22.28	24.1	26.60	31.08	35.60	40.16		50.12		8 / 8			
reaction time	0.303	interval		3.80	4.00	4.08	4.20		4.32	4.48	4.52	4.56					11.88	13.00	
		velocity	7.26	9.21	8.75	8.58	8.33	8.30	8.10	7.81	7.74	7.68		7.98			8.84	8.08	

H1 lead leg	L	strides	21	13	14	14	14	15	15	15	15								136
FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)																			
date	09-Jul-21	time	6.00	9.84	17.60	21.62	23.4	25.79	30.08	34.50	39.20	44.04							Henson (2021) - Athlete First: 2021 year end hurdle report
reaction time	0.231	interval		3.84	7.76	4.02	4.17	4.29	4.42	4.70	4.84	5.45							49.49 4 / 4
		velocity	7.50	9.11	9.02	8.71	8.55	8.39	8.16	7.92	7.45	7.23	7.34	8.08	9.05	8.41	7.52		11.60 12.48 13.96
H1 lead leg	L	strides	22	14		14		15	15		16	16							112
FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)																			
date	01-Jul-21	time	6.00	9.82	13.66	17.70	21.72		25.88	34.72	39.48	44.38							Henson (2021) - Athlete First: 2021 year end hurdle report
reaction time	0.246	interval		3.82	3.84	4.04	4.02		4.16	8.84	4.76	4.90	5.41						49.79 2 / 5
		velocity	7.50	9.16	9.11	8.66	8.71		8.41	7.92	7.35	7.14	7.39	8.03	8.97				11.70
H1 lead leg	L	strides	22	14	14	14	14	15	15	16	16								111
FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																			
date	17-Sep-20	time	6.24	10.14		22.36	24.2		31.06	35.53	40.14	44.74							Henson (2020) - Athlete First: 2020 year end hurdle report
reaction time	0.250	interval		3.90		12.22			8.70	4.47	4.61	4.60	5.17						49.91 1 / 7
		velocity	7.21	8.97		8.59	8.26		8.05	7.83	7.59	7.61	7.74	8.01					13.68
H1 lead leg	R	strides	22	14						15	15	15	18	99					7.68
FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)																			
date	13-Sep-20	time	6.04		13.92	17.88		26.20											Henson (2020) - Athlete First: 2020 year end hurdle report
reaction time	0.240	interval			7.88	3.96		8.32											dnf 5 / --
		velocity	7.45		8.88	8.84		8.41											11.84
H1 lead leg	L	strides	22			14													8.87
FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																			
date	23-Aug-20	time	6.10		13.96	18.02	22.12	23.9	26.32	35.44	40.12	44.80							Henson (2020) - Athlete First: 2020 year end hurdle report
reaction time	0.232	interval			7.86	4.06	4.10		4.20	9.12	4.68	4.68	5.33						50.13 2 / 6
		velocity	7.38		8.91	8.62	8.54	8.37	8.33	7.68	7.48	7.48	7.50	7.98					11.92
H1 lead leg	L	strides	21			14	14	14	14		15	15	18	111					8.81
FINAL - 2020 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)																			
date	14-Aug-20	time	6.00	9.81	13.71	17.75	21.92		26.26	30.76	35.27	39.87	44.44						Henson (2020) - Athlete First: 2020 year end hurdle report
reaction time	0.251	interval		3.81	3.90	4.04	4.17		4.34	4.50	4.51	4.60	4.57	5.05					49.49 8 / 5
		velocity	7.50	9.19	8.97	8.66	8.39		8.06	7.78	7.76	7.61	7.66	7.92	8.08				11.75 13.01 13.68
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	138					8.94 8.07 7.68
Prince, Damian (USA) (1986)																			
Heat 1 - 2007 USATF National Championships (Indianapolis, IN)																			
date	21-Jun-07	time	6.01	9.79	13.66	17.65	21.89		26.38	30.83	35.48	40.55							USATF Men's Hurdle Development (2007)
reaction time		interval		3.78	3.87	3.99	4.24		4.49	4.45	4.65	5.07							dnf 8 / --
		velocity	7.49	9.26	9.04	8.77	8.25		7.80	7.87	7.53	6.90							11.64 13.18
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16							9.02 7.97
Rakotoarimandry, Yvon (MAD) (1976)																			
Heat 2 - 2000 Olympic Games (Sydney, AUS)																			
date	24-Sep-00	time	5.98	9.82	13.70	17.66	21.70		26.06		35.14	39.86	44.62						Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games
reaction time	0.185	interval		3.84	3.88	3.96	4.04		4.36		9.08	4.72	4.76	5.53					50.15 7 / 8
		velocity	7.53	9.11	9.02	8.84	8.66		8.03		7.71	7.42	7.35	7.23	7.98				11.68
H1 lead leg		strides	21	14	14	14	14		14			15	15	121					8.99
Ratnayake, Harijan (SRI) (1974)																			
Heat 3 - 2000 Olympic Games (Sydney, AUS)																			
date	24-Sep-00	time	6.54	10.58	14.58	18.62	22.74		27.18	31.66	36.26								Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games
reaction time	0.346	interval		4.04	4.00	4.04	4.12		4.44	4.48	4.60								50.43 7 / 4
		velocity	6.88	8.66	8.75	8.66	8.50		7.88	7.81	7.61								12.08 13.04
H1 lead leg		strides	22	14	14	13	13		14	14	14								8.69 8.05
Rawlinson, Christopher (GBR) (1972)																			
FINAL - 2003 IAAF World Championships (Paris, FRA)																			
date	29-Aug-03	time	5.9	9.5	13.4	17.3	21.2		25.3	29.4	33.9	38.4	43.0						Behm (2003) - Paris 2003:Le quatrache masculin - féminin
reaction time	0.165	interval		3.60	3.90	3.90	3.90		4.10	4.10	4.50	4.50	4.60	5.90					48.90 2 / 6
		velocity	7.63	9.72	8.97	8.97	8.97		8.54	8.54	7.78	7.78	7.61	6.78	8.18				11.40 12.10 13.60
H1 lead leg	R	strides	20	13	13	13	13		13	13	15	15	15	19	162				9.21 8.68 7.72
FINAL - 2002 IAAF World Cup (Madrid, ESP)																			
date	20-Sep-02	time	5.83	9.55	13.30	17.13	21.07		25.07	29.44	34.01	38.65	43.46						Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas
reaction time	0.172	interval		3.72	3.75	3.83	3.94		4.00	4.37	4.57	4.64	4.81	5.72					49.18 3 / 3
		velocity	7.72	9.41	9.33	9.14	8.88		8.75	8.01	7.66	7.54	7.28	6.99	8.13				11.30 12.31 14.02
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	15	19	170				9.29 8.53 7.49
FINAL - 2002 European Championships (Munich, GER)																			
date	09-Aug-02	time	6.30	10.24	14.28														Graubner (2009) - http://www.fgs.uni-halle.de
reaction time	0.160	interval		3.94	4.04														dnf / --
		velocity	7.14	8.88	8.66														
H1 lead leg		strides																	

Heat 4 - 2002 European Championships (Munich, GER)

date	07-Aug-02	time	6.02	9.72	13.44	17.32	21.34	25.50	29.82	34.56	39.30	44.10	49.73	Graubner (2009) - http://www.fgs.uni-halle.de			
reaction time		interval		3.70	3.72	3.88	4.02	4.16	4.32	4.74	4.74	4.80	5.63	11.30	12.50	14.28	
		velocity	7.48	9.46	9.41	9.02	8.71	8.41	8.10	7.38	7.38	7.29	7.10	8.04	9.29	8.40	7.35
H1 lead leg		strides															

FINAL - 2001 IAAF World Championships (Edmonton, CAN)

date	10-Aug-01	time	5.8	9.6	13.3	17.1	21.0	25.0	29.2	33.6	38.1	42.7	48.54	Behm (2001) - Edmonton: Le quatrache: les finales			
reaction time	0.164	interval		3.80	3.70	3.80	3.90	4.00	4.20	4.40	4.50	4.60	5.84	11.30	12.10	13.50	
		velocity	7.76	9.21	9.46	9.21	8.97	8.75	8.33	7.95	7.78	7.61	6.85	8.24	9.29	8.68	7.78
H1 lead leg	R	strides	20	14	14	14	14	14	14	15	15	15	149				

FINAL - 2001 European Cup (Bremen, GER)

date	23-Jun-01	time	6.09	9.81	13.56	17.48	21.46	25.63	30.02	34.58	39.48	44.55	50.11	Graubner (2007) - http://www.fgs.uni-halle.de			
reaction time		interval		3.72	3.75	3.92	3.98	4.17	4.39	4.56	4.90	5.07	5.56	11.39	12.54	14.53	
		velocity	7.39	9.41	9.33	8.93	8.79	8.39	7.97	7.68	7.14	6.90	7.19	7.98	9.22	8.37	7.23
H1 lead leg		strides															

Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)

date	25-Sep-00	time	6.00	9.76	13.56	17.40	21.36	22.88	25.48	29.80	34.24	38.92	43.76	49.25	Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games			
reaction time	0.177	interval		3.76	3.80	3.84	3.96	4.12	4.32	4.44	4.68	4.84	5.49	11.40	12.40	13.96		
		velocity	7.50	9.31	9.21	9.11	8.84	8.74	8.50	8.10	7.88	7.48	7.23	7.29	8.12	9.21	8.47	7.52
H1 lead leg		strides	14	14	14	14	14	14	15	15	15	16	19	150				

Heat 5 - 2000 Olympic Games (Sydney, AUS)

date	24-Sep-00	time	5.96	9.60	13.36	17.16	21.08	25.16	29.52	34.36	39.80	45.16	51.30	Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games			
reaction time	0.184	interval		3.64	3.76	3.80	3.92	4.08	4.36	4.84	5.44	5.36	6.14	11.20	12.36	15.64	
		velocity	7.55	9.62	9.31	9.21	8.93	8.58	8.03	7.23	6.43	6.53	6.51	7.80	9.38	8.50	6.71
H1 lead leg		strides	22	14	14	14	14	14	14	15	17	17	20	175			

FINAL - 1997 European Cup (Munich, GER)

date	21-Jun-97	time	6.12	9.92	13.86	17.90	22.12	26.50	31.07	35.80	40.62	45.62	51.06	Jung (2003) - http://www.fgs.uni-halle.de			
reaction time		interval		3.80	3.94	4.04	4.22	4.38	4.57	4.73	4.82	5.00	5.44	11.78	13.17	14.55	
		velocity	7.35	9.21	8.88	8.66	8.29	7.99	7.66	7.40	7.26	7.00	7.35	7.83	8.91	7.97	7.22
H1 lead leg		strides															

Reemtsma, Will (USA) (2001)

date	27-Jun-24	time	6.15	10.08	14.22	18.48	22.81	24.71	27.16	31.77	36.70	41.60	46.57	52.39	USATF and Karmarush (2024) - USA Olympic trials results and race analysis			
reaction time		interval		3.93	4.14	4.26	4.33	4.35	4.61	4.93	4.90	4.97	5.82	12.33	13.29	14.80		
		velocity	7.32	8.91	8.45	8.22	8.08	8.09	8.05	7.59	7.10	7.14	7.04	6.87	7.64	8.52	7.90	7.09
H1 lead leg	L	strides	21	14	14	14	14	15	15	16	15			138				

Reibert, Werner (FRG) (1948)

date	28-Jun-75	time	6.3	10.2	14.5	18.7	23.1	24.6	27.0	31.8	36.3	40.9	45.4	51.25	Helbig (1975) - 400-m-hürdenlauf			
reaction time		interval		3.97	4.24	3.99	4.09	4.44	4.81	4.50	4.55	4.58	5.81	12.20	13.34	13.63		
		velocity	7.18	8.82	8.25	8.77	8.56	8.14	7.88	7.28	7.78	7.69	7.64	6.88	7.80	8.61	7.87	7.70
H1 lead leg		strides																

Reinberg, Jan (GER) (1980)

date	23-Jun-01	time	6.30	10.21	14.19	18.32	22.48	26.84	31.32	35.98	40.96	45.85	51.66	Graubner (2007) - http://www.fgs.uni-halle.de			
reaction time		interval		3.91	3.98	4.13	4.16	4.36	4.48	4.66	4.98	4.89	5.81	12.02	13.00	14.53	
		velocity	7.14	8.95	8.79	8.47	8.41	8.03	7.81	7.51	7.03	7.16	6.88	7.74	8.74	8.08	7.23
H1 lead leg		strides															

Reinke, Ulrich (FRG)

date	28-Jun-75	time	6.2	10.2	14.5	18.7	23.1	25.1	27.6	32.3	37.2	42.1	47.6	54.54	Helbig (1975) - 400-m-hürdenlauf			
reaction time		interval		4.02	4.22	4.20	4.43	4.47	4.70	4.98	4.81	5.57	6.92	12.44	13.60	15.36		
		velocity	7.23	8.71	8.29	8.33	7.90	7.97	7.83	7.45	7.03	7.28	6.28	5.78	7.33	8.44	7.72	6.84
H1 lead leg		strides																

Rhodes, Calvin (USA)

date	22-Jun-03	time	6.16	10.41	14.68	19.10	23.67	28.43	33.30	38.17	43.18	48.43	54.53	USATF Women's Sprint Development (2003)			
reaction time		interval		4.25	4.27	4.42	4.57	4.76	4.87	4.87	5.01	5.25	6.10	12.94	14.20	15.13	
		velocity	7.31	8.24	8.20	7.92	7.66	7.35	7.19	7.19	6.99	6.67	6.56	7.34	8.11	7.39	6.94
H1 lead leg		strides															

Robertson, Max (GBR) (1963)

date	21-Jun-85	time	5.9	9.7	13.5	17.3	21.2	25.2	29.4	33.8	38.7	44.3	50.09	Warden (1989) - sprinting and hurdling			
reaction time		interval		3.80	3.80	3.80	3.90	4.00	4.20	4.40	4.90	5.60	5.79	11.40	12.10	14.90	
		velocity	7.63	9.21	9.21	9.21	8.97	8.75	8.33	7.95	7.14	6.25	6.91	7.99	9.21	8.68	7.05
H1 lead leg		strides															

H1 lead leg strides 21 13 13 13 13 13 14 14 14 15 19 162

Robinson, Byron (USA) (1995)

FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis) *Henson (2020) - Athlete First: 2019 year end hurdle report*
 date 20-Jul-19 time 5.84 9.52 13.32 17.28 21.36 23.0 25.52 34.00 38.52 43.32 49.29 5 / 4
 reaction time 0.154 interval 3.68 3.80 3.96 4.08 4.16 8.48 4.52 4.80 5.97 11.44
 velocity 7.71 9.51 9.21 8.84 8.58 8.70 8.41 8.25 7.74 7.29 6.70 8.12 9.18
 H1 lead leg L strides 22 15 15 15 15 15 15 15 15 20 147

FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis) *Henson (2020) - Athlete First: 2017 year end hurdle report*
 date 06-Jul-17 time 5.84 9.64 13.68 17.80 21.88 26.00 30.12 34.40 38.80 43.36 48.88 4 / 2
 reaction time 0.151 interval 3.80 4.04 4.12 4.08 4.12 4.12 4.28 4.40 4.56 5.52 11.96 12.32 13.24
 velocity 7.71 9.21 8.66 8.50 8.58 8.50 8.50 8.18 7.95 7.68 7.25 8.18 8.78 8.52 7.93
 H1 lead leg L strides 22 15 15 15 15 15 15 15 15 20 177

FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis) *Henson (2020) - Athlete First: 2017 year end hurdle report*
 date 25-Jun-17 time 5.79 9.55 13.51 17.58 21.68 25.69 29.87 34.07 38.42 42.86 48.50 6 / 4
 reaction time interval 3.76 3.96 4.07 4.10 4.01 4.18 4.20 4.35 4.44 5.64 **PB** 11.79 12.29 12.99
 velocity 7.77 9.31 8.84 8.60 8.54 8.73 8.37 8.33 8.05 7.88 7.09 8.25 8.91 8.54 8.08
 H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 19.5 176.5

FINAL - 2016 USA Olympic Trials (Eugene, OR) (TV Analysis) *Henson (2020) - Athlete First: 2016 year end hurdle report*
 date 10-Jul-16 time 5.90 9.67 13.68 17.75 21.75 25.79 30.00 34.33 38.84 43.44 48.79 2 / 2
 reaction time 0.185 interval 3.77 4.01 4.07 4.00 4.04 4.21 4.33 4.51 4.60 5.35 **PB** 11.85 12.25 13.44
 velocity 7.63 9.28 8.73 8.60 8.75 8.66 8.31 8.08 7.76 7.61 7.48 8.20 8.86 8.57 7.81
 H1 lead leg L strides 22 15 15 15 15 15 15 15 15 15 19.2 176.2

Robinson, Chris (USA) (2001)

FINAL - 2024 USA Olympic Trials (Eugene, OR) *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*
 date 30-Jun-24 time 5.78 9.34 13.01 16.74 20.53 22.30 24.59 28.95 33.35 37.92 42.45 47.96 4 / 4
 reaction time interval 3.56 3.67 3.73 3.79 4.06 4.36 4.40 4.57 4.53 5.51 10.96 12.21 13.50
 velocity 7.79 9.83 9.54 9.38 9.23 8.97 8.62 8.03 7.95 7.66 7.73 7.26 8.34 9.58 8.60 7.78
 H1 lead leg R strides 13 13 13 13 13 14 14 15 15 15 18.5 143.5

Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR) *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*
 date 28-Jun-24 time 5.91 9.58 13.32 17.14 20.97 22.72 25.01 29.44 34.06 38.87 43.64 49.34 5 / 2
 reaction time interval 3.67 3.74 3.82 3.83 4.04 4.43 4.62 4.81 4.77 5.70 11.23 12.30 14.20
 velocity 7.61 9.54 9.36 9.16 9.14 8.80 8.66 7.90 7.58 7.28 7.34 7.02 8.11 9.35 8.54 7.39
 H1 lead leg R strides 21 13 13 13 13 14 14 14 15 15 18.5 163.5

Heat 2 - 2024 USA Olympic Trials (Eugene, OR) *USATF and Karmarush (2024) - USA Olympic trials results and race analysis*
 date 27-Jun-24 time 6.00 9.72 13.47 17.28 21.19 22.94 25.32 29.78 34.40 39.01 43.78 49.54 7 / 1
 reaction time interval 3.72 3.75 3.81 3.91 4.13 4.46 4.62 4.61 4.77 5.76 11.28 12.50 14.00
 velocity 7.50 9.41 9.33 9.19 8.95 8.72 8.47 7.85 7.58 7.59 7.34 6.94 8.07 9.31 8.40 7.50
 H1 lead leg R strides 20 13 13 13 13 15 15 15 15 18.2 150.2

FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis) *Henson (2024) - Athlete First: 2024 year end hurdle report*
 date 07-Jun-24 time 5.90 9.52 13.20 16.93 20.82 24.77 29.03 33.32 37.76 42.38 47.98 8 / 2
 reaction time interval 3.62 3.68 3.73 3.89 3.95 4.26 4.29 4.44 4.62 5.60 11.03 12.10 13.35
 velocity 7.63 9.67 9.51 9.38 9.00 8.86 8.22 8.16 7.88 7.58 7.14 8.34 9.52 8.68 7.87
 H1 lead leg R strides 13 13 13 13 13 13 14 14 15 15 18.5 141.5

FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis) *Henson (2023) - Athlete First: 2023 year end hurdle report*
 date 09-Jun-23 time 5.89 9.53 13.25 17.20 21.20 25.36 29.66 34.06 38.42 42.89 48.12 6 / 1
 reaction time interval 3.64 3.72 3.95 4.00 4.16 4.30 4.40 4.36 4.47 5.23 **PB** 11.31 12.46 13.23
 velocity 7.64 9.62 9.41 8.86 8.75 8.41 8.14 7.95 8.03 7.83 7.65 8.31 9.28 8.43 7.94
 H1 lead leg R strides 21 13 13 14 14 14 14 15 15 15 18.2 166.2

Robinson, Rohan (AUS) (1971)

Heat 1 - 2000 Olympic Games (Sydney, AUS) *Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*
 date 24-Sep-00 time 6.02 9.82 13.62 17.54 21.54 25.70 30.10 34.70 39.74 44.82 50.80 4 / 4
 reaction time 0.173 interval 3.80 3.80 3.92 4.00 4.16 4.40 4.60 5.04 5.08 5.98 11.52 12.56 14.72
 velocity 7.48 9.21 9.21 8.93 8.75 8.41 7.95 7.61 6.94 6.89 6.69 7.87 9.11 8.36 7.13
 H1 lead leg strides 21 14 14 14 14 14 14 15 16 16 152

FINAL - 1996 Olympic Games (Atlanta, GA) *Behm (1996) - 400m haies*
 date 01-Aug-96 time 6.0 9.7 13.5 17.3 21.3 25.3 29.5 33.8 38.3 43.0 48.30 8 / 5
 reaction time 0.283 interval 3.70 3.80 3.80 4.00 4.00 4.20 4.30 4.50 4.70 5.30 11.30 12.20 13.50
 velocity 7.50 9.46 9.21 9.21 8.75 8.75 8.33 8.14 7.78 7.45 7.55 8.28 9.29 8.61 7.78
 H1 lead leg strides 21 14 14 14 14 14 14 15 15 15 150

Rodger, Sebastian (GBR) (1991)

FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis) *Henson (2020) - Athlete First: 2019 year end hurdle report*
 date 30-May-19 time 6.16 10.06 14.13 18.20 22.30 24.0 26.63 31.06 35.50 40.13 44.93 50.50 2 / 4
 reaction time 0.139 interval 3.90 4.07 4.07 4.10 4.33 4.43 4.44 4.63 4.80 5.57 12.04 12.86 13.87
 velocity 7.31 8.97 8.60 8.60 8.54 8.33 8.08 7.90 7.88 7.56 7.29 7.18 7.92 8.72 8.16 7.57
 H1 lead leg R strides 22 14 14 14 14 14 14 14 15 15 19 155

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)

date	time	6.08	10.00	18.16	22.36	26.56	31.00	35.56	40.20	45.08	Henson (2020) - Athlete First: 2018 year end hurdle report					
reaction time	0.161	interval	3.92	8.16	4.20	4.20	4.44	4.56	4.64	4.88	5.76	50.84	1 / 8	12.08	12.84	14.08
		velocity	7.40	8.93	8.58	8.33	7.88	7.68	7.54	7.17	6.94	7.87		8.69	8.18	7.46
H1 lead leg	R	strides	22	14		14	14	15	15	15		123				

FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)

date	time	6.12	10.00	14.12	18.24	22.40	26.64	30.84	35.12	39.60	44.24	Henson (2020) - Athlete First: 2018 year end hurdle report						
reaction time	0.163	interval	3.88	4.12	4.12	4.16	4.24	4.20	4.28	4.48	4.64	5.63	49.87	1 / 6	12.12	12.60	13.40	
		velocity	7.35	9.02	8.50	8.50	8.41	8.25	8.33	8.18	7.81	7.54	7.10	8.02		8.66	8.33	7.84
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	19	170				

FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)

date	time	6.16	10.04	13.92	17.96	22.08	26.28	30.60	35.04	39.52	44.04	Henson (2020) - Athlete First: 2016 year end hurdle report						
reaction time	0.155	interval	3.88	3.88	4.04	4.12	4.20	4.32	4.44	4.48	4.52	5.31	49.35	8 / 6	11.80	12.64	13.44	
		velocity	7.31	9.02	9.02	8.66	8.50	8.33	8.10	7.88	7.81	7.74	7.53	8.11		8.90	8.31	7.81
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	18	169				

Rodríguez, Eduardo Iván (ESP) (1978)

date	time	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2001 European Cup (Bremen, GER)																		
Graubner (2007) - http://www.fgs.uni-halle.de																		
date	23-Jun-01	time	6.26	10.22	14.17	18.16	22.22	26.40	30.78	35.40	40.06	44.89		50.44	1 / 7			
reaction time		interval	3.96	3.95	3.99	4.06	4.18	4.38	4.62	4.66	4.83	5.55				11.90	12.62	14.11
		velocity	7.19	8.84	8.86	8.77	8.62	8.37	7.99	7.58	7.51	7.25	7.21	7.93		8.82	8.32	7.44
H1 lead leg		strides																

FINAL - 1998 Spanish National Championships (San Sebastián, ESP)

date	time	6.10	10.22	14.34	18.52	22.90	27.32	31.89	36.58	41.41	46.24	Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas						
reaction time		interval	4.12	4.12	4.18	4.38	4.42	4.57	4.69	4.83	4.83	5.41	51.65	7 / 3	12.42	13.37	14.35	
		velocity	7.38	8.50	8.50	8.37	7.99	7.92	7.66	7.46	7.25	7.25	7.39	7.74		8.45	7.85	7.32
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	16	15	18.5	171.5				

Rodriguez, Pedro (POR) (1971)

date	time	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 1 - 2000 Olympic Games (Sydney, AUS)																		
Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games																		
date	25-Sep-00	time	6.06	9.98	13.98	17.98	21.98	23.50	26.02	30.38	34.86	39.42	44.10	49.48	1 / 7			
reaction time		interval	3.92	4.00	4.00	4.00	4.04	4.36	4.48	4.56	4.68	5.38				11.92	12.40	13.72
		velocity	7.43	8.93	8.75	8.75	8.51	8.66	8.03	7.81	7.68	7.48	7.43	8.08		8.81	8.47	7.65
H1 lead leg		strides	21	13	13	13	13	13	14	14	14	15	15	144				
Heat 6 - 2000 Olympic Games (Sydney, AUS)																		
Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games																		
date	24-Sep-00	time	6.06	9.64	14.10	18.02	22.02	26.30	30.58	35.02	39.58	44.46		49.90	5 / 4			
reaction time		interval	3.58	4.46	3.92	4.00	4.28	4.28	4.44	4.56	4.88	5.44				11.96	12.56	13.88
		velocity	7.43	9.78	7.85	8.93	8.75	8.18	8.18	7.88	7.68	7.17	7.35	8.02		8.78	8.36	7.56
H1 lead leg		strides	21	13	13	13	13	14	14	15	15	15	18.4	164.4				

Romera, José María (ESP) (1980)

date	time	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2002 IAAF World Cup (Madrid, ESP)																		
Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas																		
date	20-Sep-02	time	5.85	9.62	13.39	17.23	21.21	25.32	29.69	34.15	38.91	43.85		49.68	8 / 6			
reaction time		interval	3.77	3.77	3.84	3.98	4.11	4.37	4.46	4.76	4.94	5.83				11.38	12.46	14.16
		velocity	7.69	9.28	9.28	9.11	8.79	8.52	8.01	7.85	7.35	7.09	6.86	8.05		9.23	8.43	7.42
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	18.5	163.5				

Romig, Cole (USA) (2002)

date	time	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)																		
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																		
date	28-Jun-24	time	6.27	10.36	14.50	18.76	23.02	24.91	27.43	31.84	36.46	41.15	45.91	51.22	1 / 8			
reaction time		interval	4.09	4.14	4.26	4.26	8.03	4.41	4.41	4.62	4.69	4.76	5.31			12.49	13.08	14.07
		velocity	7.18	8.56	8.45	8.22	8.03	7.94	7.94	7.58	7.46	7.35	7.53	7.81		8.41	8.03	7.46
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	15	18.2	176.2				
Heat 2 - 2024 USA Olympic Trials (Eugene, OR)																		
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																		
date	27-Jun-24	time	6.34	10.41	14.46	18.61	22.88	24.83	27.26	31.78	36.44	41.08	45.75	51.01	5 / 6			
reaction time		interval	4.07	4.05	4.15	4.27	8.05	4.38	4.52	4.66	4.64	4.67	5.26			12.27	13.17	13.97
		velocity	7.10	8.60	8.64	8.43	8.20	7.99	7.74	7.51	7.54	7.49	7.60	7.84		8.56	7.97	7.52
H1 lead leg	L	strides	22	15	15	15	15			15	15	15	19	146				

Rosser, Khallifah (USA) (1995)

date	time	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 USA Olympic Trials (Eugene, OR)																		
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																		
date	30-Jun-24	time	6.00	9.92	13.59	17.54	21.65	23.47	25.77	30.26	35.17	40.48	45.76	53.18	9 / 8			
reaction time		interval	3.92	3.67	3.95	4.11	8.52	4.12	4.49	4.91	5.31	5.28	7.42			11.54	12.72	15.50
		velocity	7.50	8.93	9.54	8.86	8.52	8.50	7.80	7.13	6.59	6.63	5.39	7.52		9.10	8.25	6.77
H1 lead leg	R	strides	20	13	13	13	13			13		15	15	115				
Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)																		
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																		
date	28-Jun-24	time	5.93	9.65	13.40	17.35	21.39	23.12	25.39	29.79	34.38	39.16	44.01	49.72	6 / 2			
reaction time		interval	3.72	3.75	3.95	4.04	8.65	4.00	4.40	4.59	4.78	4.85	5.71			11.42	12.44	14.22
		velocity	7.59	9.41	9.33	8.86	8.66	8.65	8.75	7.95	7.63	7.32	7.22	7.01	8.05	9.19	8.44	7.38
H1 lead leg	R	strides	20	13	13	13	13	14	14	14	14	15	17.5	160.5				

Heat 2 - 2024 USA Olympic Trials (Eugene, OR)													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	5.91	9.67	13.50	17.40	21.36	23.14	25.35	29.67	34.32	39.06	43.95	49.93	6 / 2			
reaction time		interval	3.76			3.83	3.90	3.96	3.99	4.32	4.65	4.74	4.89	5.98	11.49	12.27	14.28	
		velocity	7.61	9.31	9.14	8.97	8.84	8.64	8.77	8.10	7.53	7.38	7.16	6.69	8.01	9.14	8.56	7.35
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	17.5	158.5			
FINAL - 2024 Seashore Doha Meeting (Doha, QAT)													<i>Omega Timing (2024) - diamond league race analysis</i>					
date	10-May-24	time	5.74	9.44	13.14	17.00	20.98		25.17	29.60	34.28	39.11	44.08	49.88	7 / 5			
reaction time	0.153	interval	3.70			3.70	3.86	3.98	4.19	4.43	4.68	4.83	4.97	5.80	11.26	12.60	14.48	
		velocity	7.84	9.46	9.46	9.07	8.79		8.35	7.90	7.48	7.25	7.04	6.90	8.02	9.33	8.33	7.25
H1 lead leg	R	strides	20	13	13	13	13		13			15	15	17.7	132.7			
FINAL - 2023 Herculis Meeting International d'Atléisme (Monaco, MON)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	21-Jul-23	time	5.73	9.31	12.98	16.73	20.59		24.65	28.93	33.46	38.13	43.00	48.71	1 / 7			
reaction time	0.172	interval	3.58			3.67	3.75	3.86	4.06	4.28	4.53	4.67	4.87	5.71	11.00	12.20	14.07	
		velocity	7.85	9.78	9.54	9.33	9.07		8.62	8.18	7.73	7.49	7.19	7.01	8.21	9.55	8.61	7.46
H1 lead leg	R	strides	21	13	13	13				14	14	14	14	116				
FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jul-23	time	5.94	9.61	13.28	17.08	21.05		25.09	29.29	33.66	38.27	43.11	48.77	7 / 4			
reaction time		interval	3.67			3.67	3.80	3.97	4.04	4.20	4.37	4.61	4.84	5.66	11.14	12.21	13.82	
		velocity	7.58	9.54	9.54	9.21	8.82		8.66	8.33	8.01	7.59	7.23	7.07	8.20	9.43	8.60	7.60
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	15	18	160			
FINAL - 2023 Bislett Games (Oslo, NOR)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	15-Jun-23	time	5.71	9.31	12.97	16.74	20.67		24.79	29.09	33.54	38.25	43.09	48.87	3 / 6			
reaction time	0.172	interval	3.60			3.66	3.77	3.93	4.12	4.30	4.45	4.71	4.84	5.78	11.03	12.35	14.00	
		velocity	7.88	9.72	9.56	9.28	8.91		8.50	8.14	7.87	7.43	7.23	6.92	8.18	9.52	8.50	7.50
H1 lead leg	R	strides	21			13	13		13			15	15	90				
FINAL - 2023 Meeting de Paris (Paris, FRA)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	09-Jun-23	time	5.74	9.36	13.06	16.85	20.80		24.88	29.09	33.61	38.26	43.09	48.96	3 / 6			
reaction time	0.143	interval	3.62			3.70	3.79	3.95	4.08	4.21	4.52	4.65	4.83	5.87	11.11	12.24	14.00	
		velocity	7.84	9.67	9.46	9.23	8.86		8.58	8.31	7.74	7.53	7.25	6.81	8.17	9.45	8.58	7.50
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	15	18	160			
FINAL - 2023 Doha Diamond League (Doha, QAT)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	05-May-23	time	5.84	9.50	13.29	17.14	21.14		25.32	29.69	34.20	38.85	43.66	49.25	4 / 4			
reaction time	0.161	interval	3.66			3.79	3.85	4.00	4.18	4.37	4.51	4.65	4.81	5.59	11.30	12.55	13.97	
		velocity	7.71	9.56	9.23	9.09	8.75		8.37	8.01	7.76	7.53	7.28	7.16	8.12	9.29	8.37	7.52
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17.5	159.5			
FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	08-Sep-22	time	5.74	9.27			20.69	22.22	24.66	28.73	32.93	37.47	42.17	47.76	5 / 2			
reaction time	0.169	interval	3.53				11.42		3.97	4.07	4.20	4.54	4.70	5.59			13.44	
		velocity	7.84	9.92			9.19	9.00	8.82	8.60	8.33	7.71	7.45	7.16	8.38			7.81
H1 lead leg	R	strides	21	13					13	13	13	14	14	18	119			
FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	02-Sep-22	time	5.87	9.51	13.21		20.89	22.60	24.96	29.09	33.43	37.97	42.57	47.88	4 / 2			
reaction time	0.232	interval	3.64			3.70		7.68		2.36	4.13	4.34	4.54	4.60	5.31		13.48	
		velocity	7.67	9.62	9.46		9.11	8.85	14.83	8.47	8.06	7.71	7.61	7.53	8.35			7.79
H1 lead leg	R	strides	21	13	13				13	13	14	14	14	17.7	132.7			
FINAL - 2022 NACAC Championships (Freeport, BAH) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	21-Aug-22	time	5.73	9.46	13.26	17.03	20.96		25.00	29.00	33.16	37.53	47.59	4 / 2				
reaction time		interval	3.73			3.80	3.77	3.93	4.04	4.00	4.16	4.37		PB	11.30	11.97		
		velocity	7.85	9.38	9.21	9.28	8.91		8.66	8.75	8.41	8.01		8.41	9.29	8.77		
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14		126				
FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	06-Aug-22	time	5.87	9.53	13.33	17.17	21.16	22.84		29.36	33.73	38.23	42.86	48.30	4 / 2			
reaction time	0.177	interval	3.66			3.80	3.84	3.99		8.20	4.37	4.50	4.63	5.44	11.30	12.19	13.50	
		velocity	7.67	9.56	9.21	9.11	8.77	8.76		8.54	8.01	7.78	7.56	7.35	8.28	9.29	8.61	7.78
H1 lead leg	R	strides	21	13	13		13				14	14	14	18	120			
FINAL - 2022 World Athletics Championships (Eugene, OR)													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>					
date	19-Jul-22	time	5.89	9.59	13.38	17.15	21.02	22.60	24.99	29.16	33.48	38.00	42.59	47.88	1 / 5			
reaction time	0.176	interval	3.70			3.79	3.77	3.87	3.97	4.17	4.32	4.52	4.59	5.29		12.01	13.43	
		velocity	7.64	9.46	9.23	9.28	9.04	8.85	8.82	8.39	8.10	7.74	7.63	7.56	8.35			8.74
H1 lead leg		strides		13	13	13	13		13	13	14	14	14	17.5	137.5			
Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.73	9.36	13.17	16.87	20.70	22.41		28.93	33.47	38.00	42.73	48.34	3 / 3			
reaction time	0.141	interval	3.63			3.81	3.70	3.83		8.23	4.54	4.53	4.73	5.61	11.14	12.06	13.80	
		velocity	7.85	9.64	9.19	9.46	9.14	8.92		8.51	7.71	7.73	7.40	7.13	8.27	9.43	8.71	7.61

H1 lead leg	R	strides	21	13	13	13	13				14	14	14	18	133					
Heat 5 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	16-Jul-22	time	5.84	9.63	13.46	17.27	21.26	22.98	25.33	29.52	33.86	38.40	43.03		48.62		2 / 1			
reaction time	0.168	interval	3.79	3.83	3.81	3.99		4.07	4.19	4.34	4.54	4.63	5.59				11.43	12.25	13.51	
		velocity	7.71	9.23	9.14	9.19	8.77	8.70	8.60	8.35	8.06	7.71	7.56	7.16	8.23		9.19	8.57	7.77	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	13	14	14	17.2	156.2					
FINAL - 2022 USATF National Championships (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	26-Jun-22	time	5.97	9.57	13.24	17.01	20.92	22.49	24.86	28.93	33.30	37.73	42.37		47.65		4 / 3			
reaction time		interval	3.60	3.67	3.77	3.91		3.94	4.07	4.37	4.43	4.64	5.28		PB		11.04	11.92	13.44	
		velocity	7.54	9.72	9.54	9.28	8.95	8.89	8.88	8.60	8.01	7.90	7.54	7.58	8.39		9.51	8.81	7.81	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	14	17.7	159.7					
FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	05-Jun-22	time	5.67	9.23	12.97	16.77	20.67	22.38	24.73	28.93	33.40	37.97	42.70		48.25		6 / 1			
reaction time	0.166	interval	3.56	3.74	3.80	3.90		4.06	4.20	4.47	4.57	4.73	5.55				11.10	12.16	13.77	
		velocity	7.94	9.83	9.36	9.21	8.97	8.94	8.62	8.33	7.83	7.66	7.40	7.21	8.29		9.46	8.63	7.63	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	15	143						
FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	28-May-22	time	5.70	9.33	13.06	16.90	20.87	22.62	24.90	29.06	33.33	37.90	42.56		48.10		4 / 2			
reaction time	0.158	interval	3.63	3.73	3.84	3.97		4.03	4.16	4.27	4.57	4.66	5.54		PB		11.20	12.16	13.50	
		velocity	7.89	9.64	9.38	9.11	8.82	8.84	8.68	8.41	8.20	7.66	7.51	7.22	8.32		9.38	8.63	7.78	
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	15	18	162					
FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	26-Jun-21	time	5.77	9.37	13.10	16.96	20.99		25.16	29.48	33.83	38.33	43.06		48.81		8 / 5			
reaction time	0.279	interval	3.60	3.73	3.86	4.03		4.17	4.32	4.35	4.50	4.73	5.75				11.19	12.52	13.58	
		velocity	7.80	9.72	9.38	9.07	8.68		8.39	8.10	8.05	7.78	7.40	6.96	8.20		9.38	8.39	7.73	
H1 lead leg	R	strides		13	13	13	13		14	14	14	14	15	18	141					
Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	25-Jun-21	time	5.93	9.63	13.37	17.17	21.13		29.63	33.97	38.58	43.43		49.04		4 / 2				
reaction time	0.209	interval	3.70	3.74	3.80	3.96		4.17	4.32	4.35	4.50	4.73	5.75				11.24	12.46	13.80	
		velocity	7.59	9.46	9.36	9.21	8.84		8.24	8.06	7.59	7.22	7.13	8.16		9.34	8.43	7.61		
H1 lead leg	R	strides		13	13	13	13		14	14	15	15	18.5	128.5						
Heat 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	24-Jun-21	time	5.77	9.44	13.18	17.08	21.19		25.42	29.79	34.16	38.77	43.61		49.28		5 / 3			
reaction time	0.246	interval	3.67	3.74	3.90	4.11		4.23	4.37	4.37	4.61	4.84	5.67				11.31	12.71	13.82	
		velocity	7.80	9.54	9.36	8.97	8.52		8.27	8.01	8.01	7.59	7.23	7.05	8.12		9.28	8.26	7.60	
H1 lead leg	R	strides		13	13	13	13		14	14	14	14	14	18	140					
FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)																				
																	<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>			
date	30-Jun-19	time	5.93	9.53	13.36	17.26		25.43	29.80	34.36	39.10	43.96		49.87		9 / 6				
reaction time	0.361	interval	3.60	3.83	3.90		4.17	4.37	4.56	4.74	4.86	5.91				11.33	12.54	14.16		
		velocity	7.59	9.72	9.14	8.97		8.57	8.01	7.68	7.38	7.20	6.77	8.02		9.27	8.37	7.42		
H1 lead leg	R	strides	21	13		13		14	15	15	15	15	91							
Rowe, Shawn (JAM) (1992)																				
Semi-Final 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																				
																	<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>			
date	17-Jul-22	time	5.86	9.57	13.47	17.30	21.33	23.08	25.50	30.03	34.53	39.33	44.13		49.80		2 / 8			
reaction time	0.158	interval	3.71	3.90	3.83	4.03		4.17	4.53	4.50	4.80	4.80	5.67				11.44	12.73	14.10	
		velocity	7.68	9.43	8.97	9.14	8.68	8.67	8.39	7.73	7.78	7.29	7.29	7.05	8.03		9.18	8.25	7.45	
H1 lead leg	L	strides	20	13	13	13	13	13	13	14	14	14	14	17	158					
Rudolph, Christian (GDR) (1949)																				
FINAL - 1971 European Championships (Helsinki, FIN)																				
																	<i>Behm (1995) - la tactique du 400 haies</i>			
date	12-Aug-71	time	6.0	10.0	13.9	17.7	21.7		25.7	29.9	34.4	38.9	43.5		49.3		1 / 2			
reaction time		interval	4.00	3.90	3.80	4.00		4.00	4.20	4.50	4.50	4.60	5.80		NR		11.70	12.20	13.60	
		velocity	7.50	8.75	8.97	9.21	8.75		8.75	8.33	7.78	7.78	7.61	6.90	8.11		8.97	8.61	7.72	
H1 lead leg		strides		15	15	15	15		15	15	15	15	15	135						
Saddler, Craig (USA)																				
FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)																				
																	<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>			
date	09-Jun-23	time	5.96	9.54	13.38	17.31	21.40		30.25	34.85	39.46	44.27		49.70		1 / 9				
reaction time		interval	3.58	3.84	3.93	4.09		4.17	4.60	4.61	4.81	5.43				11.35	12.94	14.02		
		velocity	7.55	9.78	9.11	8.91	8.56		7.91	7.61	7.59	7.28	7.37	8.05		9.25	8.11	7.49		
H1 lead leg	R	strides	21	13	13	13	13		15	15	15	15	17	135						
Saifeldin, Muhand Khamis (QAT) (19)																				
B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)																				
																	<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>			
date	28-May-21	time	6.10	10.13	14.27	18.60	23.07	25.1	27.73	32.47	37.33	42.17	47.27		53.06		4 / 5			
reaction time	0.127	interval	4.03	4.14	4.33	4.47		4.66	4.74	4.86	4.84	5.10	5.79				12.50	13.87	14.80	
		velocity	7.38	8.68	8.45	8.08	7.83	7.97	7.51	7.38	7.20	7.23	6.86	6.91	7.54		8.40	7.57	7.09	
H1 lead leg	L	strides	22	14	14	14	14		14		14	14	15	135						

Salmerón, Fernando (ESP) (1978)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1998 Spanish National Championships (San Sebastián, ESP)													<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>					
date	02-Aug-98	time	6.18	10.27	14.57	18.74	23.20	27.72	32.28	36.79	41.74	46.72		52.75	2 / 8			
reaction time		interval	4.09	4.30	4.17	4.46	4.52	4.56	4.51	4.95	4.98	6.03				12.56	13.54	14.44
		velocity	7.28	8.56	8.14	8.39	7.85	7.74	7.68	7.76	7.07	7.03	6.63	7.58		8.36	7.75	7.27
H1 lead leg	L	strides	22	14	15	14	15	15	15	15	17	16	20	178				
Semi-Final 2 - 1998 Spanish National Championships (San Sebastián, ESP)													<i>Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas</i>					
date	01-Aug-98	time	6.20	10.25	14.38	18.62	22.92	27.37	31.92	36.94	42.01	47.14		53.24	3 / ??			
reaction time		interval	4.05	4.13	4.24	4.30	4.45	4.55	5.02	5.07	5.13	6.10				12.42	13.30	15.22
		velocity	7.26	8.64	8.47	8.25	8.14	7.87	7.69	6.97	6.90	6.82	6.56	7.51		8.45	7.89	6.90
H1 lead leg	L	strides	22	14	14	14	14	15	15	16	16	16	20	176				
Samba, Abderrahmane (QAT) (1995)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 Memorial van damme (Brussels, BEL)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	14-Sep-24	time	5.73	9.47	13.25	16.96	20.88	25.00	29.19	33.57	38.09	42.75		48.20	4 / 2			
reaction time	0.170	interval	3.74	3.78	3.71	3.92	4.12	4.19	4.38	4.52	4.66	5.45				11.41	12.23	13.56
		velocity	7.85	9.36	9.26	9.43	8.93	8.50	8.35	7.99	7.74	7.51	7.34	8.30		9.20	8.59	7.74
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	14	17.2	158.2				
FINAL - 2024 Weltklasse (Zürich, SUI)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	05-Sep-24	time	5.73	9.39	13.05	16.80	20.63	24.58	28.72	33.04	37.57	42.18		47.58	4 / 2			
reaction time	0.177	interval	3.66	3.66	3.75	3.83	3.95	4.14	4.32	4.53	4.61	5.40				11.24	11.92	13.46
		velocity	7.85	9.56	9.56	9.33	9.14	8.86	8.45	8.10	7.73	7.59	7.41	8.41		9.34	8.81	7.80
H1 lead leg	R	strides	21	13		13		13	13	13	14	14	17.2	131.2				
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)													<i>Omega Timing (2023) - diamond league race analysis</i>					
date	25-Aug-24	time	5.75	9.43	13.14	16.97	20.89	24.96	29.28	33.51	37.91	42.43		47.69	7 / 3			
reaction time	0.203	interval	3.68	3.71	3.83	3.92	4.07	4.32	4.23	4.40	4.52	5.26				11.22	12.31	13.15
		velocity	7.83	9.51	9.43	9.14	8.93	8.60	8.10	8.27	7.95	7.74	7.60	8.39		9.36	8.53	7.98
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	17	156				
FINAL - 2024 Olympic Games (Paris, FRA)													<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	09-Aug-24	time	5.74	9.48	13.28	17.11	20.98	24.99	29.16	33.52	38.14	42.67		47.98	2 / 6			
reaction time	0.169	interval	3.74	3.80	3.83	3.87	4.01	4.17	4.36	4.62	4.53	5.31				11.37	12.05	13.51
		velocity	7.84	9.36	9.21	9.14	9.04	8.73	8.39	8.03	7.58	7.73	7.53	8.34		9.23	8.71	7.77
H1 lead leg	R	strides	21	13		13	13	13	13	13	14	14	17	144				
Semi-Final 2 - 2024 Olympic Games (Paris, FRA)													<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	07-Aug-24	time	5.78	9.51	13.25	17.02	20.90	24.91	29.13	33.58	38.23	42.86		48.20	5 / 3			
reaction time	0.216	interval	3.73	3.74	3.77	3.88	4.01	4.22	4.45	4.65	4.63	5.34				11.24	12.11	13.73
		velocity	7.79	9.38	9.36	9.28	9.02	8.73	8.29	7.87	7.53	7.56	7.49	8.30		9.34	8.67	7.65
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17.5	157.5				
Heat 2 - 2024 Olympic Games (Paris, FRA)													<i>Paris 2024 Olympc Games - Results Book (2024)</i>					
date	05-Aug-24	time	5.92	9.67	13.44	17.38	21.34	25.29	29.44	33.84	38.40	42.99		48.35	7 / 3			
reaction time	0.182	interval	3.75	3.77	3.94	3.96	3.95	4.15	4.40	4.56	4.59	5.36				11.46	12.06	13.55
		velocity	7.60	9.33	9.28	8.88	8.84	8.86	8.43	7.95	7.68	7.63	7.46	8.27		9.16	8.71	7.75
H1 lead leg	R	strides	21	13	12	12	13	13	13	13	14	14	17	155				
FINAL - 2024 Herculis Meeting International d' Athlétisme (Monaco, MON)													<i>Omega Timing (2024) - diamond league race analysis</i>					
date	12-Jul-24	time	5.83	9.54	13.28	17.14	21.18	25.33	29.55	33.92	38.47	43.08		48.27	8 / 5			
reaction time	0.179	interval	3.71	3.74	3.86	4.04	4.15	4.22	4.37	4.55	4.61	5.19				11.31	12.41	13.53
		velocity	7.72	9.43	9.36	9.07	8.66	8.43	8.29	8.01	7.69	7.59	7.71	8.29		9.28	8.46	7.76
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	13	14	17	156				
FINAL - 2024 Bauhaus Galan (Stockholm, SWE) (TV Analysis)													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
date	02-Jun-24	time	6.10	10.00	13.93	17.80	21.76	25.90	30.17	34.53	39.46	44.07		49.69	2 / 7			
reaction time	0.187	interval	3.90	3.93	3.87	3.96	4.14	4.27	4.36	4.93	4.61	5.62				11.70	12.37	13.90
		velocity	7.38	8.97	8.91	9.04	8.84	8.45	8.20	8.03	7.10	7.59	7.12	8.05		8.97	8.49	7.55
H1 lead leg	L	strides	20	13	13	13	13	13	14	15	15	14	18	161				
FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	03-Aug-21	time	5.84	9.48	13.12	16.88	20.72	24.80	28.92	33.16	37.48	41.90		47.12	8 / 5			
reaction time	0.186	interval	3.64	3.64	3.76	3.84	4.08	4.12	4.24	4.32	4.42	5.22				11.04	12.04	12.98
		velocity	7.71	9.62	9.62	9.31	9.11	8.58	8.50	8.25	8.10	7.92	7.66	8.49		9.51	8.72	8.09
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17	157				
FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
date	28-May-21	time	5.87	9.71	13.61	17.58	21.59	23.3	25.66	29.99	34.27	38.60	42.91	48.26	4 / 4			
reaction time	0.153	interval	3.84	3.90	3.97	4.01	4.07	4.33	4.28	4.33	4.31	5.35				11.71	12.41	12.92
		velocity	7.67	9.11	8.97	8.82	8.73	8.58	8.60	8.08	8.18	8.08	8.12	7.48	8.29	8.97	8.46	8.13
H1 lead leg	R	strides	21	13	13	13		13	13	13	14	14	17	144				
FINAL - 2019 IAAF World Championships (Doha, QAT)													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>					
date	30-Sep-19	time	5.97	9.65	13.40	17.27	21.22	25.29	29.52	33.85	38.30	42.80		48.03	9 / 3			

reaction time	0.198	interval	3.68	3.75	3.87	3.95		4.07	4.23	4.33	4.45	4.50	5.23		11.30	12.25	13.28	
		velocity	7.54	9.51	9.33	9.04	8.86		8.60	8.27	8.08	7.87	7.78	7.65	8.33	9.29	8.57	7.91
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17.5	156.5			
Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)																		
<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>																		
date	28-Sep-19	time	6.00	9.78	13.51	17.41	21.40		25.57	29.84	34.31	38.76	43.33		48.72	5 / 2		
reaction time	0.220	interval		3.78	3.73	3.90	3.99		4.17	4.27	4.47	4.45	4.57	5.39		11.41	12.43	13.49
		velocity	7.50	9.26	9.38	8.97	8.77		8.39	8.20	7.83	7.87	7.66	7.42	8.21	9.20	8.45	7.78
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2			
Heat 3 - 2019 IAAF World Championships (Doha, QAT) (TV Analysis)																		
<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>																		
date	27-Sep-19	time	6.04	9.92	13.84	17.84	21.96		26.16	30.36	34.76	39.20	43.76		49.08	8 / 1		
reaction time	0.183	interval		3.88	3.92	4.00	4.12		4.20	4.20	4.40	4.44	4.56	5.32		11.80	12.52	13.40
		velocity	7.45	9.02	8.93	8.75	8.50		8.33	8.33	7.95	7.88	7.68	7.52	8.15	8.90	8.39	7.84
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	13	14	17	156			
FINAL - 2019 Shanghai Diamond League (Shanghai, CHN)																		
<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>																		
date	18-May-19	time	5.80	9.60	13.36	17.20	21.13	23.0	25.26	29.40	33.58	37.83	42.13		47.27	4 / 1		
reaction time	0.201	interval		3.80	3.76	3.84	3.93		4.13	4.14	4.18	4.25	4.30	5.14		11.40	12.20	12.73
		velocity	7.76	9.21	9.31	9.11	8.91	8.70	8.47	8.45	8.37	8.24	8.14	7.78	8.46	9.21	8.61	8.25
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	13	13	17	155			
FINAL - 2019 Asian Athletics Championships (Doha, QAT)																		
<i>CAA Hurdle Development (2019)</i>																		
date	22-Apr-19	time	5.82	9.40	13.04	16.80	20.68		24.84	29.09	33.48	37.97	42.40		47.51	5 / 1		
reaction time	0.179	interval		3.58	3.64	3.76	3.88		4.16	4.25	4.39	4.49	4.43	5.11	CR	10.98	12.29	13.31
		velocity	7.73	9.78	9.62	9.31	9.02		8.41	8.24	7.97	7.80	7.90	7.83	8.42	9.56	8.54	7.89
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2			
FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)																		
<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>																		
date	08-Sep-18	time	5.84	9.52	13.28	17.04	20.96		24.96	29.16	33.48	37.96	42.32		47.37	3 / 1		
reaction time	0.219	interval		3.68	3.76	3.76	3.92		4.00	4.20	4.32	4.48	4.36	5.05		11.20	12.12	13.16
		velocity	7.71	9.51	9.31	9.31	8.93		8.75	8.33	8.10	7.81	8.03	7.92	8.44	9.38	8.66	7.98
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.5	158.5			
FINAL - 2018 Athletissima (Lausanne, SU) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	05-Jul-18	time	5.76	9.40	13.12	16.84	20.72		24.80	28.92	33.24	37.72	42.24		47.42	5 / 1		
reaction time	0.183	interval		3.64	3.72	3.72	3.88		4.08	4.12	4.32	4.48	4.52	5.18		11.08	12.08	13.32
		velocity	7.81	9.62	9.41	9.41	9.02		8.58	8.50	8.10	7.81	7.74	7.72	8.44	9.48	8.69	7.88
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	17.2	157.2			
FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	30-Jun-18	time	5.88	9.48	13.12	16.84	20.60	22.3	24.52	28.68	32.88	37.36	41.84		46.98	5 / 1		
reaction time	0.209	interval		3.60	3.64	3.72	3.76		3.92	4.16	4.20	4.48	4.48	5.14	AR PB	10.96	11.84	13.16
		velocity	7.65	9.72	9.62	9.41	9.31	8.97	8.93	8.41	8.33	7.81	7.81	7.78	8.51	9.58	8.87	7.98
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.2	158.2			
FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	10-Jun-18	time	5.88	9.60	13.40	17.24	21.20		25.28	29.40	33.76	37.96	42.28		47.41	5 / 1		
reaction time	0.194	interval		3.72	3.80	3.84	3.96		4.08	4.12	4.36	4.20	4.32	5.13	AR PB	11.36	12.16	12.88
		velocity	7.65	9.41	9.21	9.11	8.84		8.58	8.50	8.03	8.33	8.10	7.80	8.44	9.24	8.63	8.15
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	17.5	158.5			
FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	07-Jun-18	time	5.76	9.36	13.08	16.92	20.88	22.7	25.04	29.28	33.72	38.00	42.40		47.60	5 / 1		
reaction time	0.189	interval		3.60	3.72	3.84	3.96		4.16	4.24	4.44	4.28	4.40	5.20		11.16	12.36	13.12
		velocity	7.81	9.72	9.41	9.11	8.84	8.81	8.41	8.25	7.88	8.18	7.95	7.69	8.40	9.41	8.50	8.00
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2			
FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	31-May-18	time	5.76	9.44	13.20	17.04	20.92		25.04	29.24	33.56	37.96	42.36		47.48	4 / 1		
reaction time	0.158	interval		3.68	3.76	3.84	3.88		4.12	4.20	4.32	4.40	4.40	5.12	AR PB	11.28	12.20	13.12
		velocity	7.81	9.51	9.31	9.11	9.02		8.50	8.33	8.10	7.95	7.95	7.81	8.42	9.31	8.61	8.00
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	17	157			
FINAL - 2018 Doha Diamond League (Doha, QAT) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>																		
date	04-May-18	time	5.80	9.44	13.16	16.96	20.92		24.96	29.16	33.48	37.88	42.36		47.57	4 / 1		
reaction time	0.192	interval		3.64	3.72	3.80	3.96		4.04	4.20	4.32	4.40	4.48	5.21	NR PB	11.16	12.20	13.20
		velocity	7.76	9.62	9.41	9.21	8.84		8.66	8.33	8.10	7.95	7.81	7.68	8.41	9.41	8.61	7.95
H1 lead leg	R	strides	20	13	13	13	13		13	13	13	14	14	17.5	142.5			
FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		
date	09-Aug-17	time	5.80	9.56	13.36	17.16	21.08		25.24	29.48	33.88	38.44	43.04		49.74	6 / 7		
reaction time	0.206	interval		3.76	3.80	3.80	3.92		4.16	4.24	4.40	4.56	4.60	6.70		11.36	12.32	13.56
		velocity	7.76	9.31	9.21	9.21	8.93		8.41	8.25	7.95	7.68	7.61	5.97	8.04	9.24	8.52	7.74
H1 lead leg	R	strides	21	13	13	13	13		13	13	14	14	14	19	160			
FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		

date	05-May-17	time	5.80	9.43	13.03	16.66	20.43		24.40	28.56	32.96	37.66	42.60		48.44	4 / 1			
reaction time	0.185	interval		3.63	3.60	3.63	3.77		3.97	4.16	4.40	4.70	4.94	5.84			10.86	11.90	14.04
		velocity	7.76	9.64	9.72	9.64	9.28		8.82	8.41	7.95	7.45	7.09	6.85	8.26		9.67	8.82	7.48
H1 lead leg	R	strides	20	13	13	13	13		13	13	14	14	15	18	159				

FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	28-Mar-17	time	5.92	9.60	13.32	17.12	21.00		25.08	29.40	33.84	38.44	43.00		48.31	5 / 1			
reaction time		interval		3.68	3.72	3.80	3.88		4.08	4.32	4.44	4.60	4.56	5.31	PB		11.20	12.28	13.60
		velocity	7.60	9.51	9.41	9.21	9.02		8.58	8.10	7.88	7.61	7.68	7.53	8.28		9.38	8.55	7.72
H1 lead leg	R	strides		13	13	13	13		13	13	14	14	14	17.5	137.5				

Samuel, Cameron (USA) (1999)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date	26-Jun-21	time	5.84	9.67	13.48	17.45	21.59		25.82	30.26	34.78	39.34	43.91		49.27	7 / 7			
reaction time	0.199	interval		3.83	3.81	3.97	4.14		4.23	4.44	4.52	4.56	4.57	5.36			11.61	12.81	13.65
		velocity	7.71	9.14	9.19	8.82	8.45		8.27	7.88	7.74	7.68	7.66	7.46	8.12		9.04	8.20	7.69
H1 lead leg	R	strides		14	14	14	14		14	15	15		15	115					

Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)*Henson (2021) - Athlete First: 2021 year end hurdle report*

date	25-Jun-21	time	6.00	9.87	13.78	17.77	21.80		26.06	30.49	35.00	39.47	43.94		49.01	5 / 2			
reaction time	0.154	interval		3.87	3.91	3.99	4.03		4.26	4.43	4.51	4.47	4.47	5.07			11.77	12.72	13.45
		velocity	7.50	9.04	8.95	8.77	8.68		8.22	7.90	7.76	7.83	7.83	7.89	8.16		8.92	8.25	7.81
H1 lead leg	R	strides		14	14	14	14		15	15	15	15	18	134					

FINAL - 2021 NCAA Championships (Eugene, OR) (TV Analysis)*Henson (2021) - Athlete First: 2021 year end hurdle report*

date	11-Jun-21	time	5.93	9.60		17.32	21.33		29.65	34.13	38.73	43.37		48.68	7 / 3				
reaction time	0.201	interval		3.67		7.72	4.01		8.32	4.48	4.60	4.64	5.31	PB			11.39	12.33	13.72
		velocity	7.59	9.54		9.07	8.73		8.41	7.81	7.61	7.54	7.53	8.22			9.22	8.52	7.65
H1 lead leg	R	strides	21	14		14			15	15	15	18.5	112.5						

Sánchez, Félix (DOM) (1977)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)***Henson (2021) - Athlete First: major championships report*

date	15-Aug-13	time	5.80	9.40	13.26	17.17	21.23		25.37	29.60	33.90	38.33	42.90		48.22	4 / 5			
reaction time	0.175	interval		3.60	3.86	3.91	4.06		4.14	4.23	4.30	4.43	4.57	5.32			11.37	12.43	13.30
		velocity	7.76	9.72	9.07	8.95	8.62		8.45	8.27	8.14	7.90	7.66	7.52	8.30		9.23	8.45	7.89
H1 lead leg	L	strides	22	13	14	13	14		14	14		15	15	18	152				

FINAL - 2012 Olympic Games (London, GBR)*Hillier (2012) - uka 2012 olympic games report: 400m hurdles*

date	06-Aug-12	time	5.76	9.25	12.94	16.71	20.68	22.48	24.86	29.04	33.28	37.68	42.27		47.63	7 / 1			
reaction time	0.158	interval		3.49	3.69	3.77	3.97		4.18	4.18	4.24	4.40	4.59	5.36			10.95	12.33	13.23
		velocity	7.81	10.03	9.49	9.28	8.82	8.90	8.37	8.37	8.25	7.95	7.63	7.46	8.40		9.59	8.52	7.94
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.5	165				

FINAL - 2011 IAAF World Championships (Daegu, KOR)*Behm (2011) - Le quatrache: Démus enfin!*

date	01-Sep-11	time	5.8	9.5	13.1	16.9	21.0		25.1	29.3	33.7	38.3	43.3		48.87	7 / 4			
reaction time	0.179	interval		3.70	3.60	3.80	4.10		4.10	4.20	4.40	4.60	5.00	5.57			11.10	12.40	14.00
		velocity	7.76	9.46	9.72	9.21	8.54		8.54	8.33	7.95	7.61	7.00	7.18	8.18		9.46	8.47	7.50
H1 lead leg	R	strides	20	13	13	13	13		14	14	15	15	16	19	165				

FINAL - 2009 IAAF World Championships (Berlin, GER)*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

date	18-Aug-09	time	5.88	9.92	13.82	17.78	21.82		26.13	30.43	34.97	39.63	44.35		50.11	4 / 8			
reaction time	0.171	interval		4.04	3.90	3.96	4.04		4.31	4.30	4.54	4.66	4.72	5.76			11.90	12.65	13.92
		velocity	7.65	8.66	8.97	8.84	8.66		8.12	8.14	7.71	7.51	7.42	6.94	7.98		8.82	8.30	7.54
H1 lead leg	L	strides	21	15	13	13	13		14	14	15	15	15	148					

Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

date	16-Aug-09	time	5.93	9.58	13.35	17.20	21.18		25.29	29.56	33.94	38.42	43.02		48.34	1 / 2			
reaction time	0.154	interval		3.65	3.77	3.85	3.98		4.11	4.27	4.38	4.48	4.60	5.32			11.27	12.36	13.46
		velocity	7.59	9.59	9.28	9.09	8.79		8.52	8.20	7.99	7.81	7.61	7.52	8.27		9.32	8.50	7.80
H1 lead leg		strides		13	13	13	13		13	14	14	15	15	18.5	141.5				

Heat 3 - 2009 IAAF World Championships (Berlin, GER)*Graubner (2009) - biomechanical analyses at the 12th IAAF world championships*

date	15-Aug-09	time	6.03	9.65	13.42	17.30	21.27		25.46	29.81	34.27	38.89	43.53		48.76	7 / 4			
reaction time	0.172	interval		3.62	3.77	3.88	3.97		4.19	4.35	4.46	4.62	4.64	5.23			11.27	12.51	13.72
		velocity	7.46	9.67	9.28	9.02	8.82		8.35	8.05	7.85	7.58	7.54	7.65	8.20		9.32	8.39	7.65
H1 lead leg		strides																	

FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)*Graubner (2007) - http://www.fgs.uni-halle.de*

date	22-Sep-07	time	6.02	9.70	13.46	17.34	21.44		25.76	30.24	34.78	39.38	44.20		49.61	3 / 7			
reaction time	0.151	interval		3.68	3.76	3.88	4.10		4.32	4.48	4.54	4.60	4.82	5.41			11.32	12.90	13.96
		velocity	7.48	9.51	9.31	9.02	8.54		8.10	7.81	7.71	7.61	7.26	7.39	8.06		9.28	8.14	7.52
H1 lead leg		strides																	

FINAL - 2007 IAAF World Championships (Osaka, JPN)*Ae (2008) - IAAF biomechanics team - a booklet of biomechanics data*

date	28-Aug-07	time	5.95	9.65	13.38	17.18	21.10		25.25	29.52	33.83	38.23	42.72		48.01	5 / 2			
reaction time	0.164	interval		3.70	3.73	3.80	3.92		4.15	4.27	4.31	4.40	4.49	5.29			11.23	12.34	13.20
		velocity	7.56	9.46	9.38	9.21	8.93		8.43	8.20	8.12	7.95	7.80	7.56	8.33		9.35	8.51	7.95

H1 lead leg L strides 22 13 13 13 13 14 14 15 15 15 19 166

Heat 6 - 1999 IAAF World Championships (Sevilla, ESP)

date 24-Aug-99 time 5.78 9.52 13.30 17.16 21.05 25.28 29.56 34.00 38.50 43.14 Sanchez (1999) - Sevilla '99: análisis de la carreras con villas
 reaction time 0.143 interval 3.74 3.78 3.86 3.89 4.23 4.28 4.44 4.50 4.64 5.52 48.66 6 / 1
 velocity 7.79 9.36 9.26 9.07 9.00 8.27 8.18 7.88 7.78 7.54 7.25 8.22 9.23 8.47 7.73
 H1 lead leg L strides 22 13 13 13 13 14 14 15 15 15 19 166

Schiller, Udo (GER) (1967)

FINAL - 1991 European Cup (Frankfurt, GER) Federle (2003) - <http://www.fgs.uni-halle.de>
 date 29-Jun-91 time 6.27 10.19 14.15 18.11 22.23 26.53 31.04 35.62 40.26 45.02 50.67 / 6
 reaction time interval 3.92 3.96 3.96 4.12 4.30 4.51 4.58 4.64 4.76 5.65 11.84 12.93 13.98
 velocity 7.18 8.93 8.84 8.84 8.50 8.14 7.76 7.64 7.54 7.35 7.08 7.89 8.87 8.12 7.51
 H1 lead leg strides

Schmid, Harald (FRG) (1957)

FINAL - 1988 Olympic Games (Seoul, KOR) Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988
 date 25-Sep-88 time 6.03 9.68 13.58 17.58 21.69 25.93 30.25 34.74 39.26 43.83 48.76 1 / 7
 reaction time 0.205 interval 3.65 3.90 4.00 4.11 4.24 4.32 4.49 4.52 4.57 4.93 11.55 12.67 13.58
 velocity 7.46 9.59 8.97 8.75 8.52 8.25 8.10 7.80 7.74 7.66 8.11 8.20 9.09 8.29 7.73
 H1 lead leg L strides 21 13 13 13 13 13 13 14 14 14 17 158

Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)

date 24-Sep-88 time 6.05 9.64 13.56 17.57 21.73 25.93 30.20 34.62 39.18 43.79 48.93 1 / 3
 reaction time interval 3.59 3.92 4.01 4.16 4.20 4.27 4.42 4.56 4.61 5.14 11.52 12.63 13.59
 velocity 7.44 9.75 8.93 8.73 8.41 8.33 8.20 7.92 7.68 7.59 7.78 8.17 9.11 8.31 7.73
 H1 lead leg strides 21 13 13 13 13 13 13 13 14 14 17 157

FINAL - 1987 IAAF World Championships (Rome, ITA)

date 01-Sep-87 time 6.00 9.69 13.45 17.29 21.17 25.06 29.02 33.22 37.73 42.32 47.48 5 / 3
 reaction time interval 3.69 3.76 3.84 3.88 3.89 3.96 4.20 4.51 4.59 5.16 AR 11.29 11.73 13.30
 velocity 7.50 9.49 9.31 9.11 9.02 9.00 8.84 8.33 7.76 7.63 7.75 8.42 9.30 8.95 7.89
 H1 lead leg L strides 21 13 13 13 13 13 13 13 14 14 17.7 158

Semi-Final 1 - 1987 IAAF World Championships (Rome, ITA)

date 31-Aug-87 time 6.09 9.73 13.53 17.44 21.48 25.50 29.66 33.99 38.51 43.07 48.23 6 / 1
 reaction time interval 3.64 3.80 3.91 4.04 4.02 4.16 4.33 4.52 4.56 5.16 11.35 12.22 13.41
 velocity 7.39 9.62 9.21 8.95 8.66 8.71 8.41 8.08 7.74 7.68 7.75 8.29 9.25 8.59 7.83
 H1 lead leg L strides 21 13 13 13 13 13 13 13 14 14 17 157

Heat 3 - 1987 IAAF World Championships (Rome, ITA)

date 30-Aug-87 time 6.10 9.89 13.82 17.79 21.95 26.23 30.65 35.08 39.68 44.28 49.28 5 / 1
 reaction time interval 3.79 3.93 3.97 4.16 4.28 4.42 4.43 4.60 4.60 5.00 11.69 12.86 13.63
 velocity 7.38 9.23 8.91 8.82 8.41 8.18 7.92 7.90 7.61 7.61 8.00 8.12 8.98 8.16 7.70
 H1 lead leg L strides 21 13 13 13 13 13 13 13 14 14 16.9 156.9

FINAL - 1986 European Championships (Stuttgart, FRG)

date 28-Aug-86 time 5.8 9.4 13.3 17.2 21.3 25.5 29.8 34.3 38.7 43.3 48.65 Behm (1995) - la tactique du 400 haies
 reaction time interval 3.60 3.90 3.90 4.10 4.20 4.30 4.50 4.40 4.60 5.35 / 1 11.40 12.60 13.50
 velocity 7.76 9.72 8.97 8.97 8.54 8.33 8.14 7.78 7.95 7.61 7.48 8.22 9.21 8.33 7.78
 H1 lead leg strides 21 13 13 13 13 13 13 13 14 14 140

FINAL - 1984 Olympic Games (Los Angeles, CA)

date 05-Aug-84 time 6.0 9.8 13.7 17.6 21.6 25.7 29.8 34.0 38.5 43.0 48.19 Behm (1995) - la tactique du 400 haies
 reaction time 0.180 interval 3.80 3.90 3.90 4.00 4.10 4.10 4.20 4.50 4.50 5.19 5 / 3 11.60 12.20 13.20
 velocity 7.50 9.21 8.97 8.97 8.75 8.54 8.54 8.33 7.78 7.78 7.71 8.30 9.05 8.61 7.95
 H1 lead leg L strides 21 13 13 13 13 13 13 13 14 14 17.2 157.2

FINAL - 1983 IAAF World Championships (Helsinki, FIN)

date 09-Aug-83 time 5.75 9.24 13.24 20.93 24.93 28.81 33.48 38.31 43.02 48.61 McFarlane (1988) - The Science of Hurdling
 reaction time interval 3.49 4.00 7.69 7.69 4.00 3.88 4.67 4.83 4.71 5.59 / 2 14.21
 velocity 7.83 10.03 8.75 9.10 8.75 9.02 7.49 7.25 7.43 7.16 8.23 7.39
 H1 lead leg L strides 21 13 13 13 13 13 13 13 14 15 14 17 159

Semi-Final 2 - 1983 IAAF World Championships (Helsinki, FIN)

date 08-Aug-83 time 5.46 9.14 12.76 16.70 20.54 24.41 28.69 32.98 37.69 42.45 48.57 Lyle - miscellaneous coaching notes
 reaction time interval 3.68 3.62 3.94 3.84 3.87 4.28 4.29 4.71 4.76 6.12 2 / 1 11.24 11.99 13.76
 velocity 8.24 9.51 9.67 8.88 9.11 9.04 8.18 8.16 7.43 7.35 6.54 8.24 9.34 8.76 7.63
 H1 lead leg L strides 21 13 13 13 13 13 13 13 13 14 17 143

FINAL - 1982 European Championships (Athens, GRE)

date 08-Sep-82 time 5.8 9.5 13.3 17.1 21.1 25.1 29.3 33.5 37.9 42.4 47.48 (1982) - XIII championnats d'Europe d'Atletisma, Athens 1982
 reaction time interval 3.70 3.80 3.80 4.00 4.00 4.20 4.20 4.40 4.50 5.08 AR / CR 4 / 1 11.30 12.20 13.10
 velocity 7.76 9.46 9.21 9.21 8.75 8.75 8.33 8.33 7.95 7.78 7.87 8.42 9.29 8.61 8.02
 H1 lead leg L strides 21 13 13 13 13 13 13 13 14 14 17 157

FINAL - 1978 European Championships (Prague, TCH)

Lamare (1978) - championnats d'Europa 1978

date	31-Aug-78	time	6.04	9.77	13.63	17.54	21.47		25.69	29.88	34.25	38.78	43.29		48.51	/ 1			
reaction time		interval		3.73	3.86	3.91	3.93		4.22	4.19	4.37	4.53	4.51	5.22	CR		11.50	12.34	13.41
		velocity	7.45	9.38	9.07	8.95	8.91		8.29	8.35	8.01	7.73	7.76	7.66	8.25		9.13	8.51	7.83
H1 lead leg		strides																	

Schneider, Drake (USA) (1999)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)																		
date	28-Jun-24	time	5.93	9.67	13.62	17.70	21.90	23.85	26.24	30.75	35.71	41.37	47.11	53.77	3 / 9			
reaction time		interval		3.74	3.95	4.08	4.20		4.34	4.51	4.96	5.66	5.74	6.66		11.77	13.05	16.36
		velocity	7.59	9.36	8.86	8.58	8.33	8.39	8.06	7.76	7.06	6.18	6.10	6.01	7.44	8.92	8.05	6.42
H1 lead leg	R	strides	20	13	13	13	13		13	14	16	17	16	148				

Heat 4 - 2024 USA Olympic Trials (Eugene, OR)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
Heat 4 - 2024 USA Olympic Trials (Eugene, OR)																		
date	27-Jun-24	time	5.87	9.57	13.40	17.49	21.62	23.47	25.82	30.39	35.17	40.18	45.41	51.50	5 / 5			
reaction time		interval		3.70	3.83	4.09	4.13		4.20	4.57	4.78	5.01	5.23	6.09		11.62	12.90	15.02
		velocity	7.67	9.46	9.14	8.56	8.47	8.52	8.33	7.66	7.32	6.99	6.69	6.57	7.77	9.04	8.14	6.99
H1 lead leg	R	strides	20	13	13	13	13		13	14	14	14	15	18	160			

Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																		
date	25-Jun-21	time	6.13	9.97	13.80	17.80	21.97		26.27	30.77	35.43	40.27	45.20	50.89	9 / 6			
reaction time	0.283	interval		3.84	3.83	4.00	4.17		4.30	4.50	4.66	4.84	4.93	5.69		11.67	12.97	14.43
		velocity	7.34	9.11	9.14	8.75	8.39		8.14	7.78	7.51	7.23	7.10	7.03	7.86	9.00	8.10	7.28
H1 lead leg	R	strides		13	13	13	13		14	14	15	15	15	125				

Schubert, Rainer (FRG) (1941)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>					
FINAL - 1972 Olympic Games (Munich, FRG)																		
date	03-Sep-72	time	6.1	9.9	13.7	17.6	21.6	23.3	25.8	30.2	34.6	39.3	44.2	49.65	7 / 5			
reaction time		interval		3.80	3.80	3.90	4.00		4.20	4.40	4.40	4.70	4.90	5.45		11.50	12.60	14.00
		velocity	7.38	9.21	9.21	8.97	8.75	8.58	8.33	7.95	7.95	7.45	7.14	7.34	8.06	9.13	8.33	7.50
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	146				

FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>					
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)																		
date	15-Oct-68	time	6.0	9.8	13.7	17.7	21.8	23.7	25.9	30.3	34.8	39.3	44.0	49.2	1 / 7			
reaction time		interval		3.80	3.90	4.00	4.10		4.10	4.40	4.50	4.50	4.70	5.20	(49.30)	11.70	12.60	13.70
		velocity	7.50	9.21	8.97	8.75	8.54	8.44	8.54	7.95	7.78	7.78	7.45	7.69	8.13	8.97	8.33	7.66
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	17.2	163			

Semi-Final 1 - 1968 Olympic Games (Mexico City, MEX) (Altitude)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Jonath (1969) - wie gerhard hennige trainiert</i>					
Semi-Final 1 - 1968 Olympic Games (Mexico City, MEX) (Altitude)																		
date	14-Oct-68	time	6.0	9.9	13.8	17.7	21.8	23.5	26.0	30.3	34.8	39.2	43.7	49.3	1 / 4			
reaction time		interval		3.90	3.90	3.90	4.10		4.20	4.30	4.50	4.40	4.50	5.60	(49.38)	11.70	12.60	13.40
		velocity	7.50	8.97	8.97	8.97	8.54	8.51	8.33	8.14	7.78	7.95	7.78	7.14	8.11	8.97	8.33	7.84
H1 lead leg		strides																

Heat 3 - 1968 Olympic Games (Mexico City, MEX) (Altitude)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
													<i>Jonath (1969) - wie gerhard hennige trainiert</i>						
Heat 3 - 1968 Olympic Games (Mexico City, MEX) (Altitude)																			
date	13-Oct-68	time	6.1	9.9	13.7	17.7	21.7	23.4	26.0	30.4	34.8	39.1	43.6	49.1	1 / 2				
reaction time		interval		3.80	3.80	4.00	4.00		4.30	4.40	4.40	4.30	4.50	5.50	PB	11.60	12.70	13.20	
		velocity	7.38	9.21	9.21	8.75	8.75	8.55	8.14	7.95	7.95	8.14	7.78	7.27	8.15	(49.15)	9.05	8.27	7.95
H1 lead leg		strides																	

Scott, Bryan (USA) (1985)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>USATF Men's Hurdle Development (2007)</i>					
Heat 1 - 2007 USATF National Championships (Indianapolis, IN)																		
date	21-Jun-07	time	6.17	10.13	14.05	18.27	22.47		26.79	31.10	35.74	40.31	45.05	50.39	7 / 4			
reaction time		interval		3.96	3.92	4.22	4.20		4.32	4.31	4.64	4.57	4.74	5.34		12.10	12.83	13.95
		velocity	7.29	8.84	8.93	8.29	8.33		8.10	8.12	7.54	7.66	7.38	7.49	7.94	8.68	8.18	7.53
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	151				

Scott, Ja'Qualon (USA) (2001)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Henson (2024) - Athlete First: 2024 year end hurdle report</i>					
FINAL - 2024 NCAA Championships (Eugene, OR) (TV Analysis)																		
date	07-Jun-24	time	5.96	9.73	13.58	17.51	21.47		25.56	30.05	34.55	39.15	43.79	49.08	1 / 4			
reaction time		interval		3.77	3.85	3.93	3.96		4.09	4.49	4.50	4.60	4.64	5.29	PB	11.55	12.54	13.74
		velocity	7.55	9.28	9.09	8.91	8.84		8.56	7.80	7.78	7.61	7.54	7.56	8.15	9.09	8.37	7.64
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	14	18	160			

Sdad, Mustapha (MAR) (1970)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
Heat 4 - 2000 Olympic Games (Sydney, AUS)																		
date	24-Sep-00	time	6.04	10.16	14.20	18.36	22.56		26.88	31.36	36.04	40.96	45.92	51.39	2 / 6			
reaction time	0.216	interval		4.12	4.04	4.16	4.20		4.32	4.48	4.68	4.92	4.96	5.47		12.32	13.00	14.56
		velocity	7.45	8.50	8.66	8.41	8.33		8.10	7.81	7.48	7.11	7.06	7.31	7.78	8.52	8.08	7.21
H1 lead leg		strides	21	15	15	15	15		15	15	15	17	17	160				

Selmon, Kenny (USA) (1996)

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>					
FINAL - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																		
date	26-Jun-21	time	5.90	9.61	13.35	17.20	21.12		25.19	29.36	33.63	38.10	42.74	48.08	6 / 2			
reaction time	0.212	interval		3.71	3.74	3.85	3.92		4.07	4.17	4.27	4.47	4.64	5.34	PB	11.30	12.16	13.38
		velocity	7.63	9.43	9.36	9.09	8.93		8.60	8.39	8.20	7.83	7.54	7.49	8.32	9.29	8.63	7.85
H1 lead leg	R	strides	21	13	13	13	13		13	13	13	14	14	17	157			

Semi-Final 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)

date	25-Jun-21	time	6.10	9.83	13.63	17.53	21.47	25.60	29.80	34.13	38.70	43.30	48.51	6 / 1				
reaction time	0.242	interval		3.73	3.80	3.90	3.94	4.13	4.20	4.33	4.57	4.60	5.21		11.43	12.27	13.50	
		velocity	7.38	9.38	9.21	8.97	8.88	8.47	8.33	8.08	7.66	7.61	7.68	8.25	9.19	8.56	7.78	
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	14	14	17	156				

*Henson (2021) - Athlete First: 2021 year end hurdle report***Heat 1 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)**

date	24-Jun-21	time	6.00	9.78	13.68	17.65	21.72	30.13	34.50	39.10	43.71	49.03	3 / 1					
reaction time	0.190	interval		3.78	3.90	3.97	4.07	8.41	4.37	4.60	4.61	5.32		11.65	12.48	13.58		
		velocity	7.50	9.26	8.97	8.82	8.60	8.32	8.01	7.61	7.59	7.52	8.16	9.01	8.41	7.73		
H1 lead leg	R	strides		13	13	13	13		13	14	14	16.7	109.7					

*Henson (2021) - Athlete First: 2021 year end hurdle report***FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)**

date	28-May-21	time	6.17	9.91	13.85	17.78	21.85	23.5	25.96	30.23	34.57	39.07	43.71	49.03	7 / 5				
reaction time	0.314	interval		3.74	3.94	3.93	4.07	4.11	4.27	4.34	4.50	4.64	5.32		11.61	12.45	13.48		
		velocity	7.29	9.36	8.88	8.91	8.60	8.51	8.52	8.20	8.06	7.78	7.54	7.52	8.16	9.04	8.43	7.79	
H1 lead leg	R	strides	21	13	13	13		13	13	13	14	14	127						

*Henson (2021) - Athlete First: 2021 year end hurdle report***FINAL - 2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)**

date	06-Jun-19	time	6.00	9.78	13.63	17.56	21.60	25.72	30.03	34.55	39.37	44.25	49.83	8 / 5					
reaction time	0.228	interval		3.78	3.85	3.93	4.04	4.12	4.31	4.52	4.82	4.88	5.58		11.56	12.47	14.22		
		velocity	7.50	9.26	9.09	8.91	8.66	8.50	8.12	7.74	7.26	7.17	7.17	8.03	9.08	8.42	7.38		
H1 lead leg	R	strides	21	13	13	13		13	13	14	15	15	17.7	160.7					

*Henson (2020) - Athlete First: 2019 year end hurdle report***FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)**

date	30-May-19	time	6.13	10.10	14.10	18.06	22.16	23.8	26.46	30.90	35.40	40.40	45.43	51.15	4 / 5				
reaction time	0.185	interval		3.97	4.00	3.96	4.10	4.30	4.44	4.50	5.00	5.03	5.72		11.93	12.84	14.53		
		velocity	7.34	8.82	8.75	8.84	8.54	8.40	8.14	7.88	7.78	7.00	6.96	6.99	7.82	8.80	8.18	7.23	
H1 lead leg	R	strides	21	13	13	13		14	14	14	15	15	145						

*Henson (2020) - Athlete First: 2019 year end hurdle report***FINAL - 2018 NCAA Championships (Eugene, OR) (TV Analysis)**

date	08-Jun-18	time	5.96	13.53	17.30	21.13	25.16	33.60	38.13	42.80	48.12	4 / 2						
reaction time		interval		7.57	3.77	3.83	4.03	8.44	4.53	4.67	5.32	PB		11.34				
		velocity	7.55	9.25	9.28	9.14	8.68	8.29	7.73	7.49	7.52	8.31	9.26					
H1 lead leg	R	strides			13	13	13		14	15	17.5	85.5						

*Henson (2020) - Athlete First: 2018 year end hurdle report***Serres, Jean-Michel (FRA) (1961)**

date	10-Aug-86	time	6.00	10.10	14.26	18.33	22.50	26.72	30.98	35.60	40.25	44.97	51.03	/ 6					
reaction time		interval		4.10	4.16	4.07	4.17	4.22	4.26	4.62	4.65	4.72	6.06	PB	12.33	12.65	13.99		
		velocity	7.50	8.54	8.41	8.60	8.39	8.29	8.22	7.58	7.53	7.42	6.60	7.84	8.52	8.30	7.51		
H1 lead leg		strides																	

*Veney - split times from PJ***Seymour, Jim (USA) (1949)**

date	03-Sep-72	time	6.1	9.9	13.8	17.7	21.7	23.4	25.9	30.2	34.5	39.1	43.5	48.64	4 / 4				
reaction time		interval		3.80	3.90	3.90	4.00	4.20	4.30	4.30	4.60	4.40	5.14		11.60	12.50	13.30		
		velocity	7.38	9.21	8.97	8.97	8.75	8.55	8.33	8.14	8.14	7.61	7.95	7.78	8.22	9.05	8.40	7.89	
H1 lead leg	L	strides	21	13	13	13		14	14	15	15	15	17.2	163.2					

*Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal***Shang Shou (CHN) (1995)**

date	26-Jun-21	time	6.46	10.53	14.63	18.83	23.08	27.47	31.82	36.28	40.82	45.38	50.38	5 / 1					
reaction time	0.212	interval		4.07	4.10	4.20	4.25	4.39	4.35	4.46	4.54	4.56	5.00		12.37	12.99	13.56		
		velocity	6.97	8.60	8.54	8.33	8.24	7.97	8.05	7.85	7.71	7.68	8.00	7.94	8.49	8.08	7.74		
H1 lead leg	L	strides	22	14	14	14		14	14	15	15	15	18	169					

*CAA Hurdle Development (2021)***Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)**

date	26-Jun-21	time	6.42	10.65	14.88	19.19	23.54	28.02	32.51	37.07	41.66	46.27	51.31	6 / 2					
reaction time	0.236	interval		4.23	4.23	4.31	4.35	4.48	4.49	4.56	4.59	4.61	5.04		12.77	13.32	13.76		
		velocity	7.01	8.27	8.27	8.12	8.05	7.81	7.80	7.68	7.63	7.59	7.94	7.80	8.22	7.88	7.63		
H1 lead leg	L	strides	22	14	14	14		14	14	15	15	15	18	169					

*CAA Hurdle Development (2021)***FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)**

date	13-Jun-21	time	6.41	10.53	14.73	19.02	23.29	27.74	32.26	36.79	41.41	46.06	51.40	7 / 5					
reaction time	0.185	interval		4.12	4.20	4.29	4.27	4.45	4.52	4.53	4.62	4.65	5.34		12.61	13.24	13.80		
		velocity	7.02	8.50	8.33	8.16	8.20	7.87	7.74	7.73	7.58	7.53	7.49	7.78	8.33	7.93	7.61		
H1 lead leg	L	strides	22	14	14	14		14	14	15	15	15	18	169					

*CAA Hurdle Development (2021)***FINAL - 2020 Chinese National Championships (Shaoxing, CHN)**

date	17-Sep-20	time	6.21	10.17	14.29	18.46	22.75	27.21	31.58	36.08	40.67	45.25	50.65	4 / 2					
reaction time		interval		3.96	4.12	4.17	4.29	4.46	4.37	4.50	4.59	4.58	5.40		12.25	13.12	13.67		
		velocity	7.25	8.84	8.50	8.39	8.16	7.85	8.01	7.78	7.63	7.64	7.41	7.90	8.57	8.00	7.68		
H1 lead leg	L	strides	22	14	14	14		14	14	15	15	15	18	169					

*CAA Hurdle Development (2020)***FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)**

date	23-Aug-19	time	6.55	10.56	14.78	19.05	23.41	27.89	32.33	36.88	41.44	46.01	51.02	5 / 3					
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CAA Hurdle Development (2019)

reaction time	0.320	interval	4.01	4.22	4.27	4.36	4.48	4.44	4.55	4.56	4.57	5.01				12.50	13.28	13.68
		velocity	6.87	8.73	8.29	8.20	8.03	7.81	7.88	7.69	7.68	7.66	7.98	7.84		8.40	7.91	7.68
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169				
Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)																		
CAA Hurdle Development (2019)																		
date	22-Aug-19	time	6.49	10.63	14.80	19.05	23.36	27.83	32.30	36.84	41.42	46.16	51.62	6 / 1				
reaction time	0.275	interval	4.14	4.17	4.25	4.31	4.47	4.47	4.54	4.58	4.74	5.46			12.56	13.25	13.86	
		velocity	6.93	8.45	8.39	8.24	8.12	7.83	7.83	7.71	7.64	7.38	7.33	7.75	8.36	7.92	7.58	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18	169				
Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)																		
CAA Hurdle Development (2019)																		
date	09-Jul-19	time	6.54	10.71	14.92	19.04	23.11	27.54	32.06	36.75	41.49	46.46	52.22	8 / 7				
reaction time	0.225	interval	4.17	4.21	4.12	4.07	4.43	4.52	4.69	4.74	4.97	5.76			12.50	13.02	14.40	
		velocity	6.88	8.39	8.31	8.50	8.60	7.90	7.74	7.46	7.38	7.04	6.94	7.66	8.40	8.06	7.29	
H1 lead leg	L	strides	22	15	15	15	14	15	14	15	15	15	18	173				
FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)																		
CAA Hurdle Development (2019)																		
date	29-May-19	time	6.50	10.61	14.68	18.88	23.25	27.71	32.16	36.67	41.22	45.77	50.82	4 / 1				
reaction time	0.267	interval	4.11	4.07	4.20	4.37	4.46	4.45	4.51	4.55	4.55	5.05			12.38	13.28	13.61	
		velocity	6.92	8.52	8.60	8.33	8.01	7.85	7.87	7.76	7.69	7.69	7.92	7.87	8.48	7.91	7.71	
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	17.7	168.7				
FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)																		
CAA Hurdle Development (2019)																		
date	08-Apr-19	time	6.35	10.47	14.53	18.68	22.97	27.41	31.84	36.47	41.06	45.68	50.75	7 / 2				
reaction time	0.213	interval	4.12	4.06	4.15	4.29	4.44	4.43	4.63	4.59	4.62	5.07			12.33	13.16	13.84	
		velocity	7.09	8.50	8.62	8.43	8.16	7.88	7.90	7.56	7.63	7.58	7.89	7.88	8.52	7.98	7.59	
H1 lead leg	L	strides	22	15	16	16	16	16	16	15	15	15	18	180				
Shao Yi (CHN) (1979)																		
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																		
FINAL - 2003 Chinese National Championships (Shanghai, CHN)																		
Zhou (2003) - training of Shao Yi, national champion of men's 400m hurdles																		
date	14-Sep-03	time	6.14	9.94	13.84	17.90	22.02	26.30	30.64	35.12	39.68	44.40	49.75	/ 1				
reaction time		interval	3.80	3.90	4.06	4.12	4.28	4.34	4.48	4.56	4.72	5.35	PB		11.76	12.74	13.76	
		velocity	7.33	9.21	8.97	8.62	8.50	8.18	8.06	7.81	7.68	7.42	7.48	8.04	8.93	8.24	7.63	
H1 lead leg		strides		13	13	14	14	14	14	14	14	15	125					
Heat 1 - 2003 ??? (Shanghai, CHN)																		
Zhou (2003) - training of Shao Yi, national champion of men's 400m hurdles																		
date	13-Jun-03	time	6.12	9.88	13.72	17.76	21.84	26.08	30.51	35.08	39.70	44.64	50.23	/ 1				
reaction time		interval	3.76	3.84	4.04	4.08	4.24	4.43	4.57	4.62	4.94	5.59	PB		11.64	12.75	14.13	
		velocity	7.35	9.31	9.11	8.66	8.58	8.25	7.90	7.66	7.58	7.09	7.16	7.96	9.02	8.24	7.43	
H1 lead leg		strides		13	13	14	14	14	14	15	15	15	127					
FINAL - 2002 Chinese National Grand Prix Final (Tiantai, CHN)																		
Zhou (2003) - training of Shao Yi, national champion of men's 400m hurdles																		
date	27-Oct-02	time	6.19	10.15	14.05	18.12	22.31	26.56	30.94	35.60	40.41	45.37	51.21	/ 2				
reaction time		interval	3.96	3.90	4.07	4.19	4.25	4.38	4.66	4.81	4.96	5.84	PB		11.93	12.82	14.43	
		velocity	7.27	8.84	8.97	8.60	8.35	8.24	7.99	7.51	7.28	7.06	6.85	7.81	8.80	8.19	7.28	
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129					
Sharpe, Fred (USA) (1978)																		
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																		
Heat 3 - 2007 USATF National Championships (Indianapolis, IN)																		
USATF Men's Hurdle Development (2007)																		
date	21-Jun-07	time	6.20	10.09	14.19	18.30	22.54	26.91	31.48	36.08	40.79	45.51	51.00	3 / 6				
reaction time		interval	3.89	4.10	4.11	4.24	4.37	4.57	4.60	4.71	4.72	5.49			12.10	13.18	14.03	
		velocity	7.26	9.00	8.54	8.25	8.01	7.66	7.61	7.43	7.42	7.29	7.84		8.68	7.97	7.48	
H1 lead leg	R	strides	23	15	15	15	15	15	16	16	16	16	162					
FINAL - 2003 USATF National Championships (Palo Alto, CA)																		
USATF Women's Sprint Development (2003)																		
date	22-Jun-03	time	6.09	10.13	14.26	18.30	22.67	27.03	31.50	36.02	40.61	45.20	50.41	2 / 6				
reaction time		interval	4.04	4.13	4.04	4.37	4.36	4.47	4.52	4.59	4.59	5.21			12.21	13.20	13.70	
		velocity	7.39	8.66	8.47	8.66	8.01	8.03	7.83	7.74	7.63	7.63	7.68	7.93	8.60	7.95	7.66	
H1 lead leg		strides																
Shen Kunhao (CHN) (2004)																		
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																		
Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)																		
CAA Hurdle Development (2021)																		
date	25-Apr-21	time	6.42	10.54	14.72	19.05	23.54	28.26	33.05	37.85	42.83	47.78	53.19	5 / 4				
reaction time	0.198	interval	4.12	4.18	4.33	4.49	4.72	4.79	4.80	4.98	4.95	5.41			12.63	14.00	14.73	
		velocity	7.01	8.50	8.37	8.08	7.80	7.42	7.31	7.29	7.03	7.07	7.39	7.52	8.31	7.50	7.13	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170				
Sherman, Alex (USA) (2003)																		
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10																		
Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)																		
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																		
date	28-Jun-24	time	6.14	9.99	14.04	18.14	22.16	24.16	26.56	31.14	35.97	40.85	45.73	51.33	4 / 5			
reaction time		interval	3.85	4.05	4.10	4.02	4.40	4.40	4.58	4.83	4.88	4.88	5.60		12.00	13.00	14.59	
		velocity	7.33	9.09	8.64	8.54	8.71	8.28	7.95	7.64	7.25	7.17	7.17	7.14	7.79	8.75	8.08	7.20
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	15	18.5	171.5				
Heat 5 - 2024 USA Olympic Trials (Eugene, OR)																		
USATF and Karmarush (2024) - USA Olympic trials results and race analysis																		
date	27-Jun-24	time	6.04	9.91	13.80	17.88	22.00	23.89	26.34	30.92	35.65	40.47	45.26	50.76	5 / 4			
reaction time		interval	3.87	3.89	4.08	4.12	4.34	4.34	4.58	4.73	4.82	4.79	5.50		11.84	13.04	14.34	

H1 lead leg	R	velocity	7.45	9.04	9.00	8.58	8.50	8.37	8.06	7.64	7.40	7.26	7.31	7.27	7.88	8.87	8.05	7.32	
		strides	22	14	14	14	14	14	14	15	15	15	15	18.7	170.7				
Sherwood, John (GBR) (1945)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)																<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>			
date	15-Oct-68	time	6.0	9.8	13.7	17.7	21.8	23.7	26.0	30.2	34.7	39.4	43.9		49.0	8 / 3			
reaction time		interval		3.80	3.90	4.00	4.10		4.20	4.20	4.50	4.70	4.50	5.10	(49.03)		11.70	12.50	13.70
		velocity	7.50	9.21	8.97	8.75	8.54	8.44	8.33	8.33	7.78	7.45	7.78	7.84	8.16		8.97	8.40	7.66
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15		146				
Shikota, Ryomi (JPN)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 2 - 2016 Japanese National Youth Championships (Mizuho, JPN)																<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>			
date	23-Oct-16	time					23.93					38.96			55.84	3 / 3			
reaction time		interval										15.03							
		velocity					7.73					6.99			7.16				
H1 lead leg		strides																	
Shimoda, Hayato (JPN) (2005)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)																<i>Takashima (2023) - national high school sports festival - biomechanics data</i>			
date	04-Aug-23	time	6.04	9.81	13.66	17.47	21.42		25.61	29.96	34.52	39.36	44.36		50.14	7 / 1			
reaction time	0.187	interval		3.77	3.85	3.81	3.95		4.19	4.35	4.56	4.84	5.00	5.78			11.43	12.49	14.40
		velocity	7.45	9.28	9.09	9.19	8.86		8.35	8.05	7.68	7.23	7.00	6.92	7.98		9.19	8.41	7.29
H1 lead leg		strides	21	15	15	15	15		15	15	15	17	17	21	181				
FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)																<i>Kishima (2022) - national high school championships biomechanics data collection</i>			
date	03-Jun-23	time	6.21	10.09	13.91	17.92	22.06		26.48	31.08	35.99	41.34	46.38		51.72	5 / 3			
reaction time	0.189	interval		3.88	3.82	4.01	4.14		4.42	4.60	4.91	5.35	5.04	5.34			11.71	13.16	15.30
		velocity	7.25	9.02	9.16	8.73	8.45		7.92	7.61	7.13	6.54	6.94	7.49	7.73		8.97	7.98	6.86
H1 lead leg	L	strides	22	15	15	15	15		15	15	17	17	17	20	183				
Shimura, Takeshi (JPN) (2005)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)																<i>Takashima (2023) - national high school sports festival - biomechanics data</i>			
date	04-Aug-23	time	6.14	10.24	14.71	19.00	23.39		27.84	32.37	36.90	41.61	46.40		51.93	9 / 4			
reaction time	0.217	interval		4.10	4.47	4.29	4.39		4.45	4.53	4.53	4.71	4.79	5.53			12.86	13.37	14.03
		velocity	7.33	8.54	7.83	8.16	7.97		7.87	7.73	7.73	7.43	7.31	7.23	7.70		8.16	7.85	7.48
H1 lead leg		strides	21	15	15	15	15		15	15	15	15	15	19	175				
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)																<i>Kishima (2022) - national high school championships biomechanics data collection</i>			
date	05-Aug-22	time	6.17	10.12	14.40	18.80	23.33		28.10	32.93	37.88	42.85	47.88		53.35	2 / 7			
reaction time	0.138	interval		3.95	4.28	4.40	4.53		4.77	4.83	4.95	4.97	5.03	5.47			12.63	14.13	14.95
		velocity	7.29	8.86	8.18	7.95	7.73		7.34	7.25	7.07	7.04	6.96	7.31	7.50		8.31	7.43	7.02
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	15	157				
Shine, Mike (USA) (1953)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 1976 Olympic Games (Montreal, CAN)																<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>			
date	25-Jul-76	time	6.1	9.9	13.8	17.7	21.7	23.4	25.9	30.2	34.5	38.9	43.4		48.69	1 / 2			
reaction time		interval		3.80	3.90	3.90	4.00		4.20	4.30	4.30	4.40	4.50	5.29			11.60	12.50	13.20
		velocity	7.38	9.21	8.97	8.97	8.75	8.55	8.33	8.14	8.14	7.95	7.78	7.56	8.22		9.05	8.40	7.95
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	15	18.7	175.7				
Shirahige, Reiji (JPN) (2006)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)																<i>Takashima (2024) - national high school sports festival - biomechanics data</i>			
date	30-Jul-24	time	6.21	10.19	14.31	18.60	22.87		27.16	31.65	36.37	41.27	46.26		51.72	5 / 4			
reaction time	0.186	interval		3.98	4.12	4.29	4.27		4.29	4.49	4.72	4.90	4.99	5.46			12.39	13.05	14.61
		velocity	7.25	8.79	8.50	8.16	8.20		8.16	7.80	7.42	7.14	7.01	7.33	7.73		8.47	8.05	7.19
H1 lead leg		strides	21	15	15	15	15		15	15	15	15	15	19	175				
Shirao, Yusuke (JPN) (1999)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)																<i>Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data</i>			
date	31-Jul-17	time	6.26	10.11	14.13	18.25	22.64		27.08	31.55	36.12	40.89	45.78		51.44	6 / 1			
reaction time	0.172	interval		3.85	4.02	4.12	4.39		4.44	4.47	4.57	4.77	4.89	5.66			11.99	13.30	14.23
		velocity	7.19	9.09	8.71	8.50	7.97		7.88	7.83	7.66	7.34	7.16	7.07	7.78		8.76	7.89	7.38
H1 lead leg		strides		13	13	13	14		14	15	15	15	15	15	127				
FINAL - 2017 Gunma High School Athletics Meeting (Maebashi, JPN)																<i>(2017) - tfdata-store.com/2017/05/20/post-584/</i>			
date	21-May-17	time	6.15	9.89	13.73	17.72	21.85		26.07	30.42	34.99	39.74	44.70		50.42	5 / 1			
reaction time		interval		3.74	3.84	3.99	4.13		4.22	4.35	4.57	4.75	4.96	5.72	PB		11.57	12.70	14.28
		velocity	7.32	9.36	9.11	8.77	8.47		8.29	8.05	7.66	7.37	7.06	6.99	7.93		9.08	8.27	7.35
H1 lead leg	R	strides	21	13	13	14	14		14	14	15	15	15	18.5	166.5				
FINAL - 2016 Japanese National High School Championships (Okayama, JPN)																<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>			
date	31-Jul-16	time	6.31	10.28	14.45	18.77	23.21		27.71	32.23	36.79	41.42	46.11		51.40	7 / 1			
reaction time	0.192	interval		3.97	4.17	4.32	4.44		4.50	4.52	4.56	4.63	4.69	5.29			12.46	13.46	13.88
		velocity	7.13	8.82	8.39	8.10	7.88		7.78	7.74	7.68	7.56	7.46	7.56	7.78		8.43	7.80	7.56
H1 lead leg		strides		13	13	14	14		15	15	15	15	15	129					
Shirley, Aaron (USA) (2001)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10

Semi-Final 3 - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	28-Jun-24	time	5.95	9.69	13.57	17.40	21.48	23.31	25.60	30.05	34.59	39.49	44.26	49.58	9 / 5					
reaction time		interval		3.74	3.88	3.83	4.08		4.12	4.45	4.54	4.90	4.77	5.32		PB	11.45	12.65	14.21	
		velocity	7.56	9.36	9.02	9.14	8.58	8.58	8.50	7.87	7.71	7.14	7.34	7.52	8.07			9.17	8.30	7.39
H1 lead leg	L	strides		14	14	14	14		14	14	14	16	15	18	147					

Heat 1 - 2024 USA Olympic Trials (Eugene, OR)

USATF and Karmarush (2024) - USA Olympic trials results and race analysis

date	27-Jun-24	time	6.10	9.90	13.85	17.84	21.86	23.64	25.99	30.39	34.93	40.17	45.03	50.44	4 / 4				
reaction time		interval		3.80	3.95	3.99	4.02		4.13	4.40	4.54	5.24	4.86	5.41			11.74	12.55	14.64
		velocity	7.38	9.21	8.86	8.77	8.71	8.46	8.47	7.95	7.71	6.68	7.20	7.39	7.93		8.94	8.37	7.17
H1 lead leg	L	strides		21	14	14	14	14	14	14	16	16	15	18	170				

Shiryayev, Vladislav (RUS) (1973)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Heat 8 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.26	10.18	14.10	18.10	22.14		26.26	30.62	35.26	40.06	44.70	50.39	4 / 3				
reaction time	0.179	interval		3.92	3.92	4.00	4.04		4.12	4.36	4.64	4.80	4.64	5.69			11.84	12.52	14.08
		velocity	7.19	8.93	8.93	8.75	8.66		8.50	8.03	7.54	7.29	7.54	7.03	7.94		8.87	8.39	7.46
H1 lead leg		strides		20	13	13	13		13	14	14	15	15	18.2	161.2				

FINAL - 1998 European Championships (Budapest, HUN)

Sanchez (1998) - Budapest '98: análisis de la carreras con villas

date	20-Aug-98	time	5.95				21.50						44.89	50.94	1 / 8				
reaction time		interval					15.55						23.39	6.05					
		velocity	7.56				9.00						7.48	6.61	7.85				
H1 lead leg	L	strides		20	13	13	13		13	14	14	15	15	19	162				

Shoaib, Mohamed (SUD) (1998)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)

Henson (2021) - Athlete First: 2021 year end hurdle report

date	28-May-21	time	6.10	10.10	14.27	18.57	23.10	25.1	27.53	31.97	36.40	41.00	45.70	51.16	8 / 2				
reaction time	0.191	interval		4.00	4.17	4.30	4.53		4.43	4.44	4.43	4.60	4.70	5.46			12.47	13.40	13.73
		velocity	7.38	8.75	8.39	8.14	7.73	7.97	7.90	7.88	7.90	7.61	7.45	7.33	7.82		8.42	7.84	7.65
H1 lead leg	R	strides		21	13	13	14	14		14		14	14	17.2	148.2				

FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)

Henson (2020) - Athlete First: 2017 year end hurdle report

date	05-May-17	time	6.03	9.86	13.80	17.70	21.70		25.86	30.16	34.66	39.26	44.16	50.37	2 / 6				
reaction time	0.206	interval		3.83	3.94	3.90	4.00		4.16	4.30	4.50	4.60	4.90	6.21			11.67	12.46	14.00
		velocity	7.46	9.14	8.88	8.97	8.75		8.41	8.14	7.78	7.61	7.14	6.44	7.94		9.00	8.43	7.50
H1 lead leg	R	strides		21	13	13	13		13	13	13	14	14	18	158				

FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)

Henson (2020) - Athlete First: 2017 year end hurdle report

date	28-Mar-17	time	5.96	9.72	13.52	17.36	21.28		25.40	29.68	34.12	38.76	43.60	49.93	1 / 2				
reaction time		interval		3.76	3.80	3.84	3.92		4.12	4.28	4.44	4.64	4.84	6.33	NJR PB		11.40	12.32	13.92
		velocity	7.55	9.31	9.21	9.11	8.93		8.50	8.18	7.88	7.54	7.23	6.32	8.01		9.21	8.52	7.54
H1 lead leg	R	strides			13	13	13		13	13	13	14	14	18.5	137.5				

Shogata, Kazuya (JPN) (1983)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

date	19-Sep-05	time	5.94	9.81	13.80	17.82	21.89		26.03	30.30	34.69	39.18	43.75	48.95	1 / 5				
reaction time		interval		3.87	3.99	4.02	4.07		4.14	4.27	4.39	4.49	4.57	5.20	PB		11.88	12.48	13.45
		velocity	7.58	9.04	8.77	8.71	8.60		8.45	8.20	7.97	7.80	7.66	7.69	8.17		8.84	8.41	7.81
H1 lead leg		strides			14	14	14		15	15	15	15	15	131					

Skomorokhov, Vyacheslav (URS) (19 Heat ?? - 1967 (Leninakan, URS) (Altitude)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

date	02-Oct-67	time	5.8	10.0	13.9	18.1	22.2		26.6	31.1	35.6	40.1	44.7	50.1	1 / 1				
reaction time		interval		4.2	3.9	4.2	4.1		4.4	4.5	4.5	4.5	4.6	5.4			12.3	13.0	13.6
		velocity	7.76	8.33	8.97	8.33	8.54		7.95	7.78	7.78	7.78	7.61	7.41	7.98		8.54	8.08	7.72
H1 lead leg		strides																	

Sibilio, Alessandro (ITA) (1999)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 2 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	07-Aug-24	time	5.87	9.60	13.36	17.19	21.12		25.25	29.67	34.20	38.77	43.38	48.79	9 / 6				
reaction time	0.151	interval		3.73	3.76	3.83	3.93		4.13	4.42	4.53	4.57	4.61	5.41			11.32	12.48	13.71
		velocity	7.67	9.38	9.31	9.14	8.91		8.47	7.92	7.73	7.66	7.59	7.39	8.20		9.28	8.41	7.66
H1 lead leg	R	strides		21	13	13	13		13	14			15	19	134				

Heat 4 - 2024 Olympic Games (Paris, FRA)

Paris 2024 Olympc Games - Results Book (2024)

date	05-Aug-24	time	5.93	9.72	13.56	17.48	21.44		25.54	29.83	34.27	38.82	43.36	48.43	4 / 4				
reaction time	0.157	interval		3.79	3.84	3.92	3.96		4.10	4.29	4.44	4.55	4.54	5.07			11.55	12.35	13.53
		velocity	7.59	9.23	9.11	8.93	8.84		8.54	8.16	7.88	7.69	7.71	7.89	8.26		9.09	8.50	7.76
H1 lead leg	R	strides		21	13	13	13		13	14	14	15	15	18	162				

FINAL - 2024 European Athletics Championships (Roma, ITA)

European Athletics (2024) - 2024 european athletics championships - results book

date	11-Jun-24	time	5.78	9.49	13.20	16.96	20.86		24.78	28.91	33.23	37.78	42.21	47.50	7 / 2				
reaction time	0.174	interval		3.71	3.71	3.76	3.90		3.92	4.13	4.32	4.55	4.43	5.29	NR PB		11.18	11.95	13.30
		velocity	7.79	9.43	9.43	9.31	8.97		8.93	8.47	8.10	7.69	7.90	7.56	8.42		9.39	8.79	7.89
H1 lead leg	R	strides		21	13	13			13	14	14	15	15	18	136				

Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)*European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.83	9.59	13.45	17.20	20.98	24.92	29.18	33.44	38.08	42.69	48.07	7 / 1				
reaction time	0.161	interval		3.76	3.86	3.75	3.78	3.94	4.26	4.26	4.64	4.61	5.38		11.37	11.98	13.51	
		velocity	7.72	9.31	9.07	9.33	9.26	8.88	8.22	8.22	7.54	7.59	7.43	8.32	9.23	8.76	7.77	
H1 lead leg		strides											0					

Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	21-Aug-23	time	5.99	9.94	17.55	21.45	29.83	34.30	43.79	48.43	2 / 5							
reaction time	0.152	interval		3.95	7.61	3.90	8.38	4.47	9.49	4.64				11.56	12.28	13.96		
		velocity	7.51	8.86	9.20	8.97	8.35	7.83	7.38	8.62	8.26			9.08	8.55	7.52		
H1 lead leg	R	strides	21	13		13		15		18	80							

Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	20-Aug-23	time	6.10	10.06	13.93	17.86	21.74	25.86	30.30	34.83	39.39	44.06	49.50	5 / 4				
reaction time	0.178	interval		3.96	3.87	3.93	3.88	4.12	4.44	4.53	4.56	4.67	5.44		11.76	12.44	13.76	
		velocity	7.38	8.84	9.04	8.91	9.02	8.50	7.88	7.73	7.68	7.49	7.35	8.08	8.93	8.44	7.63	
H1 lead leg	R	strides	21	13	13	13	13	13	15	15	15	15	18	164				

FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)*Omega Timing (2023) - diamond league race analysis*

date	21-Jul-23	time	5.76	9.43	13.21	17.00							dnf	3 / --				
reaction time	0.126	interval		3.67	3.78	3.79									11.24			
		velocity	7.81	9.54	9.26	9.23									9.34			
H1 lead leg	R	strides	21	13	13	13							60					

FINAL - 2023 Bauhaus Galan (Stockholm, SWE)*Omega Timing (2023) - diamond league race analysis*

date	02-Jul-23	time	5.90	9.71	13.60	17.45	21.41	25.44	29.81	34.33	38.88	43.38	49.11	5 / 4				
reaction time	0.150	interval		3.81	3.89	3.85	3.96	4.03	4.37	4.52	4.55	4.50	5.73		11.55	12.36	13.57	
		velocity	7.63	9.19	9.00	9.09	8.84	8.68	8.01	7.74	7.69	7.78	6.98	8.14	9.09	8.50	7.74	
H1 lead leg	R	strides	21	13		13	13	13	15		15	15	18.7	136.7				

FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)*Henson (2021) - Athlete First: 2021 year end hurdle report*

date	03-Aug-21	time	6.04	9.84	13.76	17.68	21.64	25.84	31.48	35.96	40.44	43.68	48.77	2 / 8				
reaction time	0.144	interval		3.80	3.92	3.92	3.96	4.20	4.48	4.48	4.44	5.09			11.64			
		velocity	7.45	9.21	8.93	8.93	8.84	8.33	7.78	7.95	7.88	7.86	8.20		9.02			
H1 lead leg	R	strides	21	13	13	13	13	13	13	13	14	14	17	157				

FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	23-Jul-17	time	6.16	10.20	14.24	18.44	22.72	27.00	31.48	35.96	40.44	45.04	50.34	5 / 2				
reaction time	0.191	interval		4.04	4.04	4.20	4.28	4.28	4.48	4.48	4.48	4.60	5.30	PB	12.28	13.04	13.56	
		velocity	7.31	8.66	8.66	8.33	8.18	8.18	7.81	7.81	7.81	7.61	7.55	7.95	8.55	8.05	7.74	
H1 lead leg	R	strides		15	15	15	15	15	15	15	15	15	18	153				

Silva, Carlos (POR) (1974)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)***Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date	25-Aug-99	time	5.66	9.35	13.11	17.25	21.28	25.44	29.67	34.02	38.54	43.31	49.45	2 / 7				
reaction time	0.165	interval		3.69	3.76	4.14	4.03	4.16	4.23	4.35	4.52	4.77	6.14		11.59	12.42	13.64	
		velocity	7.95	9.49	9.31	8.45	8.68	8.41	8.27	8.05	7.74	7.34	6.51	8.09	9.06	8.45	7.70	
H1 lead leg	L	strides	20	13	13	15	14	14	15	15	15	15	20	169				

FINAL - 1998 European Championships (Budapest, HUN)*Behm (1998) - analyse et commentaries: le 400m haies: Pavel la surprise!*

date	20-Aug-98	time	6.1	9.8	13.6	17.5	21.5	25.6	29.7	34.0	38.5	43.3	49.02	6 / 4				
reaction time		interval		3.7	3.8	3.9	4.0	4.1	4.1	4.3	4.5	4.8	5.72		11.40	12.20	13.60	
		velocity	7.38	9.46	9.21	8.97	8.75	8.54	8.54	8.14	7.78	7.29	6.99	8.16	9.21	8.61	7.72	
H1 lead leg	L	strides	20	13	13	13	14	14	15	15	15	15	19.5	166.5				

Sinčukovs, Maksims (LAT) (1998)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2017 European U20 Championships (Grosseto, ITA) (TV Analysis)***Henson (2020) - Athlete First: 2017 year end hurdle report*

date	23-Jul-17	time	5.84	9.56	13.40	17.28	21.48	25.84	30.36	34.92	39.84	44.80	50.98	4 / 6				
reaction time	0.178	interval		3.72	3.84	3.88	4.20	4.36	4.52	4.56	4.92	4.96	6.18	NJR PB	11.44	13.08	14.44	
		velocity	7.71	9.41	9.11	9.02	8.33	8.03	7.74	7.68	7.11	7.06	6.47	7.85	9.18	8.03	7.27	
H1 lead leg	L	strides		14	14	13	15	15	15	15	16	16	20	153				

Siwemuke, Marcus (USA) (1984)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)***USATF Women's Sprint Development (2003)*

date	22-Jun-03	time	6.17	10.12	14.21	18.42	22.87	27.41	32.20	37.15	42.22	47.48	53.44	9 / 7				
reaction time		interval		3.95	4.09	4.21	4.45	4.54	4.79	4.95	5.07	5.26	5.96		12.25	13.78	15.28	
		velocity	7.29	8.86	8.56	8.31	7.87	7.71	7.31	7.07	6.90	6.65	6.71	7.49	8.57	7.62	6.87	
H1 lead leg		strides																

Sjöstedt, Carl (SWE) (1994)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2011 Fridrott (Stockholm, SWE) (84cm)***Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx*

date	07-Jun-11	time	6.80	11.20	15.58	20.10	24.74	29.54	34.54	39.58	44.86	50.08	55.82	3				
reaction time		interval		4.40	4.38	4.52	4.64	4.80	5.00	5.04	5.28	5.22	5.74		13.30	14.44	15.54	
		velocity	6.62	7.95	7.99	7.74	7.54	7.29	7.00	6.94	6.63	6.70	6.97	7.17	7.89	7.27	6.76	
H1 lead leg	L	strides		15	15	15	15	15	16	16	17	17	19	160				

Skomorokhov, Vyacheslav (URS) (19**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**

FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)*Dessons (1982) - traite d'athletisme - volume 1: les courses*

date	15-Oct-68	time	6.1	9.9	13.7	17.5	21.5	23.4	25.6	30.0	34.6	39.2	43.8	49.1	5 / 5			
reaction time		interval		3.80	3.80	3.80	4.00		4.10	4.40	4.60	4.60	4.60	5.30	(49.12)	11.40	12.50	13.80
		velocity	7.38	9.21	9.21	9.21	8.75	8.55	8.54	7.95	7.61	7.61	7.61	7.55	8.15	9.21	8.40	7.61
H1 lead leg	L	strides	21	13	13	13	13		13	15	15	15	15	18	164			

Heat ?? - 1967 (Leninakan, URS) (Altitude)*Jonath (1969) - wie gerhard hennige trainiert*

date	02-Oct-67	time	5.8	10.0	13.9	18.1	22.2		26.6	31.1	35.6	40.1	44.7	50.1	/ 1			
reaction time		interval		4.2	3.9	4.2	4.1		4.4	4.5	4.5	4.5	4.6	5.4		12.3	13.0	13.6
		velocity	7.76	8.33	8.97	8.33	8.54		7.95	7.78	7.78	7.78	7.61	7.41	7.98	8.54	8.08	7.72
H1 lead leg		strides																

Small, Javonie (USA) (1982)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 3 - 2007 USATF National Championships (Indianapolis, IN)***USATF Men's Hurdle Development (2007)*

date	21-Jun-07	time	5.96	9.83	13.84	17.91	22.07		26.66	31.28	35.85	40.47	45.30	50.96	7 / 5			
reaction time		interval		3.87	4.01	4.07	4.16		4.59	4.62	4.57	4.62	4.83	5.66		11.95	13.37	14.02
		velocity	7.55	9.04	8.73	8.60	8.41		7.63	7.58	7.66	7.58	7.25	7.07	7.85	8.79	7.85	7.49
H1 lead leg	R	strides	22	15	14	14	14		15	14	15	15	15	153				

Smidt, Nick (NED) (1997)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Semi-Final 1 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	07-Aug-24	time	5.85	9.50	13.25	17.03	20.93		25.05	29.36	33.80	38.64	43.64	49.61	4 / 6			
reaction time	0.215	interval		3.65	3.75	3.78	3.90		4.12	4.31	4.44	4.84	5.00	5.97		11.18	12.33	14.28
		velocity	7.69	9.59	9.33	9.26	8.97		8.50	8.12	7.88	7.23	7.00	6.70	8.06	9.39	8.52	7.35
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	15	18	160			

Heat 4 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.93	9.70	13.50	17.39	21.37		25.47	29.72	34.15	38.63	43.24	48.64	9 / 6			
reaction time	0.168	interval		3.77	3.80	3.89	3.98		4.10	4.25	4.43	4.48	4.61	5.40		11.46	12.33	13.52
		velocity	7.59	9.28	9.21	9.00	8.79		8.54	8.24	7.90	7.81	7.59	7.41	8.22	9.16	8.52	7.77
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	14	14	17.5	158.5			

FINAL - 2024 European Athletics Championships (Roma, ITA)*European Athletics (2024) - 2024 european athletics championships - results book*

date	11-Jun-24	time	5.74	9.43	13.23	17.05	21.01		25.10	29.39	33.79	38.61	43.55	49.43	4 / 8			
reaction time	0.182	interval		3.69	3.80	3.82	3.96		4.09	4.29	4.40	4.82	4.94	5.88		11.31	12.34	14.16
		velocity	7.84	9.49	9.21	9.16	8.84		8.56	8.16	7.95	7.26	7.09	6.80	8.09	9.28	8.51	7.42
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	15	15	18	150			

Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)*European Athletics (2024) - 2024 european athletics championships - results book*

date	10-Jun-24	time	5.88	9.63	13.48	17.28	21.31		25.55	29.95	34.44	39.28	44.05	49.57	5 / 2			
reaction time	0.171	interval		3.75	3.85	3.80	4.03		4.24	4.40	4.49	4.84	4.77	5.52		11.40	12.67	14.10
		velocity	7.65	9.33	9.09	9.21	8.68		8.25	7.95	7.80	7.23	7.34	7.25	8.07	9.21	8.29	7.45
H1 lead leg		strides												0				

FINAL - 2024 Seashore Doha Meeting (Doha, QAT)*Omega Timing (2024) - diamond league race analysis*

date	10-May-24	time	5.97	9.76	13.66	17.65	21.80		26.17	30.54	35.10	39.80	44.50	49.97	1 / 6			
reaction time	0.194	interval		3.79	3.90	3.99	4.15		4.37	4.37	4.56	4.70	4.70	5.47		11.68	12.89	13.96
		velocity	7.54	9.23	8.97	8.77	8.43		8.01	8.01	7.68	7.45	7.45	7.31	8.00	8.99	8.15	7.52
H1 lead leg	L	strides	20	13	13	13	13		14			15	15	18	134			

FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)*Omega Timing (2023) - diamond league race analysis*

date	21-Jul-23	time	5.83	9.53	13.26	17.07	21.03		25.16	29.40	33.80	38.34	43.04	48.57	8 / 6			
reaction time	0.167	interval		3.70	3.73	3.81	3.96		4.13	4.24	4.40	4.54	4.70	5.53		11.24	12.33	13.64
		velocity	7.72	9.46	9.38	9.19	8.84		8.47	8.25	7.95	7.71	7.45	7.23	8.24	9.34	8.52	7.70
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	14	14	143				

FINAL - 2023 FBK Games (Hengelo, NED)*Omega Timing (2023) - continental tour race analysis*

date	04-Jun-23	time	5.83	9.55	13.35	17.17	21.08		25.11	29.38	33.82	38.49	43.40	49.17	5 / 2			
reaction time	0.186	interval		3.72	3.80	3.82	3.91		4.03	4.27	4.44	4.67	4.91	5.77		11.34	12.21	14.02
		velocity	7.72	9.41	9.21	9.16	8.95		8.68	8.20	7.88	7.49	7.13	6.93	8.14	9.26	8.60	7.49
H1 lead leg	L	strides	21	13					13	14	14	14	15	18	122			

FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	06-Aug-22	time	5.93	9.70	13.53	17.53	21.56	23.28	25.73	30.03		38.90	43.56	49.07	9 / 7			
reaction time	0.154	interval		3.77	3.83	4.00	4.03		4.17	4.30		8.87	4.66	5.51	PB	11.60	12.50	13.53
		velocity	7.59	9.28	9.14	8.75	8.68	8.59	8.39	8.14		7.89	7.51	7.26	8.15	9.05	8.40	7.76
H1 lead leg	L	strides	20	13	13	13	13		14	14		14	14	101				

Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	17-Jul-22	time	5.86	9.57	13.50	17.30	21.40	23.25	25.70	30.00	34.47	39.13	43.93	49.56	8 / 5			
reaction time	0.145	interval		3.71	3.93	3.80	4.10		4.30	4.30	4.47	4.66	4.80	5.63		11.44	12.70	13.93
		velocity	7.68	9.43	8.91	9.21	8.54	8.60	8.14	8.14	7.83	7.51	7.29	7.10	8.07	9.18	8.27	7.54
H1 lead leg	L	strides	20	13	13	13	14		14	14	14	14	15	18	162			

Heat 2 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)*Henson (2022) - Athlete First: 2022 year end hurdle report*

date	16-Jul-22	time	5.93	9.73	13.70	17.77	21.93	23.78	26.13	30.50	35.00	39.60	44.33	49.80	8 / 4			
reaction time	0.180	interval		3.80	3.97	4.07	4.16		4.20	4.37	4.50	4.60	4.73	5.47		11.84	12.73	13.83

H1 lead leg	L	velocity	7.59	9.21	8.82	8.60	8.41	8.41	8.33	8.01	7.78	7.61	7.40	7.31	8.03	8.87	8.25	7.59		
		strides	20	13	13	13	13		14	14	14	14	14	17.7	159.7					
FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)															<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jun-22	time	5.92	9.72	13.64	17.68		23.70	26.28	30.62	34.92	39.56	44.28		49.77	1 / 6				
reaction time	0.172	interval		3.80	3.92	4.04			8.60	4.34	4.30	4.64	4.72	5.49			11.76	12.94	13.66	
		velocity	7.60	9.21	8.93	8.66		8.44	8.14	8.06	8.14	7.54	7.42	7.29	8.04		8.93	8.11	7.69	
H1 lead leg	L	strides	21	13	13	14	14				14	15	15	18	137					
FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>					
date	17-Sep-20	time	5.91	9.81			22.05	24.0		31.06	35.67	40.34	45.11		50.67	3 / 8				
reaction time	0.144	interval		3.90			12.24			9.01	4.61	4.67	4.77	5.56					14.05	
		velocity	7.61	8.97			8.58	8.33		7.77	7.59	7.49	7.34	7.19	7.89					7.47
H1 lead leg	L	strides	20	13							14	14	14	17.2	92.2					
Smith, James (USA) (2000)																				
FINAL - 2024 USA Olympic Trials (Eugene, OR)															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	30-Jun-24	time	5.91	9.70	13.65	17.62	21.70	23.49	25.91	30.18	34.54	39.13	43.67		49.18	1 / 5				
reaction time		interval		3.79	3.95	3.97	4.08		4.21	4.27	4.36	4.59	4.54	5.51				11.71	12.56	13.49
		velocity	7.61	9.23	8.86	8.82	8.58	8.51	8.31	8.20	8.03	7.63	7.71	7.26	8.13			8.97	8.36	7.78
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164					
Semi-Final 1 - 2024 USA Olympic Trials (Eugene, OR)															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	28-Jun-24	time	5.99	9.75	13.58	17.49	21.48	23.34	25.54	30.03	34.57	39.23	43.83		49.43	6 / 3				
reaction time		interval		3.76	3.83	3.91	3.99		4.06	4.49	4.54	4.66	4.60	5.60				11.50	12.54	13.80
		velocity	7.51	9.31	9.14	8.95	8.77	8.57	8.62	7.80	7.71	7.51	7.61	7.14	8.09			9.13	8.37	7.61
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	15	15	18	162					
Heat 1 - 2024 USA Olympic Trials (Eugene, OR)															<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>					
date	27-Jun-24	time	6.10	9.96	13.87	17.86	21.91	23.79	26.10	30.53	35.08	39.73	44.39		50.28	6 / 2				
reaction time		interval		3.86	3.91	3.99	4.05		4.19	4.43	4.55	4.65	4.66	5.89				11.76	12.67	13.86
		velocity	7.38	9.07	8.95	8.77	8.64	8.41	8.35	7.90	7.69	7.53	7.51	6.79	7.96			8.93	8.29	7.58
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18	164					
FINAL - 2023 USATF National Championships (Eugene, OR) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jul-23	time	6.17	10.01	13.91	17.85	21.89		26.09		34.90	39.50	44.18		49.56	3 / 6				
reaction time		interval		3.84	3.90	3.94	4.04		4.20		8.81	4.60	4.68	5.38				11.68		
		velocity	7.29	9.11	8.97	8.88	8.66		8.33		7.95	7.61	7.48	7.43	8.07			8.99		
H1 lead leg	L	strides	21	13	13	13	13					15	15	103						
FINAL - 2023 NCAA Championships (Austin, TX) (TV Analysis)															<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>					
date	09-Jun-23	time	5.99	9.76	13.60	17.48	21.50		25.74	30.03	34.47	39.00	43.76		49.21	4 / 8				
reaction time		interval		3.77	3.84	3.88	4.02		4.24	4.29	4.44	4.53	4.76	5.45	PB			11.49	12.55	13.73
		velocity	7.51	9.28	9.11	9.02	8.71		8.25	8.16	7.88	7.73	7.35	7.34	8.13			9.14	8.37	7.65
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.2	164.2					
Smith, Willie (NAM) (1977)																				
Heat 1 - 2000 Olympic Games (Sydney, AUS)															<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.06	9.78	13.66	17.62	21.66		25.82	30.34	35.02	39.90		50.89	5 / 5					
reaction time	0.156	interval		3.72	3.88	3.96	4.04		4.16	4.52	4.68	4.88						11.56	12.72	
		velocity	7.43	9.41	9.02	8.84	8.66		8.41	7.74	7.48	7.17		7.86				9.08	8.25	
H1 lead leg		strides	22	15	15	15	15		17	17	17	17		150						
Smolka, Adam (CZE) (1998)																				
Heat 2 - 2024 European Athletics Championships (Roma, ITA)															<i>European Athletics (2024) - 2024 european athletics championships - results book</i>					
date	09-Jun-24	time	5.96	9.79	13.69	17.71	21.85		26.20	30.69	35.17	39.88	44.66		50.48	5 / 5				
reaction time	0.208	interval		3.83	3.90	4.02	4.14		4.35	4.49	4.48	4.71	4.78	5.82				11.75	12.98	13.97
		velocity	7.55	9.14	8.97	8.71	8.45		8.05	7.80	7.81	7.43	7.32	6.87	7.92			8.94	8.09	7.52
H1 lead leg		strides												0						
Song Haotian (CHN) (1999)																				
Heat 4 - 2021 Chinese National Championships (Chongqing, CHN)															<i>CAA Hurdle Development (2021)</i>					
date	26-Jun-21	time	6.31	10.37	14.43	18.67	23.12		27.73	32.34	37.18	42.05	47.12		52.72	7 / 4				
reaction time	0.209	interval		4.06	4.06	4.24	4.45		4.61	4.61	4.84	4.87	5.07	5.60				12.36	13.67	14.78
		velocity	7.13	8.62	8.62	8.25	7.87		7.59	7.59	7.23	7.19	6.90	7.14	7.59			8.50	7.68	7.10
H1 lead leg	L	strides	22	14	14	14	15		15	15	15	15	16	19	174					
FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)															<i>CAA Hurdle Development (2021)</i>					
date	20-May-21	time	6.29	10.29	14.31	18.42	22.62		27.04	31.68	36.32	41.11	46.18		51.66	5 / 2				
reaction time	0.242	interval		4.00	4.02	4.11	4.20		4.42	4.64	4.64	4.79	5.07	5.48	PB			12.13	13.26	14.50
		velocity	7.15	8.75	8.71	8.52	8.33		7.92	7.54	7.54	7.31	6.90	7.30	7.74			8.66	7.92	7.24
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	19.5	172.5					
FINAL - 2021 National Grand Prix (Chengdu, CHN)															<i>CAA Hurdle Development (2021)</i>					
date	02-Apr-21	time	6.31	10.38	14.38	18.58	22.91		27.46	32.22	37.00	42.10	47.17		52.54	8 / 3				
reaction time	0.250	interval		4.07	4.00	4.20	4.33		4.55	4.76	4.78	5.10	5.07	5.37	PB			12.27	13.64	14.95
		velocity	7.13	8.60	8.75	8.33	8.08		7.69	7.35	7.32	6.86	6.90	7.45	7.61			8.56	7.70	7.02

H1 lead leg L strides 22 14 14 14 14 15 15 15 16 16 19 174

Heat 1 - 2021 National Grand Prix (Chengdu, CHN)

															CAA Hurdle Development (2021)			
date	01-Apr-21	time	6.40	10.60	14.88	19.20	23.70		28.30	33.00	37.76	42.62	47.48		52.85	7 / 3		
reaction time	0.192	interval	4.20	4.28	4.32	4.50		4.60	4.70	4.76	4.86	4.86	5.37		PB	12.80	13.80	14.48
		velocity	7.03	8.33	8.18	8.10	7.78		7.61	7.45	7.35	7.20	7.20	7.45		7.57	8.20	7.61
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15		18.5	175.5		

Song Jiahui (CHN) (2002)

															CAA Hurdle Development (2021)			
FINAL - 2021 Chinese National Championships (Chongqing, CHN)																		
date	26-Jun-21	time	6.31	10.33	14.44	18.66	22.91		27.23	31.61	36.23	40.99	45.82		51.32	7 / 2		
reaction time	0.191	interval	4.02	4.11	4.22	4.25		4.32	4.38	4.62	4.76	4.83	5.50		PB	12.35	12.95	14.21
		velocity	7.13	8.71	8.52	8.29	8.24		8.10	7.99	7.58	7.35	7.25	7.27		7.79	8.50	8.11
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	15		18	159		

Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)

															CAA Hurdle Development (2021)			
date	26-Jun-21	time	6.36	10.36	14.45	18.62	22.83		27.10	31.68	36.26	41.01	45.87		51.44	8 / 1		
reaction time	0.234	interval	4.00	4.09	4.17	4.21		4.27	4.58	4.58	4.75	4.86	5.57		PB	12.26	13.06	14.19
		velocity	7.08	8.75	8.56	8.39	8.31		8.20	7.64	7.64	7.37	7.20	7.18		7.78	8.56	8.04
H1 lead leg	L	strides	20	13	13	13	13		13	14	14	15	15		18.5	161.5		

FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)

															CAA Hurdle Development (2021)			
date	13-Jun-21	time	6.24	10.34	14.46	18.55	22.77		27.08	31.53	36.07	40.89	45.83		51.57	8 / 6		
reaction time	0.198	interval	4.10	4.12	4.09	4.22		4.31	4.45	4.54	4.82	4.94	5.74			12.31	12.98	14.30
		velocity	7.21	8.54	8.50	8.56	8.29		8.12	7.87	7.71	7.26	7.09	6.97		7.76	8.53	8.09
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14		18	157		

Song Weiwei (CHN) (2002)

															CAA Hurdle Development (2019)			
U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)																		
date	17-Aug-19	time	6.63	10.82	15.18	19.54	24.20		29.28	34.48	39.80	45.12	50.68		56.87	3 / 8		
reaction time	0.186	interval	4.19	4.36	4.36	4.66		5.08	5.20	5.32	5.32	5.56	6.19			12.91	14.94	16.20
		velocity	6.79	8.35	8.03	8.03	7.51		6.89	6.73	6.58	6.58	6.29	6.46		7.03	8.13	7.03
H1 lead leg	L	strides	22	15	15	15	15		17	17	17	17	17		21	188		

Southern, Eddie (USA) (1938)

															Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)			
FINAL - 1956 Olympic Games (Melbourne, AUS)																		
date	24-Nov-56	time					22.5								50.8	2 / 2		
reaction time		interval													(50.94)			
		velocity					8.22									7.87		
H1 lead leg	R	strides	22	15	15	13	15		15	15	15	15	15		18	173		

Spencer, William (USA) (2001)

															Henson (2021) - Athlete First: 2021 year end hurdle report			
Semi-Final 2 - 2020 USA Olympic Trials (Eugene, OR) (TV Analysis)																		
date	25-Jun-21	time	6.03	9.81	13.64	17.62	21.79		26.19	30.76	35.40	40.07	44.81		50.53	4 / 8		
reaction time	0.174	interval	3.78	3.83	3.98	4.17		4.40	4.57	4.64	4.67	4.74	5.72			11.59	13.14	14.05
		velocity	7.46	9.26	9.14	8.79	8.39		7.95	7.66	7.54	7.49	7.38	6.99		7.92	9.06	7.99
H1 lead leg	R	strides	13	13	13	13	13		14	14	14	14	14		17.2	125.2		

Stigler, Michael (USA) (1992)

															Henson (2020) - Athlete First: 2017 year end hurdle report			
FINAL - 2017 Müller's Anniversary Games (London, GBR) (TV Analysis)																		
date	09-Jul-17	time	6.04	9.72	13.56	17.40	21.40		25.64	29.96	34.36	38.72	43.16		48.32	4 / 4		
reaction time	0.199	interval	3.68	3.84	3.84	4.00		4.24	4.32	4.40	4.36	4.44	5.16			11.36	12.56	13.20
		velocity	7.45	9.51	9.11	9.11	8.75		8.25	8.10	7.95	8.03	7.88	7.75		8.28	9.24	8.36
H1 lead leg	R	strides	22	13	13	13	13		13	15	15	15	15		18	165		

FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)

															Henson (2020) - Athlete First: 2017 year end hurdle report			
date	06-Jul-17	time	6.00	9.80	13.72	17.68	21.76		26.04	30.36	34.72	39.32	44.12		49.86	6 / 6		
reaction time	0.224	interval	3.80	3.92	3.96	4.08		4.28	4.32	4.36	4.60	4.80	5.74			11.68	12.68	13.76
		velocity	7.50	9.21	8.93	8.84	8.58		8.18	8.10	8.03	7.61	7.29	6.97		8.02	8.99	8.28
H1 lead leg	R	strides	22	13	13	13	13		15	15	15	15	15		18	167		

FINAL - 2017 USATF Championships (Sacramento, CA) (TV Analysis)

															Henson (2020) - Athlete First: 2017 year end hurdle report			
date	25-Jun-17	time	6.10	9.79	13.58	17.38	21.31		29.89	34.20	38.55	43.07		48.26	8 / 2			
reaction time		interval	3.69	3.79	3.80	3.93		8.58	4.31	4.35	4.52	5.19		PB	11.28	12.51	13.18	
		velocity	7.38	9.49	9.23	9.21	8.91		8.16	8.12	8.05	7.74	7.71	8.29		8.29	9.31	8.39
H1 lead leg	R	strides	22	13	13	13	13		15	15	15	15	15		18.2	137.2		

Stukalov, Dmitriy (URS) (1951)

															Behm (1995) - la tactique du 400 haies			
FINAL - 1971 European Championships (Helsinki, FIN)																		
date	12-Aug-71	time	6.0	10.2	14.3	18.3	22.4		26.6	31.0	35.5	40.2	44.8		50.0	/ 3		
reaction time		interval	4.20	4.10	4.00	4.10		4.20	4.40	4.50	4.70	4.60	5.20		PB	12.30	12.70	13.80
		velocity	7.50	8.33	8.54	8.75	8.54		8.33	7.95	7.78	7.45	7.61	7.69		8.00	8.54	8.27
H1 lead leg		strides		13	13	13	13		15	15	15	15	15		127			

Sugai, Mitsuru (JPN) (1994)

															Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season			
B FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)																		
date	24-Oct-20	time	6.07	9.94	13.86	17.83	21.99		26.36	30.81	35.39	40.12	44.99		50.86	6 / 3		

reaction time	interval	3.87	3.92	3.97	4.16		4.37	4.45	4.58	4.73	4.87	5.87		11.76	12.98	14.18			
	velocity	7.41	9.04	8.93	8.82	8.41	8.01	7.87	7.64	7.40	7.19	6.81	7.86	8.93	8.09	7.40			
H1 lead leg	R	strides	21	13	13	13	14	14	15	15	15	19	165						
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)													<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>						
date	29-Jun-19	time	6.06	9.76	13.66	17.58	20.60	25.86	30.23	34.80	39.46	44.43	50.27	5 / 7					
reaction time	0.168	interval	3.70	3.90	3.92	3.02	5.26	4.37	4.57	4.66	4.97	5.84		11.52	12.65	14.20			
		velocity	7.43	9.46	8.97	8.93	11.59	6.65	8.01	7.66	7.51	7.04	6.85	7.96	9.11	8.30	7.39		
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	146						
B FINAL - 2019 Kinami Memorial (Osaka, JPN)													<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>						
date	06-May-19	time	6.09	9.91	13.90	17.85	21.94	26.23	30.50	35.07	39.72	44.54	50.16	3 / 1					
reaction time		interval	3.82	3.99	3.95	4.09	4.29	4.27	4.57	4.65	4.82	5.62		11.76	12.65	14.04			
		velocity	7.39	9.16	8.77	8.86	8.56	8.16	8.20	7.66	7.53	7.26	7.12	7.97	8.93	8.30	7.48		
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165					
C FINAL - 2019 Shizuoka International Athletics Meeting (Fukuoka, JPN)													<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>						
date	03-May-19	time	6.09	9.83	13.73	17.77	21.89	26.28	30.75	35.44	40.19	45.08	50.56	7 / 2					
reaction time		interval	3.74	3.90	4.04	4.12	4.39	4.47	4.69	4.75	4.89	5.48		11.68	12.98	14.33			
		velocity	7.39	9.36	8.97	8.66	8.50	7.97	7.83	7.46	7.37	7.16	7.30	7.91	8.99	8.09	7.33		
H1 lead leg	R	strides	22	13	13	13	13	14	14	15	15	15	18.5	165.5					
Sugimati, Mahau (BRA) (1984)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>						
date	09-May-21	time	6.09	9.86	13.76	17.82	21.99	26.38	30.78	35.26	39.87	44.64	50.11	3 / 8					
reaction time	0.130	interval	3.77	3.90	4.06	4.17	4.39	4.40	4.48	4.61	4.77	5.47		11.73	12.96	13.86			
		velocity	7.39	9.28	8.97	8.62	8.39	7.97	7.95	7.81	7.59	7.34	7.31	7.98	8.95	8.10	7.58		
H1 lead leg		strides	13	13	13	13	13	13	13	13	13	14	118						
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>						
date	23-Aug-20	time	6.16	9.96	13.86	17.83	21.91	26.16	30.51	35.15	40.04	45.08	50.99	8 / 7					
reaction time	0.152	interval	3.80	3.90	3.97	4.08	4.25	4.35	4.64	4.89	5.04	5.91		11.67	12.68	14.57			
		velocity	7.31	9.21	8.97	8.82	8.58	8.24	8.05	7.54	7.16	6.94	6.77	7.84	9.00	8.28	7.21		
H1 lead leg		strides	12	12	13	13	13	13	13	13	14	14	117						
FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)													<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>						
date	19-May-19	time	6.06	9.84	13.73	17.76	21.92	26.28	30.78	35.60	40.44	45.33	50.87	2 / 3					
reaction time	0.160	interval	3.78	3.89	4.03	4.16	4.36	4.50	4.82	4.84	4.89	5.54		11.70	13.02	14.55			
		velocity	7.43	9.26	9.00	8.68	8.41	8.03	7.78	7.26	7.23	7.16	7.22	7.86	8.97	8.06	7.22		
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	14	14	17.5	157.5					
D FINAL - 2019 Shizuoka International Athletics Meeting (Fukuoka, JPN)													<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>						
date	03-May-19	time	6.09	9.86	13.68	17.58	21.60	25.83	30.20	34.72	39.57	44.63	50.19	5 / 1					
reaction time		interval	3.77	3.82	3.90	4.02	4.23	4.37	4.52	4.85	5.06	5.56		11.49	12.62	14.43			
		velocity	7.39	9.28	9.16	8.97	8.71	8.27	8.01	7.74	7.22	6.92	7.19	7.97	9.14	8.32	7.28		
H1 lead leg	R	strides	20	13	13	13	13	13	13	13	15	15	17.2	158.2					
Sugimati, Mahau (JPN) (1984)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2006 Japanese National Championships (Kobe, JPN)													<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>						
date	01-Jul-06	time	6.25	10.12	13.96	17.95	22.00	26.27	30.62	35.12	39.71	44.31	49.63	1 / 2					
reaction time		interval	3.87	3.84	3.99	4.05	4.27	4.35	4.50	4.59	4.60	5.32	PB	11.70	12.67	13.69			
		velocity	7.20	9.04	9.11	8.77	8.64	8.20	8.05	7.78	7.63	7.61	7.52	8.06	8.97	8.29	7.67		
H1 lead leg		strides	12	12	12	12	12	13	13	13	13	13	113						
Sun Ke (CHN) (2001)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)													<i>CAA Hurdle Development (2019)</i>						
date	17-Aug-19	time	6.14	10.18	14.28	18.44	22.80	27.26	31.90	36.82	42.16	47.68	54.20	4 / 5					
reaction time	0.176	interval	4.04	4.10	4.16	4.36	4.46	4.64	4.92	5.34	5.52	6.52		12.30	13.46	15.78			
		velocity	7.33	8.66	8.54	8.41	8.03	7.85	7.54	7.11	6.55	6.34	6.13	7.38	8.54	7.80	6.65		
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	20	177					
Sun Wanhao (CHN) (2001)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)													<i>CAA Hurdle Development (2019)</i>						
date	17-Aug-19	time	6.54	10.76	15.08	19.42	23.85	28.50	33.38	38.40	43.62	49.12	55.04	8 / 6					
reaction time	0.216	interval	4.22	4.32	4.34	4.43	4.65	4.88	5.02	5.22	5.50	5.92	PB	12.88	13.96	15.74			
		velocity	6.88	8.29	8.10	8.06	7.90	7.53	7.17	6.97	6.70	6.36	6.76	7.27	8.15	7.52	6.67		
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	17	20	182					
Sun Yao (CHN) (2002)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)													<i>CAA Hurdle Development (2019)</i>						
date	17-Aug-19	time	6.11	10.04	14.18	18.30	22.47	26.83	31.36	36.14	41.24	46.45	52.20	4 / 2					
reaction time	0.223	interval	3.93	4.14	4.12	4.17	4.36	4.53	4.78	5.10	5.21	5.75		12.19	13.06	15.09			
		velocity	7.36	8.91	8.45	8.50	8.39	8.03	7.73	7.32	6.86	6.72	6.96	7.66	8.61	8.04	6.96		
H1 lead leg	L	strides	14	14	14	14	15	15	15	15	17	17	135						
Suzuki, Taiga (JPN) (2002)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)													<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>						
date	26-Jun-21	time	6.12	10.03	13.95	17.93	22.02	26.28	30.71	35.35	40.37	45.66	51.95	3 / 6					

reaction time	0.190	interval	3.91	3.92	3.98	4.09	4.26	4.43	4.64	5.02	5.29	6.29	11.81	12.78	14.95				
		velocity	7.35	8.95	8.93	8.79	8.56	8.22	7.90	7.54	6.97	6.62	6.36	7.70	8.89	8.22	7.02		
H1 lead leg	L	strides	21	14	14	14	15	15	15	15	16	16	155						
FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	25-Oct-20	time	6.11	10.04	14.18	18.30	22.47	26.83	31.36	36.14	41.24	46.45	52.20	4 / 2					
reaction time	0.173	interval	3.93	4.14	4.12	4.17	4.36	4.53	4.78	5.10	5.21	5.75	12.19	13.06	15.09				
		velocity	7.36	8.91	8.45	8.50	8.39	8.03	7.73	7.32	6.86	6.72	6.96	7.66	8.61	8.04	6.96		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	17	17	19.2	175.2					
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	23-Aug-20	time	6.01	9.86	13.78	17.85	22.02	26.44	31.05	35.79	40.74	45.90	52.19	1 / 9					
reaction time	0.152	interval	3.85	3.92	4.07	4.17	4.42	4.61	4.74	4.95	5.16	6.29	11.84	13.20	14.85				
		velocity	7.49	9.09	8.93	8.60	8.39	7.92	7.59	7.38	7.07	6.78	6.36	7.66	8.87	7.95	7.07		
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131						
Takada, Kazunari (JPN) (1997)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2020 World Athletics Trials (Fuji, JPN)			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	06-Sep-20	time	6.04	9.81	13.71	17.77	21.92	26.16	30.56	35.14	39.94	45.10	51.11	7 / 3					
reaction time		interval	3.77	3.90	4.06	4.15	4.24	4.40	4.58	4.80	5.16	6.01	11.73	12.79	14.54				
		velocity	7.45	9.28	8.97	8.62	8.43	8.25	7.95	7.64	7.29	6.78	6.66	7.83	8.95	8.21	7.22		
H1 lead leg		strides	13	13	14	14	14	14	14	15	15	16	128						
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)			<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																
date	23-Aug-20	time	6.04	9.84	13.71	17.67	21.86	26.13	30.53	35.07	39.87	44.84	50.53	2 / 4					
reaction time	0.191	interval	3.80	3.87	3.96	4.19	4.27	4.40	4.54	4.80	4.97	5.69	11.63	12.86	14.31				
		velocity	7.45	9.21	9.04	8.84	8.35	8.20	7.95	7.71	7.29	7.04	7.03	7.92	9.03	8.16	7.34		
H1 lead leg		strides	13	13	14	14	14	14	14	15	15	15	127						
B FINAL - 2019 Kinami Memorial (Osaka, JPN)			<i>Matsubayashi (2019) - research on athlete performance and technique- 2019 data book</i>																
date	06-May-19	time	5.89	9.79	13.66	17.48	21.60	25.88	30.21	34.80	39.56	44.63	50.50	7 / 3					
reaction time		interval	3.90	3.87	3.82	4.12	4.28	4.33	4.59	4.76	5.07	5.87	11.59	12.73	14.42				
		velocity	7.64	8.97	9.04	9.16	8.50	8.18	8.08	7.63	7.35	6.90	6.81	7.92	9.06	8.25	7.28		
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	20	172					
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)			<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																
date	31-Jul-15	time	6.12	10.03	14.08	18.13	22.34	26.66	31.10	35.69	40.27	44.91	50.27	6 / 1					
reaction time		interval	3.91	4.05	4.05	4.21	4.32	4.44	4.59	4.58	4.64	5.36	PB	12.01	12.97	13.81			
		velocity	7.35	8.95	8.64	8.64	8.31	8.10	7.88	7.63	7.64	7.54	7.46	7.96	8.74	8.10	7.60		
H1 lead leg		strides	14	14	14	15	14	14	15	15	15	15	131						
Takahashi, Rui (JPN) (1997)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)			<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																
date	31-Jul-15	time	6.32	10.44	14.75	19.04	23.34	27.64	32.12	36.60	41.21	46.33	53.24	5 / 7					
reaction time		interval	4.12	4.31	4.29	4.30	4.30	4.48	4.48	4.61	5.12	6.91	12.72	13.08	14.21				
		velocity	7.12	8.50	8.12	8.16	8.14	8.14	7.81	7.81	7.59	6.84	5.79	7.51	8.25	8.03	7.39		
H1 lead leg		strides	15	15	15	15	15	15	17	15	17	16	140						
Takahashi, Ryosuke (JPN) (2003)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2021 Japanese High School National Championships (Fukui, JPN)			<i>Shibayama (2021) - national high school and U20 national championships</i>																
date	30-Jul-21	time	6.17	10.14	14.41	18.64	22.97	27.46	32.02	36.72	41.57	46.46	51.69	6 / 1					
reaction time	0.161	interval	3.97	4.27	4.23	4.33	4.49	4.56	4.70	4.85	4.89	5.23	12.47	13.38	14.44				
		velocity	7.29	8.82	8.20	8.27	8.08	7.80	7.68	7.45	7.22	7.16	7.65	7.74	8.42	7.85	7.27		
H1 lead leg		strides	14	15	14	14	14	15	15	16	16	16	135						
FINAL - 2019 Japanese National High School Championships (Okinawa, JPN)			<i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data</i>																
date	06-Aug-19	time	6.25	10.43	14.70	19.06	23.65	28.43	33.22	38.12	43.20	48.56	55.14	7 / 7					
reaction time		interval	4.18	4.27	4.36	4.59	4.78	4.79	4.90	5.08	5.36	6.58	12.81	14.16	15.34				
		velocity	7.20	8.37	8.20	8.03	7.63	7.32	7.31	7.14	6.89	6.53	6.08	7.25	8.20	7.42	6.84		
H1 lead leg		strides	14	14	14	14	14	15	15	15	15	15	131						
Takahashi, Yuma (JPN) (1995)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2022 Japanese National Championships (Osaka, JPN)			<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																
date	11-Jun-22	time	6.12	10.04	14.06	18.15	22.36	26.63	31.04	35.62	40.22	44.91	50.35	8 / 5					
reaction time	0.197	interval	3.92	4.02	4.09	4.21	4.27	4.41	4.58	4.60	4.69	5.44	12.03	12.89	13.87				
		velocity	7.35	8.93	8.71	8.56	8.31	8.20	7.94	7.64	7.61	7.46	7.35	7.94	8.73	8.15	7.57		
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	151						
Takeda, Kai (JPN)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 1 - 2016 Japanese National Youth Championships (Mizuho, JPN)			<i>(2016.11.17) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>																
date	23-Oct-16	time					24.21							55.10	7 / 2				
reaction time		interval					7.64							13.96					
		velocity												7.52					
H1 lead leg		strides												7.26					
Tamesue, Dai (JPN) (1978)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Race B - 2011 Shizuoka International Athletics Meeting (Fukuroi, JPN)			<i>Yasuho (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																

date	03-May-11	time	6.03	9.77	13.71	17.75	21.84	26.06	30.40	34.94	39.63	44.40	49.89	/ 1				
reaction time		interval		3.74	3.94	4.04	4.09	4.22	4.34	4.54	4.69	4.77	5.49		11.72	12.65	14.00	
		velocity	7.46	9.36	8.88	8.66	8.56	8.29	8.06	7.71	7.46	7.34	7.29	8.02	8.96	8.30	7.50	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2008 Japanese National Championships (Kawasaki, JPN)													<i>Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers</i>					
date	27-Jun-08	time	5.82	9.49	13.38	17.32	21.31	25.45	29.69	34.13	38.78	43.65	49.17	/ 1				
reaction time		interval		3.67	3.89	3.94	3.99	4.14	4.24	4.44	4.65	4.87	5.52		11.50	12.37	13.96	
		velocity	7.73	9.54	9.00	8.88	8.77	8.45	8.25	7.88	7.53	7.19	7.25	8.14	9.13	8.49	7.52	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
Heat 3 - 2007 IAAF World Championships (Osaka, JPN)													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	25-Aug-07	time	5.87	9.59	13.44	17.43	21.48	25.68	29.98	34.53	39.23	44.08	49.67	7 / 6				
reaction time	0.197	interval		3.72	3.85	3.99	4.05	4.20	4.30	4.55	4.70	4.85	5.59		11.56	12.55	14.10	
		velocity	7.67	9.41	9.09	8.77	8.64	8.33	8.14	7.69	7.45	7.22	7.16	8.05	9.08	8.37	7.45	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2007 Japanese National Championships (Osaka, JPN)													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	30-Jun-07	time	5.86	9.53	13.32	17.22	21.16	25.26	29.51	34.00	38.62	43.36	48.87	/ 1				
reaction time		interval		3.67	3.79	3.90	3.94	4.10	4.25	4.49	4.62	4.74	5.51		11.36	12.29	13.85	
		velocity	7.68	9.54	9.23	8.97	8.88	8.54	8.24	7.80	7.58	7.38	7.26	8.18	9.24	8.54	7.58	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2007 Osaka Grand Prix (Osaka, JPN)													<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>					
date	05-May-07	time	5.82	9.52	13.31	17.18	21.17	25.26	29.45	33.85	38.44	43.23	48.73	/ 3				
reaction time		interval		3.70	3.79	3.87	3.99	4.09	4.19	4.40	4.59	4.79	5.50		11.36	12.27	13.78	
		velocity	7.73	9.46	9.23	9.04	8.77	8.56	8.35	7.95	7.63	7.31	7.27	8.21	9.24	8.56	7.62	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2005 IAAF World Championships (Helsinki, FIN)													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	09-Aug-05	time	5.79	9.38	13.08	16.92	20.82	24.87	29.01	33.35	37.94	42.68	48.10	7 / 3				
reaction time	0.189	interval		3.59	3.70	3.84	3.90	4.05	4.14	4.34	4.59	4.74	5.42		11.13	12.09	13.67	
		velocity	7.77	9.75	9.46	9.11	8.97	8.64	8.45	8.06	7.63	7.38	7.38	8.32	9.43	8.68	7.68	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	17.5	143				
FINAL - 2005 Japanese Championships (Tokyo, JPN)													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	04-Jun-05	time	5.83	9.53	13.40	17.34	21.43	25.58	29.87	34.39	39.04	43.83	49.27	/ 1				
reaction time		interval		3.70	3.87	3.94	4.09	4.15	4.29	4.52	4.65	4.79	5.44		11.51	12.53	13.96	
		velocity	7.72	9.46	9.04	8.88	8.56	8.43	8.16	7.74	7.53	7.31	7.35	8.12	9.12	8.38	7.52	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2005 Osaka Grand Prix (Osaka, JPN)													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	07-May-05	time	5.84	9.51	13.25	17.09	21.01	25.11	29.33	33.78	38.38	43.17	48.72	/ 4				
reaction time		interval		3.67	3.74	3.84	3.92	4.10	4.22	4.45	4.60	4.79	5.55		11.25	12.24	13.84	
		velocity	7.71	9.54	9.36	9.11	8.93	8.54	8.29	7.87	7.61	7.31	7.21	8.21	9.33	8.58	7.59	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2004 Seiko Super Grand Prix (Yokohama, JPN)													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	23-Sep-04	time	5.86	9.48	13.27	17.16	21.16	25.31	29.51	33.93	38.50	43.15	48.59	/ 1				
reaction time		interval		3.62	3.79	3.89	4.00	4.15	4.20	4.42	4.57	4.65	5.44		11.30	12.35	13.64	
		velocity	7.68	9.67	9.23	9.00	8.75	8.43	8.33	7.92	7.66	7.53	7.35	8.23	9.29	8.50	7.70	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2004 Japanese National Championships (Tottori, JPN)													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	05-Jun-04	time	5.82	9.49	13.19	17.04	21.04	25.21	29.46	33.88	38.50	43.22	48.74	/ 1				
reaction time		interval		3.67	3.70	3.85	4.00	4.17	4.25	4.42	4.62	4.72	5.52		11.22	12.42	13.76	
		velocity	7.73	9.54	9.46	9.09	8.75	8.39	8.24	7.92	7.58	7.42	7.25	8.21	9.36	8.45	7.63	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2004 Osaka Grand Prix (Osaka, JPN)													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	08-May-04	time	5.77	9.41	13.20	17.07	21.06	25.25	29.45	33.87	38.51	43.31	48.87	/ 1				
reaction time		interval		3.64	3.79	3.87	3.99	4.19	4.20	4.42	4.64	4.80	5.56		11.30	12.38	13.86	
		velocity	7.80	9.62	9.23	9.04	8.77	8.35	8.33	7.92	7.54	7.29	7.19	8.18	9.29	8.48	7.58	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
FINAL - 2001 IAAF World Championships (Edmonton, CAN)													<i>Kota (2016) - 69th high school championships: JAF scientific committee- biomechanics data</i>					
date	10-Aug-01	time	5.85	9.50	13.22	17.04	20.94	24.94	29.09	33.42	37.89	42.56	47.89	3 / 3				
reaction time	0.222	interval		3.65	3.72	3.82	3.90	4.00	4.15	4.33	4.47	4.67	5.33	NR / PB	11.19	12.05	13.47	
		velocity	7.69	9.59	9.41	9.16	8.97	8.75	8.43	8.08	7.83	7.49	7.50	8.35	9.38	8.71	7.80	
H1 lead leg	L	strides	20	13	13	13	13	14	14	15	15	15	19	164				
Heat 8 - 2000 Olympic Games (Sydney, AUS)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	5.78	9.38	13.14	16.98	20.98	25.18	29.66	34.30	fell down		61.81	1 / 8				
reaction time	0.256	interval		3.60	3.76	3.84	4.00	4.20	4.48	4.64					11.20	12.68		
		velocity	7.79	9.72	9.31	9.11	8.75	8.33	7.81	7.54			6.47		9.38	8.28		
H1 lead leg		strides		13	13	13	13	14	14	15	17		112					

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Tan Chunhua (CHN) (1977)																			
FINAL - 2001 Chinese National Games (Guangzhou, CHN)																			
										<i>Gong (2003) - discussion on technique of gold and silver medallist of men's 400m hurdles of the 9th National Games</i>									
date	22-Nov-01	time	6.08	10.05	14.10	18.16	22.27	26.52	30.89	35.36	39.86	44.50		49.85	/ 1				
reaction time		interval		3.97	4.05	4.06	4.11	4.25	4.37	4.47	4.50	4.64	5.35			12.08	12.73	13.61	
		velocity	7.40	8.82	8.64	8.62	8.52	8.24	8.01	7.83	7.78	7.54	7.48	8.02		8.69	8.25	7.71	
H1 lead leg		strides		14	14	14	14	14	14	14	15	15	19	147					
Tanabe, Jo (JPN) (1999)																			
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)																			
										<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>									
date	31-Jul-17	time	6.41	10.43	14.53	18.75	23.14	27.64	32.25	37.05	41.89	46.88		52.41	8 / 3				
reaction time	0.187	interval		4.02	4.10	4.22	4.39	4.50	4.61	4.80	4.84	4.99	5.53			12.34	13.50	14.63	
		velocity	7.02	8.71	8.54	8.29	7.97	7.78	7.59	7.29	7.23	7.01	7.23	7.63		8.51	7.78	7.18	
H1 lead leg		strides		15	14	15	14	15	15	15	15	15	15	133					
Tanabe, Shotaro (JPN) (1994)																			
FINAL - 2016 Kinan Memorial (Osaka, JPN)																			
										<i>(2016.05.24) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en</i>									
date	08-May-16	time	5.99	9.78	13.71	17.68	21.75	25.97	30.42	34.97	39.61	44.39		49.64	8 / 1				
reaction time		interval		3.79	3.93	3.97	4.07	4.22	4.45	4.55	4.64	4.78	5.25	PB		11.69	12.74	13.97	
		velocity	7.51	9.23	8.91	8.82	8.60	8.29	7.87	7.69	7.54	7.32	7.62	8.06		8.98	8.24	7.52	
H1 lead leg		strides																	
Tashiro, Masahito (JPN) (1997)																			
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)																			
										<i>Enomoto (2015) - 68th high school championships: JAF scientific committee - biomechanics data collection</i>									
date	31-Jul-15	time	6.12	10.01	14.03	18.13	22.37	26.74	31.21	35.85	40.76	46.15		51.92	8 / 5				
reaction time		interval		3.89	4.02	4.10	4.24	4.37	4.47	4.64	4.91	5.39	5.77			12.01	13.08	14.94	
		velocity	7.35	9.00	8.71	8.54	8.25	8.01	7.83	7.54	7.13	6.49	6.93	7.70		8.74	8.03	7.03	
H1 lead leg		strides		14	15	15	15	15	15	15	15	17	17	136					
Tateno, Tetsuya (JPN) (1991)																			
FINAL - 2014 Japanese National Championships (Fukushima, JPN)																			
										<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>									
date	08-Jun-14	time	6.04	9.81	13.63	17.55	21.59	25.79	30.23	34.77	39.57	44.47		49.98	6 / 4				
reaction time		interval		3.77	3.82	3.92	4.04	4.20	4.44	4.54	4.80	4.90	5.51			11.51	12.68	14.24	
		velocity	7.45	9.28	9.16	8.93	8.66	8.33	7.88	7.71	7.29	7.14	7.26	8.00		9.12	8.28	7.37	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	16	16	19.2	174					
FINAL - 2012 Japanese National Championships (Osaka, JPN)																			
										<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>									
date	09-Jun-12	time	6.12	9.96	13.81	17.80	21.85	26.09	30.43	34.83	39.48	44.20		49.49	7 / 3				
reaction time		interval		3.84	3.85	3.99	4.05	4.24	4.34	4.40	4.65	4.72	5.29	=PB		11.68	12.63	13.77	
		velocity	7.35	9.11	9.09	8.77	8.64	8.25	8.06	7.95	7.53	7.42	7.56	8.08		8.99	8.31	7.63	
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	16	16	19.5	175					
B FINAL - 2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)																			
										<i>Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions</i>									
date	03-May-12	time	6.14	10.04	13.96	17.95	21.99	26.24	30.64	35.13	39.78	44.62		50.15	/ 2				
reaction time		interval		3.90	3.92	3.99	4.04	4.25	4.40	4.49	4.65	4.84	5.53			11.81	12.69	13.98	
		velocity	7.33	8.97	8.93	8.77	8.66	8.24	7.95	7.80	7.53	7.23	7.23	7.98		8.89	8.27	7.51	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131					
Taylor, Angelo (USA) (1978)																			
FINAL - 2012 Olympic Games (London, GBR)																			
										<i>Hillier (2012) - uka 2012 olympic games report: 400m hurdles</i>									
date	06-Aug-12	time	5.79	9.27	12.85	16.56	20.39	22.19	24.49	28.67	33.13	37.80	42.59		48.25	4 / 5			
reaction time	0.158	interval		3.48	3.58	3.71	3.83	4.10	4.18	4.46	4.67	4.79	5.66			10.77	12.11	13.92	
		velocity	7.77	10.06	9.78	9.43	9.14	9.01	8.54	8.37	7.85	7.49	7.31	7.07	8.29	9.75	8.67	7.54	
H1 lead leg	L	strides	21	13	13	13	13	14	14	14	15	15	18.2	163					
Heat 5 - 2012 Olympic Games (London, GBR)																			
										<i>Haines (2012) - mikehainesperformance.wordpress.com/2012/08/05/broadening-my-horizons-400m-hurdles-analysis</i>									
date	03-Aug-12	time	5.92	9.44	13.26	17.06	21.02	22.62	25.24	29.66	34.08	38.68	43.64		49.29	3 / 1			
reaction time	0.187	interval		3.52	3.82	3.80	3.96	4.22	4.42	4.42	4.60	4.96	5.65			11.14	12.60	13.98	
		velocity	7.60	9.94	9.16	9.21	8.84	8.29	7.92	7.92	7.61	7.06	7.08	8.12		9.43	8.33	7.51	
H1 lead leg		strides	21	13	13	13	13	14	14	14	14	14	18	161					
FINAL - 2011 IAAF World Championships (Daegu, KOR)																			
										<i>Behm (2011) - Le quatrace: Démus enfin!</i>									
date	01-Sep-11	time	5.8	9.4	13.0	16.7	20.7	24.8	29.1	33.6	38.3	43.2		49.31	1 / 7				
reaction time	0.150	interval		3.60	3.60	3.70	4.00	4.10	4.30	4.50	4.70	4.90	6.11			10.90	12.40	14.10	
		velocity	7.76	9.72	9.72	9.46	8.75	8.54	8.14	7.78	7.45	7.14	6.55	8.11		9.63	8.47	7.45	
H1 lead leg	L	strides	21	13	13	13	13	14	14	15	15	16	19	166					
Heat 4 - 2009 IAAF World Championships (Berlin, GER)																			
										<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>									
date	15-Aug-09	time	6.04	9.75	13.48	17.39	21.46	25.87	30.36	34.88	39.48	44.42		49.64	5 / 4				
reaction time	0.171	interval		3.71	3.73	3.91	4.07	4.41	4.49	4.52	4.60	4.94	5.22			11.35	12.97	14.06	
		velocity	7.45	9.43	9.38	8.95	8.60	7.94	7.80	7.74	7.61	7.09	7.66	8.06		9.25	8.10	7.47	
H1 lead leg		strides																	
FINAL - 2008 Olympic Games (Beijing, CHN)																			
										<i>Behm (2008) - Pekin 2008: Le quatrace masculin - féminin</i>									
date	18-Aug-08	time	5.7	9.4	13.1	16.7	20.6	24.6	28.8	33.1	37.5	42.0		47.25	6 / 1				
reaction time	0.164	interval		3.70	3.70	3.60	3.90	4.00	4.20	4.30	4.40	4.50	5.25	PB		11.00	12.10	13.20	
		velocity	7.89	9.46	9.46	9.72	8.97	8.75	8.33	8.14	7.95	7.78	7.62	8.47		9.55	8.68	7.95	
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	14	17.5	160.5					

FINAL - 2008 USA Olympic Trials (Eugene, OR)

USATF Hurdle Development (2008)

date	29-Jun-08	time	6.07	9.71	13.43	17.40	21.67	25.96	30.28	34.64	39.02	43.47	48.42	3 / 3				
reaction time		interval		3.64	3.72	3.97	4.27	4.29	4.32	4.36	4.38	4.45	4.95		11.33	12.88	13.19	
		velocity	7.41	9.62	9.41	8.82	8.20	8.16	8.10	8.03	7.99	7.87	8.08	8.26	9.27	8.15	7.96	
H1 lead leg	L	strides	21	13	13	13	14	14	14	14	14	14	144					

FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)Graubner (2007) - <http://www.fgs.uni-halle.de>

date	22-Sep-07	time	6.34	9.94	13.72	17.54	21.52	25.80	30.44	35.09	39.64	44.18	49.27	8 / 5				
reaction time	0.152	interval		3.60	3.78	3.82	3.98	4.28	4.64	4.65	4.55	4.54	5.09		11.20	12.90	13.74	
		velocity	7.10	9.72	9.26	9.16	8.79	8.18	7.54	7.53	7.69	7.71	7.86	8.12	9.38	8.14	7.64	
H1 lead leg		strides																

FINAL - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	27-Sep-00	time	5.90	9.62	13.38	17.22	21.14	22.66	25.10	29.22	33.58	38.02	42.46	47.50	1 / 1				
reaction time	0.179	interval		3.72	3.76	3.84	3.92	3.96	4.12	4.36	4.44	4.44	5.04	PB		11.32	12.00	13.24	
		velocity	7.63	9.41	9.31	9.11	8.93	8.83	8.84	8.50	8.03	7.88	7.88	7.94	8.42	9.28	8.75	7.93	
H1 lead leg		strides	21	13	13	13	13	13	13	13	14	14	14	17.1	158.1				

Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	25-Sep-00	time	5.84	9.60	13.48	17.36	21.28	22.80	25.32	29.60	34.04	38.52	43.12	48.49	3 / 2				
reaction time	0.250	interval		3.76	3.88	3.88	3.92	4.04	4.28	4.44	4.48	4.60	5.37		11.52	12.24	13.52		
		velocity	7.71	9.31	9.02	9.02	8.93	8.77	8.66	8.18	7.88	7.81	7.61	7.45	8.25	9.11	8.58	7.77	
H1 lead leg		strides	13	13	13	13	13	13	14	14	14	14	17.4	138.4					

Heat 3 - 2000 Olympic Games (Sydney, AUS)

Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games

date	24-Sep-00	time	6.06	9.90	13.74	17.58	21.58	25.66	29.94	34.50	39.18	43.82	49.48	8 / 1						
reaction time	0.185	interval		3.84	3.84	3.84	4.00	4.08	4.28	4.56	4.68	4.64	5.66		11.52	12.36	13.88			
		velocity	7.43	9.11	9.11	9.11	8.75	8.58	8.18	7.68	7.48	7.54	7.07	8.08	9.11	8.50	7.56			
H1 lead leg		strides	21	13	13	13	13	13	13	14	14	14	17.5	158.5						

FINAL - 2000 ISTAF (Berlin, GER)Graubner (2009) - <http://www.fgs.uni-halle.de>

date	01-Sep-00	time	6.03	9.84	13.67	17.53	21.55	25.72	30.06	34.34	38.72	43.27	48.26	1 / 1						
reaction time		interval		3.81	3.83	3.86	4.02	4.17	4.34	4.28	4.38	4.55	4.99		11.50	12.53	13.21			
		velocity	7.46	9.19	9.14	9.07	8.71	8.39	8.06	8.18	7.99	7.69	8.02	8.29	9.13	8.38	7.95			
H1 lead leg		strides																		

Teixeira, Everson (BRA) (1974)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 1996 Olympic Games (Atlanta, GA)																					
Behm (1996) - 400m haies																					
date	01-Aug-96	time	6.0	10.0	13.8	17.6	21.6	25.8	30.2	34.4	38.8	43.5	48.57	3 / 7							
reaction time	0.201	interval		4.00	3.80	3.80	4.00	4.20	4.40	4.20	4.40	4.70	5.07		11.60	12.60	13.30				
		velocity	7.50	8.75	9.21	9.21	8.75	8.33	7.95	8.33	7.95	7.45	7.89	8.24	9.05	8.33	7.89				
H1 lead leg		strides	20	13	13	13	13	13	13	13	13	13	137								

Teles, Marcio (BRA) (1994)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																					
Henson (2020) - Athlete First: 2020 year end hurdle report																					
date	17-Sep-20	time	6.04	9.91	13.81	17.75	21.95	23.8	30.73	35.27	40.00	44.95	51.04	8 / 9							
reaction time	0.150	interval		3.87	3.90	3.94	4.20		8.78	4.54	4.73	4.95	6.09		11.71	12.98	14.22				
		velocity	7.45	9.04	8.97	8.88	8.33	8.40	7.97	7.71	7.40	7.07	6.57	7.84	8.97	8.09	7.38				
H1 lead leg	L	strides	23	14	14	14	14			15	15	15	18.5	142.5							

Tesarik, Štěpán (CZE) (1978)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2002 European Championships (Munich, GER)																					
Graubner (2009) - http://www.fgs.uni-halle.de																					
date	09-Aug-02	time	6.20	10.02	13.84	17.74	21.70	25.80	30.08	34.58	39.14	43.87	49.41	1 / 6							
reaction time	0.175	interval		3.82	3.82	3.90	3.96	4.10	4.28	4.50	4.56	4.73	5.54		11.54	12.34	13.79				
		velocity	7.26	9.16	9.16	8.97	8.84	8.54	8.18	7.78	7.68	7.40	7.22	8.10	9.10	8.51	7.61				
H1 lead leg		strides																			

Thid, David (SWE) (2003)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

Semi-Final 3 - 2024 European Athletics Championships (Roma, ITA)																					
European Athletics (2024) - 2024 european athletics championships - results book																					
date	10-Jun-24	time	5.86	9.63	13.63	17.66	21.73	25.91	30.19	34.65	39.31	43.91	49.52	2 / 8							
reaction time	0.150	interval		3.77	4.00	4.03	4.07	4.18	4.28	4.46	4.66	4.60	5.61	PB		11.80	12.53	13.72			
		velocity	7.68	9.28	8.75	8.68	8.60	8.37	8.18	7.85	7.51	7.61	7.13	8.08	8.90	8.38	7.65				
H1 lead leg		strides											0								

Heat 3 - 2024 European Athletics Championships (Roma, ITA)

European Athletics (2024) - 2024 european athletics championships - results book

date	09-Jun-24	time	5.87	9.68	13.79	17.95	22.12	26.43	30.82	35.29	39.97	44.57	49.81	7 / 2							
reaction time	0.198	interval		3.81	4.11	4.16	4.17	4.31	4.39	4.47	4.68	4.60	5.24	PB		12.08	12.87	13.75			
		velocity	7.67	9.19	8.52	8.41	8.39	8.12	7.97	7.83	7.48	7.61	7.63	8.03	8.69	8.16	7.64				
H1 lead leg		strides											0								

Thomas, Eric (USA) (1973)

H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10

FINAL - 2003 USATF National Championships (Palo Alto, CA)																					
USATF Women's Sprint Development (2003)																					
date	22-Jun-03	time	6.01	9.83	13.66	17.53	21.54	25.66	29.93	34.28	38.76	43.33	48.76	5 / 4							
reaction time		interval		3.82	3.83	3.87	4.01	4.12	4.27	4.35	4.48	4.57	5.43	DV		11.52	12.40	13.40			
		velocity	7.49	9.16	9.14	9.04	8.73	8.50	8.20	8.05	7.81	7.66	7.37	8.20	9.11	8.47	7.84				
H1 lead leg		strides																			

date	14-May-16	time	5.84	9.52	13.28	17.20	21.24		25.48	29.88	34.36	38.92	43.52		48.90	/ 1			
reaction time	0.198	interval		3.68	3.76	3.92	4.04		4.24	4.40	4.48	4.56	4.60	5.38			11.36	12.68	13.64
		velocity	7.71	9.51	9.31	8.93	8.66		8.25	7.95	7.81	7.68	7.61	7.43	8.18		9.24	8.28	7.70
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	15	15	18.2					

FINAL - 2015 IAAF World Championships (Beijing, CHN) (TV Analysis)*Henson (2021) - Athlete First: major championships report*

date	25-Aug-15	time	5.72	9.32	13.08	16.88	20.88		25.04	29.16	33.48	38.20	43.04		50.02	5 / 8			
reaction time	0.134	interval		3.60	3.76	3.80	4.00		4.16	4.12	4.32	4.72	4.84	6.98			11.16	12.28	13.88
		velocity	7.87	9.72	9.31	9.21	8.75		8.41	8.50	8.10	7.42	7.23	5.73	8.00		9.41	8.55	7.56
H1 lead leg	L	strides	21	13	13	13	14		14	14	14	16	15		133				

FINAL - 2013 IAAF World Championships (Moscow, RUS) (TV Analysis)*Henson (2021) - Athlete First: major championships report*

date	15-Aug-13	time	5.63	9.13	12.80	16.57	20.43		24.50	28.67	33.03	37.57	42.20		47.70	3 / 2			
reaction time	0.133	interval		3.50	3.67	3.77	3.86		4.07	4.17	4.36	4.54	4.63	5.50	PB		10.94	12.10	13.53
		velocity	7.99	10.00	9.54	9.28	9.07		8.60	8.39	8.03	7.71	7.56	7.27	8.39		9.60	8.68	7.76
H1 lead leg	L	strides	21	13	13	13	13		14	14	15	15	15	18.5	164.5				

FINAL - 2012 Olympic Games (London, GBR)*Hillier (2012) - uka 2012 olympic games report: 400m hurdles*

date	06-Aug-12	time	5.79	9.39	13.06	16.87	20.87	22.67	25.08	29.26	33.49	37.97	42.43		47.91	6 / 2			
reaction time	0.184	interval		3.60	3.67	3.81	4.00		4.21	4.18	4.23	4.48	4.46	5.48	PB		11.08	12.39	13.17
		velocity	7.77	9.72	9.54	9.19	8.75	8.82	8.31	8.37	8.27	7.81	7.85	7.30	8.35		9.48	8.47	7.97
H1 lead leg	L	strides	21	13	13	13	14		14	14	14	15	15	18	164				

Heat 4 - 2007 USATF National Championships (Indianapolis, IN)*USATF Men's Hurdle Development (2007)*

date	21-Jun-07	time	6.11	9.89	13.78	17.78	22.02		26.46	30.90	35.29	39.72	44.24		49.32	6 / 2			
reaction time		interval		3.78	3.89	4.00	4.24		4.44	4.44	4.39	4.43	4.52	5.08			11.67	13.12	13.34
		velocity	7.36	9.26	9.00	8.75	8.25		7.88	7.88	7.97	7.90	7.74	7.87	8.11		9.00	8.00	7.87
H1 lead leg	L	strides	21	13	13	13	14		14	14	14	14	15		145				

FINAL - 2006 USATF National Championships (Indianapolis, IN)*USATF Men's Hurdle Development (2006)*

date	24-Jun-06	time	6.01	9.76	12.48	17.42	21.49		25.79	30.18	34.75	39.34	44.06		49.68	8 / 6			
reaction time		interval		3.75	2.72	4.94	4.07		4.30	4.39	4.57	4.59	4.72	5.62			11.41	12.76	13.88
		velocity	7.49	9.33	12.87	7.09	8.60		8.14	7.97	7.66	7.63	7.42	7.12	8.05		9.20	8.23	7.56
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	15		151				

Tokuda, Hayao (JPN)**FINAL - 2023 Japanese National High School Championships (Sapporo, JPN)***Takashima (2023) - national high school sports festival - biomechanics data*

date	04-Aug-23	time	6.21	10.16	14.26	18.44	22.77		27.28	31.98	36.80	41.76	46.58		51.94	5 / 5			
reaction time	0.227	interval		3.95	4.10	4.18	4.33		4.51	4.70	4.82	4.96	4.82	5.36			12.23	13.54	14.60
		velocity	7.25	8.86	8.54	8.37	8.08		7.76	7.45	7.26	7.06	7.26	7.46	7.70		8.59	7.75	7.19
H1 lead leg		strides	20	14	14	14	14		15	15	15	15	15	18	169				

Tomov, Toma (BUL) (1958)**Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)***Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988*

date	24-Sep-88	time	5.96	9.77	13.65	17.64	21.70		25.90	30.14	34.61	39.23	43.84		48.90	3 / 5			
reaction time		interval		3.81	3.88	3.99	4.06		4.20	4.24	4.47	4.62	4.61	5.06			11.68	12.50	13.70
		velocity	7.55	9.19	9.02	8.77	8.62		8.33	8.25	7.83	7.58	7.59	7.91	8.18		8.99	8.40	7.66
H1 lead leg		strides	21	14	14	14	14		14	14	15	15	15	17.8	167.8				

Tonoyama, Ryohei (JPN) (2003)**FINAL - 2021 Japanese High School National Championships (Fukui, JPN)***Shibayama (2021) - national high school and U20 national championships*

date	30-Jul-21	time	6.07	10.09	14.38	18.75	23.22		27.86	32.55	37.29	42.03	46.86		52.36	3 / 3			
reaction time	0.190	interval		4.02	4.29	4.37	4.47		4.64	4.69	4.74	4.74	4.83	5.50			12.68	13.80	14.31
		velocity	7.41	8.71	8.16	8.01	7.83		7.54	7.46	7.38	7.38	7.25	7.27	7.64		8.28	7.61	7.34
H1 lead leg		strides		15	15	15	15		15	15	15	15	15		135				

FINAL - 2021 Japanese U20 National Championships (Osaka, JPN)*Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season*

date	26-Jun-21	time	6.26	10.23	14.25	18.45	22.77		27.28	31.90	36.65	41.47	46.61		52.55	2 / 7			
reaction time	0.202	interval		3.97	4.02	4.20	4.32		4.51	4.62	4.75	4.82	5.14	5.94			12.19	13.45	14.71
		velocity	7.19	8.82	8.71	8.33	8.10		7.76	7.58	7.37	7.26	6.81	6.73	7.61		8.61	7.81	7.14
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	17		159				

Touati, Mohamed Amin (TUN) (1998)**B FINAL - 2021 Doha Diamond League (Doha, QAT) (TV Analysis)***Henson (2021) - Athlete First: 2021 year end hurdle report*

date	28-May-21	time	5.93	9.73	13.60	17.67	21.77	23.7	26.13	30.60	35.17	39.77	45.67		52.11	6 / 4			
reaction time	0.155	interval		3.80	3.87	4.07	4.10		4.36	4.47	4.57	4.60	5.90	6.44			11.74	12.93	15.07
		velocity	7.59	9.21	9.04	8.60	8.54	8.44	8.03	7.83	7.66	7.61	5.93	6.21	7.68		8.94	8.12	6.97
H1 lead leg	L	strides	21	14	13	14	14		14	14	14	14	16	18	166				

Semi-Final 1 - 2019 IAAF World Championships (Doha, QAT)*Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	6.20	10.04	13.92	17.80	21.88		26.06	30.28	34.63	39.11	43.76		49.14	4 / 5			
reaction time	0.179	interval		3.84	3.88	3.88	4.08		4.18	4.22	4.35	4.48	4.65	5.38	PB		11.60	12.48	13.48
		velocity	7.26	9.11	9.02	9.02	8.58		8.37	8.29	8.05	7.81	7.53	7.43	8.14		9.05	8.41	7.79
H1 lead leg	R	strides	22	14	14	13	14		14	14	14	15	15	17.7	166.7				

Toyoda, Ken (JPN) (2002)**Heat 5 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympic Games - Results Book (2024)*

date	05-Aug-24	time	5.89	9.78	13.81	17.85	21.98	26.39	30.95	35.68	40.64	45.86	53.62	4 / 6						
reaction time	0.136	interval		3.89	4.03	4.04	4.13	4.41	4.56	4.73	4.96	5.22	7.76			11.96	13.10	14.91		
		velocity	7.64	9.00	8.68	8.66	8.47	7.94	7.68	7.40	7.06	6.70	5.15	7.46		8.78	8.02	7.04		
H1 lead leg	R	strides	20	13	13	13	13	13	15	15	15	15	130							
A FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)										<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>										
date	07-May-23	time	5.86	9.54	13.35	17.18	21.14	25.33	29.75	34.32	39.11	44.04	49.95	7 / 2						
reaction time	0.156	interval		3.68	3.81	3.83	3.96	4.19	4.42	4.57	4.79	4.93	5.91			11.32	12.57	14.29		
		velocity	7.68	9.51	9.19	9.14	8.84	8.35	7.92	7.66	7.31	7.10	6.77	8.01		9.28	8.35	7.35		
H1 lead leg		strides		13	13	13	13	13	13	13	15	15	121							
FINAL - 2020 Japanese High School National Championships (Hiroshima, JPN)										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>										
date	25-Oct-20	time	6.12	10.06	14.13	18.23	22.46	26.94	31.68	36.64	41.71	46.91	52.96	3 / 5						
reaction time	0.175	interval		3.94	4.07	4.10	4.23	4.48	4.74	4.96	5.07	5.20	6.05			12.11	13.45	15.23		
		velocity	7.35	8.88	8.60	8.54	8.27	7.81	7.38	7.06	6.90	6.73	6.61	7.55		8.67	7.81	6.89		
H1 lead leg	R	strides	20	13	13	13	13	14	14	15	15	15	18.7	163.7						
Toyoda, Masaki (JPN) (1998)																				
H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>										
FINAL - 2022 Japanese National Championships (Osaka, JPN)																				
date	11-Jun-22	time	6.14	10.06	14.08	18.23	22.46	26.64	30.88	35.25	39.77	44.48	49.85	9 / 3						
reaction time	0.211	interval		3.92	4.02	4.15	4.23	4.18	4.24	4.37	4.52	4.71	5.37			12.09	12.65	13.60		
		velocity	7.33	8.93	8.71	8.43	8.27	8.37	8.25	8.01	7.74	7.43	7.45	8.02		8.68	8.30	7.72		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7						
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>										
date	08-May-22	time	6.09	10.09	14.21	18.37	22.56	26.78	31.03	35.42	39.89	44.49	49.76	4 / 4						
reaction time	0.183	interval		4.00	4.12	4.16	4.19	4.22	4.25	4.39	4.47	4.60	5.27			12.28	12.66	13.46		
		velocity	7.39	8.75	8.50	8.41	8.35	8.29	8.24	7.97	7.83	7.61	7.59	8.04		8.55	8.29	7.80		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168						
FINAL - 2022 Michitaka Kinami Memorial (Osaka, JPN)										<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>										
date	01-May-22	time	6.11	9.98	13.95	18.05	22.12	26.24	30.46	34.87	39.49	44.34	49.87	4 / 5						
reaction time	0.183	interval		3.87	3.97	4.10	4.07	4.12	4.22	4.41	4.62	4.85	5.53			11.94	12.41	13.88		
		velocity	7.36	9.04	8.82	8.54	8.60	8.50	8.29	7.94	7.58	7.22	7.23	8.02		8.79	8.46	7.56		
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129							
FINAL - 2021 Japanese National Championships (Osaka, JPN)										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>										
date	26-Jun-21	time	6.01	9.81	13.63	17.60	21.60	25.73	29.96	34.48	39.17	44.11	49.89	4 / 5						
reaction time	0.227	interval		3.80	3.82	3.97	4.00	4.13	4.23	4.52	4.69	4.94	5.78			11.59	12.36	14.15		
		velocity	7.49	9.21	9.16	8.82	8.75	8.47	8.27	7.74	7.46	7.09	6.92	8.02		9.06	8.50	7.42		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	16	19	170						
B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>										
date	01-Jun-21	time	6.14	10.09	14.13	18.28	22.49	26.76	31.01	35.42	40.02	44.69	49.94	8 / 1						
reaction time	0.214	interval		3.95	4.04	4.15	4.21	4.27	4.25	4.41	4.60	4.67	5.25			12.14	12.73	13.68		
		velocity	7.33	8.86	8.66	8.43	8.31	8.20	8.24	7.94	7.61	7.49	7.62	8.01		8.65	8.25	7.68		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5						
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN)										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>										
date	09-May-21	time	5.92	9.74	13.66	17.75	21.82	26.03	30.31	34.67	39.14	43.69	48.87	4 / 3						
reaction time	0.158	interval		3.82	3.92	4.09	4.07	4.21	4.28	4.36	4.47	4.55	5.18	PB		11.83	12.56	13.38		
		velocity	7.60	9.16	8.93	8.56	8.60	8.31	8.18	8.03	7.83	7.69	7.72	8.18		8.88	8.36	7.85		
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	18.5	147.5						
FINAL - 2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)										<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>										
date	03-May-21	time	5.97	9.83	13.86	17.97	22.19	26.53	30.85	35.35	40.06	44.99	50.82	8 / 4						
reaction time	0.197	interval		3.86	4.03	4.11	4.22	4.34	4.32	4.50	4.71	4.93	5.83			12.00	12.88	14.14		
		velocity	7.54	9.07	8.68	8.52	8.29	8.06	8.10	7.78	7.43	7.10	6.86	7.87		8.75	8.15	7.43		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169						
FINAL - 2020 Japanese National Championships (Niigata, JPN)										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>										
date	02-Oct-20	time	6.09	9.94	13.85	17.92	22.06	26.36	30.63	35.09	39.72	44.48	49.96	9 / 3						
reaction time	0.203	interval		3.85	3.91	4.07	4.14	4.30	4.27	4.46	4.63	4.76	5.48			11.83	12.71	13.85		
		velocity	7.39	9.09	8.95	8.60	8.45	8.14	8.20	7.85	7.56	7.35	7.30	8.01		8.88	8.26	7.58		
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7						
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>										
date	20-Sep-20	time	6.22	10.16	14.18	18.42	22.66	26.91	31.10	35.64	40.34	45.05	50.63	7 / 3						
reaction time	0.242	interval		3.94	4.02	4.24	4.24	4.25	4.19	4.54	4.70	4.71	5.58			12.20	12.68	13.95		
		velocity	7.23	8.88	8.71	8.25	8.25	8.24	8.35	7.71	7.45	7.43	7.17	7.90		8.61	8.28	7.53		
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129							
FINAL - 2020 World Athletics Trials (Fuji, JPN)										<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>										
date	06-Sep-20	time	6.09	9.96	13.91	18.07	22.17	26.38	30.56	34.93	39.52	44.23	49.63	1 / 1						
reaction time		interval		3.87	3.95	4.16	4.10	4.21	4.18	4.37	4.59	4.71	5.40			11.98	12.49	13.67		
		velocity	7.39	9.04	8.86	8.41	8.54	8.31	8.37	8.01	7.63	7.43	7.41	8.06		8.76	8.41	7.68		
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129							

FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN)														<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>									
date	23-Aug-20	time	6.01	9.91	13.85	17.90	21.97	26.21	30.46	34.83	39.52	44.29	49.82	5 / 2									
reaction time	0.146	interval		3.90	3.94	4.05	4.07	4.24	4.25	4.37	4.69	4.77	5.53			11.89	12.56	13.83					
		velocity	7.49	8.97	8.88	8.64	8.60	8.25	8.24	8.01	7.46	7.34	7.23	8.03		8.83	8.36	7.59					
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129										
Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)														<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>									
date	28-Sep-19	time	6.00	9.80	13.60	17.57	21.70	26.03	30.44	35.05	39.84	44.69	50.30	2 / 8									
reaction time	0.207	interval		3.80	3.80	3.97	4.13	4.33	4.41	4.61	4.79	4.85	5.61			11.57	12.87	14.25					
		velocity	7.50	9.21	9.21	8.82	8.47	8.08	7.94	7.59	7.31	7.22	7.13	7.95		9.08	8.16	7.37					
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168									
FINAL - 2019 Japanese National Championships (Fukuoka, JPN)														<i>Yamanaka (2019) - research on athlete performance and technique- 2019 data book</i>									
date	29-Jun-19	time	5.92	9.74	13.61	17.65	21.69	25.88	30.16	34.53	38.99	43.68	49.05	7 / 2									
reaction time	0.172	interval		3.82	3.87	4.04	4.04	4.19	4.28	4.37	4.46	4.69	5.37	PB		11.73	12.51	13.52					
		velocity	7.60	9.16	9.04	8.66	8.66	8.35	8.18	8.01	7.85	7.46	7.45	8.15		8.95	8.39	7.77					
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5									
FINAL - 2019 Seiko Golden Grand Prix (Osaka, JPN)														<i>Hirokawa (2019) - research on athlete performance and technique- 2019 data book</i>									
date	19-May-19	time	6.14	9.94	13.81	17.85	22.02	26.39	30.86	35.50	40.22	44.98	50.38	3 / 1									
reaction time	0.349	interval		3.80	3.87	4.04	4.17	4.37	4.47	4.64	4.72	4.76	5.40			11.71	13.01	14.12					
		velocity	7.33	9.21	9.04	8.66	8.39	8.01	7.83	7.54	7.42	7.35	7.41	7.94		8.97	8.07	7.44					
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5									
C FINAL - 2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)														<i>Kobayashi (2019) - research on athlete performance and technique- 2019 data book</i>									
date	03-May-19	time	5.94	9.69	13.45	17.42	21.42	25.58	29.90	34.42	39.32	44.34	49.94	3 / 1									
reaction time		interval		3.75	3.76	3.97	4.00	4.16	4.32	4.52	4.90	5.02	5.60	PB		11.48	12.48	14.44					
		velocity	7.58	9.33	9.31	8.82	8.75	8.41	8.10	7.74	7.14	6.97	7.14	8.01		9.15	8.41	7.27					
H1 lead leg		strides		14	14	14	14	15	15	15	16	16	19	152									
FINAL - 2015 Japanese National Junior Championships (Nagoya, JPN)														<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>									
date	18-Oct-15	time	6.28	10.32	14.42	18.76	23.10	27.40	31.58	35.98	40.45	45.02	50.16	4 / 2									
reaction time		interval		4.04	4.10	4.34	4.34	4.30	4.18	4.40	4.47	4.57	5.14	PB		12.48	12.82	13.44					
		velocity	7.17	8.66	8.54	8.06	8.06	8.14	8.37	7.95	7.83	7.66	7.78	7.97		8.41	8.19	7.81					
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	131										
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN)														<i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>									
date	31-Jul-15	time	6.12	10.04	14.01	18.15	22.32	26.74	31.30	35.82	40.52	45.28	50.85	9 / 2									
reaction time		interval		3.92	3.97	4.14	4.17	4.42	4.56	4.52	4.70	4.76	5.57			12.03	13.15	13.98					
		velocity	7.35	8.93	8.82	8.45	8.39	7.92	7.68	7.74	7.45	7.35	7.18	7.87		8.73	7.98	7.51					
H1 lead leg		strides		14	14	14	15	15	15	15	15	15	132										
Traversini, Stéphane (FRA) (1969)														<i>Veney - split times from PJ</i>									
FINAL - 1992 French National Championships (Narbonne, FRA)																							
date	28-Jun-92	time	6.48	10.48	14.64	18.84	23.06	27.44	31.82	36.26	40.80	45.50	50.96	/ 2									
reaction time		interval		4.00	4.16	4.20	4.22	4.38	4.38	4.44	4.54	4.70	5.46			12.36	12.98	13.68					
		velocity	6.94	8.75	8.41	8.33	8.29	7.99	7.99	7.88	7.71	7.45	7.33	7.85		8.50	8.09	7.68					
H1 lead leg		strides	21	14	14	14	14	15	15	15	15	15	17.8	169.8									
Tsutsue, Kaito (JPN) (1998)														<i>Paris 2024 Olympic Games - Results Book (2024)</i>									
Heat 3 - 2024 Olympic Games (Paris, FRA)																							
date	05-Aug-24	time	5.83	9.61	13.39	17.25	21.32	25.61	30.06	34.79	39.74	44.73	50.50	7 / 7									
reaction time	0.149	interval		3.78	3.78	3.86	4.07	4.29	4.45	4.73	4.95	4.99	5.77			11.42	12.81	14.67					
		velocity	7.72	9.26	9.26	9.07	8.60	8.16	7.87	7.40	7.07	7.01	6.93	7.92		9.19	8.20	7.16					
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	15	15	116										
FINAL - 2023 Japanese National Championships (Osaka, JPN)														<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>									
date	03-Jun-23	time	6.01	9.73	13.46	17.30	21.32	25.53	29.95	34.60	39.41	44.41	50.07	8 / 5									
reaction time	0.189	interval		3.72	3.73	3.84	4.02	4.21	4.42	4.65	4.81	5.00	5.66			11.29	12.65	14.46					
		velocity	7.49	9.41	9.38	9.11	8.71	8.31	7.92	7.53	7.28	7.00	7.07	7.99		9.30	8.30	7.26					
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	15	19	165									
FINAL - 2023 Seiko Golden Grand Prix (Yokohama, JPN)														<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>									
date	21-May-23	time	6.01	9.69	13.46	17.37	21.49	25.68	29.90	34.37	39.04	43.86	49.35	9 / 4									
reaction time	0.219	interval		3.68	3.77	3.91	4.12	4.19	4.22	4.47	4.67	4.82	5.49	PB		11.36	12.53	13.96					
		velocity	7.49	9.51	9.28	8.95	8.50	8.35	8.29	7.83	7.49	7.26	7.29	8.11		9.24	8.38	7.52					
H1 lead leg	R	strides	21	13	13	13	14	14	14	14	15	15	18.5	164.5									
A FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)														<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>									
date	07-May-23	time	6.02	9.86	13.71	17.68	21.82	26.03	30.38	34.73	39.36	44.14	49.54	6 / 1									
reaction time	0.151	interval		3.84	3.85	3.97	4.14	4.21	4.35	4.35	4.63	4.78	5.40	PB		11.66	12.70	13.76					
		velocity	7.48	9.11	9.09	8.82	8.45	8.31	8.05	8.05	7.56	7.32	7.41	8.07		9.01	8.27	7.63					
H1 lead leg		strides		13	13	14	14	14	14	14	14	15	125										
B FINAL - 2023 Shizuoka International Meeting (Fukuroi, JPN)														<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>									
date	03-May-23	time	6.08	9.84	13.75	17.69	21.67	25.80	30.24	34.80	39.48	44.25	49.77	1 / 4									

reaction time	0.185	interval	3.76	3.91	3.94	3.98	4.13	4.44	4.56	4.68	4.77	5.52		11.61	12.55	14.01		
		velocity	7.40	9.31	8.95	8.88	8.79	8.47	7.88	7.68	7.48	7.34	7.25	8.04	9.04	8.37	7.49	
H1 lead leg	R	strides	21	13	13	13	13	14	14	15	15	19	163					
FINAL - 2021 Japanese National Championships (Osaka, JPN)																		
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																		
date	26-Jun-21	time	6.04	9.84	13.73	17.68	21.81	26.11	30.41	35.00	39.77	44.83	50.69	2 / 6				
reaction time	0.195	interval	3.80	3.89	3.95	4.13	4.30	4.30	4.59	4.77	5.06	5.86		11.64	12.73	14.42		
		velocity	7.45	9.21	9.00	8.86	8.47	8.14	8.14	7.63	7.34	6.92	6.83	7.89	9.02	8.25	7.28	
H1 lead leg	R	strides	23	13	13	13	14	14	14	15	15	15	19	168				
B FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)																		
<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																		
date	06-Jun-21	time	6.02	9.74	13.56	17.43	21.54	25.78	30.16	34.68	39.37	44.26	49.98	7 / 1				
reaction time		interval	3.72	3.82	3.87	4.11	4.24	4.38	4.52	4.69	4.89	5.72		11.41	12.73	14.10		
		velocity	7.48	9.41	9.16	9.04	8.52	8.25	7.99	7.74	7.46	7.16	6.99	8.00	9.20	8.25	7.45	
H1 lead leg	R	strides	22	13	13	13	14	14	14	15	15	15	19.7	167.7				
Tuček, Martin (CZE) (1995)																		
Heat 3 - 2024 European Athletics Championships (Roma, ITA)																		
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																		
date	09-Jun-24	time	6.09	9.96	13.92	18.00	22.14	26.45	30.91	35.47	40.34	45.34	51.27	9 / 7				
reaction time	0.216	interval	3.87	3.96	4.08	4.14	4.31	4.46	4.56	4.87	5.00	5.93		11.91	12.91	14.43		
		velocity	7.39	9.04	8.84	8.58	8.45	8.12	7.85	7.68	7.19	7.00	6.75	7.80	8.82	8.13	7.28	
H1 lead leg		strides											0					
Tucker, Paul (GUY) (1976)																		
Heat 7 - 2000 Olympic Games (Sydney, AUS)																		
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																		
date	24-Sep-00	time	6.00	9.80	13.76	17.76	21.88	26.04	30.48	35.04	39.92		50.92	6 / 6				
reaction time	0.354	interval	3.80	3.96	4.00	4.12	4.16	4.44	4.56	4.88				11.76	12.72			
		velocity	7.50	9.21	8.84	8.75	8.50	8.41	7.88	7.68	7.17		7.86	8.93	8.25			
H1 lead leg		strides	22	14	14	14	14	14	15	15	16		138					
Tverdokhle, Oleg (UKR) (1969)																		
FINAL - 1994 European Championships (Helsinki, FIN)																		
<i>Behm (1995) - la tactique du 400 haies</i>																		
date	10-Aug-94	time	5.9	9.6	13.4	17.3	21.2	25.3	29.3	33.6	38.0	42.6	48.06	/ 1				
reaction time		interval	3.70	3.80	3.90	3.90	4.10	4.00	4.30	4.40	4.60	5.46	NR		11.40	12.00	13.30	
		velocity	7.63	9.46	9.21	8.97	8.97	8.54	8.75	8.14	7.95	7.61	7.33	8.32	9.21	8.75	7.89	
H1 lead leg		strides	20	13	13	13	13	13	13	15	15	15	143					
Tziortzis, Stavros (GRE) (1949)																		
FINAL - 1972 Olympic Games (Munich, FRG)																		
<i>Le Masurier (1977) - die olympischen 400-m-hürdenlauf vom Mexico City, München und Montreal</i>																		
date	03-Sep-72	time	6.2	9.9	13.8	17.7	21.8	23.5	26.1	30.3	34.8	39.4	44.2	49.66	8 / 6			
reaction time		interval	3.70	3.90	3.90	4.10	4.30	4.20	4.50	4.60	4.80	5.46	NR		11.50	12.60	13.90	
		velocity	7.26	9.46	8.97	8.97	8.54	8.51	8.14	8.33	7.78	7.61	7.29	7.33	8.05	9.13	8.33	7.55
H1 lead leg	R	strides	22	15	15	15	15	16	16	16	16	17	163					
Urbaniak, Sebastian (POL) (2001)																		
FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)																		
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																		
date	06-Aug-22	time	5.96	9.83	13.70	17.73	21.73	23.48	25.96	30.36		39.53	49.85	8 / 8				
reaction time	0.160	interval	3.87	3.87	4.03	4.00	4.23	4.40	4.23	4.40		9.17			11.77	12.63		
		velocity	7.55	9.04	9.04	8.68	8.75	8.52	8.27	7.95		7.63		8.02	8.92	8.31		
H1 lead leg	L	strides	21	14	14	14	14	14	14	14			105					
Valentian, Jean-Pascal (FRA) (1960)																		
FINAL - 1987 French National Championships (Annecy, FRA)																		
<i>Veney - split times from PJ</i>																		
date	09-Aug-87	time	6.25	10.22	14.27	18.54	22.81	26.99	31.59	36.14	40.91	45.79	51.49	/ 5				
reaction time		interval	3.97	4.05	4.27	4.27	4.18	4.60	4.55	4.77	4.88	5.70			12.29	13.05	14.20	
		velocity	7.20	8.82	8.64	8.20	8.20	8.37	7.61	7.69	7.34	7.17	7.02	7.77	8.54	8.05	7.39	
H1 lead leg		strides	14	14	14	14	14	14	14	14	14	14	126					
Valle, Emilio (CUB) (1967)																		
FINAL - 1986 IAAF World Junior Championships (Athens, GRE)																		
<i>Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races</i>																		
date	18-Jul-86	time	6.06	9.96	13.87	17.92	21.86	26.50	31.12	35.64	40.22	44.92	50.02	/ 1				
reaction time		interval	3.90	3.91	4.05	3.94	4.64	4.62	4.52	4.58	4.70	5.10	CR		11.86	13.20	13.80	
		velocity	7.43	8.97	8.95	8.64	8.88	7.54	7.58	7.74	7.64	7.45	7.84	8.00	8.85	7.95	7.61	
H1 lead leg		strides	21	14	14	14	14	14	15	15	15	15	18	169				
Valliant, Ludvy (FRA) (1995)																		
FINAL - 2023 Prefontaine Classic (Eugene, OR)																		
<i>Omega Timing (2023) - diamond league race analysis</i>																		
date	16-Sep-23	time	5.85	9.49	13.18	16.88	20.67	24.61	28.73	33.04	37.54	42.26	47.93	1 / 6				
reaction time	0.138	interval	3.64	3.69	3.70	3.79	3.94	4.12	4.31	4.50	4.72	5.67			11.03	11.85	13.53	
		velocity	7.69	9.62	9.49	9.46	9.23	8.88	8.50	8.12	7.78	7.42	7.05	8.35	9.52	8.86	7.76	
H1 lead leg	R	strides	21			13	13	13	13	14	14	14	18	134				
Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)																		
<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>																		
date	21-Aug-23	time	5.90	9.64	13.31	16.85	20.68	24.69	28.87	33.35	37.94	42.88	48.48	6 / 3				
reaction time	0.194	interval	3.74	3.67	3.54	3.83	4.01	4.18	4.48	4.59	4.94	5.60			10.95	12.02	14.01	
		velocity	7.63	9.36	9.54	9.89	9.14	8.73	8.37	7.81	7.63	7.09	7.14	8.25	9.59	8.74	7.49	
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	15	18	161				

Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

date	20-Aug-23	time	5.83	9.60	13.23	16.80	20.63	24.60	28.80	33.23	37.76	42.60	Henson (2023) - Athlete First: 2023 year end hurdle report			
reaction time	0.182	interval		3.77	3.63	3.57	3.83	3.97	4.20	4.43	4.53	4.84	5.67	48.27	3 / 2	
		velocity	7.72	9.28	9.64	9.80	9.14	8.82	8.33	7.90	7.73	7.23	7.05	8.29		10.97 12.00 13.80
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	17.7	159.7		9.57 8.75 7.61

FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)

date	21-Jul-23	time	5.73	9.32	12.98	16.74	20.61	24.63	28.82	33.23	37.76	42.39	Omega Timing (2023) - diamond league race analysis			
reaction time	0.158	interval		3.59	3.66	3.76	3.87	4.02	4.19	4.41	4.53	4.63	5.46	PB	2 / 4	
		velocity	7.85	9.75	9.56	9.31	9.04	8.71	8.35	7.94	7.73	7.56	7.33	8.36		11.01 12.08 13.57
H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	14	18	134		9.54 8.69 7.74

FINAL - 2023 Bauhaus Galan (Stockholm, SWE)

date	02-Jul-23	time	5.85	9.54	13.26	17.03	20.92	25.02	29.34	34.01	38.83	43.78	Omega Timing (2023) - diamond league race analysis			
reaction time	0.199	interval		3.69	3.72	3.77	3.89	4.10	4.32	4.67	4.82	4.95	6.13		4 / 6	
		velocity	7.69	9.49	9.41	9.28	9.00	8.54	8.10	7.49	7.26	7.07	6.53	8.01		11.18 12.31 14.44
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	15	116			9.39 8.53 7.27

FINAL - 2023 Bislett Games (Oslo, NOR)

date	15-Jun-23	time	5.69	9.23	12.88	16.65	20.57	24.66	28.94	33.43	38.09	42.89	Omega Timing (2023) - diamond league race analysis			
reaction time	0.155	interval		3.54	3.65	3.77	3.92	4.09	4.28	4.49	4.66	4.80	5.70		2 / 4	
		velocity	7.91	9.89	9.59	9.28	8.93	8.56	8.18	7.80	7.51	7.29	7.02	8.23		10.96 12.29 13.95
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	17.7	105.7			9.58 8.54 7.53

FINAL - 2023 Meeting de Paris (Paris, FRA)

date	09-Jun-23	time	5.74	9.33	12.98	16.76	20.61	24.56	28.70	33.19	37.88	42.72	Omega Timing (2023) - diamond league race analysis			
reaction time	0.153	interval		3.59	3.65	3.78	3.85	3.95	4.14	4.49	4.69	4.84	5.88		2 / 4	
		velocity	7.84	9.75	9.59	9.26	9.09	8.86	8.45	7.80	7.46	7.23	6.80	8.23		11.02 11.94 14.02
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	18	160		9.53 8.79 7.49

FINAL - 2022 ISTAF (Berlin, GER) (TV Analysis)

date	04-Sep-22	time	5.88				21.04	25.08	29.40	33.84	38.40	43.04	Henson (2022) - Athlete First: 2022 year end hurdle report			
reaction time	0.120	interval				15.16	4.04	4.32	4.44	4.56	4.64	5.22	PB	6 / 2		
		velocity	7.65			9.23	8.66	8.10	7.88	7.68	7.54	7.66	8.29			13.64
H1 lead leg	R	strides	21			13	13	14	14	14	14	17	107			7.70

FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)

date	19-Aug-22	time	5.93	9.66	13.60	17.45	21.38	22.99	25.55	29.84	34.25	38.82	43.52	Henson (2022) - Athlete First: 2022 year end hurdle report		
reaction time	0.193	interval		3.73	3.94	3.85	3.93	4.17	4.29	4.41	4.57	4.70	5.27		5 / 4	
		velocity	7.59	9.38	8.88	9.09	8.91	8.70	8.39	8.16	7.94	7.66	7.45	7.59		11.52 12.39 13.68
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	17	159		9.11 8.47 7.68

FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)

date	05-Jun-22	time	5.83	9.53	13.30	17.20	21.20	22.87	25.27	29.63	34.10	38.90	43.83	Henson (2022) - Athlete First: 2022 year end hurdle report		
reaction time	0.141	interval		3.70	3.77	3.90	4.00	4.07	4.36	4.47	4.80	4.93	5.91		3 / 6	
		velocity	7.72	9.46	9.28	8.97	8.75	8.75	8.60	8.03	7.83	7.29	7.10	6.77		11.37 12.43 14.20
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	144			9.23 8.45 7.39

FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)

date	01-Jul-21	time	5.96	9.66	13.44	17.40	21.46	25.68		34.62				Henson (2021) - Athlete First: 2021 year end hurdle report		
reaction time	0.245	interval		3.70	3.78	3.96	4.06	4.22		8.94					8 / --	
		velocity	7.55	9.46	9.26	8.84	8.62	8.29		7.83						11.44
H1 lead leg	R	strides	21	13	13	13	13	13						86		9.18

FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

date	17-Sep-20	time	5.87	9.58			21.15	22.9	29.53	33.90	38.54	43.28	Henson (2020) - Athlete First: 2020 year end hurdle report			
reaction time	0.185	interval		3.71			11.57		8.38	4.37	4.64	4.74	5.41		6 / 2	
		velocity	7.67	9.43			9.08	8.73	8.35	8.01	7.54	7.38	7.39	8.22		13.75
H1 lead leg	R	strides	21	13						14	14	14	17.2	93.2		7.64

FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)

date	08-Sep-20	time	5.97	9.71		17.41	21.35	25.49	29.83		38.94	43.68	Henson (2020) - Athlete First: 2020 year end hurdle report			
reaction time	0.192	interval		3.74		7.70	3.94	4.14	4.34		9.11	4.74	5.46		6 / 2	
		velocity	7.54	9.36		9.09	8.88	8.45	8.06		7.68	7.38	7.33	8.14		11.44 12.42 13.85
H1 lead leg	R	strides	21	13		13			14		14	14	17.7	92.7		9.18 8.45 7.58

FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

date	23-Aug-20	time	5.86		13.58	17.68	21.90	23.7	26.14		34.86	39.36	43.92	Henson (2020) - Athlete First: 2020 year end hurdle report		
reaction time	0.169	interval			7.72	4.10	4.22		4.24		8.72	4.50	4.56	5.26		3 / 3
		velocity	7.68		9.07	8.54	8.29	8.44	8.25		8.03	7.78	7.68	7.60		11.82
H1 lead leg	R	strides	21	13		13	14		14		14	14	14	17	134	8.88

FINAL - 2020 Herculis Meeting International d'Athlétisme (Monaco, MON) (TV Analysis)

date	14-Aug-20	time	5.84	9.47	13.35	17.32	21.39	25.66	30.06	34.53	39.20	43.98	Henson (2020) - Athlete First: 2020 year end hurdle report			
reaction time	0.173	interval		3.63	3.88	3.97	4.07	4.27	4.40	4.47	4.67	4.78	5.37		6 / 4	
		velocity	7.71	9.64	9.02	8.82	8.60	8.20	7.95	7.83	7.49	7.32	7.45	8.11		11.48 12.74 13.92
																9.15 8.24 7.54

H1 lead leg	R	strides	21	13	13	13	13	14	14	14	14	14	14	143
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Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)*Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships*

date	28-Sep-19	time	6.00	9.59	13.30	17.08	21.03	25.17	29.52	33.98	38.66	43.45	49.10	5 / 4				
reaction time	0.209	interval		3.59	3.71	3.78	3.95	4.14	4.35	4.46	4.68	4.79	5.65		11.08	12.44	13.93	
		velocity	7.50	9.75	9.43	9.26	8.86	8.45	8.05	7.85	7.48	7.31	7.08	8.15	9.48	8.44	7.54	
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	17.7	159.7				

FINAL - 2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	10-Sep-19	time	6.06	9.80	13.63	17.50	21.56	25.70	30.03	34.53	39.13	43.73	49.20	5 / 3				
reaction time	0.199	interval		3.74	3.83	3.87	4.06	4.14	4.33	4.50	4.60	4.60	5.47		11.44	12.53	13.70	
		velocity	7.43	9.36	9.14	9.04	8.62	8.45	8.08	7.78	7.61	7.61	7.31	8.13	9.18	8.38	7.66	
H1 lead leg	R	strides		13	13	13	13	13	14	14	14	14	17.5	138.5				

FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	24-Aug-19	time	5.86	9.48	13.18	16.94	20.80	22.5	24.88	29.12	33.52	38.14	42.86	48.30	2 / 2			
reaction time	0.155	interval		3.62	3.70	3.76	3.86	4.08	4.24	4.40	4.62	4.72	5.44	PB	11.08	12.18	13.74	
		velocity	7.68	9.67	9.46	9.31	9.07	8.89	8.58	8.25	7.95	7.58	7.42	7.35	8.28	9.48	8.62	7.64
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	14	18	160				

FINAL - 2019 Prefontaine Classic (Stanford, CA) (TV Analysis)*Henson (2020) - Athlete First: 2019 year end hurdle report*

date	30-Jun-19	time	5.90	9.66	13.50	17.43	21.53	25.76	30.26	34.86	39.63	44.46	50.23	2 / 8				
reaction time	0.218	interval		3.76	3.84	3.93	4.10	4.23	4.50	4.60	4.77	4.83	5.77		11.53	12.83	14.20	
		velocity	7.63	9.31	9.11	8.91	8.54	8.27	7.78	7.61	7.34	7.25	6.93	7.96	9.11	8.18	7.39	
H1 lead leg	R	strides	21	13		13	13	13	14	14		14	115					

van Zyl, L.J. (RSA) (1985)**FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)** *Henson (2020) - Athlete First: 2017 year end hurdle report*

date	24-Aug-17	time	5.96	9.68	13.56		21.60	25.80	30.12	34.60	39.20	44.24	49.92	1 / 7				
reaction time	0.188	interval		3.72	3.88		8.04	4.20	4.32	4.48	4.60	5.04	5.68				14.12	
		velocity	7.55	9.41	9.02		8.71	8.33	8.10	7.81	7.61	6.94	7.04	8.01			7.44	
H1 lead leg	L	strides	22	14	14			14	15	15		16	19	129				

FINAL - 2017 Athletissima (Lausanne, SUI) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	06-Jul-17	time	5.92	9.68	13.64	17.68	21.80	25.96	30.28	34.68	39.28	44.12	50.04	2 / 7				
reaction time	0.152	interval		3.76	3.96	4.04	4.12	4.16	4.32	4.40	4.60	4.84	5.92		11.76	12.60	13.84	
		velocity	7.60	9.31	8.84	8.66	8.50	8.41	8.10	7.95	7.61	7.23	6.76	7.99	8.93	8.33	7.59	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	19.2	174.2				

FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	18-Jun-17	time	5.88	9.64		17.40	21.44	25.60	30.00		39.04	43.88	51.42	2 / 8				
reaction time	0.143	interval		3.76		7.76	4.04	4.16	4.40		9.04	4.84	7.54		11.52	12.60	13.88	
		velocity	7.65	9.31		9.02	8.66	8.41	7.95		7.74	7.23	5.31	7.78	9.11	8.33	7.56	
H1 lead leg	L	strides	22	14		14		14	15			16	95					

FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	15-Jun-17	time	5.96	9.66	13.43	17.46	21.60	25.86	30.30	34.73	39.30	44.06	49.89	8 / 7				
reaction time	0.158	interval		3.70	3.77	4.03	4.14	4.26	4.44	4.43	4.57	4.76	5.83		11.50	12.84	13.76	
		velocity	7.55	9.46	9.28	8.68	8.45	8.22	7.88	7.90	7.66	7.35	6.86	8.02	9.13	8.18	7.63	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	152					

FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)*Henson (2021) - Athlete First: 2017 year end hurdle report*

date	13-May-17	time	5.88	9.64	13.52	17.52	21.60	25.80	30.16	34.60	39.12	43.76	49.35	7 / 2				
reaction time	0.155	interval		3.76	3.88	4.00	4.08	4.20	4.36	4.44	4.52	4.64	5.59		11.64	12.64	13.60	
		velocity	7.65	9.31	9.02	8.75	8.58	8.33	8.03	7.88	7.74	7.54	7.16	8.11	9.02	8.31	7.72	
H1 lead leg	L	strides	22	14	14	14	14	15	14	15	15	15	19	171				

FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	05-May-17	time	5.96	9.83	13.70	17.80	21.96	26.16	30.53	34.90	39.43	44.06	49.49	8 / 3				
reaction time	0.156	interval		3.87	3.87	4.10	4.16	4.20	4.37	4.37	4.53	4.63	5.43		11.84	12.73	13.53	
		velocity	7.55	9.04	9.04	8.54	8.41	8.33	8.01	8.01	7.73	7.56	7.37	8.08	8.87	8.25	7.76	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	18.7	170.7				

FINAL - 2017 North-West University Pukke Invitational (Sasolburg, RSA) (TV Analysis)*Henson (2020) - Athlete First: 2017 year end hurdle report*

date	28-Mar-17	time	6.08	10.04	13.96	18.00	22.04	26.24	30.56	35.00	39.64	44.56	50.48	4 / 4				
reaction time		interval		3.96	3.92	4.04	4.04	4.20	4.32	4.44	4.64	4.92	5.92		11.92	12.56	14.00	
		velocity	7.40	8.84	8.93	8.66	8.66	8.33	8.10	7.88	7.54	7.11	6.76	7.92	8.81	8.36	7.50	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	152					

FINAL - 2016 Weltklasse (Zürich, SUI) (TV Analysis)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date	01-Sep-16	time	5.88	9.56	13.40	17.40	21.44	25.60	29.84	34.24	38.72	43.40	48.80	1 / 3				
reaction time	0.147	interval		3.68	3.84	4.00	4.04	4.16	4.24	4.40	4.48	4.68	5.40		11.52	12.44	13.56	
		velocity	7.65	9.51	9.11	8.75	8.66	8.41	8.25	7.95	7.81	7.48	7.41	8.20	9.11	8.44	7.74	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171				

FINAL - 2016 London Anniversary Games (London, GBR) (TV Analysis)*Henson (2020) - Athlete First: 2016 year end hurdle report*

date	23-Jul-16	time	5.88	9.60	13.36	17.28	21.36	25.60	29.92	34.28	38.76	43.40	48.92	2 / 4				
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reaction time	0.153	interval	3.72	3.76	3.92	4.08	4.24	4.32	4.36	4.48	4.64	5.52	11.40	12.64	13.48			
		velocity	7.65	9.41	9.31	8.93	8.58	8.25	8.10	8.03	7.81	7.54	7.25	8.18	9.21	8.31	7.79	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171				
FINAL - 2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	16-Jun-16	time	5.93	9.77	17.63	21.77	26.07	30.33	34.70	39.37	44.23	50.21	3 / 4					
reaction time	0.159	interval	3.84	7.86	4.14	4.30	4.26	4.37	4.67	4.86	5.98	11.70	12.70	13.90				
		velocity	7.59	9.11	8.91	8.45	8.14	8.22	8.01	7.49	7.20	6.69	7.97	8.97	8.27	7.55		
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	20	144					
FINAL - 2016 Shanghai Golden Grand Prix (Shanghai, CHN)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>					
date	14-May-16	time	5.92	9.60	13.48	17.52	21.64	25.92	30.24	34.56	39.04	43.60	49.13	8 / 4				
reaction time	0.168	interval	3.68	3.88	4.04	4.12	4.28	4.32	4.32	4.48	4.56	5.53	11.60	12.72	13.36			
		velocity	7.60	9.51	9.02	8.66	8.50	8.18	8.10	8.10	7.81	7.68	7.23	8.14	9.05	8.25	7.86	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19	171				
FINAL - 2011 IAAF World Championships (Daegu, KOR)													<i>Behm (2011) - Le quatrache: Démus enfin!</i>					
date	01-Sep-11	time	5.8	9.5	13.1	17.0	21.0	24.9	29.1	33.5	38.1	43.0	48.80	8 / 3				
reaction time	0.177	interval	3.70	3.60	3.90	4.00	3.90	4.20	4.40	4.60	4.90	5.80	11.20	12.10	13.90			
		velocity	7.76	9.46	9.72	8.97	8.75	8.97	8.33	7.95	7.61	7.14	6.90	8.20	9.38	8.68	7.55	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	16	16	20	173				
Semi-Final 1 - 2009 IAAF World Championships (Berlin, GER)													<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
date	16-Aug-09	time	5.96	9.70	13.46	17.34	21.36	25.54	29.92	34.30	38.70	43.34	48.80	6 / 6				
reaction time	0.168	interval	3.74	3.76	3.88	4.02	4.18	4.38	4.38	4.40	4.64	5.46	11.38	12.58	13.42			
		velocity	7.55	9.36	9.31	9.02	8.71	8.37	7.99	7.99	7.95	7.54	7.33	8.20	9.23	8.35	7.82	
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	19.2	171.2				
Heat 4 - 2009 IAAF World Championships (Berlin, GER)													<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>					
date	15-Aug-09	time	5.98	9.79	13.67	17.64	21.66	25.83	30.26	34.78	39.43	44.18	49.48	3 / 2				
reaction time	0.171	interval	3.81	3.88	3.97	4.02	4.17	4.43	4.52	4.65	4.75	5.30	11.66	12.62	13.92			
		velocity	7.53	9.19	9.02	8.82	8.71	8.39	7.90	7.74	7.53	7.37	7.55	8.08	9.01	8.32	7.54	
H1 lead leg		strides																
FINAL - 2008 IAAF World Athletics Final (Stuttgart, GER)													<i>Graubner (2009) - http://www.fgs.uni-halle.de</i>					
date	13-Sep-08	time	6.01	9.86	13.81	17.79	21.80	25.97	30.32	34.81	39.36	44.12	49.95	3 / 5				
reaction time	0.158	interval	3.85	3.95	3.98	4.01	4.17	4.35	4.49	4.55	4.76	5.83	11.78	12.53	13.80			
		velocity	7.49	9.09	8.86	8.79	8.73	8.39	8.05	7.80	7.69	7.35	6.86	8.01	8.91	8.38	7.61	
H1 lead leg		strides																
FINAL - 2008 Olympic Games (Beijing, CHN)													<i>Behm (2008) - Pekin 2008: Le quatrache masculin - féminin</i>					
date	18-Aug-08	time	5.7	9.6	13.3	17.5	21.6	25.7	29.9	34.2	38.6	43.3	48.42	8 / 5				
reaction time	0.253	interval	3.90	3.70	4.20	4.10	4.10	4.20	4.30	4.40	4.70	5.12	11.80	12.40	13.40			
		velocity	7.89	8.97	9.46	8.33	8.54	8.54	8.33	8.14	7.95	7.45	7.81	8.26	8.90	8.47	7.84	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170				
FINAL - 2007 IAAF World Athletics Final (Stuttgart, GER)													<i>Graubner (2007) - http://www.fgs.uni-halle.de</i>					
date	22-Sep-07	time	5.95	9.72	13.58	17.54	21.66	26.02	30.37	34.85	39.46	44.25	49.62	1 / 8				
reaction time	0.189	interval	3.77	3.86	3.96	4.12	4.36	4.35	4.48	4.61	4.79	5.37	11.59	12.83	13.88			
		velocity	7.56	9.28	9.07	8.84	8.50	8.03	8.05	7.81	7.59	7.31	7.45	8.06	9.06	8.18	7.56	
H1 lead leg		strides																
Vanderstock, Geoff (USA) (1946)																		
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)													<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>					
date	15-Oct-68	time	5.9	9.7	13.8	17.8	21.8	23.7	25.9	30.2	34.5	38.9	43.5	49.0	3 / 4			
reaction time		interval	3.80	4.10	4.00	4.00	4.10	4.10	4.30	4.30	4.40	4.60	5.50	(49.07)	11.90	12.40	13.30	
		velocity	7.63	9.21	8.54	8.75	8.75	8.44	8.54	8.14	8.14	7.95	7.61	7.27	8.16	8.82	8.47	7.89
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	15	18.7	175			
Vasilyev, Aleksandr (URS) (1961)																		
FINAL - 1986 European Championships (Stuttgart, FRG)													<i>Behm (1995) - la tactique du 400 haies</i>					
date	28-Aug-86	time	5.9	9.8	13.7	17.7	21.9	26.1	30.3	34.7	39.0	43.5	48.76	1 / 2				
reaction time		interval	3.90	3.90	4.00	4.20	4.20	4.20	4.20	4.40	4.30	4.50	5.26	11.80	12.60	13.20		
		velocity	7.63	8.97	8.97	8.75	8.33	8.33	8.33	7.95	8.14	7.78	7.60	8.20	8.90	8.33	7.95	
H1 lead leg		strides	13	13	13	14	14	14	14	14	15	15	125					
Vega, Fernando (MEX) (1998)																		
Semi-Final 3 - 2019 IAAF World Championships (Doha, QAT)													<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>					
date	28-Sep-19	time	5.93	9.78	13.64	17.62	21.62	25.80	30.20	34.68	39.35	44.25	49.96	2 / 6				
reaction time	0.220	interval	3.85	3.86	3.98	4.00	4.18	4.40	4.48	4.67	4.90	5.71	11.69	12.58	14.05			
		velocity	7.59	9.09	9.07	8.79	8.75	8.37	7.95	7.81	7.49	7.14	7.01	8.01	8.98	8.35	7.47	
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176				
Viarshynin, Leanid (BLR) (1977)																		
Heat 5 - 2000 Olympic Games (Sydney, AUS)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.08	9.92	13.84	17.80	21.80	25.96	30.28	34.92	40.28	45.64	51.84	4 / 5				
reaction time	0.151	interval	3.84	3.92	3.96	4.00	4.16	4.32	4.64	5.36	5.36	6.20	11.72	12.48	15.36			

H1 lead leg	velocity	7.40	9.11	8.93	8.84	8.75		8.41	8.10	7.54	6.53	6.53	6.45	7.72		8.96	8.41	6.84	
	strides	21	13	13	13	13		14	14	15	17	17	20	170					
Vimbert, Gilies (FRA) (1966)																			
FINAL - 1987 Résisprint International (La Chaux-de-Ford, FRA)																			
<i>Behm (1988) - 45-39</i>																			
date	16-Aug-87	time	6.0	9.8	13.8	17.5	22.2		26.6	30.7	35.3	39.9	44.6		49.96	/ 1			
reaction time		interval		3.80	4.00	3.70	4.70		4.40	4.10	4.56	4.64	4.70	5.36	PB		11.50	13.20	13.90
		velocity	7.50	9.21	8.75	9.46	7.45		7.95	8.54	7.68	7.54	7.45	7.46	8.01		9.13	7.95	7.55
H1 lead leg		strides																	
FINAL - 1987 French National Championships (Annecy, FRA)																			
<i>Veney - split times from PJ</i>																			
date	09-Aug-87	time	5.98	9.83	13.76	17.88	22.18		26.46	30.70	35.26	39.87	44.61		49.98	/ 1			
reaction time		interval		3.85	3.93	4.12	4.30		4.28	4.24	4.56	4.61	4.74	5.37			11.90	12.82	13.91
		velocity	7.53	9.09	8.91	8.50	8.14		8.18	8.25	7.68	7.59	7.38	7.45	8.00		8.82	8.19	7.55
H1 lead leg		strides	20	13	13	13	14		14	14	14	15	15	145					
Walker, Adrian (USA) (1984)																			
FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)																			
<i>USATF Women's Sprint Development (2003)</i>																			
date	22-Jun-03	time	6.09	9.96	13.91	17.92	22.09		26.39	31.00	35.70	40.44	45.56		51.73	4 / 2			
reaction time		interval		3.87	3.95	4.01	4.17		4.30	4.61	4.70	4.74	5.12	6.17			11.83	13.08	14.56
		velocity	7.39	9.04	8.86	8.73	8.39		8.14	7.59	7.45	7.38	6.84	6.48	7.73		8.88	8.03	7.21
H1 lead leg		strides																	
Wallenind, Niklas (SWE) (1968)																			
FINAL - 1990 European Championships (Split, YUG)																			
<i>Behm (1995) - la tactique du 400 haies</i>																			
date	29-Aug-90	time	6.1	9.9	13.8	17.7	21.7		25.8	30.2	34.6	39.0	43.4		48.52	4 / 3			
reaction time		interval		3.80	3.90	3.90	4.00		4.10	4.40	4.40	4.40	4.40	5.12	PB		11.60	12.50	13.20
		velocity	7.38	9.21	8.97	8.97	8.75		8.54	7.95	7.95	7.95	7.95	7.81	8.24		9.05	8.40	7.95
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	15	18	161				
Wällgren, Karl (SWE) (2001)																			
Heat 1 - 2024 European Athletics Championships (Roma, ITA)																			
<i>European Athletics (2024) - 2024 european athletics championships - results book</i>																			
date	09-Jun-24	time	5.96	9.93	13.96											dnf	3 / --		
reaction time	0.216	interval		3.97	4.03														
		velocity	7.55	8.82	8.68														
H1 lead leg		strides													0				
Wang Daojun (CHN) (2000)																			
Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)																			
<i>CAA Hurdle Development (2021)</i>																			
date	26-Jun-21	time	6.18	10.21	14.31	18.57	22.91		27.41	32.05	36.67	41.34	46.06		51.42	5 / 1			
reaction time	0.201	interval		4.03	4.10	4.26	4.34		4.50	4.64	4.62	4.67	4.72	5.36			12.39	13.48	14.01
		velocity	7.28	8.68	8.54	8.22	8.06		7.78	7.54	7.58	7.49	7.42	7.46	7.78		8.47	7.79	7.49
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170				
FINAL - 2020 Chinese National Championships (Shaoxing, CHN)																			
<i>CAA Hurdle Development (2020)</i>																			
date	17-Sep-20	time	5.96	10.00	14.08	18.29	22.58		26.92	31.42	35.96	40.71	45.54		51.41	5 / 5			
reaction time		interval		4.04	4.08	4.21	4.29		4.34	4.50	4.54	4.75	4.83	5.87			12.33	13.13	14.12
		velocity	7.55	8.66	8.58	8.31	8.16		8.06	7.78	7.71	7.37	7.25	6.81	7.78		8.52	8.00	7.44
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5				
FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)																			
<i>CAA Hurdle Development (2019)</i>																			
date	23-Aug-19	time	6.08	10.12	14.18	18.40	22.76		27.40	32.18	37.04	41.98	46.98		52.58	8 / 8			
reaction time	0.178	interval		4.04	4.06	4.22	4.36		4.64	4.78	4.86	4.94	5.00	5.60			12.32	13.78	14.80
		velocity	7.40	8.66	8.62	8.29	8.03		7.54	7.32	7.20	7.09	7.00	7.14	7.61		8.52	7.62	7.09
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5				
Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)																			
<i>CAA Hurdle Development (2019)</i>																			
date	22-Aug-19	time	6.24	10.38	14.52	18.71	23.08		27.52	32.07	36.69	41.54	46.66		52.31	9 / 4			
reaction time	0.219	interval		4.14	4.14	4.19	4.37		4.44	4.55	4.62	4.85	5.12	5.66			12.47	13.36	14.59
		velocity	7.21	8.45	8.45	8.35	8.01		7.88	7.69	7.58	7.22	6.84	7.07	7.65		8.42	7.86	7.20
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5				
U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)																			
<i>CAA Hurdle Development (2019)</i>																			
date	17-Aug-19	time	6.18	10.26	14.32	18.55	22.90		27.46	32.20	36.92	41.64	46.35		51.64	5 / 3			
reaction time	0.188	interval		4.08	4.06	4.23	4.35		4.56	4.74	4.72	4.72	4.71	5.29			12.37	13.65	14.15
		velocity	7.28	8.58	8.62	8.27	8.05		7.68	7.38	7.42	7.42	7.43	7.56	7.75		8.49	7.69	7.42
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170				
U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)																			
<i>CAA Hurdle Development (2019)</i>																			
date	17-Aug-19	time	6.20	10.34	14.40	18.58	22.98		27.50	32.14	36.96	41.85	46.80		52.72	6 / 1			
reaction time	0.181	interval		4.14	4.06	4.18	4.40		4.52	4.64	4.82	4.89	4.95	5.92			12.38	13.56	14.66
		velocity	7.26	8.45	8.62	8.37	7.95		7.74	7.54	7.26	7.16	7.07	6.76	7.59		8.48	7.74	7.16
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	15	18	170				
Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)																			
<i>CAA Hurdle Development (2019)</i>																			
date	03-Aug-19	time	6.28	10.47	14.61	18.78	23.00		27.38	31.86	36.42	42.82	50.44		58.75	5 / 5			
reaction time	0.229	interval		4.19	4.14	4.17	4.22		4.38	4.48	4.56	6.40	7.62	8.31			12.50	13.08	18.58

H1 lead leg	L	velocity	7.17	8.35	8.45	8.39	8.29	7.99	7.81	7.68	5.47	4.59	4.81	6.81	8.40	8.03	5.65	
		strides	21	14	14	14	14	15	15	15	17	19	21.5	179.5				
FINAL - 2019 Chinese National Championships (Shenyang, CHN)																		
date	10-Jul-19	time	6.12	10.17	14.25	18.40	22.59	26.96	31.56	36.22	40.94	45.70	51.23	CAA Hurdle Development (2019)				
reaction time	0.216	interval	4.05	4.08	4.15	4.19	4.37	4.60	4.66	4.72	4.76	5.53	12.28	13.16	14.14	2 / 6		
		velocity	7.35	8.64	8.58	8.43	8.35	8.01	7.61	7.51	7.42	7.35	7.23	7.81	8.55	7.98	7.43	
H1 lead leg	L	strides	22	15	15	14	14	15	15	15	15	15	18.3	173.3				
Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)																		
date	09-Jul-19	time	6.14	10.18	14.18	18.30	22.51	26.90	31.48	36.05	40.79	45.61	51.20	CAA Hurdle Development (2019)				
reaction time	0.218	interval	4.04	4.00	4.12	4.21	4.39	4.58	4.57	4.74	4.82	5.59	PB	12.16	13.18	14.13	2 / 5	
		velocity	7.33	8.66	8.75	8.50	8.31	7.97	7.64	7.66	7.38	7.26	7.16	7.81	8.63	7.97	7.43	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5				
Wang Gouzhong (CHN) (1995)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2021 Chinese National Championships (Chongqing, CHN)																		
date	26-Jun-21	time	6.25	10.35	14.56	18.87	23.30	27.78	32.35	37.04	41.84	46.87	52.51	CAA Hurdle Development (2021)				
reaction time	0.217	interval	4.10	4.21	4.31	4.43	4.48	4.57	4.69	4.80	5.03	5.64	12.62	13.48	14.52	8 / 6 5		
		velocity	7.20	8.54	8.31	8.12	7.90	7.81	7.66	7.46	7.29	6.96	7.09	7.62	8.32	7.79	7.23	
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	17.5	173.5				
Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)																		
date	26-Jun-21	time	6.10	10.11	14.26	18.52	22.90	27.37	31.96	36.58	41.28	46.05	51.43	CAA Hurdle Development (2021)				
reaction time	0.152	interval	4.01	4.15	4.26	4.38	4.47	4.59	4.62	4.70	4.77	5.38	12.42	13.44	14.09	7 / 3		
		velocity	7.38	8.73	8.43	8.22	7.99	7.83	7.63	7.58	7.45	7.34	7.43	7.78	8.45	7.81	7.45	
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18.5	174.5				
FINAL - 2021 East China District Meeting (Zhaoqing, CHN)																		
date	25-Apr-21	time	5.96	9.98	14.11	18.35	22.71	27.14	31.83	36.64	41.53	46.53	52.22	CAA Hurdle Development (2021)				
reaction time	0.177	interval	4.02	4.13	4.24	4.36	4.43	4.69	4.81	4.89	5.00	5.69	12.39	13.48	14.70	2 / 4		
		velocity	7.55	8.71	8.47	8.25	8.03	7.90	7.46	7.28	7.16	7.00	7.03	7.66	8.47	7.79	7.14	
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18	174				
Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)																		
date	25-Apr-21	time	5.99	9.96	14.20	18.62	23.16	27.76	32.45	37.17	42.01	47.00	52.63	CAA Hurdle Development (2021)				
reaction time	0.185	interval	3.97	4.24	4.42	4.54	4.60	4.69	4.72	4.84	4.99	5.63	12.63	13.83	14.55	3 / 3		
		velocity	7.51	8.82	8.25	7.92	7.71	7.61	7.46	7.42	7.23	7.01	7.10	7.60	8.31	7.59	7.22	
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	18	174				
FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)																		
date	12-Apr-19	time	6.24	10.38	14.71	19.19	23.77	28.31	33.00	37.70	42.43	47.26	52.79	CAA Hurdle Development (2019)				
reaction time	0.208	interval	4.14	4.33	4.48	4.58	4.54	4.69	4.70	4.73	4.83	5.53	12.95	13.81	14.26	8 / 2		
		velocity	7.21	8.45	8.08	7.81	7.64	7.71	7.46	7.45	7.40	7.25	7.23	7.58	8.11	7.60	7.36	
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	15	19.5	175.5				
Wang Hongwen (CHN) (2000)																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)																		
date	26-Jun-21	time	6.27	10.25	14.26	18.40	22.61	27.03	31.49	36.15	40.99	45.97	51.56	CAA Hurdle Development (2021)				
reaction time	0.242	interval	3.98	4.01	4.14	4.21	4.42	4.46	4.66	4.84	4.98	5.59	12.13	13.09	14.48	6 / 3		
		velocity	7.18	8.79	8.73	8.45	8.31	7.92	7.85	7.51	7.23	7.03	7.16	7.76	8.66	8.02	7.25	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168				
FINAL - 2021 East China District Meeting (Zhaoqing, CHN)																		
date	25-Apr-21	time	6.29	10.37	14.50	18.76	23.18	27.70	32.46	37.25	42.15	47.10	52.41	CAA Hurdle Development (2021)				
reaction time	0.202	interval	4.08	4.13	4.26	4.42	4.52	4.76	4.79	4.90	4.95	5.31	12.47	13.70	14.64	9 / 6		
		velocity	7.15	8.58	8.47	8.22	7.92	7.74	7.35	7.31	7.14	7.07	7.53	7.63	8.42	7.66	7.17	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	17.5	168.5				
Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)																		
date	25-Apr-21	time	6.22	10.19	14.23	18.50	22.87	27.36	31.95	36.69	41.53	46.55	52.39	CAA Hurdle Development (2021)				
reaction time	0.242	interval	3.97	4.04	4.27	4.37	4.49	4.59	4.74	4.84	5.02	5.84	12.28	13.45	14.60	4 / 2		
		velocity	7.23	8.82	8.66	8.20	8.01	7.80	7.63	7.38	7.23	6.97	6.85	7.64	8.55	7.81	7.19	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168				
FINAL - 2020 Chinese National Championships (Shaoxing, CHN)																		
date	17-Sep-20	time	6.08	10.08	14.08	18.25	22.54	26.96	31.42	36.00	40.75	45.58	51.15	CAA Hurdle Development (2020)				
reaction time		interval	4.00	4.00	4.17	4.29	4.42	4.46	4.58	4.75	4.83	5.57	12.17	13.17	14.16	7 / 3		
		velocity	7.40	8.75	8.75	8.39	8.16	7.92	7.85	7.64	7.37	7.25	7.18	7.82	8.63	7.97	7.42	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18	168				
FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)																		
date	23-Aug-19	time	6.34	10.33	14.27	18.40	22.69	27.07	31.58	36.27	41.01	45.80	51.18	CAA Hurdle Development (2019)				
reaction time	0.270	interval	3.99	3.94	4.13	4.29	4.38	4.51	4.69	4.74	4.79	5.38	12.06	13.18	14.22	2 / 4		
		velocity	7.10	8.77	8.88	8.47	8.16	7.99	7.76	7.46	7.38	7.31	7.43	7.82	8.71	7.97	7.38	
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18	169				

Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)

															CAA Hurdle Development (2019)		
date	22-Aug-19	time	6.39	10.44	14.58	18.85	23.27	27.79	32.40	37.12	41.96	46.90	52.37	5 / 5	12.46	13.55	14.50
reaction time	0.246	interval		4.05	4.14	4.27	4.42	4.52	4.61	4.72	4.84	4.94	5.47		8.43	7.75	7.24
		velocity	7.04	8.64	8.45	8.20	7.92	7.74	7.59	7.42	7.23	7.09	7.31				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	17.5				

U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)

															CAA Hurdle Development (2019)		
date	17-Aug-19	time	6.30	10.22	14.20	18.28	22.46	26.76	31.20	35.76	40.44	45.28	50.80	7 / 2	11.98	12.92	14.08
reaction time	0.252	interval		3.92	3.98	4.08	4.18	4.30	4.44	4.56	4.68	4.84	5.52		8.76	8.13	7.46
		velocity	7.14	8.93	8.79	8.58	8.37	8.14	7.88	7.68	7.48	7.23	7.25				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	17.3				

U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)

															CAA Hurdle Development (2019)		
date	17-Aug-19	time	6.40	10.32	14.42	18.62	22.95	27.39	31.99	36.67	41.49	46.50	52.86	6 / 1	12.22	13.37	14.51
reaction time		interval		3.92	4.10	4.20	4.33	4.44	4.60	4.68	4.82	5.01	6.36		8.59	7.85	7.24
		velocity	7.03	8.93	8.54	8.33	8.08	7.88	7.61	7.48	7.26	6.99	6.29				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18.3				

FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)

															CAA Hurdle Development (2019)		
date	03-Aug-19	time	6.27	10.22	14.21	18.27	22.42	26.82	31.36	36.00	40.74	45.63	51.31	2 / 4	12.00	13.09	14.27
reaction time	0.217	interval		3.95	3.99	4.06	4.15	4.40	4.54	4.64	4.74	4.89	5.68		8.75	8.02	7.36
		velocity	7.18	8.86	8.77	8.62	8.43	7.95	7.71	7.54	7.38	7.16	7.04				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18				

Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)

															CAA Hurdle Development (2019)		
date	03-Aug-19	time	6.71	11.06	15.48	19.96	24.50	29.11	33.98	38.87	43.70	48.54	53.92	6 / 4	13.25	14.02	14.56
reaction time	0.268	interval		4.35	4.42	4.48	4.54	4.61	4.87	4.89	4.83	4.84	5.38		7.92	7.49	7.21
		velocity	6.71	8.05	7.92	7.81	7.71	7.59	7.19	7.16	7.25	7.23	7.43				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18				

Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)

															CAA Hurdle Development (2019)		
date	09-Jul-19	time	6.47	10.41	14.43	18.55	22.76	27.09	31.78	36.50	41.36	46.33	52.00	1 / 5 4	12.08	13.23	14.55
reaction time	0.256	interval		3.94	4.02	4.12	4.21	4.33	4.69	4.72	4.86	4.97	5.67		8.69	7.94	7.22
		velocity	6.96	8.88	8.71	8.50	8.31	8.08	7.46	7.42	7.20	7.04	7.05				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18				

Wang Siqing (CHN) (1999)

															CAA Hurdle Development (2021)		
date	26-Jun-21	time	6.40	10.54	14.78	19.07	23.51	28.03	32.56	37.22	42.09	47.11	52.84	2 / 7 6	12.67	13.49	14.55
reaction time	0.214	interval		4.14	4.24	4.29	4.44	4.52	4.53	4.66	4.87	5.02	5.73		8.29	7.78	7.22
		velocity	7.03	8.45	8.25	8.16	7.88	7.74	7.73	7.51	7.19	6.97	6.98				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19				

Heat 3 - 2021 Chinese National Championships (Chongqing, CHN)

															CAA Hurdle Development (2021)		
date	26-Jun-21	time	6.30	10.35	14.46	18.65	22.97	27.33	31.78	36.31	41.03	45.87	51.44	7 / 2	12.35	13.13	14.09
reaction time	0.222	interval		4.05	4.11	4.19	4.32	4.36	4.45	4.53	4.72	4.84	5.57		8.50	8.00	7.45
		velocity	7.14	8.64	8.52	8.35	8.10	8.03	7.87	7.73	7.42	7.23	7.18				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	19.5				

FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)

															CAA Hurdle Development (2021)		
date	20-May-21	time	6.30	10.38	14.50	18.70	23.04	27.39	31.86	36.31	41.32	46.36	51.96	3 / 4	12.40	13.16	14.50
reaction time	0.201	interval		4.08	4.12	4.20	4.34	4.35	4.47	4.57	4.72	4.87	5.60		8.47	7.98	7.24
		velocity	7.14	8.58	8.50	8.33	8.06	8.05	7.83	7.73	7.40	6.94	7.14				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	20				

Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)

															CAA Hurdle Development (2021)		
date	25-Apr-21	time	6.30	10.30	14.34	18.52	22.80	27.14	31.64	36.38	41.26	46.36	52.32	8 / 1	12.22	13.12	14.72
reaction time	0.230	interval		4.00	4.04	4.18	4.28	4.34	4.50	4.74	4.88	5.10	5.96		8.59	8.00	7.13
		velocity	7.14	8.75	8.66	8.37	8.18	8.06	7.78	7.38	7.17	6.86	6.71				
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	20.5				

FINAL - 2020 Chinese National Championships (Shaoying, CHN)

															CAA Hurdle Development (2020)		
date	17-Sep-20	time	6.25	10.38	14.67	19.04	23.50	28.12	32.79	37.75	42.50	47.50	53.38	1 / 7	12.79	13.75	14.71
reaction time		interval		4.13	4.29	4.37	4.46	4.62	4.67	4.96	4.75	5.00	5.88		8.21	7.64	7.14
		velocity	7.20	8.31	8.01	7.85	7.58	7.58	7.49	7.06	7.37	7.00	6.80				
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	16	19				

Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)

															CAA Hurdle Development (2019)		
date	09-Jul-19	time	6.37	10.41	14.65	18.94	23.31	27.79	32.32	36.99	41.76	46.58	52.12	4 / 6 5	12.57	13.38	14.26
reaction time	0.197	interval		4.04	4.24	4.29	4.37	4.48	4.53	4.67	4.77	4.82	5.54		8.35	7.85	7.36
		velocity	7.06	8.66	8.25	8.16	8.01	7.81	7.73	7.49	7.34	7.26	7.22				
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	16	19.2				

Wang Yijie (CHN) (1997)

															CAA Hurdle Development (2021)		
date	26-Jun-21	time	6.48	11.11	15.79	20.77	25.86	31.19	36.19	41.33	46.36	51.31	59.46	6 / 6	14.29	15.42	
reaction time	0.162	interval		4.63	4.68	4.98	5.09	5.13	5.13	5.13	5.13	5.13	5.13				

H1 lead leg	L	velocity	6.94	7.56	7.48	7.03	6.88		6.78						6.73		7.35	6.81	
		strides	24	17	17	17	17								92				
FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)																			
CAA Hurdle Development (2019)																			
date	23-Aug-19	time	6.12	10.05	13.95	18.03	22.27		26.64	31.16	35.70	40.35	45.11		50.70		4 / 1		
reaction time	0.218	interval		3.93	3.90	4.08	4.24		4.37	4.52	4.54	4.65	4.76	5.59			11.91	13.13	13.95
		velocity	7.35	8.91	8.97	8.58	8.25		8.01	7.74	7.71	7.53	7.35	7.16	7.89		8.82	8.00	7.53
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.3	171.3				
Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)																			
CAA Hurdle Development (2019)																			
date	22-Aug-19	time	6.24	10.28	14.41	18.64	23.07		27.61	32.18	36.82	41.64	46.59		52.26		4 / 3		
reaction time	0.222	interval		4.04	4.13	4.23	4.43		4.54	4.57	4.64	4.82	4.95	5.67			12.40	13.54	14.41
		velocity	7.21	8.66	8.47	8.27	7.90		7.71	7.66	7.54	7.26	7.07	7.05	7.65		8.47	7.75	7.29
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)																			
CAA Hurdle Development (2019)																			
date	03-Aug-19	time	6.85	11.40	16.12	20.75	25.58		30.50	35.52	40.58	45.70	51.28		58.62		7 / 4		
reaction time	0.318	interval		4.55	4.72	4.63	4.83		4.92	5.02	5.06	5.12	5.58	7.34			13.90	14.77	15.76
		velocity	6.57	7.69	7.42	7.56	7.25		7.11	6.97	6.92	6.84	6.27	5.45	6.82		7.55	7.11	6.66
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	15	15	21	179				
FINAL - 2019 Chinese National Championships (Shenyang, CHN)																			
CAA Hurdle Development (2019)																			
date	10-Jul-19	time	6.02	9.93	13.84	17.92	22.08		26.44	30.85	35.39	39.97	44.69		50.04		6 / 2		
reaction time	0.175	interval		3.91	3.91	4.08	4.16		4.36	4.41	4.54	4.58	4.72	5.35	DQ		11.90	12.93	13.84
		velocity	7.48	8.95	8.95	8.58	8.41		8.03	7.94	7.71	7.64	7.42	7.48	7.99		8.82	8.12	7.59
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	17.5	170.5				
Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)																			
CAA Hurdle Development (2019)																			
date	09-Jul-19	time	6.08	10.05	13.99	18.07	22.19		26.54	30.95	35.50	40.21	45.06		50.72		6 / 1		
reaction time	0.166	interval		3.97	3.94	4.08	4.12		4.35	4.41	4.55	4.71	4.85	5.66	PB		11.99	12.88	14.11
		velocity	7.40	8.82	8.88	8.58	8.50		8.05	7.94	7.69	7.43	7.22	7.07	7.89		8.76	8.15	7.44
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.8	171.8				
FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)																			
CAA Hurdle Development (2019)																			
date	29-May-19	time	6.20	10.14	14.18	18.35	22.68		27.14	31.66	36.22	41.04	45.86		51.60		7 / 2		
reaction time	0.260	interval		3.94	4.04	4.17	4.33		4.46	4.52	4.56	4.82	4.82	5.74			12.15	13.31	14.20
		velocity	7.26	8.88	8.66	8.39	8.08		7.85	7.74	7.68	7.26	7.26	6.97	7.75		8.64	7.89	7.39
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)																			
CAA Hurdle Development (2019)																			
date	08-Apr-19	time	6.20	10.22	14.28	18.44	22.64		26.96	31.46	36.10	40.88	45.78		51.60		3 / 3		
reaction time	0.280	interval		4.02	4.06	4.16	4.20		4.32	4.50	4.64	4.78	4.90	5.82			12.24	13.02	14.32
		velocity	7.26	8.71	8.62	8.41	8.33		8.10	7.78	7.54	7.32	7.14	6.87	7.75		8.58	8.06	7.33
H1 lead leg	L	strides	21	16	16	16	16		15	15	15	15	15	18.5	178.5				
Wang Ziming (CHN) (1994)																			
FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)																			
CAA Hurdle Development (2019)																			
date	12-Apr-19	time	6.37	10.51	14.75	19.09	23.66		28.48	33.44	38.54	43.81	49.30		56.18		6 / 8		
reaction time	0.242	interval		4.14	4.24	4.34	4.57		4.82	4.96	5.10	5.27	5.49	6.88			12.72	14.35	15.86
		velocity	7.06	8.45	8.25	8.06	7.66		7.26	7.06	6.86	6.64	6.38	5.81	7.12		8.25	7.32	6.62
H1 lead leg	L	strides	21	16	16	16	16		15	16	16	16	16	18.7	182.7				
Warholm, Karsten (NOR) (1996)																			
FINAL - 2024 Kamila Skolimowska Memorial (Silesia, POL)																			
Omega Timing (2023) - diamond league race analysis																			
date	25-Aug-24	time	5.64	9.26	12.93	16.66	20.49		24.44	28.54	32.71	37.00	41.58		46.95		8 / 1		
reaction time	0.154	interval		3.62	3.67	3.73	3.83		3.95	4.10	4.17	4.29	4.58	5.37			11.02	11.88	13.04
		velocity	7.98	9.67	9.54	9.38	9.14		8.86	8.54	8.39	8.16	7.64	7.45	8.52		9.53	8.84	8.05
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.7	156.7				
FINAL - 2024 Olympic Games (Paris, FRA)																			
Paris 2024 Olympc Games - Results Book (2024)																			
date	09-Aug-24	time	5.51	9.09	12.73	16.41	20.18		24.03	27.99	32.15	36.58	41.44		47.06		7 / 2		
reaction time	0.152	interval		3.58	3.64	3.68	3.77		3.85	3.96	4.16	4.43	4.86	5.62			10.90	11.58	13.45
		velocity	8.17	9.78	9.62	9.51	9.28		9.09	8.84	8.41	7.90	7.20	7.12	8.50		9.63	9.07	7.81
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
Semi-Final 1 - 2024 Olympic Games (Paris, FRA)																			
Paris 2024 Olympc Games - Results Book (2024)																			
date	07-Aug-24	time	5.69	9.22	12.84	16.54	20.39		24.33	28.41	32.68	37.34	42.11		47.67		7 / 1		
reaction time	0.279	interval		3.53	3.62	3.70	3.85		3.94	4.08	4.27	4.66	4.77	5.56			10.85	11.87	13.70
		velocity	7.91	9.92	9.67	9.46	9.09		8.88	8.58	8.20	7.51	7.34	7.19	8.39		9.68	8.85	7.66
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.2	158.2				
Heat 2 - 2024 Olympic Games (Paris, FRA)																			
Paris 2024 Olympc Games - Results Book (2024)																			
date	05-Aug-24	time	5.62	9.14	12.80	16.55	20.41		24.38	28.47	32.76	37.47	42.24		47.57		5 / 1		
reaction time	0.148	interval		3.52	3.66	3.75	3.86		3.97	4.09	4.29	4.71	4.77	5.33			10.93	11.92	13.77
		velocity	8.01	9.94	9.56	9.33	9.07		8.82	8.56	8.16	7.43	7.34	7.50	8.41		9.61	8.81	7.63
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17	158				

FINAL - 2024 Herculis Meeting International d'Athlétisme (Monaco, MON)

Omega Timing (2024) - diamond league race analysis

date	12-Jul-24	time	5.66	9.20	12.79	16.48	20.31	24.25	28.30	32.50	36.88	41.41	46.73	7 / 2				
reaction time	0.164	interval		3.54	3.59	3.69	3.83	3.94	4.05	4.20	4.38	4.53	5.32		10.82	11.82	13.11	
		velocity	7.95	9.89	9.75	9.49	9.14	8.88	8.64	8.33	7.99	7.73	7.52	8.56		9.70	8.88	8.01
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157				

FINAL - 2024 European Athletics Championships (Roma, ITA)

European Athletics (2024) - 2024 european athletics championships - results book

date	11-Jun-24	time	5.62	9.12	12.81	16.51	20.35	24.24	28.21	32.36	36.93	41.56	46.98	8 / 1				
reaction time	0.184	interval		3.50	3.69	3.70	3.84	3.89	3.97	4.15	4.57	4.63	5.42	CR	10.89	11.70	13.35	
		velocity	8.01	10.00	9.49	9.46	9.11	9.00	8.82	8.43	7.66	7.56	7.38	8.51		9.64	8.97	7.87
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18	157				

Semi-Final 1 - 2024 European Athletics Championships (Roma, ITA)

European Athletics (2024) - 2024 european athletics championships - results book

date	10-Jun-24	time	5.65	9.20	12.96	16.75	20.71	24.83	28.99	33.27	37.97	42.74	48.75	8 / 1				
reaction time	0.185	interval		3.55	3.76	3.79	3.96	4.12	4.16	4.28	4.70	4.77	6.01		11.10	12.24	13.75	
		velocity	7.96	9.86	9.31	9.23	8.84	8.50	8.41	8.18	7.45	7.34	6.66	8.21		9.46	8.58	7.64
H1 lead leg		strides											0					

FINAL - 2024 Bislett Games (Oslo, NOR) (TV Analysis)

Henson (2024) - Athlete First: 2024 year end hurdle report

date	30-May-24	time	5.70	9.21	12.81	16.45	20.22	24.19	28.19	32.40	36.83	41.37	46.70	7 / 2				
reaction time	0.157	interval		3.51	3.60	3.64	3.77	3.97	4.00	4.21	4.43	4.54	5.33		10.75	11.74	13.18	
		velocity	7.89	9.97	9.72	9.62	9.28	8.82	8.75	8.31	7.90	7.71	7.50	8.57		9.77	8.94	7.97
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	14	18	157				

FINAL - 2024 Trond Mohn Games (Bergen, NOR) (300m Hurdles) (TV Analysis)

Henson (2024) - Athlete First: 2024 year end hurdle report

date	22-May-24	time	6.21	9.61	13.20	16.83	20.60	24.53	28.56				33.28	7 / 1			
reaction time		interval		3.40	3.59	3.63	3.77	3.93	4.03				4.72		10.62	11.73	
		velocity	7.25	10.29	9.75	9.64	9.28	8.91	8.68				8.47	9.01		9.89	8.95
H1 lead leg	L	strides	22	13	13	13	13	13	13				17	117			

FINAL - 2023 Prefontaine Classic (Eugene, OR)

Omega Timing (2023) - diamond league race analysis

date	16-Sep-23	time	5.59	9.17	12.80	16.46	20.22	24.10	28.12	32.37	36.62	41.18	46.53	7 / 2				
reaction time	0.135	interval		3.58	3.63	3.66	3.76	3.88	4.02	4.25	4.25	4.56	5.35		10.87	11.66	13.06	
		velocity	8.05	9.78	9.64	9.56	9.31	9.02	8.71	8.24	8.24	7.68	7.48	8.60		9.66	9.01	8.04
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157				

FINAL - 2023 Weltklasse (Zürich, SUI)

Omega Timing (2023) - diamond league race analysis

date	31-Aug-23	time	5.63	9.23	12.94	16.69	20.55	24.50	28.55	32.78	37.30	41.91	47.30	7 / 2				
reaction time	0.169	interval		3.60	3.71	3.75	3.86	3.95	4.05	4.23	4.52	4.61	5.39		11.06	11.86	13.36	
		velocity	7.99	9.72	9.43	9.33	9.07	8.86	8.64	8.27	7.74	7.59	7.42	8.46		9.49	8.85	7.86
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159				

FINAL - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

Henson (2023) - Athlete First: 2023 year end hurdle report

date	23-Aug-23	time	5.81	9.46	12.90	16.52	20.29	24.25	28.29	32.50	36.93	41.61	46.89	7 / 1				
reaction time	0.171	interval		3.65	3.44	3.62	3.77	3.96	4.04	4.21	4.43	4.68	5.28		10.71	11.77	13.32	
		velocity	7.75	9.59	10.17	9.67	9.28	8.84	8.66	8.31	7.90	7.48	7.58	8.53		9.80	8.92	7.88
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157				

Semi-Final 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

Henson (2023) - Athlete First: 2023 year end hurdle report

date	21-Aug-23	time	5.77	9.44	13.08	16.61	20.42	24.36	28.42	32.63	37.25	41.97	47.09	5 / 1				
reaction time	0.162	interval		3.67	3.64	3.53	3.81	3.94	4.06	4.21	4.62	4.72	5.12		10.84	11.81	13.55	
		velocity	7.80	9.54	9.62	9.92	9.19	8.88	8.62	8.31	7.58	7.42	7.81	8.49		9.69	8.89	7.75
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17	158				

Heat 3 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

Henson (2023) - Athlete First: 2023 year end hurdle report

date	20-Aug-23	time	5.86	9.66	13.40	17.20	20.93	24.93	29.13	33.44	38.20	43.13	48.76	3 / 2				
reaction time	0.166	interval		3.80	3.74	3.80	3.73	4.00	4.20	4.31	4.76	4.93	5.63		11.34	11.93	14.00	
		velocity	7.68	9.21	9.36	9.21	9.38	8.75	8.33	8.12	7.35	7.10	7.10	8.20		9.26	8.80	7.50
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17	158				

FINAL - 2023 Herculis Meeting International d'Athlétisme (Monaco, MON)

Omega Timing (2023) - diamond league race analysis

date	21-Jul-23	time	5.55	9.05	12.62	16.26	20.02	23.95	28.03	32.24	36.65	41.21	46.51	7 / 1				
reaction time	0.146	interval		3.50	3.57	3.64	3.76	3.93	4.08	4.21	4.41	4.56	5.30		10.71	11.77	13.18	
		velocity	8.11	10.00	9.80	9.62	9.31	8.91	8.58	8.31	7.94	7.68	7.55	8.60		9.80	8.92	7.97
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17.7	156.7				

FINAL - 2023 Bauhaus Galan (Stockholm, SWE)

Omega Timing (2023) - diamond league race analysis

date	02-Jul-23	time	5.61	9.17	12.77	16.43	20.24	24.22	28.33	32.70	37.28	42.02	47.57	8 / 1				
reaction time	0.156	interval		3.56	3.60	3.66	3.81	3.98	4.11	4.37	4.58	4.74	5.55		10.82	11.90	13.69	
		velocity	8.02	9.83	9.72	9.56	9.19	8.79	8.52	8.01	7.64	7.38	7.21	8.41		9.70	8.82	7.67
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17.7	156.7				

FINAL - 2023 Bislett Games (Oslo, NOR)

Omega Timing (2023) - diamond league race analysis

date	15-Jun-23	time	5.59	9.16	12.76	16.41	20.17	24.05	28.07	32.27	36.63	41.20	46.52	7 / 1				
reaction time	0.162	interval		3.57	3.60	3.65	3.76	3.88	4.02	4.20	4.36	4.57	5.32		10.82	11.66	13.13	
		velocity	8.05	9.80	9.72	9.59	9.31	9.02	8.71	8.33	8.03	7.66	7.52	8.60		9.70	9.01	8.00
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	17.7	156.7				

FINAL - 2022 ISTAF (Berlin, GER) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>							
date	04-Sep-22	time	5.76	9.28	12.88	16.60	20.36		24.32	28.48	32.76	37.24	41.96	47.24	7 / 1					
reaction time	0.139	interval		3.52	3.60	3.72	3.76		3.96	4.16	4.28	4.48	4.72	5.28		10.84	11.88	13.48		
		velocity	7.81	9.94	9.72	9.41	9.31		8.84	8.41	8.18	7.81	7.42	7.58	8.47	9.69	8.84	7.79		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157					
FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>							
date	19-Aug-22	time	5.77	9.27	13.03	16.72	20.57	22.14	24.59	28.68	32.93	37.30	41.99	47.12	4 / 1					
reaction time	0.215	interval		3.50	3.76	3.69	3.85		4.02	4.09	4.25	4.37	4.69	5.13	CR	10.95	11.96	13.31		
		velocity	7.80	10.00	9.31	9.49	9.09	9.03	8.71	8.56	8.24	8.01	7.46	7.80	8.49	9.59	8.78	7.89		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.2	156.2					
FINAL - 2022 World Athletics Championships (Eugene, OR)													<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>							
date	19-Jul-22	time	5.71	9.19	12.71	16.32	19.99	21.50	23.81	27.96	32.48	37.35	42.38	48.42	4 / 7					
reaction time	0.140	interval		3.48	3.52	3.61	3.67		3.82	4.15	4.52	4.87	5.03	6.04		10.61	11.64	14.42		
		velocity	7.88	10.06	9.94	9.70	9.54	9.30	9.16	8.43	7.74	7.19	6.96	6.62	8.26	9.90	9.02	7.28		
H1 lead leg	L	strides	20	13	13	13	13		13	13	15	15	15	18.5	161.5					
Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>							
date	17-Jul-22	time	5.63	9.10	12.86	16.40	20.20	21.83	24.13	28.30	32.66	37.40	42.20	48.00	5 / 1					
reaction time	0.169	interval		3.47	3.76	3.54	3.80		3.93	4.17	4.36	4.74	4.80	5.80		10.77	11.90	13.90		
		velocity	7.99	10.09	9.31	9.89	9.21	9.16	8.91	8.39	8.03	7.38	7.29	6.90	8.33	9.75	8.82	7.55		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.7	158.7					
Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>							
date	16-Jul-22	time	5.66	9.27	13.03	16.90	20.86	22.47	24.90	29.20	33.63	38.46	43.46	49.34	3 / 1					
reaction time	0.164	interval		3.61	3.76	3.87	3.96		4.04	4.30	4.43	4.83	5.00	5.88		11.24	12.30	14.26		
		velocity	7.95	9.70	9.31	9.04	8.84	8.90	8.66	8.14	7.90	7.25	7.00	6.80	8.11	9.34	8.54	7.36		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17.5	158.5					
FINAL - FINAL - 2022 Prefontaine Classic (Eugene, OR) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>							
date	05-Jun-22	time	5.67																	
reaction time	0.163	interval																		
		velocity	7.94																	
H1 lead leg	L	strides	20											20						
FINAL - 2021 ISTAF (Berlin, GER) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>							
date	12-Sep-21	time	5.76	9.28	12.96	16.70	20.56		24.56	28.76	33.12	37.80	42.54	48.08	7 / 1					
reaction time	0.189	interval		3.52	3.68	3.74	3.86		4.00	4.20	4.36	4.68	4.74	5.54		10.94	12.06	13.78		
		velocity	7.81	9.94	9.51	9.36	9.07		8.75	8.33	8.03	7.48	7.38	7.22	8.32	9.60	8.71	7.62		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18.5	159.5					
FINAL - 2021 Weltklasse (Zürich, SUI) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	09-Sep-21	time	5.72	9.28	12.96	16.72	20.56	22.1	24.56	28.68	32.88	37.44	42.08	47.35	7 / 1					
reaction time	0.150	interval		3.56	3.68	3.76	3.84		4.00	4.12	4.20	4.56	4.64	5.27		11.00	11.96	13.40		
		velocity	7.87	9.83	9.51	9.31	9.11	9.05	8.75	8.50	8.33	7.68	7.54	7.59	8.45	9.55	8.78	7.84		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159					
FINAL - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	03-Aug-21	time	5.60	9.08	12.62	16.28	19.96		23.86	27.92	32.04	36.32	40.76	45.94	6 / 1					
reaction time	0.145	interval		3.48	3.54	3.66	3.68		3.90	4.06	4.12	4.28	4.44	5.18	WR	10.68	11.64	12.84		
		velocity	8.04	10.06	9.89	9.56	9.51		8.97	8.62	8.50	8.18	7.88	7.72	8.71	9.83	9.02	8.18		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157					
Semi-Final 1 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	01-Aug-21	time	5.60	9.14	12.76	16.51	20.42		24.42	28.59	32.93	37.32	42.07	47.30	7 / 1					
reaction time	0.156	interval		3.54	3.62	3.75	3.91		4.00	4.17	4.34	4.39	4.75	5.23		10.91	12.08	13.48		
		velocity	8.04	9.89	9.67	9.33	8.95		8.75	8.39	8.06	7.97	7.37	7.65	8.46	9.62	8.69	7.79		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.5	156.5					
Heat 3 - 2020 Olympic Games (Tokyo, JPN) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	30-Jul-21	time	5.67	9.31	13.04	16.98	21.02		25.16	29.36	33.66	38.30	43.02	48.65	8 / 1					
reaction time	0.157	interval		3.64	3.73	3.94	4.04		4.14	4.20	4.30	4.64	4.72	5.63		11.31	12.38	13.66		
		velocity	7.94	9.62	9.38	8.88	8.66		8.45	8.33	8.14	7.54	7.42	7.10	8.22	9.28	8.48	7.69		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	17	158					
FINAL - 2021 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	09-Jul-21	time	5.62	9.12	12.74	16.51	20.38	22.0	24.36	28.49	32.74	37.17	41.87	47.08	7 / 1					
reaction time	0.150	interval		3.50	3.62	3.77	3.87		3.98	4.13	4.25	4.43	4.70	5.21		10.89	11.98	13.38		
		velocity	8.01	10.00	9.67	9.28	9.04	9.09	8.79	8.47	8.24	7.90	7.45	7.68	8.50	9.64	8.76	7.85		
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157					
FINAL - 2021 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>							
date	01-Jul-21	time	5.58	9.10	12.70	16.34	20.16		24.08	28.18	32.38	36.78	41.44	46.70	7 / 1					
reaction time	0.163	interval		3.52	3.60	3.64	3.82		3.92	4.10	4.20	4.40	4.66	5.26	WR	10.76	11.84	13.26		
		velocity	8.06	9.94	9.72	9.62	9.16		8.93	8.54	8.33	7.95	7.51	7.60	8.57	9.76	8.87	7.92		

H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	13	13	18	155					
FINAL - 2021 Bislett Night of Highlights (Oslo, NOR) (TV Analysis) (300m Hurdles)																<i>Henson (2021) - Athlete First: 2021 Karsten Warholm 400m Hurdles World Record Season</i>				
date	04-Jun-21	time	6.12	9.60	13.16	16.78	20.60	24.52	28.58						33.26	7 / 1				
reaction time		interval		3.48	3.56	3.62	3.82	3.92	4.06					4.68	WB PB		10.66	11.80		
		velocity	8.17	10.06	9.83	9.67	9.16	8.93	8.62					8.55	9.02		9.85	8.90		
H1 lead leg	L	strides	23	13	13	13	13	13	13					17	118					
FINAL - 2020 Norveigen National Championships (Bergen, NOR) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	20-Sep-20	time	5.73	9.33	13.07	16.87	20.80	24.83	29.03	33.30	37.93	42.67			48.23	7 / 1				
reaction time		interval		3.60	3.74	3.80	3.93	4.03	4.20	4.27	4.63	4.74	5.56				11.14	12.16	13.64	
		velocity	7.85	9.72	9.36	9.21	8.91	8.68	8.33	8.20	7.56	7.38	7.19	8.29			9.43	8.63	7.70	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.5	158.5						
FINAL - 2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	17-Sep-20	time	5.64	9.24	12.95	16.75	20.65	22.3	24.66	28.80	33.07	37.47	41.91		47.07	7 / 1				
reaction time	0.158	interval		3.60	3.71	3.80	3.90	4.01	4.14	4.27	4.40	4.44	5.16				11.11	12.05	13.11	
		velocity	7.98	9.72	9.43	9.21	8.97	8.73	8.45	8.20	7.95	7.88	7.75	8.50			9.45	8.71	8.01	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157						
FINAL - 2020 ISTAF (Berlin, GER) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	13-Sep-20	time	5.64	9.24	12.88	16.64	20.56	24.56	28.68	32.92	37.24	41.88		47.08	7 / 1					
reaction time	0.190	interval		3.60	3.64	3.76	3.92	4.00	4.12	4.24	4.32	4.64	5.20				11.00	12.04	13.20	
		velocity	7.98	9.72	9.62	9.31	8.93	8.75	8.50	8.25	8.10	7.54	7.69	8.50			9.55	8.72	7.95	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157						
FINAL - 2020 Golden Spike (Ostrava, CZE) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	08-Sep-20	time	5.77	9.37	13.05	16.82	20.65	24.69	28.89	33.13	37.77	42.37		47.62	8 / 1					
reaction time	0.168	interval		3.60	3.68	3.77	3.83	4.04	4.20	4.24	4.64	4.60	5.25				11.05	12.07	13.48	
		velocity	7.80	9.72	9.51	9.28	9.14	8.66	8.33	8.25	7.54	7.61	7.62	8.40			9.50	8.70	7.79	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18	159						
FINAL - 2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	23-Aug-20	time	5.58	9.14	12.80	16.60	20.44	22.2	24.42	28.48	32.64	36.94	41.48		46.87	8 / 1				
reaction time	0.161	interval		3.56	3.66	3.80	3.84	3.98	4.06	4.16	4.30	4.54	5.39	AR PB			11.02	11.88	13.00	
		velocity	8.06	9.83	9.56	9.21	9.11	9.01	8.79	8.62	8.41	8.14	7.71	7.42	8.53		9.53	8.84	8.08	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18	157						
FINAL - 2020 Herculis Meeting International d' Athletisme (Monaco, MON) (TV Analysis)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	14-Aug-20	time	5.60	9.27	13.11	16.98	20.92	25.02	29.23	33.47	37.80	42.17		47.10	7 / 1					
reaction time	0.132	interval		3.67	3.84	3.87	3.94	4.10	4.21	4.24	4.33	4.37	4.93				11.38	12.25	12.94	
		velocity	8.04	9.54	9.11	9.04	8.88	8.54	8.31	8.25	8.08	8.01	8.11	8.49			9.23	8.57	8.11	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	13	17	154						
FINAL - 2020 Impossible Games (Oslo, NOR) (TV Analysis) (300m Hurdles)																<i>Henson (2020) - Athlete First: 2020 year end hurdle report</i>				
date	11-Jun-20	time	6.24	9.74	13.38	17.15	21.02	25.02	29.13						33.78	7 / 1				
reaction time	0.182	interval		3.50	3.64	3.77	3.87	4.00	4.11					4.65	WB PB		10.91	11.98		
		velocity	8.01	10.00	9.62	9.28	9.04	8.75	8.52					8.60	8.88		9.62	8.76		
H1 lead leg	L	strides	20	13	13	13	13	13	13					16.5	114.5					
FINAL - 2019 IAAF World Championships (Doha, QAT)																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	30-Sep-19	time	5.75	9.29	12.93	16.68	20.56	24.56	28.68	32.91	37.40	42.01		47.42	4 / 1					
reaction time	0.164	interval		3.54	3.64	3.75	3.88	4.00	4.12	4.23	4.49	4.61	5.41				10.93	12.00	13.33	
		velocity	7.83	9.89	9.62	9.33	9.02	8.75	8.50	8.27	7.80	7.59	7.39	8.44			9.61	8.75	7.88	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	18.2	157.2						
Semi-Final 2 - 2019 IAAF World Championships (Doha, QAT)																<i>Kakehata (2019) - race analysis of men's 400m hurdles 2019 World Championships</i>				
date	28-Sep-19	time	5.73	9.33	13.00	16.74	20.60	24.68	28.91	33.24	37.88	42.61		48.28	4 / 1					
reaction time	0.154	interval		3.60	3.67	3.74	3.86	4.08	4.23	4.33	4.64	4.73	5.67				11.01	12.17	13.70	
		velocity	7.85	9.72	9.54	9.36	9.07	8.58	8.27	8.08	7.54	7.40	7.05	8.29			9.54	8.63	7.66	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.2	158.2						
Heat 1 - 2019 IAAF World Championships (Doha, QAT) (TV Analysis)																<i>Henson (2021) - Athlete First: 2021 year end hurdle report</i>				
date	27-Sep-19	time	5.72	9.48	13.28	17.16	21.24		29.68	34.04	38.76	43.64		49.27	4 / 1					
reaction time	0.161	interval		3.76	3.80	3.88	4.08		8.44	4.36	4.72	4.88	5.63				11.44	12.52	13.96	
		velocity	7.87	9.31	9.21	9.02	8.58		8.29	8.03	7.42	7.17	7.10	8.12			9.18	8.39	7.52	
H1 lead leg	L	strides	20	13	13	13	13			13	15	15	17	132						
FINAL - 2019 Weltklasse (Zürich, SUI) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	29-Aug-19	time	5.66	9.16	12.76	16.40	20.22	21.9	24.18	28.32	32.56	37.08	41.62		46.92	7 / 1				
reaction time	0.140	interval		3.50	3.60	3.64	3.82	3.96	4.14	4.24	4.52	4.54	5.30	AR PB			10.74	11.92	13.30	
		velocity	7.95	10.00	9.72	9.62	9.16	9.13	8.84	8.45	8.25	7.74	7.71	7.55	8.53		9.78	8.81	7.89	
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	13	15	15	18.2	159.2					
FINAL - 2019 Meeting de Paris (Paris, FRA) (TV Analysis)																<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	24-Aug-19	time	5.64	9.24	12.86	16.59	20.42	22.1	24.48	28.66	32.92	37.35	41.96		47.26	7 / 1				
reaction time	0.157	interval		3.60	3.62	3.73	3.83	4.06	4.18	4.26	4.43	4.61	5.30				10.95	12.07	13.30	

H1 lead leg	L	velocity	7.98	9.72	9.67	9.38	9.14	9.05	8.62	8.37	8.22	7.90	7.59	7.55	8.46	9.59	8.70	7.89	
		strides	20	13	13	13	13		13	13	13	13	13	18	155				
FINAL - 2019 Norwegian National Championships (Hamar, NOR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	02-Aug-19	time	5.76	9.40	13.16	17.02	21.00		25.08	29.28	33.56	37.96	42.36		47.43	7 / 1			
reaction time		interval		3.64	3.76	3.86	3.98		4.08	4.20	4.28	4.40	4.40	5.07			11.26	12.26	13.08
		velocity	7.81	9.62	9.31	9.07	8.79		8.58	8.33	8.18	7.95	7.95	7.89	8.43		9.33	8.56	8.03
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	13	17.2	154.2				
FINAL - 2019 Müller Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	20-Jul-19	time	5.72	9.24	12.84	16.56	20.40	22.0	24.44	28.56	32.88	37.28	41.92		47.12	7 / 1			
reaction time	0.160	interval		3.52	3.60	3.72	3.84		4.04	4.12	4.32	4.40	4.64	5.20	AR PB		10.84	12.00	13.36
		velocity	7.87	9.94	9.72	9.41	9.11	9.09	8.66	8.50	8.10	7.95	7.54	7.69	8.49		9.69	8.75	7.86
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	18	156				
FINAL - 2019 Bislett Games (Oslo, NOR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	13-Jun-19	time	5.58	9.14	12.84	16.64	20.61	22.3	24.64	28.88	33.12	37.52	42.03		47.33	7 / 1			
reaction time	0.148	interval		3.56	3.70	3.80	3.97		4.03	4.24	4.24	4.40	4.51	5.30	AR PB		11.06	12.24	13.15
		velocity	8.06	9.83	9.46	9.21	8.82	8.97	8.68	8.25	8.25	7.95	7.76	7.55	8.45		9.49	8.58	7.98
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	18	157				
FINAL - 2019 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2019 year end hurdle report</i>				
date	30-May-19	time	5.73	9.33	13.10	17.00	20.93	22.5	25.00	29.16	33.40	37.86	42.48		47.85	7 / 1			
reaction time	0.146	interval		3.60	3.77	3.90	3.93		4.07	4.16	4.24	4.46	4.62	5.37			11.27	12.16	13.32
		velocity	7.85	9.72	9.28	8.97	8.91	8.89	8.60	8.41	8.25	7.85	7.58	7.45	8.36		9.32	8.63	7.88
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.7	156.7				
FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)															<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>				
date	08-Sep-18	time	5.76	9.40	13.12	17.00	21.00		25.08	29.32	33.76	38.48	43.24		48.56	4 / 3			
reaction time	0.175	interval		3.64	3.72	3.88	4.00		4.08	4.24	4.44	4.72	4.76	5.32			11.24	12.32	13.92
		velocity	7.81	9.62	9.41	9.02	8.75		8.58	8.25	7.88	7.42	7.35	7.52	8.24		9.34	8.52	7.54
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
FINAL - 2018 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	30-Aug-18	time	5.64	9.28	13.00	16.84	20.84	22.6	24.92	29.16	33.52	38.12	42.80		48.10	5 / 2			
reaction time	0.135	interval		3.64	3.72	3.84	4.00		4.08	4.24	4.36	4.60	4.68	5.30			11.20	12.32	13.64
		velocity	7.98	9.62	9.41	9.11	8.75	8.85	8.58	8.25	8.03	7.61	7.48	7.55	8.32		9.38	8.52	7.70
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
FINAL - 2018 Müller Anniversary Games (London, GBR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	21-Jul-18	time	5.72	9.36	13.12	17.00	20.92		24.92	29.04	33.28	37.68	42.32		47.65	7 / 1			
reaction time	0.149	interval		3.64	3.76	3.88	3.92		4.00	4.12	4.24	4.40	4.64	5.33	NR PB		11.28	12.04	13.28
		velocity	7.87	9.62	9.31	9.02	8.93		8.75	8.50	8.25	7.95	7.54	7.50	8.39		9.31	8.72	7.91
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.5	156.5				
FINAL - 2018 Athletissima (Lausanne, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	05-Jul-18	time	5.72	9.32	13.00	16.84	20.76		24.84	29.04	33.32	37.88	42.52		47.94	6 / 2			
reaction time	0.133	interval		3.60	3.68	3.84	3.92		4.08	4.20	4.28	4.56	4.64	5.42			11.12	12.20	13.48
		velocity	7.87	9.72	9.51	9.11	8.93		8.58	8.33	8.18	7.68	7.54	7.38	8.34		9.44	8.61	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
FINAL - 2018 Meeting de Paris (Paris, FRA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	30-Jun-18	time	5.72	9.32	13.04	16.84	20.72	22.5	24.76	28.84	33.08	37.44	42.44		48.06	7 / 3			
reaction time	0.158	interval		3.60	3.72	3.80	3.88		4.04	4.08	4.24	4.36	5.00	5.62			11.12	12.00	13.60
		velocity	7.87	9.72	9.41	9.21	9.02	8.89	8.66	8.58	8.25	8.03	7.00	7.12	8.32		9.44	8.75	7.72
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	15	17.7	156.7				
FINAL - 2018 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	10-Jun-18	time	5.68	9.36	13.20	17.08	21.12		25.20	29.36	33.68	38.00	42.44		47.81	7 / 2			
reaction time	0.134	interval		3.68	3.84	3.88	4.04		4.08	4.16	4.32	4.32	4.44	5.37	NR PB		11.40	12.28	13.08
		velocity	7.92	9.51	9.11	9.02	8.66		8.58	8.41	8.10	8.10	7.88	7.45	8.37		9.21	8.55	8.03
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	15	15	18	159				
FINAL - 2018 Bislett Games (Oslo, NOR) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	07-Jun-18	time	5.68	9.24	12.96	16.80	20.80	22.6	24.88	29.16	33.48	37.92	42.64		48.22	7 / 2			
reaction time	0.165	interval		3.56	3.72	3.84	4.00		4.08	4.28	4.32	4.44	4.72	5.58			11.12	12.36	13.48
		velocity	7.92	9.83	9.41	9.11	8.75	8.85	8.58	8.18	8.10	7.88	7.42	7.17	8.30		9.44	8.50	7.79
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	17.5	155.5				
FINAL - 2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)															<i>Henson (2020) - Athlete First: 2018 year end hurdle report</i>				
date	31-May-18	time	5.68	9.24	12.92	16.76	20.68		24.80	28.96	33.24	37.68	42.40		47.82	7 / 2			
reaction time	0.155	interval		3.56	3.68	3.84	3.92		4.12	4.16	4.28	4.44	4.72	5.42	NR PB		11.08	12.20	13.44
		velocity	7.92	9.83	9.51	9.11	8.93		8.50	8.41	8.18	7.88	7.42	7.38	8.36		9.48	8.61	7.81
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	13	14	17.5	155.5				
FINAL - 2017 Weltklasse (Zürich, SUI) (TV Analysis)															<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>				
date	24-Aug-17	time	5.76	9.32	13.00	16.80	20.76		24.84	29.08	33.52	38.28	43.00		48.22	6 / 2			

reaction time	0.164	interval	3.56	3.68	3.80	3.96	4.08	4.24	4.44	4.76	4.72	5.22	NR PB	11.04	12.28	13.92				
		velocity	7.81	9.83	9.51	9.21	8.84	8.58	8.25	7.88	7.35	7.42	7.66	8.30	9.51	8.55	7.54			
H1 lead leg	L	strides	20	13	13	13	13	13	13	15		15	17.7							
FINAL - 2017 IAAF World Championships (London, GBR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	09-Aug-17	time	5.68	9.32	13.04	16.80	20.64	24.72	28.96	33.40	38.04	42.84	48.35	5 / 1						
reaction time	0.175	interval		3.64	3.72	3.76	3.84	4.08	4.24	4.44	4.64	4.80	5.51		11.12	12.16	13.88			
		velocity	7.92	9.62	9.41	9.31	9.11	8.58	8.25	7.88	7.54	7.29	7.26	8.27	9.44	8.63	7.56			
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	18.5	159.5						
FINAL - 2017 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	18-Jun-17	time	5.76	9.48	13.24	17.04	21.00	25.20	29.44	33.92	38.68	43.44	48.82	7 / 1						
reaction time	0.139	interval		3.72	3.76	3.80	3.96	4.20	4.24	4.48	4.76	4.76	5.38		11.28	12.40	14.00			
		velocity	7.81	9.41	9.31	9.21	8.84	8.33	8.25	7.81	7.35	7.35	7.43	8.19	9.31	8.47	7.50			
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.7	158.7						
FINAL - 2017 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>							
date	15-Jun-17	time	5.86	9.46	13.06	16.93	20.86	25.00	29.30	33.56	38.20	42.90	48.25	7 / 1						
reaction time	0.149	interval		3.60	3.60	3.87	3.93	4.14	4.30	4.26	4.64	4.70	5.35	NR PB	11.07	12.37	13.60			
		velocity	7.68	9.72	9.72	9.04	8.91	8.45	8.14	8.22	7.54	7.45	7.48	8.29	9.49	8.49	7.72			
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	15	15	17.5	158.5						
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)													<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>							
date	08-Jul-16	time	5.88	9.52	13.36	17.36	21.40	25.60	29.76	34.16	39.04	44.08	49.82	4 / 6						
reaction time	0.153	interval		3.64	3.84	4.00	4.04	4.20	4.16	4.40	4.88	5.04	5.74		11.48	12.40	14.32			
		velocity	7.65	9.62	9.11	8.75	8.66	8.33	8.41	7.95	7.17	6.94	6.97	8.03	9.15	8.47	7.33			
H1 lead leg	L	strides	20	13	13	13	13	13	13	13	14	15	18	145						
FINAL - 2016 Bislett Games (Oslo, NOR) (TV Analysis)													<i>Henson (2021) - Athlete First: 2016 year end hurdle report</i>							
date	09-Jun-16	time	5.92	9.72	13.64	17.60	21.80	26.00	30.36	34.96	39.76	44.60	49.80	7 / 5						
reaction time	0.163	interval		3.80	3.92	3.96	4.20	4.20	4.36	4.60	4.80	4.84	5.20		11.68	12.76	14.24			
		velocity	7.60	9.21	8.93	8.84	8.33	8.33	8.03	7.61	7.29	7.23	7.69	8.03	8.99	8.23	7.37			
H1 lead leg	L	strides	20	13	13	13	13	13	13	15	15	15	143							
Watanabe, Shun (JPN) (2006)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2024 Japanese National High School Championships (Fukuoka, JPN)													<i>Takashima (2024) - national high school sports festival - biomechanics data</i>							
date	30-Jul-24	time	6.36	10.39	14.50	18.75	23.09	27.46	32.13	37.05	42.09	47.18	52.87	2 / 7						
reaction time	0.277	interval		4.03	4.11	4.25	4.34	4.37	4.67	4.92	5.04	5.09	5.69		12.39	13.38	15.05			
		velocity	7.08	8.68	8.52	8.24	8.06	8.01	7.49	7.11	6.94	6.88	7.03	7.57	8.47	7.85	6.98			
H1 lead leg		strides	23	15	15	15	15	15	15	15	17	17	17	20	184					
Watanabe, Yoshihiro (JPN) (1997)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2015 Japanese National Junior Championships (Nagoya, JPN)													<i>Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan</i>							
date	18-Oct-15	time	6.01	9.75	13.64	17.68	21.78	26.08	30.52	35.02	39.66	44.50	49.97	5 / 1						
reaction time		interval		3.74	3.89	4.04	4.10	4.30	4.44	4.50	4.64	4.84	5.47	PB	11.67	12.84	13.98			
		velocity	7.49	9.36	9.00	8.66	8.54	8.14	7.88	7.78	7.54	7.23	7.31	8.00	9.00	8.18	7.51			
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131						
Watrin, Julien (BEL) (1992)			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Semi-Final 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>							
date	21-Aug-23	time	5.90	9.66	13.43	17.13	21.00	25.13	29.46	34.16	38.83	43.55	48.94	3 / 5						
reaction time	0.205	interval		3.76	3.77	3.70	3.87	4.13	4.33	4.70	4.67	4.72	5.39		11.23	12.33	14.09			
		velocity	7.63	9.31	9.28	9.46	9.04	8.47	8.08	7.45	7.49	7.42	7.42	8.17	9.35	8.52	7.45			
H1 lead leg	R	strides	20	13	13	13	13	13	13	14	15	15	18	147						
Heat 4 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)													<i>Henson (2023) - Athlete First: 2023 year end hurdle report</i>							
date	20-Aug-23	time	5.93	9.70	13.46	17.30	21.06	25.07		33.63	38.27	43.10	48.72	6 / 5						
reaction time	0.230	interval		3.77	3.76	3.84	3.76	4.01		8.56	4.64	4.83	5.62		11.37					
		velocity	7.59	9.28	9.31	9.11	9.31	8.73		8.18	7.54	7.25	7.12	8.21	9.23					
H1 lead leg	R	strides	20	13	13	13	13	13	13		14	14	19	132						
FINAL - 2023 Bislett Games (Oslo, NOR)													<i>Omega Timing (2023) - diamond league race analysis</i>							
date	15-Jun-23	time	5.80	9.44	13.24	17.10	21.04	25.21	29.58	34.10	38.87	43.71	49.45	1 / 8						
reaction time	0.209	interval		3.64	3.80	3.86	3.94	4.17	4.37	4.52	4.77	4.84	5.74		11.30	12.48	14.13			
		velocity	7.76	9.62	9.21	9.07	8.88	8.39	8.01	7.74	7.34	7.23	6.97	8.09	9.29	8.41	7.43			
H1 lead leg	R	strides	20			13	13	15			14	15	90							
FINAL - 2023 FBK Games (Hengelo, NED)													<i>Omega Timing (2023) - continental tour race analysis</i>							
date	04-Jun-23	time	5.94	9.66	13.50	17.37	21.40	25.58	30.04	34.64	39.41	44.28	49.92	4 / 7						
reaction time	0.242	interval		3.72	3.84	3.87	4.03	4.18	4.46	4.60	4.77	4.87	5.64		11.43	12.67	14.24			
		velocity	7.58	9.41	9.11	9.04	8.68	8.37	7.85	7.61	7.34	7.19	7.09	8.01	9.19	8.29	7.37			
H1 lead leg	R	strides	20	13							14	15	80							
FINAL - 2022 Weltklasse (Zürich, SUI) (TV Analysis)													<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>							
date	08-Sep-22	time	5.77	9.41		17.15	21.15	22.77	25.29	29.50	33.90	38.60	43.44	49.08	8 / 5					
reaction time	0.183	interval		3.64		7.74	4.00	4.14	4.21	4.40	4.70	4.84	5.64		11.38	12.35	13.94			
		velocity	7.80	9.62		9.04	8.75	8.78	8.45	8.31	7.95	7.45	7.23	7.09	8.15	9.23	8.50	7.53		

H1 lead leg	R	strides	20	13				13	13	13	14	15	15	17.7	133.7						
FINAL - 2022 Memorial van Damme (Brussels, BEL) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	02-Sep-22	time	5.84	9.47	13.21	17.02	20.89	22.59	24.89	29.16	33.56	38.20	43.07		48.66		7 / 5 4				
reaction time	0.224	interval		3.63	3.74	3.81	3.87		2.30	4.27	4.40	4.64	4.87	5.59	NR PB			11.18	12.14	13.91	
		velocity	7.71	9.64	9.36	9.19	9.04	8.85	15.22	8.20	7.95	7.54	7.19	7.16	8.22			9.39	8.65	7.55	
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15	18	161						
FINAL - 2022 European Athletics Championships (Munich, GER) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	19-Aug-22	time	6.02	9.62		17.13	21.02	22.63	25.11	29.44	33.89	38.50	43.36		48.98		2 / 6				
reaction time	0.173	interval		3.60		7.51	3.89		4.09	4.33	4.45	4.61	4.86	5.62				11.11	12.31	13.92	
		velocity	7.48	9.72		9.32	9.00	8.84	8.56	8.08	7.87	7.59	7.20	7.12	8.17			9.45	8.53	7.54	
H1 lead leg	R	strides	21	13		13			13	14	14	14	15	18	135						
FINAL - 2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	06-Aug-22	time	5.86	9.56	13.30	17.10	21.06	22.73			33.93	38.50	43.23		48.91		3 / 5				
reaction time	0.225	interval		3.70	3.74	3.80	3.96				12.87	4.57	4.73	5.68					11.24		
		velocity	7.68	9.46	9.36	9.21	8.84	8.80			8.16	7.66	7.40	7.04	8.18				9.34		
H1 lead leg	R	strides	21	13	13		13					14	15	18	107						
Semi-Final 1 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	17-Jul-22	time	5.87	9.57	13.40	17.26	21.20	23.08	25.33	29.53	34.00	38.73	43.60		49.52		3 / 3				
reaction time	0.186	interval		3.70	3.83	3.86	3.94		4.13	4.20	4.47	4.73	4.87	5.92					11.39	12.27	14.07
		velocity	7.67	9.46	9.14	9.07	8.88	8.67	8.47	8.33	7.83	7.40	7.19	6.76	8.08				9.22	8.56	7.46
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18.7	164.7						
Heat 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	16-Jul-22	time	5.97	9.76	13.60	17.50	21.46	23.27	25.70	30.07	34.57	39.23	44.16		49.83		5 / 2				
reaction time	0.199	interval		3.79	3.84	3.90	3.96		4.24	4.37	4.50	4.66	4.93	5.67					11.53	12.57	14.09
		velocity	7.54	9.23	9.11	8.97	8.84	8.59	8.25	8.01	7.78	7.51	7.10	7.05	8.03				9.11	8.35	7.45
H1 lead leg	R	strides	21	13	13	13	13		14	14	15	15	15	18	164						
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
date	30-Jun-22	time	5.92	9.58	13.38	17.24	21.22	22.87	25.32	29.62	34.06	38.66	43.42		49.01		2 / 6				
reaction time	0.216	interval		3.66	3.80	3.86	3.98		4.10	4.30	4.44	4.60	4.76	5.59					11.32	12.38	13.80
		velocity	7.60	9.56	9.21	9.07	8.79	8.75	8.54	8.14	7.88	7.61	7.35	7.16	8.16				9.28	8.48	7.61
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	15	15	17.7	161.7						
Weakley, Ian (JAM) (1974)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
FINAL - 2002 IAAF World Cup (Madrid, ESP)																<i>Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas</i>					
date	20-Sep-02	time	6.02	9.74	13.72	17.73	21.84		26.08	30.49	34.95	39.53	44.17		49.62		1 / 5				
reaction time	0.187	interval		3.72	3.98	4.01	4.11		4.24	4.41	4.46	4.58	4.64	5.45					11.71	12.76	13.68
		velocity	7.48	9.41	8.79	8.73	8.52		8.25	7.94	7.85	7.64	7.54	7.34	8.06				8.97	8.23	7.68
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.5	169.5						
Heat 6 - 2000 Olympic Games (Sydney, AUS)																<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.02	9.86	13.90	17.94	22.06		26.34	30.74	35.34	40.22		52.18		2 / 8					
reaction time	0.179	interval		3.84	4.04	4.04	4.12		4.28	4.40	4.60	4.88							11.92	12.80	
		velocity	7.48	9.11	8.66	8.66	8.50		8.18	7.95	7.61	7.17		7.67					8.81	8.20	
H1 lead leg		strides	22	14	15	14	15		15	15	15	16		141							
Wheeler, Quentin (USA) (1955)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
Semi-Final 1 - 1976 Olympic Games (Montreal, CAN)																<i>Behm (1995) - la tactique du 400 haies</i>					
date	24-Jul-76	time	6.1	10.0	14.1	18.1	22.4		26.6	31.1	35.5	40.1	44.6		50.22		8 / 4				
reaction time		interval		3.87	4.15	4.01	4.29		4.24	4.41	4.41	4.60	4.54	5.62					12.03	12.94	13.55
		velocity	7.40	9.04	8.43	8.73	8.16		8.25	7.94	7.94	7.61	7.71	7.12	7.96				8.73	8.11	7.75
H1 lead leg		strides																			
Wei Pinyang (CHN) (2001)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
FINAL - 2021 Philippe Cup Athletics Invitational (Wuhan, CHN)																<i>CAA Hurdle Development (2021)</i>					
date	20-May-21	time	6.17	10.14	14.38	18.67	23.21		27.91	32.77	37.77	43.19		55.87		4 / 5					
reaction time	0.234	interval		3.97	4.24	4.29	4.54		4.70	4.86	5.00	10.42							12.50	14.10	
		velocity	7.29	8.82	8.25	8.16	7.71		7.45	7.20	7.00	6.72		7.16					8.40	7.45	
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	17		143							
Whitney, Ron (USA) (1942)																<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>					
			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
FINAL - 1968 Olympic Games (Mexico City, MEX) (Altitude)																<i>Dessons (1982) - traite d'athletisme - volume 1: les courses</i>					
date	15-Oct-68	time	6.1	10.3	14.2	18.2	22.4	24.3	26.6	30.8	35.1	39.5	44.0		49.2		7 / 6				
reaction time		interval		4.20	3.90	4.00	4.20		4.20	4.20	4.30	4.40	4.50	5.20	(49.27)				12.10	12.60	13.20
		velocity	7.38	8.33	8.97	8.75	8.33	8.23	8.33	8.33	8.14	7.95	7.78	7.69	8.13				8.68	8.33	7.95
H1 lead leg	R	strides	21	13	13	13	13		13	13	15	15	15	144							
Heat 3 - 1968 Olympic Games (Mexico City, MEX) (Altitude)																<i>Jonath (1969) - wie gerhard hennige trainiert</i>					
date	13-Oct-68	time	6.1	10.0	13.9	18.1	22.2	23.8	26.3	30.9	35.2	39.5	44.0		49.0		1 / 1				
reaction time		interval		3.90	3.90	4.20	4.10		4.10	4.60	4.30	4.30	4.50	5.00	OR				12.00	12.80	13.10
		velocity	7.38	8.97	8.97	8.33	8.54	8.40	8.54	7.61	8.14	8.14	7.78	8.00	8.16	(49.06)			8.75	8.20	8.02
H1 lead leg		strides																			

Whyte, Annsert (JAM) (1987)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)																		
<i>Henson (2021) - Athlete First: 2018 year end hurdle report</i>																		
date	08-Sep-18	time	5.76	9.36	13.04	16.84	20.80		29.08	33.48	38.16	42.96		48.46	1 / 2			
reaction time	0.168	interval		3.60	3.68	3.80	3.96		8.28	4.40	4.68	4.80	5.50			11.08	12.24	13.88
		velocity	7.81	9.72	9.51	9.21	8.84		8.45	7.95	7.48	7.29	7.27	8.25		9.48	8.58	7.56
H1 lead leg	L	strides		13	13	13	13		14	14	15	15	18.5	128.5				
FINAL - 2017 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)																		
<i>Henson (2021) - Athlete First: 2017 year end hurdle report</i>																		
date	13-May-17	time	5.76	9.36	13.16	17.00	20.92	25.08	29.56	34.24	39.08	44.16		50.18	3 / 7			
reaction time	0.154	interval		3.60	3.80	3.84	3.92	4.16	4.48	4.68	4.84	5.08	6.02			11.24	12.56	14.60
		velocity	7.81	9.72	9.21	9.11	8.93	8.41	7.81	7.48	7.23	6.89	6.64	7.97		9.34	8.36	7.19
H1 lead leg	L	strides	21	13	14	14	13	14	15	15	15	16	19.2	169.2				
FINAL - 2017 Doha Diamond League (Doha, QAT) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2017 year end hurdle report</i>																		
date	05-May-17	time	5.86	9.66	13.46	17.36	21.40	25.66	30.00	34.56	39.40	44.66		50.80	7 / 8			
reaction time	0.154	interval		3.80	3.80	3.90	4.04	4.26	4.34	4.56	4.84	5.26	6.14			11.50	12.64	14.66
		velocity	7.68	9.21	9.21	8.97	8.66	8.22	8.06	7.68	7.23	6.65	6.51	7.87		9.13	8.31	7.16
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	16	151					
Wilburn, Glenn (USA)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)																		
<i>USATF Women's Sprint Development (2003)</i>																		
date	22-Jun-03	time	6.16	10.14	14.16	18.40	22.86	27.14	31.88	36.57	41.54	46.68		53.20	8 / 5			
reaction time		interval		3.98	4.02	4.24	4.46	4.28	4.74	4.69	4.97	5.14	6.52			12.24	13.48	14.80
		velocity	7.31	8.79	8.71	8.25	7.85	8.18	7.38	7.46	7.04	6.81	6.13	7.52		8.58	7.79	7.09
H1 lead leg		strides																
Widlund, Hampus (SWE) (1993)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2011 Fridrott (Stockholm, SWE)																		
<i>Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx</i>																		
date	07-Jun-11	time	6.72	11.10	15.64	20.24	24.94	29.74	34.82	39.96	45.28	50.84		57.57	1 / 4			
reaction time		interval		4.38	4.54	4.60	4.70	4.80	5.08	5.14	5.32	5.56	6.73			13.52	14.58	16.02
		velocity	6.70	7.99	7.71	7.61	7.45	7.29	6.89	6.81	6.58	6.29	5.94	6.95		7.77	7.20	6.55
H1 lead leg	R	strides		14	14	14	14	15	15	15	15	17	19	137				
Williams, Derrick (USA) (1982)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2007 IAAF World Championships (Osaka, JPN)																		
<i>Behm (2007) - Osaka 2007: Le quatrace</i>																		
date	28-Aug-07	time	5.7	9.4	13.2	17.3	21.4	25.8	30.3	34.9	39.6		52.97	8 / 7				
reaction time	0.159	interval		3.70	3.80	4.10	4.10	4.40	4.50	4.60	4.70					11.60	13.00	
		velocity	7.89	9.46	9.21	8.54	8.54	7.95	7.78	7.61	7.45		7.55			9.05	8.08	
H1 lead leg	R	strides	20	13	14	14	14	14	15	15	15	15	134					
FINAL - 2006 USATF National Championships (Indianapolis, IN)																		
<i>USATF Men's Hurdle Development (2006)</i>																		
date	24-Jun-06	time	5.92	9.61	13.48	17.35	21.34	25.51	29.81	34.23	38.79	43.63		dnf	7 / --			
reaction time		interval		3.69	3.87	3.87	3.99	4.17	4.30	4.42	4.56	4.84				11.43	12.46	13.82
		velocity	7.60	9.49	9.04	9.04	8.77	8.39	8.14	7.92	7.68	7.23				9.19	8.43	7.60
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	16	154					
Williams, Rhys (GBR) (1984)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2016 European Championships (Amsterdam, NED) (TV Analysis)																		
<i>Henson (2020) - Athlete First: 2016 year end hurdle report</i>																		
date	08-Jul-16	time	6.00	9.68	13.56	17.64	21.72	25.88	30.16	34.64	39.32	44.20		49.63	8 / 5			
reaction time	0.141	interval		3.68	3.88	4.08	4.08	4.16	4.28	4.48	4.68	4.88	5.43			11.64	12.52	14.04
		velocity	7.50	9.51	9.02	8.58	8.58	8.41	8.18	7.81	7.48	7.17	7.37	8.06		9.02	8.39	7.48
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	19	156				
FINAL - 2010 Commonwealth Games (Dehli, IND)																		
<i>Arnold (2010) - 400mH planning and peaking</i>																		
date	10-Oct-10	time	6.2	10.2	14.2	18.3	22.5	24.3	26.8	31.1	35.4	39.9	44.2	49.19	5 / 3			
reaction time	0.214	interval		4.00	4.00	4.10	4.20	4.30	4.30	4.30	4.50	4.30	4.99			12.10	12.80	13.10
		velocity	7.26	8.75	8.75	8.54	8.33	8.23	8.14	8.14	8.14	7.78	8.14	8.02	8.13	8.68	8.20	8.02
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	15	15	15	18.5	170.5			
Heat 1 - 2010 Commonwealth Games (Dehli, IND)																		
<i>Arnold (2010) - 400mH planning and peaking</i>																		
date	09-Oct-10	time	6.1	10.1	14.1	18.1	22.2	24.0	26.4	30.7	35.3	39.9	44.4	49.81	4 / 1			
reaction time	0.209	interval		4.00	4.00	4.00	4.10	4.20	4.30	4.60	4.60	4.50	5.41			12.00	12.60	13.70
		velocity	7.38	8.75	8.75	8.75	8.54	8.33	8.33	8.14	7.61	7.61	7.78	7.39	8.03	8.75	8.33	7.66
H1 lead leg		strides																
FINAL - 2010 European Championships (Barcelona, ESP)																		
<i>Arnold (2010) - 400mH planning and peaking</i>																		
date	31-Jul-10	time	6.20	10.06	13.96	17.78	21.72	25.72	29.86	34.12	38.62	43.36		48.96	5 / 2			
reaction time	0.195	interval		3.86	3.90	3.82	3.94	4.00	4.14	4.26	4.50	4.74	5.60	PB		11.58	12.08	13.50
		velocity	7.26	9.07	8.97	9.16	8.88	8.75	8.45	8.22	7.78	7.38	7.14	8.17		9.07	8.69	7.78
H1 lead leg	R	strides	22	14	14	14	14	14	15	15	15	15	19.5	171.5				
Semi-Final 2 - 2010 European Championships (Barcelona, ESP)																		
<i>Arnold (2010) - 400mH planning and peaking</i>																		
date	29-Jul-10	time	6.32	10.18	14.08	18.14	22.28	26.48	30.80	35.20	39.72	44.40		49.61	4 / 1			
reaction time	0.223	interval		3.86	3.90	4.06	4.14	4.20	4.32	4.40	4.52	4.68	5.21			11.82	12.66	13.60
		velocity	7.12	9.07	8.97	8.62	8.45	8.33	8.10	7.95	7.74	7.48	7.68	8.06		8.88	8.29	7.72
H1 lead leg	R	strides																

Heat 2 - 2010 European Championships (Barcelona, ESP)

date	28-Jul-10	time	6.22	10.00	13.82	17.68	21.72	25.90	30.26	34.76	39.42	44.16	49.35	<i>Arnold (2010) - 400mH planning and peaking</i>			
reaction time	0.208	interval		3.78	3.82	3.86	4.04	4.18	4.36	4.50	4.66	4.74	5.19	5 / 1	11.46	12.58	13.90
		velocity	7.23	9.26	9.16	9.07	8.66	8.37	8.03	7.78	7.51	7.38	7.71	8.11	9.16	8.35	7.55
H1 lead leg	R	strides															

FINAL - 2006 European Championships (Göteborg, SWE)

date	10-Aug-06	time	5.9	9.7	13.5	17.7	21.8	26.0	30.2	34.6	39.2	43.8	49.12	<i>Behm (2006) - Göteborg 2006: Le quatrache</i>			
reaction time		interval		3.80	3.80	4.20	4.10	4.20	4.20	4.40	4.60	4.60	5.32	/ 3	11.80	12.50	13.60
		velocity	7.63	9.21	9.21	8.33	8.54	8.33	8.33	7.95	7.61	7.61	7.52	8.14	8.90	8.40	7.72
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171			

Williams, Robert (USA) (2001)

Heat 4 - 2024 USA Olympic Trials (Eugene, OR)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
date	27-Jun-24	time	6.09	9.80	13.73	17.70	21.70	23.58	26.01	30.84	35.95	41.43	46.85	53.52	<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>			
reaction time		interval		3.71	3.93	3.97	4.00	4.31	4.83	5.11	5.48	5.42	6.67		11.61	13.14	16.01	
		velocity	7.39	9.43	8.91	8.82	8.75	8.48	8.12	7.25	6.85	6.39	6.46	6.00	7.47	9.04	7.99	6.56
H1 lead leg	R	strides	20	13	13	13	13	14	15	16	16	15	148					

Willis, Matthew (USA) (1984)

FINAL - 2003 USATF National Junior Championships (Palo Alto, CA)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	22-Jun-03	time	6.09	10.06	14.31	18.52	22.79	27.34	32.10	36.87	41.59	46.46	51.89	<i>USATF Women's Sprint Development (2003)</i>			
reaction time		interval		3.97	4.25	4.21	4.27	4.55	4.76	4.77	4.72	4.87	5.43	2 / 3	12.43	13.58	14.36
		velocity	7.39	8.82	8.24	8.31	8.20	7.69	7.35	7.34	7.42	7.19	7.37	7.71	8.45	7.73	7.31
H1 lead leg		strides															

Woodell, Jameson (USA) (2000)

Semi-Final 2 - 2024 USA Olympic Trials (Eugene, OR)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
date	28-Jun-24	time	6.09	9.98	14.03	18.22	22.62	24.60	27.20	31.93	36.85	41.98	46.98	52.77	<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>			
reaction time		interval		3.89	4.05	4.19	4.40	4.58	4.73	4.92	5.13	5.00	5.79		12.13	13.71	15.05	
		velocity	7.39	9.00	8.64	8.35	7.95	8.13	7.64	7.40	7.11	6.82	7.00	6.91	7.58	8.66	7.66	6.98
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	15	138				

Heat 3 - 2024 USA Olympic Trials (Eugene, OR)

date	27-Jun-24	time	6.18	10.05	14.02	18.22	22.54	24.51	27.01	31.50	36.29	41.06	45.63	50.90	<i>USATF and Karmarush (2024) - USA Olympic trials results and race analysis</i>			
reaction time		interval		3.87	3.97	4.20	4.32	4.47	4.49	4.79	4.77	4.57	5.27		12.04	13.28	14.13	
		velocity	7.28	9.04	8.82	8.33	8.10	8.16	7.83	7.80	7.31	7.34	7.66	7.59	7.86	8.72	7.91	7.43
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18	171				

Woody, Joey (USA) (1973)

Heat 1 - 2007 USATF National Championships (Indianapolis, IN)	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	21-Jun-07	time	6.09	9.99	13.68	17.60	21.62	25.86	30.31	34.82	39.54	44.38	49.92	<i>USATF Men's Hurdle Development (2007)</i>			
reaction time		interval		3.90	3.69	3.92	4.02	4.24	4.45	4.51	4.72	4.84	5.54		11.51	12.71	14.07
		velocity	7.39	8.97	9.49	8.93	8.71	8.25	7.87	7.76	7.42	7.23	7.22	8.01	9.12	8.26	7.46
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	144				

FINAL - 2006 USATF National Championships (Indianapolis, IN)

date	24-Jun-06	time	6.09	9.78	13.55	17.38	21.34	25.39	29.70	34.12	38.67	43.47	49.12	<i>USATF Men's Hurdle Development (2006)</i>			
reaction time		interval		3.69	3.77	3.83	3.96	4.05	4.31	4.42	4.55	4.80	5.65		11.29	12.32	13.77
		velocity	7.39	9.49	9.28	9.14	8.84	8.64	8.12	7.92	7.69	7.29	7.08	8.14	9.30	8.52	7.63
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	19	163			

FINAL - 2003 IAAF World Championships (Paris, FRA)

date	29-Aug-03	time	5.9	9.5	13.4	17.2	21.0	25.3	29.5	33.7	38.2	42.8	48.18	<i>Behm (2003) - Paris 2003: Le quatrache masculin - féminin</i>			
reaction time	0.167	interval		3.60	3.90	3.80	3.80	4.30	4.20	4.20	4.50	4.60	5.38	6 / 2	11.30	12.30	13.30
		velocity	7.63	9.72	8.97	9.21	9.21	8.14	8.33	8.33	7.78	7.61	7.43	8.30	9.29	8.54	7.89
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	15	15	18	162			

FINAL - 2003 USATF National Championships (Palo Alto, CA)

date	22-Jun-03	time	5.87	9.66	13.50	17.47	21.54	25.68	30.06	34.42	38.96	43.61	49.22	<i>USATF Women's Sprint Development (2003)</i>			
reaction time		interval		3.79	3.84	3.97	4.07	4.14	4.38	4.36	4.54	4.65	5.61	3 / 2	11.60	12.59	13.55
		velocity	7.67	9.23	9.11	8.82	8.60	8.45	7.99	8.03	7.71	7.53	7.13	8.13	9.05	8.34	7.75
H1 lead leg		strides															

FINAL - 1999 IAAF World Championships (Sevilla, ESP)

date	27-Aug-99	time	5.62	9.25	12.89	16.65	20.59	24.59	28.91	33.29	37.84	42.90	48.77	<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>			
reaction time	0.175	interval		3.63	3.64	3.76	3.94	4.00	4.32	4.38	4.55	5.06	5.87	6 / 6	11.03	12.26	13.99
		velocity	8.01	9.64	9.62	9.31	8.88	8.75	8.10	7.99	7.69	6.92	6.81	8.20	9.52	8.56	7.51
H1 lead leg	R	strides	21	13	13	13	13	13	14	14	14	15	17.5	160.5			

Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)

date	25-Aug-99	time	5.64	9.36	13.14	17.01	20.99	25.06	29.31	33.70	38.24	42.90	48.55	<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>			
reaction time	0.214	interval		3.72	3.78	3.87	3.98	4.07	4.25	4.39	4.54	4.66	5.65	8 / 1	11.37	12.30	13.59
		velocity	7.98	9.41	9.26	9.04	8.79	8.60	8.24	7.97	7.71	7.51	7.08	8.24	9.23	8.54	7.73
H1 lead leg	R	strides	21	13	13	13	13	13	13	14	14	15	17.5	159.5			

FINAL - 1996 USA Olympic Trials (Atlanta, GA)*McNichols - Hurdle technique study through video analysis*

date	16-Jun-96	time	6.08	9.82	13.68	17.60	21.58	22.29	25.72	29.99	34.36	38.76	43.52	48.96	2 / 7			
reaction time		interval		3.74	3.86	3.92	3.98		4.14	4.27	4.37	4.40	4.76	5.44		11.52	12.39	13.53
		velocity	7.40	9.36	9.07	8.93	8.79	8.97	8.45	8.20	8.01	7.95	7.35	7.35		9.11	8.47	7.76
H1 lead leg	R	strides	21	13	13	13	13		13	14	14	14	15		143			

Woodward, Nathan (GBR) (1989) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**Semi-Final 1 - 2010 European Championships (Barcelona, ESP)***Arnold (2010) - 400mH planning and peaking*

date	29-Jul-10	time	9.96	13.86	17.86	21.86		26.06	30.38	34.90	39.72	44.70		50.51	7 / 4			
reaction time	0.214	interval		3.90	4.00	4.00		4.20	4.32	4.52	4.82	4.98	5.81			12.52	14.32	
		velocity	8.03	8.97	8.75	8.75		8.33	8.10	7.74	7.26	7.03	6.88	7.92		8.39	7.33	
H1 lead leg	L	strides																

Heat 1 - 2010 European Championships (Barcelona, ESP)*Arnold (2010) - 400mH planning and peaking*

date	28-Jul-10	time	6.22	10.14	14.16	18.16	22.30		26.54	30.88	35.32	40.06	45.02	50.45	8 / 3			
reaction time	0.187	interval		3.92	4.02	4.00	4.14		4.24	4.34	4.44	4.74	4.96	5.43		11.94	12.72	14.14
		velocity	7.23	8.93	8.71	8.75	8.45		8.25	8.06	7.88	7.38	7.06	7.37	7.93	8.79	8.25	7.43
H1 lead leg	L	strides																

Wu Jinhong (CHN) (2005) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**FINAL - 2021 National Grand Prix (Chengdu, CHN)***CAA Hurdle Development (2021)*

date	02-Apr-21	time	6.30	10.40	14.66	18.98	23.44		28.19	32.99	37.97	43.09	48.27	53.86	2 / 5			
reaction time	0.205	interval		4.10	4.26	4.32	4.46		4.75	4.80	4.98	5.12	5.18	5.59		12.68	14.01	15.28
		velocity	7.14	8.54	8.22	8.10	7.85		7.37	7.29	7.03	6.84	6.76	7.16	7.43	8.28	7.49	6.87
H1 lead leg	R	strides	22	15	15	15	15		16	16	17	17	17	20	185			

Wu Yuze (CHN) (2002) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)***CAA Hurdle Development (2019)*

date	17-Aug-19	time	6.46	10.58	14.74	19.02	23.50		28.12	32.82	37.74	43.02	48.82	54.99	8 / 7			
reaction time	0.206	interval		4.12	4.16	4.28	4.48		4.62	4.70	4.92	5.28	5.80	6.17		12.56	13.80	16.00
		velocity	6.97	8.50	8.41	8.18	7.81		7.58	7.45	7.11	6.63	6.03	6.48	7.27	8.36	7.61	6.56
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	18	20.5	181.5			

Xie Zhiyu (CHN) (2000) H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10**Repechage 3 - 2024 Olympic Games (Paris, FRA)***Paris 2024 Olympc Games - Results Book (2024)*

date	06-Aug-24	time	6.02	9.86	13.70	17.66	21.68		25.90	30.18	34.65	39.29	44.04	49.59	8 / 4			
reaction time	0.224	interval		3.84	3.84	3.96	4.02		4.22	4.28	4.47	4.64	4.75	5.55		11.64	12.52	13.86
		velocity	7.48	9.11	9.11	8.84	8.71		8.29	8.18	7.83	7.54	7.37	7.21	8.07	9.02	8.39	7.58
H1 lead leg	L	strides	21	13	13	13	13		14	14			15	17.5	133.5			

Heat 2 - 2024 Olympic Games (Paris, FRA)*Paris 2024 Olympc Games - Results Book (2024)*

date	05-Aug-24	time	5.94	9.64	13.50	17.42	21.46		25.62	29.99	34.60	39.37	44.26	49.90	3 / 8			
reaction time	0.191	interval		3.70	3.86	3.92	4.04		4.16	4.37	4.61	4.77	4.89	5.64		11.48	12.57	14.27
		velocity	7.58	9.46	9.07	8.93	8.66		8.41	8.01	7.59	7.34	7.16	7.09	8.02	9.15	8.35	7.36
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2			

Semi-Final 2 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	21-Aug-23	time	6.14	10.11	13.98	17.82	21.89		30.56	35.07		44.48		49.57	2 / 7			
reaction time	0.189	interval		3.97	3.87	3.84	4.07		8.67	4.51		9.41	5.09			11.68	12.74	13.92
		velocity	7.33	8.82	9.04	9.11	8.60		8.07	7.76		7.44	7.86	8.07		8.99	8.24	7.54
H1 lead leg	L	strides	21		13	13	13			14			17	91				

Heat 1 - 2023 World Athletics Championships (Budapest, HUN) (TV Analysis)*Henson (2023) - Athlete First: 2023 year end hurdle report*

date	20-Aug-23	time	6.16	10.13	13.96		21.86		26.06	30.46	34.93	39.53	44.23	49.40	8 / 4			
reaction time	0.207	interval		3.97	3.83		7.90		4.20	4.40	4.47	4.60	4.70	5.17				13.77
		velocity	7.31	8.82	9.14		8.86		8.33	7.95	7.83	7.61	7.45	7.74	8.10			7.63
H1 lead leg	L	strides	21	13	13				13	14	14	14	14	17	119			

FINAL - 2021 Chinese National Championships (Chongqing, CHN)*CAA Hurdle Development (2021)*

date	26-Jun-21	time	6.15	10.04	14.04	18.07	22.24		26.63	31.25	35.92	40.64	45.34	50.4	3 / 2				
reaction time	0.227	interval		3.89	4.00	4.03	4.17		4.39	4.62	4.67	4.72	4.70	5.06	DQ		11.92	13.18	14.09
		velocity	7.32	9.00	8.75	8.68	8.39		7.97	7.58	7.49	7.42	7.45	7.91	7.94		8.81	7.97	7.45
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17	159				

Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)*CAA Hurdle Development (2021)*

date	26-Jun-21	time	6.22	10.03	13.88	17.78	21.79		25.98	30.45	34.94	39.54	44.21	49.40	3 / 1				
reaction time	0.239	interval		3.81	3.85	3.90	4.01		4.19	4.47	4.49	4.60	4.67	5.19	PB		11.56	12.67	13.76
		velocity	7.23	9.19	9.09	8.97	8.73		8.35	7.83	7.80	7.61	7.49	7.71	8.10		9.08	8.29	7.63
H1 lead leg	L	strides	21	13	13	13	13		13	14	14	14	14	17.2	159.2				

FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)*CAA Hurdle Development (2021)*

date	13-Jun-21	time	6.22	10.21	14.25	18.28	22.47		26.91	31.38	35.97	40.44	44.98	50.00	6 / 1				
reaction time	0.225	interval		3.99	4.04	4.03	4.19		4.44	4.47	4.59	4.47	4.54	5.02			12.06	13.10	13.60
		velocity	7.23	8.77	8.66	8.68	8.35		7.88	7.83	7.63	7.83	7.71	7.97	8.00		8.71	8.02	7.72
H1 lead leg	L	strides	21	13	13	13	13		14	14	14	14	14	17	160				

U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)*CAA Hurdle Development (2019)*

date	17-Aug-19	time	6.42	10.36	14.34	18.39	22.60	26.86	31.20	35.64	40.34	44.92	49.96	6 / 1						
reaction time	0.284	interval		3.94	3.98	4.05	4.21	4.26	4.34	4.44	4.70	4.58	5.04							
		velocity	7.01	8.88	8.79	8.64	8.31	8.22	8.06	7.88	7.45	7.64	7.94							
H1 lead leg	L	strides	21	13	13	13	13	13	13	13	14	14	17							
U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)														CAA Hurdle Development (2019)						
date	17-Aug-19	time	6.30	10.32	14.33	18.48	22.70	27.05	31.86	37.19	42.46	47.66	53.98	5 / 1						
reaction time	0.209	interval		4.02	4.01	4.15	4.22	4.35	4.81	5.33	5.27	5.20	6.32							
		velocity	7.14	8.71	8.73	8.43	8.29	8.05	7.28	6.57	6.64	6.73	6.33							
H1 lead leg	L	strides	21	13	13	13	13	13	14	15	15	15	17.8							
Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)														CAA Hurdle Development (2019)						
date	03-Aug-19	time	6.44	10.63	14.77	19.04	23.42	27.91	32.72	37.45	42.23	47.05	52.42	4 / 1						
reaction time	0.228	interval		4.19	4.14	4.27	4.38	4.49	4.81	4.73	4.78	4.82	5.37							
		velocity	6.99	8.35	8.45	8.20	7.99	7.80	7.28	7.40	7.32	7.26	7.45							
H1 lead leg	L	strides	21	13	13	13	13	13	14	14	14	14	17							
FINAL - 2019 Chinese National Championships (Shenyang, CHN)														CAA Hurdle Development (2019)						
date	10-Jul-19	time	6.27	10.14	14.03	18.00	22.05	26.26	30.80	35.25	39.97	44.69	50.01	5 / 1						
reaction time	0.304	interval		3.87	3.89	3.97	4.05	4.21	4.54	4.45	4.72	4.72	5.32							
		velocity	7.18	9.04	9.00	8.82	8.64	8.31	7.71	7.87	7.42	7.42	7.52							
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	14	14	17.5							
Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)														CAA Hurdle Development (2019)						
date	09-Jul-19	time	6.44	10.48	14.50	18.52	22.66	26.94	31.48	35.98	40.62	45.34	50.85	7 / 2						
reaction time	0.293	interval		4.04	4.02	4.02	4.14	4.28	4.54	4.50	4.64	4.72	5.51							
		velocity	6.99	8.66	8.71	8.71	8.45	8.18	7.71	7.78	7.54	7.42	7.26							
H1 lead leg	L	strides	22	13	13	13	13	13	14	14	14	14	17.5							
Xu Guoyu (CHN) (1997)														CAA Hurdle Development (2019)						
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)														CAA Hurdle Development (2019)						
date	12-Apr-19	time	6.38	10.59	14.80	19.19	23.71	28.38	33.10	37.90	42.71	47.51	53.06	7 / 4						
reaction time	0.215	interval		4.21	4.21	4.39	4.52	4.67	4.72	4.80	4.81	4.80	5.55							
		velocity	7.05	8.31	8.31	7.97	7.74	7.49	7.42	7.29	7.28	7.29	7.21							
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	16	21							
Xu Xin (MAC) (2000)														CAA Hurdle Development (2019)						
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)														CAA Hurdle Development (2019)						
date	17-Aug-19	time	6.34	10.62	15.00	19.52	24.23	29.38	34.80	40.40	46.16	52.40	59.60	4 / 5						
reaction time	0.176	interval		4.28	4.38	4.52	4.71	5.15	5.42	5.60	5.76	6.24	7.20							
		velocity	7.10	8.18	7.99	7.74	7.43	6.80	6.46	6.25	6.08	5.61	5.56							
H1 lead leg	L	strides	23	15	15	15	15	15	15	17	17	19	166							
Xu Zhihang (CHN) (1997)														CAA Hurdle Development (2021)						
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
FINAL - 2021 National Grand Prix (Chengdu, CHN)														CAA Hurdle Development (2021)						
date	02-Apr-21	time	6.41	10.65	15.01	19.43	23.98	28.71	33.61	38.82	44.03			nt	5 / 8					
reaction time	0.264	interval		4.24	4.36	4.42	4.55	4.73	4.90	5.21	5.21									
		velocity	7.02	8.25	8.03	7.92	7.69	7.40	7.14	6.72	6.72									
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15			135						
Heat 2 - 2021 National Grand Prix (Chengdu, CHN)														CAA Hurdle Development (2021)						
date	01-Apr-21	time	6.18	10.14	14.18	18.28	22.42	26.80	31.28	36.02	41.00	46.08	51.84	2 / 1						
reaction time	0.217	interval		3.96	4.04	4.10	4.14	4.38	4.48	4.74	4.98	5.08	5.76							
		velocity	7.28	8.84	8.66	8.54	8.45	7.99	7.81	7.38	7.03	6.89	6.94							
H1 lead leg	L	strides	21	14	14	14	14	15	15	16	16	16	19.5							
Heat 1 - 2019 Chinese World Championship Trials (Shenyang, CHN)														CAA Hurdle Development (2019)						
date	03-Aug-19	time	6.72	11.31										dnf	4 / --					
reaction time		interval		4.59																
		velocity	6.70	7.63																
H1 lead leg	L	strides	22	15																
FINAL - 2019 Chinese National Championships (Shenyang, CHN)														CAA Hurdle Development (2019)						
date	10-Jul-19	time	6.26	10.26	14.37	18.48	22.65	27.06	31.56	36.17	40.82	45.55	50.81	4 / 4-3						
reaction time	0.167	interval		4.00	4.11	4.11	4.17	4.41	4.50	4.61	4.65	4.73	5.26							
		velocity	7.19	8.75	8.52	8.52	8.39	7.94	7.78	7.59	7.53	7.40	7.60							
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18							
Heat 2 - 2019 Chinese National Championships (Shenyang, CHN)														CAA Hurdle Development (2019)						
date	09-Jul-19	time	6.22	10.20	14.28	18.39	22.58	26.96	31.42	35.96	40.64	45.56	51.20	7 / 2-1						
reaction time	0.158	interval		3.98	4.08	4.11	4.19	4.38	4.46	4.54	4.68	4.92	5.64							
		velocity	7.23	8.79	8.58	8.52	8.35	7.99	7.85	7.71	7.48	7.11	7.09							
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	16	19							
Yamada, Atsushi (JPN) (1991)														CAA Hurdle Development (2021)						
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10		
B FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)														Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season						
date	06-Jun-21	time	5.99	9.71	13.48	17.38	21.45	25.76	30.25	34.97	39.76	44.73	50.33	8 / 3						

reaction time	interval	3.72	3.77	3.90	4.07	4.31	4.49	4.72	4.79	4.97	5.60		11.39	12.87	14.48					
	velocity	7.51	9.41	9.28	8.97	8.60	8.12	7.80	7.42	7.31	7.04	7.14	7.95	9.22	8.16	7.25				
H1 lead leg	L	strides	21	13	13	13	14	14	15	15	15	19.2	166.2							
FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN)													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	24-Oct-20	time	5.96	9.84	13.82	17.85	21.91	26.08	30.36	34.97	39.74	44.73	50.49	3 / 5						
reaction time	interval		3.88	3.98	4.03	4.06	4.17	4.28	4.61	4.77	4.99	5.76		11.89	12.51	14.37				
	velocity	7.55	9.02	8.79	8.68	8.62	8.39	8.18	7.59	7.34	7.01	6.94	7.92	8.83	8.39	7.31				
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	20	170						
FINAL - 2020 All Japan Corporate Championships (Kumagaya, JPN)													<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>							
date	20-Sep-20	time	6.10	10.04	14.07	18.23	22.52	26.89	31.38	36.00	40.71	45.55	50.94	4 / 4						
reaction time	0.202	interval		3.94	4.03	4.16	4.29	4.37	4.49	4.62	4.71	4.84	5.39		12.13	13.15	14.17			
	velocity	7.38	8.88	8.68	8.41	8.16	8.01	7.80	7.58	7.43	7.23	7.42	7.85	8.66	7.98	7.41				
H1 lead leg		strides		14	14	14	14	14	14	15	15	15	129							
Yamada, Hiromasa (JPN)																				
FINAL - 2017 Japanese National High School Championships (Yamagata, JPN)																	<i>Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection</i>			
date	31-Jul-17	time	6.37	10.43	14.65	19.00	23.66	28.45	33.25	38.10	43.09	47.98	53.24	3 / 7						
reaction time	0.243	interval		4.06	4.22	4.35	4.66	4.79	4.80	4.85	4.99	4.89	5.26		12.63	14.25	14.73			
	velocity	7.06	8.62	8.29	8.05	7.51	7.31	7.29	7.22	7.01	7.16	7.60	7.51	8.31	7.37	7.13				
H1 lead leg		strides		14	14	14	15	15	15	15	16	16	134							
Yamada, Nao (JPN) (2004)																				
FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)																	<i>Kishima (2022) - national high school championships biomechanics data collection</i>			
date	03-Jun-23	time	6.09	9.96	13.96	18.00	22.16	26.38	30.78	35.39	40.47	45.95	51.67	6 / 2						
reaction time	0.213	interval		3.87	4.00	4.04	4.16	4.22	4.40	4.61	5.08	5.48	5.72		11.91	12.78	15.17			
	velocity	7.39	9.04	8.75	8.66	8.41	8.29	7.95	7.59	6.89	6.39	6.99	7.74	8.82	8.22	6.92				
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	16	18	20.5	182.5						
FINAL - 2022 Japanese National High School Championships (Naruto, JPN)																	<i>Kishima (2022) - national high school championships biomechanics data collection</i>			
date	05-Aug-22	time	6.18	10.18	14.28	18.40	22.62	26.90	31.33	35.95	40.90	45.85	51.48	3 / 4						
reaction time	0.184	interval		4.00	4.10	4.12	4.22	4.28	4.43	4.62	4.95	4.95	5.63		12.22	12.93	14.52			
	velocity	7.28	8.75	8.54	8.50	8.29	8.18	7.90	7.58	7.07	7.07	7.10	7.77	8.59	8.12	7.23				
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	17	17	20	182						
Yamamoto, Ryo (JPN) (1995)																				
C FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)																	<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>			
date	01-Jun-21	time	6.24	10.16	14.10	18.17	22.37	26.73	31.11	35.59	40.21	44.94	50.45	8 / 1						
reaction time	0.177	interval		3.92	3.94	4.07	4.20	4.36	4.38	4.48	4.62	4.73	5.51		11.93	12.94	13.83			
	velocity	7.21	8.93	8.88	8.60	8.33	8.03	7.99	7.81	7.58	7.40	7.26	7.93	8.80	8.11	7.59				
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	18.5	170.5						
Yamamoto, Takeshi (JPN) (1998)																				
B FINAL - 2020 World Athletics Trials (Fuji, JPN)																	<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>			
date	06-Sep-20	time	6.09	9.96	13.91	17.95	22.09	26.38	30.75	35.30	40.16	45.40	51.44	3 / 5						
reaction time	interval		3.87	3.95	4.04	4.14	4.29	4.37	4.55	4.86	5.24	6.04		11.86	12.80	14.65				
	velocity	7.39	9.04	8.86	8.66	8.45	8.16	8.01	7.69	7.20	6.68	6.62	7.78	8.85	8.20	7.17				
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	17	20	175						
Yamamoto, Tatsuhiro (JPN) (1997)																				
B FINAL - 2023 Michitaka Kinami Memorial (Osaka, JPN)																	<i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>			
date	07-May-23	time	6.34	10.29	14.45	18.62	22.86	27.18	31.60	36.12	40.62	45.28	50.45	1 / 2						
reaction time	0.196	interval		3.95	4.16	4.17	4.24	4.32	4.42	4.52	4.50	4.66	5.17		12.28	12.98	13.68			
	velocity	7.10	8.86	8.41	8.39	8.25	8.10	7.92	7.74	7.78	7.51	7.74	7.93	8.55	8.09	7.68				
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	130							
FINAL - 2022 Seiko Golden Grand Prix (Tokyo, JPN)																	<i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>			
date	08-May-22	time	6.11	10.06	14.06	18.12	22.26	26.51	30.88	35.35	39.86	44.54	49.96	3 / 6						
reaction time	0.134	interval		3.95	4.00	4.06	4.14	4.25	4.37	4.47	4.51	4.68	5.42		12.01	12.76	13.66			
	velocity	7.36	8.86	8.75	8.62	8.45	8.24	8.01	7.83	7.76	7.48	7.38	8.01	8.74	8.23	7.69				
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.7	168.7						
FINAL - 2021 Japanese National Championships (Osaka, JPN)																	<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>			
date	26-Jun-21	time	5.97	9.68	13.41	17.25	21.25	25.48	29.90	34.42	39.17	44.39	51.32	9 / 8						
reaction time	0.164	interval		3.71	3.73	3.84	4.00	4.23	4.42	4.52	4.75	5.22	6.93		11.28	12.65	14.49			
	velocity	7.54	9.43	9.38	9.11	8.75	8.27	7.92	7.74	7.37	6.70	5.77	7.79	9.31	8.30	7.25				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	19.7	170.7						
FINAL - 2021 Denka Athletics Challenge Cup (Niigata, JPN)																	<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>			
date	06-Jun-21	time	6.09	9.98	13.88	17.88	21.94	26.06	30.40	34.82	39.44	44.23	49.70	4 / 2						
reaction time	interval		3.89	3.90	4.00	4.06	4.12	4.34	4.42	4.62	4.79	5.47		11.79	12.52	13.83				
	velocity	7.39	9.00	8.97	8.75	8.62	8.50	8.06	7.92	7.58	7.31	7.31	8.05	8.91	8.39	7.59				
H1 lead leg	R	strides	21	14	14	14	14	14	15	15	15	15	18.2	169.2						
B FINAL - 2021 Michitaka Kinami Memorial (Osaka, JPN)																	<i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>			
date	01-Jun-21	time	6.09	10.03	14.03	17.95	22.04	26.31	30.65	35.04	39.62	44.44	49.99	5 / 2						

reaction time	0.165	interval	3.94	4.00	3.92	4.09	4.27	4.34	4.39	4.58	4.82	5.55	11.86	12.70	13.79			
		velocity	7.39	8.88	8.75	8.93	8.56	8.20	8.06	7.97	7.64	7.26	7.21	8.00	8.85	8.27	7.61	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	19	171				
FINAL - 2020 Michitaka Kinami Memorial (Osaka, JPN) <i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																		
date	24-Oct-20	time	6.06	9.99	13.96	17.92	21.96	26.08	30.36	34.87	39.62	44.48	49.93	8 / 2				
reaction time		interval	3.93	3.97	3.96	4.04	4.12	4.28	4.51	4.75	4.86	5.45	11.86	12.44	14.12			
		velocity	7.43	8.91	8.82	8.84	8.66	8.50	8.18	7.76	7.37	7.20	7.34	8.01	8.85	8.44	7.44	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18	170				
FINAL - 2020 Japanese National Championships (Niigata, JPN) <i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																		
date	02-Oct-20	time	6.06	9.91	13.86	17.87	22.01	26.28	30.66	35.12	39.69	44.38	49.79	4 / 2				
reaction time	0.156	interval	3.85	3.95	4.01	4.14	4.27	4.38	4.46	4.57	4.69	5.41	11.81	12.79	13.72			
		velocity	7.43	9.09	8.86	8.73	8.45	8.20	7.99	7.85	7.66	7.46	7.39	8.03	8.89	8.21	7.65	
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18.7	170.7				
FINAL - 2020 Seiko Golden Grand Prix (Tokyo, JPN) <i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																		
date	23-Aug-20	time	6.01	9.86	13.80	17.77	21.87	26.16	30.61	35.17	39.92	44.79	50.34	4 / 3				
reaction time	0.137	interval	3.85	3.94	3.97	4.10	4.29	4.45	4.56	4.75	4.87	5.55	11.76	12.84	14.18			
		velocity	7.49	9.09	8.88	8.82	8.54	8.16	7.87	7.68	7.37	7.19	7.21	7.95	8.93	8.18	7.40	
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	131					
B FINAL - 2018 Shizuoka International Athletics Meeting (Fukuuroi, JPN) <i>Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018</i>																		
date	03-May-18	time	6.14	10.04	14.03	18.10	22.27	26.59	31.03	35.60	40.18	44.76	49.94	8 / 2				
reaction time	0.171	interval	3.90	3.99	4.07	4.17	4.32	4.44	4.57	4.58	4.58	5.18	PB	11.96	12.93	13.73		
		velocity	7.33	8.97	8.77	8.60	8.39	8.10	7.88	7.66	7.64	7.64	7.72	8.01	8.78	8.12	7.65	
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	18.2	171.2				
FINAL - 2015 Japanese National High School Championships (Wakayama, JPN) <i>Enomoto (2015) - 68th high school championships: JAF scientific committee- biomechanics data</i>																		
date	31-Jul-15	time	6.19	10.13	14.25	18.37	22.62	27.06	31.60	36.14	40.77	45.63	51.32	7 / 3				
reaction time		interval	3.94	4.12	4.12	4.25	4.44	4.54	4.54	4.63	4.86	5.69	PB	12.18	13.23	14.03		
		velocity	7.27	8.88	8.50	8.50	8.24	7.88	7.71	7.71	7.56	7.20	7.03	7.79	8.62	7.94	7.48	
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	15	132					
Yamamoto, Yuya (JPN) (2006) <i>Takashima (2024) - national high school sports festival - biomechanics data</i>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	30-Jul-24	time	6.44	10.48	14.65	18.97	23.27	27.59	31.93	36.30	40.77	45.51	53.48	9 / 8				
reaction time	0.237	interval	4.04	4.17	4.32	4.30	4.32	4.34	4.37	4.47	4.74	7.97	12.53	12.96	13.58			
		velocity	6.99	8.66	8.39	8.10	8.14	8.10	8.06	8.01	7.83	7.38	5.02	7.48	8.38	8.10	7.73	
H1 lead leg		strides	21	15	15	15	15	15	15	15	15	15	19	175				
Yamashina, Shinnosuke (JPN) (2001) <i>Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data</i>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	06-Aug-19	time	6.33	10.56	14.78	19.11	23.70	28.56	33.50	38.49	43.69	49.11	55.20	1 / 8				
reaction time		interval	4.23	4.22	4.33	4.59	4.86	4.94	4.99	5.20	5.42	6.09	12.78	14.39	15.61			
		velocity	7.11	8.27	8.29	8.08	7.63	7.20	7.09	7.01	6.73	6.46	6.57	7.25	8.22	7.30	6.73	
H1 lead leg		strides	14	14	14	14	15	15	15	15	15	16	132					
Yamauchi, Hiromu (JPN) (1999) <i>Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season</i>																		
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
date	03-Jun-23	time	6.21	10.06	13.98	19.07	22.19	26.36	30.65	35.15	39.72	44.44	49.78	6 / 2				
reaction time	0.223	interval	3.85	3.92	5.09	3.12	4.17	4.29	4.50	4.57	4.72	5.34	12.86	11.58	13.79			
		velocity	7.25	9.09	8.93	6.88	11.22	8.39	8.16	7.78	7.66	7.42	7.49	8.04	8.16	9.07	7.61	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169				
A FINAL - 2023 Shizuoka International Meeting (Fukuuroi, JPN) <i>Sugimoto (2024) - race analysis of men's and women's 400m hurdles in the 2023 season</i>																		
date	03-May-23	time	6.24	10.19	14.21	18.25	22.33	26.53	30.85	35.30	39.90	44.60	49.99	6 / 3				
reaction time	0.206	interval	3.95	4.02	4.04	4.08	4.20	4.32	4.45	4.60	4.70	5.39	12.01	12.60	13.75			
		velocity	7.21	8.86	8.71	8.66	8.58	8.33	8.10	7.87	7.61	7.45	7.42	8.00	8.74	8.33	7.64	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169				
FINAL - 2021 Japanese National Championships (Osaka, JPN) <i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																		
date	26-Jun-21	time	6.09	10.01	13.95	17.93	21.97	26.08	30.28	34.67	39.24	43.96	49.48	6 / 4				
reaction time	0.217	interval	3.92	3.94	3.98	4.04	4.11	4.20	4.39	4.57	4.72	5.52	11.84	12.35	13.68			
		velocity	7.39	8.93	8.88	8.79	8.66	8.52	8.33	7.97	7.66	7.42	7.25	8.08	8.87	8.50	7.68	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169				
FINAL - 2021 Ready Steady Tokyo (Tokyo, JPN) <i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																		
date	09-May-21	time	6.01	9.91	13.90	17.90	21.99	26.16	30.30	34.68	39.14	43.68	48.84	7 / 2				
reaction time	0.187	interval	3.90	3.99	4.00	4.09	4.17	4.14	4.38	4.46	4.54	5.16	PB	11.89	12.40	13.38		
		velocity	7.49	8.97	8.77	8.75	8.56	8.39	8.45	7.99	7.85	7.71	7.75	8.19	8.83	8.47	7.85	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	18.5	168.5				
FINAL - 2021 Shizuoka International Athletics Meeting (Fukuuroi, JPN) <i>Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season</i>																		
date	03-May-21	time	6.17	10.09	14.21	18.34	22.54	26.79	31.13	35.59	40.15	44.81	50.23	3 / 2				
reaction time	0.224	interval	3.92	4.12	4.13	4.20	4.25	4.34	4.46	4.56	4.66	5.42	12.17	12.79	13.68			
		velocity	7.29	8.93	8.50	8.47	8.33	8.24	8.06	7.85	7.68	7.51	7.38	7.96	8.63	8.21	7.68	

H1 lead leg L strides 21 14 14 14 14 14 14 14 15 15 15 19.2 169.2

FINAL - 2020 Japanese National Championships (Niigata, JPN)*Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season*

date 02-Oct-20 time 6.16 10.08 14.16 18.27 22.49 26.78 31.15 35.64 40.26 45.01 50.50 6 / 5
 reaction time 0.185 interval 3.92 4.08 4.11 4.22 4.29 4.37 4.49 4.62 4.75 5.49 12.11 12.88 13.86
 velocity 7.31 8.93 8.58 8.52 8.29 8.16 8.01 7.80 7.58 7.37 7.29 7.92 8.67 8.15 7.58

H1 lead leg L strides 21 14 14 14 14 14 14 15 15 15 15 19.2 169.2

FINAL - 2017 Japanese National High School Chamionships (Yamagata, JPN)*Kota (2017) - 70th high school championships: JAF scientific committee- biomechanics data*

date 31-Jul-17 time 6.19 10.18 14.30 18.55 22.97 27.59 32.13 36.77 41.56 46.66 51.97 9 / 2
 reaction time 0.168 interval 3.99 4.12 4.25 4.42 4.62 4.54 4.64 4.79 5.10 5.31 12.36 13.58 14.53
 velocity 7.27 8.77 8.50 8.24 7.92 7.58 7.71 7.54 7.31 6.86 7.53 7.70 8.50 7.73 7.23

H1 lead leg strides 14 14 14 14 15 15 15 15 16 132

Yamazaki, Kazuhiko (JPN) (1971)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2000 Olympic Games (Sydney, AUS)***Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games*

date 24-Sep-00 time 5.90 9.66 13.58 17.58 21.70 25.98 35.10 39.78 44.54 50.15 1 / 7
 reaction time 0.177 interval 3.76 3.92 4.00 4.12 4.28 4.12 4.68 4.76 5.61 11.68
 velocity 7.63 9.31 8.93 8.75 8.50 8.18 7.68 7.48 7.35 7.13 7.98 8.99

H1 lead leg strides

Semi-Final 1 - 1999 IAAF World Championships (Sevilla, ESP)*Sanchez (1999) - Sevilla '99: análisis de la carreras con villas*

date 25-Aug-99 time 5.69 9.44 13.24 17.16 21.22 25.38 29.70 34.21 38.75 43.47 49.46 4 / 7
 reaction time 0.172 interval 3.75 3.80 3.92 4.06 4.16 4.32 4.51 4.54 4.72 5.99 11.47 12.54 13.77
 velocity 7.91 9.33 9.21 8.93 8.62 8.41 8.10 7.76 7.71 7.42 6.68 8.09 9.15 8.37 7.63

H1 lead leg L strides 20 13 13 13 13 14 14 15 15 15 18 163

Yanagita, Kiyoto (JPN) (2004)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****FINAL - 2023 Japanese U20 National Championships (Osaka, JPN)***Kishima (2022) - national high school championships biomechanics data collection*

date 03-Jun-23 time 6.14 10.01 14.01 18.10 22.32 26.63 31.18 35.97 40.97 46.33 52.56 8 / 5
 reaction time 0.180 interval 3.87 4.00 4.09 4.22 4.31 4.55 4.79 5.00 5.36 6.23 11.96 13.08 15.15
 velocity 7.33 9.04 8.75 8.56 8.29 8.12 7.69 7.31 7.00 6.53 6.42 7.61 8.78 8.03 6.93

H1 lead leg L strides 21 13 14 14 14 14 15 15 15 16 20 171

Yang Baichuan (CHN) (1995)**H1 H2 H3 H4 H5 200m H6 H7 H8 H9 H10 Run-In Official Time Lane / Place H1-H4 H4-H7 H7-H10****Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)***CAA Hurdle Development (2021)*

date 26-Jun-21 time 6.25 10.19 14.33 18.50 22.70 27.09 31.61 36.27 41.11 46.34 fell 4 / --
 reaction time 0.176 interval 3.94 4.14 4.17 4.20 4.39 4.52 4.66 4.84 5.23 DQ 12.25 13.11 14.73
 velocity 7.20 8.88 8.45 8.39 8.33 7.97 7.74 7.51 7.23 6.69 8.57 8.01 7.13

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 17 160

FINAL - 2020 Chinese National Championships (Shaoxing, CHN)*CAA Hurdle Development (2020)*

date 17-Sep-20 time 6.08 10.12 14.25 18.50 22.83 27.25 31.75 36.42 41.12 45.92 51.58 2 / 6
 reaction time interval 4.04 4.13 4.25 4.33 4.42 4.50 4.67 4.70 4.80 5.66 12.42 13.25 14.17
 velocity 7.40 8.66 8.47 8.24 8.08 7.92 7.78 7.49 7.45 7.29 7.07 7.75 8.45 7.92 7.41

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 20 178

Heat 1 - 2019 Chinese National Grand Prix Final (Daqing, CHN)*CAA Hurdle Development (2019)*

date 22-Aug-19 time 6.37 10.48 14.75 19.15 23.59 28.09 32.67 37.32 42.13 46.98 52.44 7 / 5
 reaction time 0.166 interval 4.11 4.27 4.40 4.44 4.50 4.58 4.65 4.81 4.85 5.46 12.78 13.52 14.31
 velocity 7.06 8.52 8.20 7.95 7.88 7.78 7.64 7.53 7.28 7.22 7.33 7.63 8.22 7.77 7.34

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 20 178

FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)*CAA Hurdle Development (2019)*

date 03-Aug-19 time 6.12 10.14 14.30 18.56 22.92 27.25 31.68 36.21 40.78 45.55 50.85 6 / 2
 reaction time 0.186 interval 4.02 4.16 4.26 4.36 4.33 4.43 4.53 4.57 4.77 5.30 12.44 13.12 13.87
 velocity 7.35 8.71 8.41 8.22 8.03 8.08 7.90 7.73 7.66 7.34 7.55 7.87 8.44 8.00 7.57

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 20 178

Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)*CAA Hurdle Development (2019)*

date 03-Aug-19 time 6.29 10.36 14.56 18.80 23.21 27.80 32.47 37.23 42.10 47.26 53.14 7 / 2
 reaction time 0.194 interval 4.07 4.20 4.24 4.41 4.59 4.67 4.76 4.87 5.16 5.88 12.51 13.67 14.79
 velocity 7.15 8.60 8.33 8.25 7.94 7.63 7.49 7.35 7.19 6.78 6.80 7.53 8.39 7.68 7.10

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 20 178

FINAL - 2019 Chinese National Championships (Shenyang, CHN)*CAA Hurdle Development (2019)*

date 10-Jul-19 time 6.12 9.96 13.97 18.04 22.19 26.44 30.88 35.47 40.24 45.30 50.93 1 / 5-4
 reaction time 0.206 interval 3.84 4.01 4.07 4.15 4.25 4.44 4.59 4.77 5.06 5.63 11.92 12.84 14.42
 velocity 7.35 9.11 8.73 8.60 8.43 8.24 7.88 7.63 7.34 6.92 7.10 7.85 8.81 8.18 7.28

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 20.5 178.5

Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)*CAA Hurdle Development (2019)*

date 09-Jul-19 time 6.32 10.36 14.59 18.84 23.11 27.39 31.80 36.27 40.89 45.76 51.20 1 / 4
 reaction time 0.218 interval 4.04 4.23 4.25 4.27 4.28 4.41 4.47 4.62 4.87 5.44 12.52 12.96 13.96
 velocity 7.12 8.66 8.27 8.24 8.20 8.18 7.94 7.83 7.58 7.19 7.35 7.81 8.39 8.10 7.52

H1 lead leg L strides 23 15 15 15 15 15 15 15 15 15 20.3 178.3

FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)

															CAA Hurdle Development (2019)					
date	12-Apr-19	time	6.27	10.41	14.71	19.05	23.44	27.93	32.47	37.14	42.08	47.46	53.44	5 / 5						
reaction time	0.181	interval		4.14	4.30	4.34	4.39	4.49	4.54	4.67	4.94	5.38	5.98			12.78	13.42	14.99		
		velocity	7.18	8.45	8.14	8.06	7.97	7.80	7.71	7.49	7.09	6.51	6.69	7.49		8.22	7.82	7.00		
H1 lead leg	L	strides	21	15	15	15	15	15	15	15	15	17	20	178						

FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)

															CAA Hurdle Development (2019)					
date	08-Apr-19	time	6.20	10.12	14.20	18.38	22.60	26.88	31.36	36.10	41.04	46.24	52.06	2 / 4						
reaction time	0.202	interval		3.92	4.08	4.18	4.22	4.28	4.48	4.74	4.94	5.20	5.82			12.18	12.98	14.88		
		velocity	7.26	8.93	8.58	8.37	8.29	8.18	7.81	7.38	7.09	6.73	6.87	7.68		8.62	8.09	7.06		
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	15	16	20.5	179.5						

Yang Pengjun (CHN) (2002)

															CAA Hurdle Development (2021)					
Heat 3 - 2021 East China District Meeting (Zhaoqing, CHN)																				
date	25-Apr-21	time	6.34	10.36	14.58	18.88	23.32	27.78	32.58	37.82	43.53	49.83	55.58	6 / 5						
reaction time	0.230	interval		4.02	4.22	4.30	4.44	4.46	4.80	5.24	5.71	6.30	5.75			12.54	13.70	17.25		
		velocity	7.10	8.71	8.29	8.14	7.88	7.85	7.29	6.68	6.13	5.56	6.96	7.20		8.37	7.66	6.09		
H1 lead leg	L	strides	22	15	15	15	15	15	17	17	19	19	19	188						

Yates, Richard (GBR) (1986)

															Arnold (2010) - 400mH planning and peaking					
FINAL - 2010 Commonwealth Games (Dehli, IND)																				
date	10-Oct-10	time	6.2	10.1	14.1	18.2	22.4	26.5	30.9	35.3	39.8	44.5	49.84	4 / 5						
reaction time	0.225	interval		3.90	4.00	4.10	4.20	4.10	4.40	4.40	4.50	4.70	5.34			12.00	12.70	13.60		
		velocity	7.26	8.97	8.75	8.54	8.33	8.54	7.95	7.95	7.78	7.45	7.49	8.03		8.75	8.27	7.72		
H1 lead leg	R	strides	21	14	14	14	14	14	14	14	15	15	18	167						

Heat 3 - 2010 Commonwealth Games (Dehli, IND)

															Arnold (2010) - 400mH planning and peaking						
date	09-Oct-10	time	6.0	9.9	13.8	17.9	22.1	23.9	26.3	30.6	35.0	39.6	44.3	49.83	5 / 1						
reaction time	0.233	interval		3.90	3.90	4.10	4.20	4.20	4.30	4.40	4.60	4.70	5.53			11.90	12.70	13.70			
		velocity	7.50	8.97	8.97	8.54	8.33	8.37	8.33	8.14	7.95	7.61	7.45	7.23	8.03		8.82	8.27	7.66		
H1 lead leg		strides																			

Yatsevich, Aleksandr (URS) (1956)

															(1982) - XIII championnats d'Europe d'Atletisma, Athens 1982						
FINAL - 1982 European Championships (Athens, GRE)																					
date	08-Sep-82	time	6.0	9.9	13.8	17.7	21.7	25.9	30.2	34.3	38.7	43.3	48.60	3 / 2							
reaction time		interval		3.90	3.90	3.90	4.00	4.20	4.30	4.10	4.40	4.60	5.30	PB			11.70	12.50	13.10		
		velocity	7.50	8.97	8.97	8.97	8.75	8.33	8.33	8.14	8.54	7.95	7.61	7.55	8.23		8.97	8.40	8.02		
H1 lead leg	R	strides	21	15	15	15	15	15	15	15	15	15	18	174							

Ye Anan (CHN) (2004)

															CAA Hurdle Development (2021)					
Heat 1 - 2021 Chinese National Championships (Chongqing, CHN)																				
date	26-Jun-21	time	6.37	10.44	14.64	18.83	23.19	27.69	32.22	36.91	41.57	46.24	51.64	5 / 4						
reaction time	0.272	interval		4.07	4.20	4.19	4.36	4.50	4.53	4.69	4.66	4.67	5.40			12.46	13.39	14.02		
		velocity	7.06	8.60	8.33	8.35	8.03	7.78	7.73	7.46	7.51	7.49	7.41	7.75		8.43	7.84	7.49		
H1 lead leg	L	strides	22	14	14	14	14	14	14	14	15	15	18.2	169.2						

FINAL - 2020 Chinese Olympic Trials (Shaoxing, CHN)

															CAA Hurdle Development (2021)						
date	13-Jun-21	time	6.09	9.98	14.13	18.20	22.49	26.86	31.41	36.02	40.62	45.24	50.73	5 / 4							
reaction time	0.215	interval		3.89	4.15	4.07	4.29	4.37	4.55	4.61	4.60	4.62	5.49	PB			12.11	13.21	13.83		
		velocity	7.39	9.00	8.43	8.60	8.16	8.01	7.69	7.59	7.61	7.58	7.29	7.88		8.67	7.95	7.59			
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	15	15	18.2	170.2							

FINAL - 2021 East China District Meeting (Zhaoqing, CHN)

															CAA Hurdle Development (2021)						
date	25-Apr-21	time	6.21	10.21	14.33	18.47	22.82	27.16	31.68	36.24	41.04	45.79	51.15	5 / 2							
reaction time	0.221	interval		4.00	4.12	4.14	4.35	4.34	4.52	4.56	4.80	4.75	5.36	PB			12.26	13.21	14.11		
		velocity	7.25	8.75	8.50	8.45	8.05	8.06	7.74	7.68	7.29	7.37	7.46	7.82		8.56	7.95	7.44			
H1 lead leg	L	strides	22	14	14	14	14	14	14	14	15	15	18.5	169.5							

Heat 1 - 2021 East China District Meeting (Zhaoqing, CHN)

															CAA Hurdle Development (2021)						
date	25-Apr-21	time	6.28	10.24	14.48	18.72	23.10	27.61	32.11	36.70	41.47	46.31	51.82	6 / 1							
reaction time	0.299	interval		3.96	4.24	4.24	4.38	4.51	4.50	4.59	4.77	4.84	5.51	PB			12.44	13.39	14.20		
		velocity	7.17	8.84	8.25	8.25	7.99	7.76	7.78	7.63	7.34	7.23	7.26	7.72		8.44	7.84	7.39			
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	15	15	19	172							

Yego, Gideon (KEN) (1960)

															Brüggemann (1990) - scientific research project at the games of the XXIV Olympiad, Seoul 1988					
Semi-Final 2 - 1988 Olympic Games (Seoul, KOR)																				
date	24-Sep-88	time	6.20	10.14	14.07	18.06	22.17	26.30	30.55	34.93	39.60			8 / 1						
reaction time		interval		3.94	3.93	3.99	4.11	4.13	4.25	4.38	4.67			DQ			11.86	12.49		
		velocity	7.26	8.88	8.91	8.77	8.52	8.47	8.24	7.99	7.49					8.85	8.41			
H1 lead leg		strides	22	15	15	15	15	15	15	15	15			142						

Yoneda, Taiyo (JPN) (2001)

															Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season					
B FINAL - 2020 Japanese U20 National Championships (Hiroshima, JPN)																				
date	25-Oct-20	time	6.22	10.28	14.46	18.72	23.09	27.61	32.32	37.14	42.03	47.00	52.56	4 / 1						
reaction time	0.163	interval		4.06	4.18	4.26	4.37	4.52	4.71	4.82	4.89	4.97	5.56			12.50	13.60	14.68		
		velocity	7.23	8.62	8.37	8.22	8.01	7.74	7.43	7.26	7.16	7.04	7.19	7.61		8.40	7.72	7.15		
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	19	171						

Yoshida, Kazuaki (JPN) (1987)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2016 Kansai Business Championships (Osaka, JPN)		<i>(2017) - tfdata-store.com/2017/05/22/post-605/</i>																	
date	20-May-16	time	6.20	10.12	14.08	18.08	22.27	26.71	31.11	35.58	40.21	44.99		50.60	6 / 2				
reaction time		interval		3.92	3.96	4.00	4.19	4.44	4.40	4.47	4.63	4.78	5.61			11.88	13.03	13.88	
		velocity	7.26	8.93	8.84	8.75	8.35	7.88	7.95	7.83	7.56	7.32	7.13	7.91		8.84	8.06	7.56	
H1 lead leg		strides		13	13	13	13	15	15	15	15	15		127					
FINAL - 2014 Japanese National Championships (Fukushima, JPN)		<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																	
date	08-Jun-14	time	5.96	9.75	13.60	17.55	21.60	25.87	30.27	34.76	39.40	44.27		50.05	9 / 5				
reaction time		interval		3.79	3.85	3.95	4.05	4.27	4.40	4.49	4.64	4.87	5.78			11.59	12.72	14.00	
		velocity	7.55	9.23	9.09	8.86	8.64	8.20	7.95	7.80	7.54	7.19	6.92	7.99		9.06	8.25	7.50	
H1 lead leg	L	strides	21	13	13	13	13	13	15	15	15	15	18.2	164					
B FINAL - 2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)		<i>Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions</i>																	
date	03-May-14	time	6.04	9.91	13.87	17.83	21.92	26.09	30.48	34.95	39.60	44.42		50.15	/ 1				
reaction time		interval		3.87	3.96	3.96	4.09	4.17	4.39	4.47	4.65	4.82	5.73			11.79	12.65	13.94	
		velocity	7.45	9.04	8.84	8.84	8.56	8.39	7.97	7.83	7.53	7.26	6.98	7.98		8.91	8.30	7.53	
H1 lead leg		strides		13	13	13	13	13	15	15	15	15		125					
Heat 2 - 2009 IAAF World Championships (Berlin, GER)		<i>Graubner (2009) - biomechanical analyses at the 12th IAAF world championships</i>																	
date	15-Aug-09	time	6.00	9.79	13.61	17.51	21.55	25.73	30.07	34.49	39.07	43.87		49.45	4 / 3				
reaction time	0.152	interval		3.79	3.82	3.90	4.04	4.18	4.34	4.42	4.58	4.80	5.58	PB		11.51	12.56	13.80	
		velocity	7.50	9.23	9.16	8.97	8.66	8.37	8.06	7.92	7.64	7.29	7.17	8.09		9.12	8.36	7.61	
H1 lead leg		strides																	
Yoshida, Kyohei (JPN) (1997)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
B FINAL - 2020 World Athletics Trials (Fuji, JPN)		<i>Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season</i>																	
date	06-Sep-20	time	6.01	9.84	13.75	17.80	21.94	26.21	30.58	35.22	39.97	44.79		50.32	5 / 1				
reaction time		interval		3.83	3.91	4.05	4.14	4.27	4.37	4.64	4.75	4.82	5.53			11.79	12.78	14.21	
		velocity	7.49	9.14	8.95	8.64	8.45	8.20	8.01	7.54	7.37	7.26	7.23	7.95		8.91	8.22	7.39	
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19	169					
Yoshikata, Masahira (JPN) (1982)		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
FINAL - 2009 Japanese National Championships (Hiroshima, JPN)		<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	27-Jun-09	time	6.06	9.86	13.75	17.75	21.84	26.04	30.44	34.93	39.55	44.29		49.61	5 / 2				
reaction time		interval		3.80	3.89	4.00	4.09	4.20	4.40	4.49	4.62	4.74	5.32			11.69	12.69	13.85	
		velocity	7.43	9.21	9.00	8.75	8.56	8.33	7.95	7.80	7.58	7.38	7.52	8.06		8.98	8.27	7.58	
H1 lead leg		strides		13	13	13	13	13	15	15	15	15		125					
FINAL - 2009 Osaka Grand Prix (Osaka, JPN)		<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	09-May-09	time	6.06	9.85	13.75	17.66	21.76	25.91	30.25	34.62	39.16	43.83		49.34	/ 4				
reaction time		interval		3.79	3.90	3.91	4.10	4.15	4.34	4.37	4.54	4.67	5.51			11.60	12.59	13.58	
		velocity	7.43	9.23	8.97	8.95	8.54	8.43	8.06	8.01	7.71	7.49	7.26	8.11		9.05	8.34	7.73	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15		130					
Race C - 2009 Shizuoka International Athletics Meeting (Fukuroi, JPN)		<i>Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11</i>																	
date	03-May-09	time	6.09	9.86	13.80	17.75	21.85	25.99	30.41	34.90	39.55	44.39		49.95	/ 1				
reaction time		interval		3.77	3.94	3.95	4.10	4.14	4.42	4.49	4.65	4.84	5.56			11.66	12.66	13.98	
		velocity	7.39	9.28	8.88	8.86	8.54	8.45	7.92	7.80	7.53	7.23	7.19	8.01		9.01	8.29	7.51	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15		130					
Heat 2 - 2007 IAAF World Championships (Osaka, JPN)		<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	25-Aug-07	time	6.02	9.76	13.61	17.55	21.67	25.92	30.41	34.96	39.70	44.67		50.59	6 / 6				
reaction time	0.187	interval		3.74	3.85	3.94	4.12	4.25	4.49	4.55	4.74	4.97	5.92			11.53	12.86	14.26	
		velocity	7.48	9.36	9.09	8.88	8.50	8.24	7.80	7.69	7.38	7.04	6.76	7.91		9.11	8.16	7.36	
H1 lead leg	L	strides	21	14	14	14	14	14	15	15	15	15	19.7	170.7					
FINAL - 2007 Japanese National Championships (Osaka, JPN)		<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	30-Jun-07	time	6.02	9.79	13.73	17.75	21.85	26.07	30.44	34.84	39.38	44.05		49.53	/ 3				
reaction time		interval		3.77	3.94	4.02	4.10	4.22	4.37	4.40	4.54	4.67	5.48			11.73	12.69	13.61	
		velocity	7.48	9.28	8.88	8.71	8.54	8.29	8.01	7.95	7.71	7.49	7.30	8.08		8.95	8.27	7.71	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15		130					
FINAL - 2007 Osaka Grand Prix (Osaka, JPN)		<i>Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers</i>																	
date	05-May-07	time	6.07	9.82	13.69	17.61	21.71	25.88	30.27	34.72	39.34	44.13		49.69	/ 5				
reaction time		interval		3.75	3.87	3.92	4.10	4.17	4.39	4.45	4.62	4.79	5.56			11.54	12.66	13.86	
		velocity	7.41	9.33	9.04	8.93	8.54	8.39	7.97	7.87	7.58	7.31	7.19	8.05		9.10	8.29	7.58	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15		130					
FINAL - 2006 Seiko Super Grand Prix (Yokohama, JPN)		<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>																	
date	24-Sep-06	time	5.92	9.57	13.31	17.15	21.14	25.31	29.66	34.10	38.75	43.77		49.76	/ 6				
reaction time		interval		3.65	3.74	3.84	3.99	4.17	4.35	4.44	4.65	5.02	5.99			11.23	12.51	14.11	
		velocity	7.60	9.59	9.36	9.11	8.77	8.39	8.05	7.88	7.53	6.97	6.68	8.04		9.35	8.39	7.44	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15		130					
FINAL - 2006 Osaka Grand Prix (Osaka, JPN)		<i>Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers</i>																	

date	06-May-06	time	6.00	9.74	13.58	17.45	21.42	25.56	29.81	34.18	38.70	43.42	48.93	/ 6				
reaction time		interval		3.74	3.84	3.87	3.97	4.14	4.25	4.37	4.52	4.72	5.51		11.45	12.36	13.61	
		velocity	7.50	9.36	9.11	9.04	8.82	8.45	8.24	8.01	7.74	7.42	7.26	8.17	9.17	8.50	7.71	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	15	130				
FINAL - 2005 Seiko Super Grand Prix (Yokohama, JPN)													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	19-Sep-05	time	5.96	9.71	13.63	17.55	21.60	25.72	29.92	34.16	38.53	43.13	48.66	/ 3				
reaction time		interval		3.75	3.92	3.92	4.05	4.12	4.20	4.24	4.37	4.60	5.53	PB	11.59	12.37	13.21	
		velocity	7.55	9.33	8.93	8.93	8.64	8.50	8.33	8.25	8.01	7.61	7.23	8.22	9.06	8.49	7.95	
H1 lead leg		strides		14	14	14	14	14	15	15	15	15	15	130				
FINAL - 2005 Osaka Grand Prix (Osaka, JPN)													<i>Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	07-May-05	time	5.99	9.69	13.54	17.49	21.58	25.90	30.32	34.82	39.36	44.00	49.52	/ 6				
reaction time		interval		3.70	3.85	3.95	4.09	4.32	4.42	4.50	4.54	4.64	5.52		11.50	12.83	13.68	
		velocity	7.51	9.46	9.09	8.86	8.56	8.10	7.92	7.78	7.71	7.54	7.25	8.08	9.13	8.18	7.68	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				
FINAL - 2004 Osaka Grand Prix (Osaka, JPN)													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	08-May-04	time	5.86	9.71	13.65	17.69	21.84	26.08	30.32	34.64	39.16	43.86	49.37	/ 5				
reaction time		interval		3.85	3.94	4.04	4.15	4.24	4.24	4.32	4.52	4.70	5.51	PB	11.83	12.63	13.54	
		velocity	7.68	9.09	8.88	8.66	8.43	8.25	8.25	8.10	7.74	7.45	7.26	8.10	8.88	8.31	7.75	
H1 lead leg		strides		14	14	14	14	15	15	15	15	15	15	131				
Yoshizawa, Ken (JPN) (1978)													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
FINAL - 2004 Japanese National Championships (Tottori, JPN)													<i>Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers</i>					
date	05-Jun-04	time	5.96	9.65	13.45	17.39	21.49	25.78	30.17	34.62	39.21	44.01	49.63	/ 2				
reaction time		interval		3.69	3.80	3.94	4.10	4.29	4.39	4.45	4.59	4.80	5.62		11.43	12.78	13.84	
		velocity	7.55	9.49	9.21	8.88	8.54	8.16	7.97	7.87	7.63	7.29	7.12	8.06	9.19	8.22	7.59	
H1 lead leg		strides		13	13	13	13	14	14	15	15	15	15	125				
Young, Blair (AUS) (1971)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Semi-Final 2 - 2000 Olympic Games (Sydney, AUS)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	25-Sep-00	time	6.12	9.96	13.84	17.68	21.60	23.24	25.84	30.16	34.60	39.24	49.20	8 / 4				
reaction time	0.255	interval		3.84	3.88	3.84	3.92	4.24	4.32	4.44	4.64				11.56	12.48		
		velocity	7.35	9.11	9.02	9.11	8.93	8.61	8.25	8.10	7.88	7.54		8.13	9.08	8.41		
H1 lead leg		strides		13	13	13	13	14	14	15	15		110					
Heat 2 - 2000 Olympic Games (Sydney, AUS)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.06	9.82	13.74	17.74	21.86	26.18		35.42	39.90	44.50	49.75	6 / 4				
reaction time	0.193	interval		3.76	3.92	4.00	4.12	4.32		9.24	4.48	4.60	5.25		11.68			
		velocity	7.43	9.31	8.93	8.75	8.50	8.10		7.58	7.81	7.61	7.62	8.04	8.99			
H1 lead leg		strides	21	13	13	14	14	14	15	15	15	15	18.4	167.4				
Young, Curt (PAN) (1974)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 8 - 2000 Olympic Games (Sydney, AUS)													<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>					
date	24-Sep-00	time	6.02	9.74	13.54	17.54	21.74	25.98	30.58	35.50	40.78	46.18	52.46	2 / 6				
reaction time	0.164	interval		3.72	3.80	4.00	4.20	4.24	4.60	4.92	5.28	5.40	6.28		11.52	13.04	15.60	
		velocity	7.48	9.41	9.21	8.75	8.33	8.25	7.61	7.11	6.63	6.48	6.37	7.62	9.11	8.05	6.73	
H1 lead leg		strides	21	13	13	13	13	14	15	15	16	16	149					
Young, Kevin (USA) (1966)													<i>Lyle - miscellaneous coaching notes</i>					
		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Heat 2 - 1996 USA Olympic Trials (Atlanta, GA)													<i>Lyle - miscellaneous coaching notes</i>					
date	14-Jun-96	time	5.72	9.92	13.46	17.34	21.27	25.47	29.73	34.09	38.57	43.27	49.15	/ 3				
reaction time		interval		4.20	3.54	3.88	3.93	4.20	4.26	4.36	4.48	4.70	5.88		11.62	12.39	13.54	
		velocity	7.87	8.33	9.89	9.02	8.91	8.33	8.22	8.03	7.81	7.45	6.80	8.14	9.04	8.47	7.75	
H1 lead leg		strides																
FINAL - 1993 IAAF World Championships (Stuttgart, GER)													<i>Graubner (2008) - http://www.fgs.uni-halle.de</i>					
date	19-Aug-93	time	6.05	9.68	13.43	17.12	20.92	24.86	28.89	33.00	37.34	41.46	47.18	6 / 1				
reaction time	0.267	interval		3.63	3.75	3.69	3.80	3.94	4.03	4.11	4.34	4.12	5.72		11.07	11.77	12.57	
		velocity	7.44	9.64	9.33	9.49	9.21	8.88	8.68	8.52	8.06	8.50	6.99	8.48	9.49	8.92	8.35	
H1 lead leg	L	strides	20	13	13	12	12	13	13	13	13	13	17	152				
Semi-Final 3 - 1993 IAAF World Championships (Stuttgart, GER)													<i>Letzelter (1995) - schrittgestaltung im 400m-hürdenlauf der jugend</i>					
date	17-Aug-93	time	5.92	9.64	13.42	17.18	20.98	25.04	29.16	33.48	37.86	42.40	47.99	3 / 1				
reaction time		interval		3.72	3.78	3.76	3.80	4.06	4.12	4.32	4.38	4.54	5.59		11.26	11.98	13.24	
		velocity	7.60	9.41	9.26	9.31	9.21	8.62	8.50	8.10	7.99	7.71	7.16	8.34	9.33	8.76	7.93	
H1 lead leg	L	strides	20	13	13	12	12	13	13	13	13	13	16	151				
FINAL - 1992 Olympic Games (Barcelona, ESP)													<i>Letzelter (1995) - schrittgestaltung im 400m-hürdenlauf der jugend</i>					
date	06-Aug-92	time	5.92	9.58	13.24	16.94	20.72	24.68	28.74	32.88	37.18	41.58	46.78	4 / 1				
reaction time		interval		3.66	3.66	3.70	3.78	3.96	4.06	4.14	4.30	4.40	5.20	WR	11.02	11.80	12.84	
		velocity	7.60	9.56	9.56	9.46	9.26	8.84	8.62	8.45	8.14	7.95	7.69	8.55	9.53	8.90	8.18	
H1 lead leg	L	strides	20	13	13	12	12	13	13	13	13	13	16.7	152				
FINAL - 1988 Olympic Games (Seoul, KOR)													<i>Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>					
date	25-Sep-88	time	6.07	9.72	13.40	17.20	21.09	25.13	29.25	33.46	37.94	42.61	47.94	2 / 4				

reaction time	0.214	interval	3.65	3.68	3.80	3.89	4.04	4.12	4.21	4.48	4.67	5.33			11.13	12.05	13.36	
		velocity	7.41	9.59	9.51	9.21	9.00	8.66	8.50	8.31	7.81	7.49	7.50	8.34	9.43	8.71	7.86	
H1 lead leg	L	strides	20	12	12	12	12	13	13	13	13	14	17	151				
Semi-Final 1 - 1988 Olympic Games (Seoul, KOR)																		
<i>Bruggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988</i>																		
date	24-Sep-88	time	6.29	10.21	14.14	18.02	21.86	25.79	29.82	33.95	38.36	43.00	48.56	5 / 2				
reaction time		interval	3.92	3.93	3.88	3.84	3.93	4.03	4.13	4.41	4.64	5.56			11.73	11.80	13.18	
		velocity	7.15	8.93	8.91	9.02	9.11	8.91	8.68	8.47	7.94	7.54	7.19	8.24	8.95	8.90	7.97	
H1 lead leg		strides	20	13	13	13	13	13	13	13	13	14	17	155				
Yu Zhiyou (CHN) (2003)																		
U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)																		
<i>CAA Hurdle Development (2019)</i>																		
date	17-Aug-19	time	6.44	10.56	14.76	19.08	23.54	28.32	33.28	38.40	43.68	49.04	54.92	2 / 6				
reaction time	0.201	interval	4.12	4.20	4.32	4.46	4.78	4.96	5.12	5.28	5.36	5.88			12.64	14.20	15.76	
		velocity	6.99	8.50	8.33	8.10	7.85	7.32	7.06	6.84	6.63	6.53	6.80	7.28	8.31	7.39	6.66	
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	17	17	21	187				
Zadoinov, Vadim (MDA) (1969)																		
Heat 4 - 2000 Olympic Games (Sydney, AUS)																		
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																		
date	24-Sep-00	time	6.04	9.84	13.84	17.84	21.84	26.00	30.44	35.16	40.28	45.10	51.08	7 / 5				
reaction time	0.173	interval	3.80	4.00	4.00	4.00	4.16	4.44	4.72	5.12					11.80	12.60		
		velocity	7.45	9.21	8.75	8.75	8.75	8.41	7.88	7.42	6.84		7.83		8.90	8.33		
H1 lead leg		strides	20	13	13	13	13	13	13	14	15		127					
Zazini, Sokwakhana (RSA) (2000)																		
FINAL - 2023 Doha Diamond League (Doha, QAT)																		
<i>Omega Timing (2023) - diamond league race analysis</i>																		
date	05-May-23	time	5.83	9.46	13.25	17.13	21.12	25.58	30.07	34.69	39.36	44.01	49.74	1 / 6				
reaction time	0.170	interval	3.63	3.79	3.88	3.99	4.46	4.49	4.62	4.67	4.65	5.73			11.30	12.94	13.94	
		velocity	7.72	9.64	9.23	9.02	8.77	7.85	7.80	7.58	7.49	7.53	6.98	8.04	9.29	8.11	7.53	
H1 lead leg	L	strides	23	14	14	14	14	15			16	16	126					
Semi-Final 3 - 2022 World Athletics Championships (Eugene, OR) (TV Analysis)																		
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																		
date	17-Jul-22	time	5.87	9.66	13.56	17.30	21.26	23.04	29.90	34.57	39.50	44.37	50.22	2 / 7				
reaction time	0.153	interval	3.79	3.90	3.74	3.96			8.64	4.67	4.93	4.87	5.85		11.43	12.60	14.47	
		velocity	7.67	9.23	8.97	9.36	8.84	8.68	8.10	7.49	7.10	7.19	6.84	7.96	9.19	8.33	7.26	
H1 lead leg	L	strides	23	15	15	15	15			16	17	17	20.2	153.2				
FINAL - 2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)																		
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																		
date	30-Jun-22	time	5.92	9.76	13.60	17.46	21.44	23.11	25.56	29.90	34.34	39.02	43.94	49.80	1 / 8			
reaction time	0.171	interval	3.84	3.84	3.86	3.98			4.12	4.34	4.44	4.68	4.92	5.86		11.54	12.44	14.04
		velocity	7.60	9.11	9.11	9.07	8.79	8.65	8.50	8.06	7.88	7.48	7.11	6.83	8.03	9.10	8.44	7.48
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	21	185			
FINAL - 2022 Bislett Games (Oslo, NOR) (TV Analysis)																		
<i>Henson (2022) - Athlete First: 2022 year end hurdle report</i>																		
date	16-Jun-22	time	5.92	9.76	13.56	17.48	21.56	23.37	25.96	30.44	34.96	39.76	44.56	50.17	8 / 7			
reaction time	0.184	interval	3.84	3.80	3.92	4.08			4.40	4.48	4.52	4.80	4.80	5.61		11.56	12.96	14.12
		velocity	7.60	9.11	9.21	8.93	8.58	8.56	7.95	7.81	7.74	7.29	7.29	7.13	7.97	9.08	8.10	7.44
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	20	186				
Zbinden, Carlos (CHI) (1976)																		
Heat 1 - 2000 Olympic Games (Sydney, AUS)																		
<i>Ditroilo (2001) - analysis of the race distribution for male 400m hurdlers competing at the 2000 sydney olympic games</i>																		
date	24-Sep-00	time	6.10	9.90	13.82	17.70	21.70	25.94	30.38	34.98	40.02	45.10	51.36	6 / 6				
reaction time	0.180	interval	3.80	3.92	3.88	4.00			4.24	4.44	4.60	5.04			11.60	12.68		
		velocity	7.38	9.21	8.93	9.02	8.75		8.25	7.88	7.61	6.94		7.79	9.05	8.28		
H1 lead leg		strides	21	13	13	13	13		14	14	15	16		132				
FINAL - 1998 European Championships (Budapest, HUN)																		
<i>Sanchez (1998) - Budapest '98: análisis de la carreras con villas</i>																		
date	20-Aug-98	time	6.05				21.57					43.70	49.10	4 / 5				
reaction time		interval					15.52					22.13	5.40					
		velocity	7.44				9.02					7.91	7.41	8.15				
H1 lead leg	L	strides	19	13	13	13	13		13	13	13	14	14	17	155			
Zellner, Torrance (USA) (1970)																		
FINAL - 1999 IAAF World Championships (Sevilla, ESP)																		
<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																		
date	27-Aug-99	time	5.66	9.38	13.10	16.88	20.68	24.72	28.92	33.49	38.05	42.86	49.06	1 / 8				
reaction time	0.133	interval	3.72	3.72	3.78	3.80			4.04	4.20	4.57	4.56	6.20		11.22	12.04	13.94	
		velocity	7.95	9.41	9.41	9.26	9.21		8.66	8.33	7.66	7.68	7.28	6.45	8.15	9.36	8.72	7.53
H1 lead leg	L	strides	20	13	13	13	13		13	13	14	14	15	18	159			
Semi-Final 2 - 1999 IAAF World Championships (Sevilla, ESP)																		
<i>Sanchez (1999) - Sevilla '99: análisis de la carreras con villas</i>																		
date	25-Aug-99	time	5.68	9.45	13.25	17.05	21.08	25.09	29.21	33.62	38.22	42.85	48.53	7 / 4				
reaction time	0.129	interval	3.77	3.80	3.80	4.03			4.01	4.12	4.41	4.60	4.63	5.68		11.37	12.16	13.64
		velocity	7.92	9.28	9.21	9.21	8.68		8.73	8.50	7.94	7.61	7.56	7.04	8.24	9.23	8.63	7.70
H1 lead leg	L	strides	20	13	13	13	13		13	13	13	14	14	17	156			
FINAL - 1996 USA Olympic Trials (Atlanta, GA)																		
<i>McNichols - Hurdle technique study through video analysis</i>																		
date	16-Jun-96	time	5.81	9.63	13.49	17.35	21.37	22.99	25.60	29.95	34.27	38.67	43.25	48.65	7 / 5			

reaction time	interval	3.82	3.86	3.86	4.02		4.23	4.35	4.32	4.40	4.58	5.40				11.54	12.60	13.30	
	velocity	7.75	9.16	9.07	9.07	8.71	8.70	8.27	8.05	8.10	7.95	7.64	7.41	8.22		9.10	8.33	7.89	
H1 lead leg	L	strides	20	13	13	13		13	13	13	13	14		138					
Zeng Lingxian (CHN) (2002)																			
U18 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN) (84cm)																CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.42	10.58	14.90	19.24	23.72		28.34	33.08	37.92	43.00	48.30		54.14	9 / 5			
reaction time	0.203	interval		4.16	4.32	4.34	4.48		4.62	4.74	4.84	5.08	5.30	5.84			12.82	13.84	15.22
		velocity	7.01	8.41	8.10	8.06	7.81		7.58	7.38	7.23	6.89	6.60	6.85	7.39		8.19	7.59	6.90
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	17	21	180				
Zhang Hongxi (CHN) (2001)																			
U20 Heat 3 - 2019 Chinese National Youth Games (Taiyuan, CHN)																CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.64	10.82	15.17	19.70	24.35		29.10	34.27	39.64	45.23	50.86		57.30	4 / 6			
reaction time	0.239	interval		4.18	4.35	4.53	4.65		4.75	5.17	5.37	5.59	5.63	6.44			13.06	14.57	16.59
		velocity	6.78	8.37	8.05	7.73	7.53		7.37	6.77	6.52	6.26	6.22	6.21	6.98		8.04	7.21	6.33
H1 lead leg	R	strides	23	15	15	15	15		15	17	17	17	17		166				
Zhang Shibao (CHN) (1984)																			
FINAL - 2001 Chinese National Games (Guangzhou, CHN)																Gong (2003) - discussion on technique of gold and silver medallist of men's 400m hurdles of the 9th National Games			
date	22-Nov-01	time	6.09	9.93	13.77	17.77	21.97		26.25	30.65	35.07	39.69	44.57		50.33	1 / 2			
reaction time		interval		3.84	3.84	4.00	4.20		4.28	4.40	4.42	4.62	4.88	5.76	NYR		11.68	12.88	13.92
		velocity	7.39	9.11	9.11	8.75	8.33		8.18	7.95	7.92	7.58	7.17	6.94	7.95		8.99	8.15	7.54
H1 lead leg		strides		13	13	15	15		15	15	15	15	15	18.5	149.5				
Zheng Hao (CHN) (2001)																			
U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)																CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.40	10.61	14.95	19.36	23.89		28.56	33.51	38.76	44.17	49.76		55.58	3 / 4			
reaction time	0.208	interval		4.21	4.34	4.41	4.53		4.67	4.95	5.25	5.41	5.59	5.82	PB		12.96	14.15	16.25
		velocity	7.03	8.31	8.06	7.94	7.73		7.49	7.07	6.67	6.47	6.26	6.87	7.20		8.10	7.42	6.46
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	17	19.5	181.5				
Zheng Pan (CHN) (2001)																			
Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)																CAA Hurdle Development (2021)			
date	26-Jun-21	time	6.38	10.34	14.33	18.38	22.61		27.11	31.73	36.48	41.49	46.59		52.36	7 / 4			
reaction time	0.203	interval		3.96	3.99	4.05	4.23		4.50	4.62	4.75	5.01	5.10	5.77			12.00	13.35	14.86
		velocity	7.05	8.84	8.77	8.64	8.27		7.78	7.58	7.37	6.99	6.86	6.93	7.64		8.75	7.87	7.07
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	16	19	174				
FINAL - 2021 National Grand Prix (Chengdu, CHN)																CAA Hurdle Development (2021)			
date	02-Apr-21	time	6.15	10.08	14.06	18.11	22.33		26.69	31.27	36.05	41.17	46.40		52.27	7 / 2			
reaction time	0.187	interval		3.93	3.98	4.05	4.22		4.36	4.58	4.78	5.12	5.23	5.87			11.96	13.16	15.13
		velocity	7.32	8.91	8.79	8.64	8.29		8.03	7.64	7.32	6.84	6.69	6.81	7.65		8.78	7.98	6.94
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Heat 2 - 2021 National Grand Prix (Chengdu, CHN)																CAA Hurdle Development (2021)			
date	01-Apr-21	time	6.46	10.58	14.80	19.00	23.28		27.70	32.22	36.92	41.98	47.14		52.78	3 / 3			
reaction time	0.203	interval		4.12	4.22	4.20	4.28		4.42	4.52	4.70	5.06	5.16	5.64	PB		12.54	13.22	14.92
		velocity	6.97	8.50	8.29	8.33	8.18		7.92	7.74	7.45	6.92	6.78	7.09	7.58		8.37	7.94	7.04
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Zhou Chao (CHN) (2000)																			
U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)																CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.42	10.56	14.86	19.16	23.64		28.18	32.78	37.84	42.96	48.14		53.90	3 / 4			
reaction time	0.208	interval		4.14	4.30	4.30	4.48		4.54	4.60	5.06	5.12	5.18	5.76	PB		12.74	13.62	15.36
		velocity	7.01	8.45	8.14	8.14	7.81		7.71	7.61	6.92	6.84	6.76	6.94	7.42		8.24	7.71	6.84
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	19	179				
Zhu Yizheng (CHN) (2000)																			
U20 FINAL - 2019 Chinese National Youth Games (Taiyuan, CHN)																CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.41	10.46	14.54	18.74	23.11		27.70	32.44	37.34	42.46	47.66		53.54	4 / 7			
reaction time	0.223	interval		4.05	4.08	4.20	4.37		4.59	4.74	4.90	5.12	5.20	5.88			12.33	13.70	15.22
		velocity	7.02	8.64	8.58	8.33	8.01		7.63	7.38	7.14	6.84	6.73	6.80	7.47		8.52	7.66	6.90
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	16	19	174				
U20 Heat 1 - 2019 Chinese National Youth Games (Taiyuan, CHN)																CAA Hurdle Development (2019)			
date	17-Aug-19	time	6.47	10.50	14.56	18.74	23.04		27.54	32.10	36.90	41.96	47.10		52.90	5 / 2			
reaction time	0.209	interval		4.03	4.06	4.18	4.30		4.50	4.56	4.80	5.06	5.14	5.80	PB		12.27	13.36	15.00
		velocity	6.96	8.68	8.62	8.37	8.14		7.78	7.68	7.29	6.92	6.81	6.90	7.56		8.56	7.86	7.00
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	16	19	174				
Zhuang Linfei (CHN) (1996)																			
Heat 2 - 2021 Chinese National Championships (Chongqing, CHN)																CAA Hurdle Development (2021)			
date	26-Jun-21	time	6.24	10.23	14.33	18.59	22.97		27.61	32.34	37.27	42.46	47.98		54.37	4 / 5			
reaction time	0.183	interval		3.99	4.10	4.26	4.38		4.64	4.73	4.93	5.19	5.52	6.39			12.35	13.75	15.64
		velocity	7.21	8.77	8.54	8.22	7.99		7.54	7.40	7.10	6.74	6.34	6.26	7.36		8.50	7.64	6.71
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	17	20	174				

FINAL - 2019 Chinese National Grand Prix Final (Daqing, CHN)

date	23-Aug-19	time	6.20	10.04	14.03	18.18	22.48	27.00	31.60	36.24	41.11	46.02	51.67	CAA Hurdle Development (2019)			
reaction time	0.220	interval		3.84	3.99	4.15	4.30	4.52	4.60	4.64	4.87	4.91	5.65	7 / 5	11.98	13.42	14.42
		velocity	7.26	9.11	8.77	8.43	8.14	7.74	7.61	7.54	7.19	7.13	7.08		8.76	7.82	7.28
H1 lead leg	L	strides	13	13	14	14	14	14	15	15	15	15	18.5				

Heat 2 - 2019 Chinese National Grand Prix Final (Daqing, CHN)

date	22-Aug-19	time	6.33	10.28	14.34	18.55	22.94	27.51	32.08	36.85	41.69	46.55	52.04	CAA Hurdle Development (2019)			
reaction time	0.233	interval		3.95	4.06	4.21	4.39	4.57	4.57	4.77	4.84	4.86	5.49	8 / 2	12.22	13.53	14.47
		velocity	7.11	8.86	8.62	8.31	7.97	7.66	7.66	7.34	7.23	7.20	7.29		8.59	7.76	7.26
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	18				

FINAL - 2019 Chinese World Championship Trials (Shenyang, CHN)

date	03-Aug-19	time	6.28	10.20	14.22	18.38	22.66	27.12	31.65	36.31	41.06	45.98	51.60	CAA Hurdle Development (2019)			
reaction time	0.256	interval		3.92	4.02	4.16	4.28	4.46	4.53	4.66	4.75	4.92	5.62	8 / 5	12.10	13.27	14.33
		velocity	7.17	8.93	8.71	8.41	8.18	7.85	7.73	7.51	7.37	7.11	7.12		8.68	7.91	7.33
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	18.5				

Heat 2 - 2019 Chinese World Championship Trials (Shenyang, CHN)

date	03-Aug-19	time	6.57	10.76	15.16	19.67	24.36	29.29	34.18	38.94	43.72	48.45	53.76	CAA Hurdle Development (2019)			
reaction time	0.260	interval		4.19	4.40	4.51	4.69	4.93	4.89	4.76	4.78	4.73	5.31	5 / 3	13.10	14.51	14.27
		velocity	6.85	8.35	7.95	7.76	7.46	7.10	7.16	7.35	7.32	7.40	7.53		8.02	7.24	7.36
H1 lead leg	L	strides	21	13	13	14	14	15	15	15	15	15	17.5				

FINAL - 2019 Chinese National Championships (Shenyang, CHN)

date	10-Jul-19	time	6.20	10.08	14.02	18.06	22.21	26.60	31.08	35.76	40.56	45.45	50.99	CAA Hurdle Development (2019)			
reaction time	0.250	interval		3.88	3.94	4.04	4.15	4.39	4.48	4.68	4.80	4.89	5.54	7 / 5	11.86	13.02	14.37
		velocity	7.26	9.02	8.88	8.66	8.43	7.97	7.81	7.48	7.29	7.16	7.22		8.85	8.06	7.31
H1 lead leg	L	strides	21	13	13	14	14	14	14	15	15	15	17.8				

Heat 1 - 2019 Chinese National Championships (Shenyang, CHN)

date	09-Jul-19	time	6.20	10.09	14.08	18.22	22.43	26.78	31.20	35.75	40.46	45.33	50.98	CAA Hurdle Development (2019)			
reaction time	0.199	interval		3.89	3.99	4.14	4.21	4.35	4.42	4.55	4.71	4.87	5.65	5 / 3	12.02	12.98	14.13
		velocity	7.26	9.00	8.77	8.45	8.31	8.05	7.92	7.69	7.43	7.19	7.08		8.74	8.09	7.43
H1 lead leg	L	strides	21	14	14	14	14	14	14	15	15	15	19				

FINAL - 2019 Chinese National Grand Prix 4 (Luoyang, CHN)

date	29-May-19	time	6.42	10.46	14.86	19.34	23.34	27.95	32.64	37.43	42.35	47.28	52.76	CAA Hurdle Development (2019)			
reaction time	0.298	interval		4.04	4.40	4.48	4.58	4.61	4.69	4.79	4.92	4.93	5.48	8 / 5	12.44	13.78	14.64
		velocity	7.01	8.66	8.33	7.81	7.59	7.59	7.46	7.31	7.11	7.10	7.30		8.44	7.62	7.17
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15	18				

FINAL - 2019 Chinese National Grand Prix 2 (Huangshi, CHN)

date	12-Apr-19	time	6.48	10.54	14.82	19.22	23.76	28.38	33.26	38.18	43.28	48.48	54.17	CAA Hurdle Development (2019)			
reaction time	0.225	interval		4.06	4.28	4.40	4.54	4.62	4.88	4.92	5.10	5.20	5.69	2 / 6	12.74	14.04	15.22
		velocity	6.94	8.62	8.18	7.95	7.71	7.58	7.17	7.11	6.86	6.73	7.03		8.24	7.48	6.90
H1 lead leg	L	strides	21	16	16	16	16	16	16	15	15	16	19				

FINAL - 2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)

date	08-Apr-19	time	6.32	10.30	14.36	18.48	22.74	27.18	31.82	36.70	41.70	46.84	52.70	CAA Hurdle Development (2019)			
reaction time	0.240	interval		3.98	4.06	4.12	4.26	4.44	4.64	4.88	5.00	5.14	5.86	4 / 7	12.16	13.34	15.02
		velocity	7.12	8.79	8.62	8.50	8.22	7.88	7.54	7.17	7.00	6.81	6.83		8.63	7.87	6.99
H1 lead leg	L	strides	21	16	16	16	16	15	15	15	15	15	19				

Zhuang Zhixiong (CHN) (1998)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
CAA Hurdle Development (2021)																			
Heat 2 - 2021 East China District Meeting (Zhaoqing, CHN)																			
date	25-Apr-21	time	6.39	10.51	14.76	19.15	23.64	28.33	33.22	38.25	43.56	49.03	55.17	4 / 4	55.17				
reaction time	0.199	interval		4.12	4.25	4.39	4.49	4.69	4.89	5.03	5.31	5.47	6.14				12.76	14.07	15.81
		velocity	7.04	8.50	8.24	7.97	7.80	7.46	7.16	6.96	6.59	6.40	6.51				8.23	7.46	6.64
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	17	17	19.5		181.5				

Ziegler, Rolf (FRG) (1951)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10	
Helbig (1975) - 400-m-hürdenlauf																				
FINAL - 1975 West German National Championships (Gelsenkirchen, FRG)																				
date	28-Jun-75	time	6.2	10.2	14.2	18.4	22.6	24.6	27.0	31.5	36.1	40.8	45.4	51.47	7 / 4	51.47				
reaction time		interval		4.06	4.01	4.14	4.19	4.41	4.49	4.64	4.71	4.59	6.07				12.21	13.09	13.94	
		velocity	7.31	8.62	8.73	8.45	8.35	8.14	7.94	7.80	7.54	7.43	7.63	6.59		7.77		8.60	8.02	7.53
H1 lead leg		strides																		

Heat 5 - 1972 Olympic Games (Munich, FRG)

Schmidt (1973) - vorolympisches training von john akii-bua über 400 hürden																			
date	01-Sep-72	time					21.6						30.4		44.5	50.17	7 / 3		
reaction time		interval																	
		velocity					8.56								7.45	7.05	7.97		
H1 lead leg		strides																	

Zorin, Yuriy (URS) (1947)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Letzelter (1973) - schrittgestaltung und geschwindigkeitsverlauf beim 400-m-hürdenlauf der olympischen spiele 1972																			
FINAL - 1972 Olympic Games (Munich, FRG)																			

date	03-Sep-72	time	6.0	9.8	13.5	17.4	21.4	25.6	30.0	34.6	39.4	44.4	50.25	3 / 8			
reaction time		interval		3.75	3.75	3.90	4.00	4.20	4.40	4.60	4.80	4.95	5.90		11.40	12.60	14.35
		velocity	7.50	9.33	9.33	8.97	8.75	8.33	7.95	7.61	7.29	7.07	6.78	7.96	9.21	8.33	7.32
H1 lead leg	L	strides	20	13	13	13	13	13	13	15	15	15	143				

Zou Haichao (CHN) (2001)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
U20 Heat 2 - 2019 Chinese National Youth Games (Taiyuan, CHN)																		
<i>CAA Hurdle Development (2019)</i>																		
date	17-Aug-19	time	6.28	10.42	14.73	19.13	23.62	28.23	32.89	37.72	42.91	48.34		54.46	6 / 3			
reaction time	0.181	interval		4.14	4.31	4.40	4.49	4.61	4.66	4.83	5.19	5.43	6.12			12.85	13.76	15.45
		velocity	7.17	8.45	8.12	7.95	7.80	7.59	7.51	7.25	6.74	6.45	6.54	7.34		8.17	7.63	6.80
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	17	17	19.3	180.3				

