Women's 400m Split Times - by athletics meeting

LAST UPDATE: 17-May-25

2025 Jetour Doha Meeting (Doha, QAT)

FINAL

date 16-May-25

Omega Timing (2025) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Saiwa Eid (BRN) (199	time	6.64	12.09	17.98	24.15	30.26	36.56	42.94	49.83	49.83	5 / 1							
reaction time 0.172	interval		5.45	5.89	6.17	6.11	6.30	6.38	6.89		# of strides	12.09	12.06	12.41	13.27	24.15	25.68	1.53
	velocity	7.53	9.17	8.49	8.10	8.18	7.94	7.84	7.26	8.03	188.0	8.27	8.29	8.06	7.54	8.28	7.79	
Bukowiecka, Natalia (POL) (1	time	6.83	12.07	18.48	24.73	31.08	37.55	43.99	50.92	50.92	6 / 2							
reaction time 0.200	interval		5.24	6.41	6.25	6.35	6.47	6.44	6.93		# of strides	12.07	12.66	12.82	13.37	24.73	26.19	1.46
	velocity	7.32	9.54	7.80	8.00	7.87	7.73	7.76	7.22	7.86	197.0	8.29	7.90	7.80	7.48	8.09	7.64	
Klaver, Lieke (NED) (1998)	time	6.65	12.18	18.12	24.40	30.88	37.41	44.01	51.12	51.12	4 / 3							
reaction time 0.213	interval		5.53	5.94	6.28	6.48	6.53	6.60	7.11		# of strides	12.18	12.22	13.01	13.71	24.40	26.72	2.32
	velocity	7.52	9.04	8.42	7.96	7.72	7.66	7.58	7.03	7.82	183.0	8.21	8.18	7.69	7.29	8.20	7.49	
Williams, Sada (BAR) (1997)	time	6.62	12.33	18.31	24.41	30.67	37.21	43.94	51.32	51.32	7 / 4							
reaction time 0.147	interval		5.71	5.98	6.10	6.26	6.54	6.73	7.38		# of strides	12.33	12.08	12.80	14.11	24.41	26.91	2.50
	velocity	7.55	8.76	8.36	8.20	7.99	7.65	7.43	6.78	7.79		8.11	8.28	7.81	7.09	8.19	7.43	
Maloney, Shafiqua (VIN) (19	time	6.62	12.11	18.03	24.20	30.68	37.27	44.09	51.54	51.54	8 / 5							
reaction time 0.202	interval		5.49	5.92	6.17	6.48	6.59	6.82	7.45		# of strides	12.11	12.09	13.07	14.27	24.20	27.34	3.14
	velocity	7.55	9.11	8.45	8.10	7.72	7.59	7.33	6.71	7.76		8.26	8.27	7.65	7.01	8.26	7.32	
Gogl-Walli, Susanne (AUT) (	time	6.85	12.54	18.60	24.95	31.45	38.12	44.82	51.91	51.91	2 / 6							
reaction time 0.197	interval		5.69	6.06	6.35	6.50	6.67	6.70	7.09		# of strides	12.54	12.41	13.17	13.79	24.95	26.96	2.01
	velocity	7.30	8.79	8.25	7.87	7.69	7.50	7.46	7.05	7.71		7.97	8.06	7.59	7.25	8.02	7.42	
Nielsen, Laviai (GBR) (1996)	time	6.71	12.50	18.59	25.07	31.65	38.24	44.86	52.02	52.02	3 / 7							
reaction time 0.175	interval		5.79	6.09	6.48	6.58	6.59	6.62	7.16		# of strides	12.50	12.57	13.17	13.78	25.07	26.95	1.88
	velocity	7.45	8.64	8.21	7.72	7.60	7.59	7.55	6.98	7.69		8.00	7.96	7.59	7.26	7.98	7.42	
Marisio, Bakhita Jamal Saber	time	6.98	12.74	18.89	25.50	32.49	39.78	47.28	55.37	55.37	1 / 8							
reaction time	interval		5.76	6.15	6.61	6.99	7.29	7.50	8.09	NJR	# of strides	12.74	12.76	14.28	15.59	25.50	29.87	4.37
	velocity	7.16	8.68	8.13	7.56	7.15	6.86	6.67	6.18	7.22		7.85	7.84	7.00	6.41	7.84	6.70	

Invitational FINAL

date 16-May-25

Omega Timing (2025) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Moroko, Galefele (BOT) (199	time	7.08	13.02	19.30	25.79	32.48	39.44	46.54	54.07	54.07	6 / 1							
reaction time 0.222	interval		5.94	6.28	6.49	6.69	6.96	7.10	7.53		# of strides	13.02	12.77	13.65	14.63	25.79	28.28	2.49
	velocity	7.06	8.42	7.96	7.70	7.47	7.18	7.04	6.64	7.40		7.68	7.83	7.33	6.84	7.75	7.07	
Khamis, Naima Agnes (QAT)	time	6.88	12.68	18.82	25.35	32.08	39.15	46.58	54.98	54.98	5 / 2							
reaction time 0.170	interval		5.80	6.14	6.53	6.73	7.07	7.43	8.40	PB	# of strides	12.68	12.67	13.80	15.83	25.35	29.63	4.28
	velocity	7.27	8.62	8.14	7.66	7.43	7.07	6.73	5.95	7.28		7.89	7.89	7.25	6.32	7.89	6.75	
Ashraf, Shahd (QAT) (2003)	time	6.92	13.07	19.45	26.17	32.92	39.98	47.28	55.23	55.23	7 / 3							
reaction time 0.207	interval		6.15	6.38	6.72	6.75	7.06	7.30	7.95		# of strides	13.07	13.10	13.81	15.25	26.17	29.06	2.89
	velocity	7.23	8.13	7.84	7.44	7.41	7.08	6.85	6.29	7.24		7.65	7.63	7.24	6.56	7.64	6.88	
Salem Taqi, Dana (QAT)	time	6.94	12.98	19.46	26.45	33.62	40.98	48.33	56.01	56.01	8 / 4							
reaction time 0.209	interval		6.04	6.48	6.99	7.17	7.36	7.35	7.68	PB	# of strides	12.98	13.47	14.53	15.03	26.45	29.56	3.11
	velocity	7.20	8.28	7.72	7.15	6.97	6.79	6.80	6.51	7.14		7.70	7.42	6.88	6.65	7.56	6.77	
Thamer Salem, Farida (QAT)	time	7.03	13.13	19.70	26.48	33.42	40.61	48.32	56.56	56.56	3 / 5							
reaction time 0.228	interval		6.10	6.57	6.78	6.94	7.19	7.71	8.24		# of strides	13.13	13.35	14.13	15.95	26.48	30.08	3.60
	velocity	7.11	8.20	7.61	7.37	7.20	6.95	6.49	6.07	7.07		7.62	7.49	7.08	6.27	7.55	6.65	
Ali, Sara Shams (QAT) (2005	time	6.78	12.63	18.95	25.64	32.46	39.67	47.50	56.71	56.71	4 / 6							
reaction time 0.194	interval		5.85	6.32	6.69	6.82	7.21	7.83	9.21	PB	# of strides	12.63	13.01	14.03	17.04	25.64	31.07	5.43
	velocity	7.37	8.55	7.91	7.47	7.33	6.93	6.39	5.43	7.05		7.92	7.69	7.13	5.87	7.80	6.44	
Aman, Bdr (QAT)	time	6.92	12.90	19.28	26.04	33.07	40.52	48.29	57.09	57.09	2 / 7							
reaction time 0.184	interval		5.98	6.38	6.76	7.03	7.45	7.77	8.80		# of strides	12.90	13.14	14.48	16.57	26.04	31.05	5.01
	velocity	7.23	8.36	7.84	7.40	7.11	6.71	6.44	5.68	7.01		7.75	7.61	6.91	6.04	7.68	6.44	

2025 Grand Slam Track Miami (Miramar, FL)

Long Hurdles

date 04-May-25

Grand Slam Track (2025) - results and splits by race

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McLaughlin-Levrone, Sydne	time		12.36		24.28		36.76		49.69	49.69	5 / 1							
reaction time 0.200	interval				11.92		12.48		12.93		# of strides	12.36	11.92	12.48	12.93	24.28	25.41	1.13
	velocity		8.09		8.39		8.01		7.73	8.05	186.0	8.09	8.39	8.01	7.73	8.24	7.87	
Hall, Anna (USA) (2001)	time		12.69		24.77		37.55		51.68	51.68	8 / 2							
reaction time 0.210	interval				12.08		12.78		14.13		# of strides	12.69	12.08	12.78	14.13	24.77	26.91	2.14
	velocity		7.88		8.28		7.82		7.08	7.74		7.88	8.28	7.82	7.08	8.07	7.43	
Knight, Andrenette (JAM) (1	time		12.63		24.85		37.72		51.80	51.80	7 / 3							
reaction time 0.220	interval				12.22		12.87		14.08		# of strides	12.63	12.22	12.87	14.08	24.85	26.95	2.10
	velocity		7.92		8.18		7.77		7.10	7.72		7.92	8.18	7.77	7.10	8.05	7.42	
Little Shamier (USA) (1995)	time		12.45		24.37		37.61		51.84	51.84	6 / 4							
reaction time 0.230	interval				11.92		13.24		14.23		# of strides	12.45	11.92	13.24	14.23	24.37	27.47	3.10
	velocity		8.03		8.39		7.55		7.03	7.72		8.03	8.39	7.55	7.03	8.21	7.28	
Salmon, Shiann (JAM) (1999	time		12.41		24.43		37.60		52.17	52.17	3 / 5							

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 0.300	interval		12.02	13.17	14.57		# of strides	12.41	12.02	13.17	14.57	24.43	27.74	3.31
	velocity	8.06	8.32	7.59	6.86	7.67		8.06	8.32	7.59	6.86	8.19	7.21	
van den Broeck, Naomi (BEL	time	12.74	25.06	38.28	52.26	52.26	4 / 6							
reaction time 0.200	interval		12.32	13.22	13.98		# of strides	12.74	12.32	13.22	13.98	25.06	27.20	2.14
	velocity	7.85	8.12	7.56	7.15	7.65		7.85	8.12	7.56	7.15	7.98	7.35	
Carli, Sarah (AUS) (1994)	time	12.83	25.49	38.80	53.01	53.01	2 / 7							
reaction time 0.210	interval		12.66	13.31	14.21		# of strides	12.83	12.66	13.31	14.21	25.49	27.52	2.03
	velocity	7.79	7.90	7.51	7.04	7.55		7.79	7.90	7.51	7.04	7.85	7.27	
Tate, Cassandra (USA) (1990	time	12.74	25.21	38.84	53.55	53.55	1 / 8							
reaction time 0.410	interval		12.47	13.63	14.71		# of strides	12.74	12.47	13.63	14.71	25.21	28.34	3.13
	velocity	7.85	8.02	7.34	6.80	7.47		7.85	8.02	7.34	6.80	7.93	7.06	

2025 Yangtze River Delta Athletics Diamond Gala (Keqiao, CHN)

FINAL

date 03-May-25

Omega Timing (2025) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iuel, Amalie (NOR) (1994)	time	7.08	12.87	18.84	25.13	31.50	38.15	44.96	52.17	52.17	6 / 1							
reaction time 0.153	interval		5.79	5.97	6.29	6.37	6.65	6.81	7.21		# of strides	12.87	12.26	13.02	14.02	25.13	27.04	1.91
	velocity	7.06	8.64	8.38	7.95	7.85	7.52	7.34	6.93	7.67		7.77	8.16	7.68	7.13	7.96	7.40	
Eriksen Josefine Tomine (NC	time	7.10	12.90	18.93	25.08	31.42	38.19	45.14	52.73	52.73	5 / 2							
reaction time 0.180	interval		5.80	6.03	6.15	6.34	6.77	6.95	7.59		# of strides	12.90	12.18	13.11	14.54	25.08	27.65	2.57
	velocity	7.04	8.62	8.29	8.13	7.89	7.39	7.19	6.59	7.59		7.75	8.21	7.63	6.88	7.97	7.23	
Ertzgaard, Astri (NOR) (2002	time	6.95	12.72	18.68	24.74	31.07	37.79	45.05	52.93	52.93	4 / 3							
reaction time 0.135	interval		5.77	5.96	6.06	6.33	6.72	7.26	7.88		# of strides	12.72	12.02	13.05	15.14	24.74	28.19	3.45
	velocity	7.19	8.67	8.39	8.25	7.90	7.44	6.89	6.35	7.56		7.86	8.32	7.66	6.61	8.08	7.09	
Slettum, Elisabeth (NOR) (19	time	7.01	12.92	19.05	25.55	32.14	39.03	46.24	53.79	53.79	8 / 4							
reaction time 0.182	interval		5.91	6.13	6.50	6.59	6.89	7.21	7.55		# of strides	12.92	12.63	13.48	14.76	25.55	28.24	2.69
	velocity	7.13	8.46	8.16	7.69	7.59	7.26	6.93	6.62	7.44		7.74	7.92	7.42	6.78	7.83	7.08	
van der Veen, Laura (NOR) (2	time	7.12	13.07	19.44	25.91	32.54	39.54	46.79	53.93	53.93	2 / 5							
reaction time 0.248	interval		5.95	6.37	6.47	6.63	7.00	7.25	7.14	PB	# of strides	13.07	12.84	13.63	14.39	25.91	28.02	2.11
	velocity	7.02	8.40	7.85	7.73	7.54	7.14	6.90	7.00	7.42		7.65	7.79	7.34	6.95	7.72	7.14	
Lei Yuxin (CHN) (2006)	time	7.12	13.18	19.51	26.08	32.90	39.95	47.17	54.66	54.66	7 / 6							
reaction time 0.181	interval		6.06	6.33	6.57	6.82	7.05	7.22	7.49	PB	# of strides	13.18	12.90	13.87	14.71	26.08	28.58	2.50
	velocity	7.02	8.25	7.90	7.61	7.33	7.09	6.93	6.68	7.32		7.59	7.75	7.21	6.80	7.67	7.00	
Shi Jingyun (CHN) (2009)	time	7.05	12.89	19.14	25.74	32.58	39.83	47.40	55.35	55.35	9 / 7							
reaction time 0.186	interval		5.84	6.25	6.60	6.84	7.25	7.57	7.95	PB	# of strides	12.89	12.85	14.09	15.52	25.74	29.61	3.87
	velocity	7.09	8.56	8.00	7.58	7.31	6.90	6.61	6.29	7.23		7.76	7.78	7.10	6.44	7.77	6.75	
Shi Jingpei (CHN) (2009)	time	6.87	12.71	18.91	25.38	32.27	39.59	47.32	55.71	55.71	3 / 8							
reaction time 0.139	interval		5.84	6.20	6.47	6.89	7.32	7.73	8.39		# of strides	12.71	12.67	14.21	16.12	25.38	30.33	4.95
	velocity	7.28	8.56	8.06	7.73	7.26	6.83	6.47	5.96	7.18		7.87	7.89	7.04	6.20	7.88	6.59	
Li Jinzhu (CHN) (2007)	time	7.13	13.09	19.46	26.18	33.21	40.61	48.40	56.86	56.86	1 / 9							
reaction time	interval		5.96	6.37	6.72	7.03	7.40	7.79	8.46		# of strides	13.09	13.09	14.43	16.25	26.18	30.68	4.50
	velocity	7.01	8.39	7.85	7.44	7.11	6.76	6.42	5.91	7.03		7.64	7.64	6.93	6.15	7.64	6.52	

Sport School FINA

date 03-May-25

Omega Timing (2025) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Zhang Shanshan (CHN)	0.207	no information available								62.20	1 / 1						# of strides	
Yu Chenxi (CHN)	time	7.75	14.41	21.44	28.97	36.91	45.18	53.89	63.48	63.48	3 / 2							
reaction time 0.212	interval		6.66	7.03	7.53	7.94	8.27	8.71	9.59		# of strides	14.41	14.56	16.21	18.30	28.97	34.51	5.54
	velocity	6.45	7.51	7.11	6.64	6.30	6.05	5.74	5.21	6.30		6.94	6.87	6.17	5.46	6.90	5.80	
Rui Liao (CHN)	time	7.46	13.92	20.82	28.69	37.29	46.01	54.87	64.40	64.40	4 / 3							
reaction time 0.204	interval		6.46	6.90	7.87	8.60	8.72	8.86	9.53		# of strides	13.92	14.77	17.32	18.39	28.69	35.71	7.02
	velocity	6.70	7.74	7.25	6.35	5.81	5.73	5.64	5.25	6.21		7.18	6.77	5.77	5.44	6.97	5.60	
Luo Zicheng (CHN)	time	7.76	14.39	21.49	28.96	37.04	45.71	55.17	65.36	65.36	2 / 4							
reaction time 0.259	interval		6.63	7.10	7.47	8.08	8.67	9.46	10.19		# of strides	14.39	14.57	16.75	19.65	28.96	36.40	7.44
	velocity	6.44	7.54	7.04	6.69	6.19	5.77	5.29	4.91	6.12		6.95	6.86	5.97	5.09	6.91	5.49	
Qian Hanqi (CHN)	time	8.23	15.49	23.27	31.37	39.50	48.14	56.98	65.89	65.89	8 / 5							
reaction time 0.216	interval		7.26	7.78	8.10	8.13	8.64	8.84	8.91		# of strides	15.49	15.88	16.77	17.75	31.37	34.52	3.15
	velocity	6.08	6.89	6.43	6.17	6.15	5.79	5.66	5.61	6.07		6.46	6.30	5.96	5.63	6.38	5.79	
Tang Keying (CHN)	time	7.85	14.65	21.96	29.90	38.26	47.20	56.68	66.36	66.36	5 / 6							
reaction time 0.261	interval		6.80	7.31	7.94	8.36	8.94	9.48	9.68		# of strides	14.65	15.25	17.30	19.16	29.90	36.46	6.56
	velocity	6.37	7.35	6.84	6.30	5.98	5.59	5.27	5.17	6.03		6.83	6.56	5.78	5.22	6.69	5.49	
Wang Yixin (CHN)	time	7.97	15.13	22.57	30.45	38.74	47.57	57.13	67.43	67.43	6 / 7							
reaction time 0.214	interval		7.16	7.44	7.88	8.29	8.83	9.56	10.30		# of strides	15.13	15.32	17.12	19.86	30.45	36.98	6.53
	velocity	6.27	6.98	6.72	6.35	6.03	5.66	5.23	4.85	5.93		6.61	6.53	5.84	5.04	6.57	5.41	
Feng Shumin (CHN)	time	7.72	14.69	22.12	30.29	39.17	48.64	59.09	70.19	70.19	7 / 8							
reaction time 0.184	interval		6.97	7.43	8.17	8.88	9.47	10.45	11.10		# of strides	14.69	15.60	18.35	21.55	30.29	39.90	9.61
	velocity	6.48	7.17	6.73	6.12	5.63	5.28	4.78	4.50	5.70		6.81	6.41	5.45	4.64	6.60	5.01	

2025 Grand Slam Track Miami (Miramar, FL)

Long Sprints

date 02-May-25

Grand Slam Track (2025) - results and splits by race

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time		12.22		23.96		36.27		49.21	49.21	6 / 1							
reaction time 0.560	interval				11.74		12.31		12.94		# of strides	12.22	11.74	12.31	12.94	23.96	25.25	1.29
	velocity		8.18		8.52		8.12		7.73	8.13	174.0	8.18	8.52	8.12	7.73	8.35	7.92	
Naser, Salwa Eid (BRN) (199	time		12.05		23.66		36.06		49.33	49.33	7 / 2							
reaction time 0.690	interval				11.61		12.40		13.27		# of strides	12.05	11.61	12.40	13.27	23.66	25.67	2.01
	velocity		8.30		8.61		8.06		7.54	8.11	183.0	8.30	8.61	8.06	7.54	8.45	7.79	
Holmes, Alexis (USA) (2000)	time		12.12		24.00		36.74		50.36	50.36	5 / 3							
reaction time 0.180	interval				11.88		12.74		13.62		# of strides	12.12	11.88	12.74	13.62	24.00	26.36	2.36
	velocity		8.25		8.42		7.85		7.34	7.94	187.0	8.25	8.42	7.85	7.34	8.33	7.59	
Whittaker, Isabella (USA) (20	time		12.39		24.44		37.24		50.38	50.38	1 / 4							
reaction time 0.530	interval				12.05		12.80		13.14		# of strides	12.39	12.05	12.80	13.14	24.44	25.94	1.50
	velocity		8.07		8.30		7.81		7.61	7.94	188.0	8.07	8.30	7.81	7.61	8.18	7.71	
Pryce, Nickisha (JAM) (2001)	time		12.42		24.63		37.43		50.71	50.71	4 / 5							
reaction time 0.540	interval				12.21		12.80		13.28		# of strides	12.42	12.21	12.80	13.28	24.63	26.08	1.45
	velocity		8.05		8.19		7.81		7.53	7.89		8.05	8.19	7.81	7.53	8.12	7.67	
Williams, Stacey-Ann (JAM)	time		12.31		24.60		37.40		50.76	50.76	2 / 6							
reaction time 0.510	interval				12.29		12.80		13.36		# of strides	12.31	12.29	12.80	13.36	24.60	26.16	1.56
	velocity		8.12		8.14		7.81		7.49	7.88		8.12	8.14	7.81	7.49	8.13	7.65	
Anning, Amber (GBR) (2000	time		12.18		24.38		37.44		50.85	50.85	3 / 7							
reaction time 0.170	interval				12.20		13.06		13.41		# of strides	12.18	12.20	13.06	13.41	24.38	26.47	2.09
	velocity		8.21		8.20		7.66		7.46	7.87		8.21	8.20	7.66	7.46	8.20	7.56	
Ellis, Kendall (USA) (1996)	time		12.91		25.09		40.83		52.51	52.51	8 / 8							
reaction time 0.580	interval				12.18		15.74		11.68		# of strides	12.91	12.18	15.74	11.68	25.09	27.42	2.33
	velocity		7.75		8.21		6.35		8.56	7.62		7.75	8.21	6.35	8.56	7.97	7.29	

2025 Grand Slam Track Kingston (Kingston, JAM)

Long Hurdles

date 06-Apr-25

Grand Slam Track (2025) - results and splits by race

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McLaughlin-Levrone, Sydne	time		12.47		24.10		36.58		50.32	50.32	6 / 1							
reaction time 0.220	interval				11.63		12.48		13.74		# of strides	12.47	11.63	12.48	13.74	24.10	26.22	2.12
	velocity		8.02		8.60		8.01		7.28	7.95	185.2	8.02	8.60	8.01	7.28	8.30	7.63	
Knight, Andrenette (JAM) (1	time		12.46		24.51		37.33		52.09	52.09	4 / 2							
reaction time 0.180	interval				12.05		12.82		14.76		# of strides	12.46	12.05	12.82	14.76	24.51	27.58	3.07
	velocity		8.03		8.30		7.80		6.78	7.68		8.03	8.30	7.80	6.78	8.16	7.25	
Muhammad, Dalilah (USA) (	time		12.74		24.87		37.61		52.21	52.21	8 / 3							
reaction time 0.210	interval				12.13		12.74		14.60		# of strides	12.74	12.13	12.74	14.60	24.87	27.34	2.47
	velocity		7.85		8.24		7.85		6.85	7.66		7.85	8.24	7.85	6.85	8.04	7.32	
Salmon, Shiann (JAM) (1999	time		12.66		24.76		37.53		52.25	52.25	7 / 4							
reaction time 0.210	interval				12.10		12.77		14.72		# of strides	12.66	12.10	12.77	14.72	24.76	27.49	2.73
	velocity		7.90		8.26		7.83		6.79	7.66		7.90	8.26	7.83	6.79	8.08	7.28	
Peeters, Cathelijn (NED) (19	time		12.99		25.31		38.14		52.52	52.52	3 / 5							
reaction time 0.290	interval				12.32		12.83		14.38		# of strides	12.99	12.32	12.83	14.38	25.31	27.21	1.90
	velocity		7.70		8.12		7.79		6.95	7.62		7.70	8.12	7.79	6.95	7.90	7.35	
Tate, Cassandra (USA) (1990	time		12.33		23.96		37.01		52.73	52.73	2 / 6							
reaction time 0.230	interval				11.63		13.05		15.72		# of strides	12.33	11.63	13.05	15.72	23.96	28.77	4.81
	velocity		8.11		8.60		7.66		6.36	7.59		8.11	8.60	7.66	6.36	8.35	6.95	

Long Sprints

date 05-Apr-25

Grand Slam Track (2025) - results and splits by race

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.06		23.38		35.52		48.67	48.67	3 / 1							
reaction time 0.220	interval				11.32		12.14		13.15		# of strides	12.06	11.32	12.14	13.15	23.38	25.29	1.91
	velocity		8.29		8.83		8.24		7.60	8.22	187.0	8.29	8.83	8.24	7.60	8.55	7.91	
Thomas, Gabrielle (USA) (19	time		12.34		23.90		36.17		49.14	49.14	4 / 2							
reaction time 0.260	interval				11.56		12.27		12.97	PB	# of strides	12.34	11.56	12.27	12.97	23.90	25.24	1.34
	velocity		8.10		8.65		8.15		7.71	8.14	177.0	8.10	8.65	8.15	7.71	8.37	7.92	
Paulino, Marileidy (DOM) (19	time		12.49		24.19		36.19		49.35	49.35	6 / 3							
reaction time 0.340	interval				11.70		12.00		13.16		# of strides	12.49	11.70	12.00	13.16	24.19	25.16	0.97
	velocity		8.01		8.55		8.33		7.60	8.11	171.0	8.01	8.55	8.33	7.60	8.27	7.95	
Holmes, Alexis (USA) (2000)	time		12.35		24.23		36.75		50.12	50.12	7 / 4							
reaction time 0.190	interval				11.88		12.52		13.37		# of strides	12.35	11.88	12.52	13.37	24.23	25.89	1.66
	velocity		8.10		8.42		7.99		7.48	7.98	184.5	8.10	8.42	7.99	7.48	8.25	7.72	
Williams, Stacey-Ann (JAM)	time		12.50		24.12		36.41		50.37	50.37	8 / 5							
reaction time 0.200	interval				11.62		12.29		13.96		# of strides	12.50	11.62	12.29	13.96	24.12	26.25	2.13
	velocity		8.00		8.61		8.14		7.16	7.94		8.00	8.61	8.14	7.16	8.29	7.62	
Pryce, Nickisha (JAM) (2001)	time		12.30		23.97		36.52		50.92	50.92	5 / 6							
reaction time 0.210	interval				11.67		12.55		14.40		# of strides	12.30	11.67	12.55	14.40	23.97	26.95	2.98
	velocity		8.13		8.57		7.97		6.94	7.86	189.0	8.13	8.57	7.97	6.94	8.34	7.42	
Diggs, Talitha (USA) (2002)	time		12.33		24.50		37.43		52.05	52.05	2 / 7							

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 0.180	interval		12.17	12.93	14.62		# of strides	12.33	12.17	12.93	14.62	24.50	27.55	3.05
	velocity	8.11	8.22	7.73	6.84	7.68		8.11	8.22	7.73	6.84	8.16	7.26	
Asher-Smith, Dina (GBR) (1!	time	11.97	23.73	36.74	52.15	52.15	1 / 8							
reaction time 0.170	interval		11.76	13.01	15.41	PB	# of strides	11.97	11.76	13.01	15.41	23.73	28.42	4.69
	velocity	8.35	8.50	7.69	6.49	7.67		8.35	8.50	7.69	6.49	8.43	7.04	

2024 Chinese National Championships (Quzhou, CHN)

FINAL

date 16-Sep-24

Shandong Athletics Sport Science (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mo Jiadie (CHN) (2000)	time		14.01		25.28		38.89	45.91	53.15	53.15	4 / 1							
reaction time 0.218	interval				11.27		13.61	7.02	7.24		# of strides	14.01	11.27	13.61	14.26	25.28	27.87	2.59
	velocity		7.14		8.87		7.35	7.12	6.91	7.53	200.5	7.14	8.87	7.35	7.01	7.91	7.18	
Liu Yutong (CHN) (2002)	time		14.35		25.96		39.60	46.51	53.94	53.94	5 / 2							
reaction time 0.176	interval				11.61		13.64	6.91	7.43		# of strides	14.35	11.61	13.64	14.34	25.96	27.98	2.02
	velocity		6.97		8.61		7.33	7.24	6.73	7.42	193.5	6.97	8.61	7.33	6.97	7.70	7.15	
Huang Guifen (CHN) (1997)	time		14.55		26.12		39.75	46.69	54.03	54.03	6 / 3							
reaction time 0.211	interval				11.57		13.63	6.94	7.34		# of strides	14.55	11.57	13.63	14.28	26.12	27.91	1.79
	velocity		6.87		8.64		7.34	7.20	6.81	7.40	191.5	6.87	8.64	7.34	7.00	7.66	7.17	
Zuo Siyu (CHN) (2001)	time		14.38		25.67		39.40	46.64	54.39	54.39	2 / 4							
reaction time 0.202	interval				11.29		13.73	7.24	7.75		# of strides	14.38	11.29	13.73	14.99	25.67	28.72	3.05
	velocity		6.95		8.86		7.28	6.91	6.45	7.35	207.5	6.95	8.86	7.28	6.67	7.79	6.96	
Jiang Yutong (CHN) (2005)	time		14.81		26.52		39.91	46.91	54.39	54.39	8 / 5							
reaction time 0.171	interval				11.71		13.39	7.00	7.48		# of strides	14.81	11.71	13.39	14.48	26.52	27.87	1.35
	velocity		6.75		8.54		7.47	7.14	6.68	7.35	209.7	6.75	8.54	7.47	6.91	7.54	7.18	
Zhou Li (CHN) (2003)	time		14.18		25.52		39.49	47.01	54.85	54.85	1 / 6							
reaction time 0.188	interval				11.34		13.97	7.52	7.84		# of strides	14.18	11.34	13.97	15.36	25.52	29.33	3.81
	velocity		7.05		8.82		7.16	6.65	6.38	7.29	205.5	7.05	8.82	7.16	6.51	7.84	6.82	
Gu Zihan (CHN) (2001)	time		14.55		26.18		39.92	47.11	54.98	54.98	3 / 7							
reaction time 0.192	interval				11.63		13.74	7.19	7.87		# of strides	14.55	11.63	13.74	15.06	26.18	28.80	2.62
	velocity		6.87		8.60		7.28	6.95	6.35	7.28	203.0	6.87	8.60	7.28	6.64	7.64	6.94	
He Miao (CHN) (2003)	time		14.70		26.29		40.16	47.43	55.21	55.21	7 / 8							
reaction time 0.224	interval				11.59		13.87	7.27	7.78		# of strides	14.70	11.59	13.87	15.05	26.29	28.92	2.63
	velocity		6.80		8.63		7.21	6.88	6.43	7.25	201.5	6.80	8.63	7.21	6.64	7.61	6.92	

2024 Memorial van damme (Brussels, BEL)

FINAL

date 13-Sep-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.60	12.08	17.70	23.52	29.58	35.88	42.44	49.45	49.45	5 / 1							
reaction time 0.175	interval		5.48	5.62	5.82	6.06	6.30	6.56	7.01		# of strides	12.08	11.44	12.36	13.57	23.52	25.93	2.41
	velocity	7.58	9.12	8.90	8.59	8.25	7.94	7.62	7.13	8.09	171.0	8.28	8.74	8.09	7.37	8.50	7.71	
Holmes, Alexis (USA) (2000)	time	6.73	12.32	18.09	24.14	30.42	36.88	43.51	50.32	50.32	3 / 2							
reaction time 0.145	interval		5.59	5.77	6.05	6.28	6.46	6.63	6.81		# of strides	12.32	11.82	12.74	13.44	24.14	26.18	2.04
	velocity	7.43	8.94	8.67	8.26	7.96	7.74	7.54	7.34	7.95		8.12	8.46	7.85	7.44	8.29	7.64	
Naser, Salwa Eid (BRN) (199!	time	6.75	12.17	17.83	23.79	29.96	36.38	43.11	50.64	50.64	6 / ~~3~~							
reaction time 0.193	interval		5.42	5.66	5.96	6.17	6.42	6.73	7.53	DQ	# of strides	12.17	11.62	12.59	14.26	23.79	26.85	3.06
	velocity	7.41	9.23	8.83	8.39	8.10	7.79	7.43	6.64	7.90	188.0	8.22	8.61	7.94	7.01	8.41	7.45	
Adeleke, Rhasidat (IRL) (200	time	6.75	12.22	17.83	23.78	29.93	36.40	43.24	50.96	50.96	4 / ~~4~~ 3							
reaction time 0.155	interval		5.47	5.61	5.95	6.15	6.47	6.84	7.72		# of strides	12.22	11.56	12.62	14.56	23.78	27.18	3.40
	velocity	7.41	9.14	8.91	8.40	8.13	7.73	7.31	6.48	7.85		8.18	8.65	7.92	6.87	8.41	7.36	
Irby-Jackson, Lynna (USA) (	time	6.66	12.12	17.94	24.10	30.47	37.03	43.96	51.50	51.50	8 / ~~5~~ 4							
reaction time 0.170	interval		5.46	5.82	6.16	6.37	6.56	6.93	7.54		# of strides	12.12	11.98	12.93	14.47	24.10	27.40	3.30
	velocity	7.51	9.16	8.59	8.12	7.85	7.62	7.22	6.63	7.77		8.25	8.35	7.73	6.91	8.30	7.30	
Klaver, Lieke (NED) (1998)	time	6.72	12.08	17.64	23.53	29.82	36.49	43.68	51.69	51.69	7 / ~~6~~ 5							
reaction time 0.176	interval		5.36	5.56	5.89	6.29	6.67	7.19	8.01		# of strides	12.08	11.45	12.96	15.20	23.53	28.16	4.63
	velocity	7.44	9.33	8.99	8.49	7.95	7.50	6.95	6.24	7.74		8.28	8.73	7.72	6.58	8.50	7.10	
Brossier, Amandine (FRA) (	time	6.90	12.59	18.49	24.62	30.95	37.59	44.53	51.94	51.94	1 / ~~7~~ 6							
reaction time 0.208	interval		5.69	5.90	6.13	6.33	6.64	6.94	7.41		# of strides	12.59	12.03	12.97	14.35	24.62	27.32	2.70
	velocity	7.25	8.79	8.47	8.16	7.90	7.53	7.20	6.75	7.70		7.94	8.31	7.71	6.97	8.12	7.32	
Williams, Sada (BAR) (1997)	time	6.79	12.53	18.43	24.59	30.93	37.58	44.69	52.68	52.68	2 / ~~8~~ 7							
reaction time 0.185	interval		5.74	5.90	6.16	6.34	6.65	7.11	7.99		# of strides	12.53	12.06	12.99	15.10	24.59	28.09	3.50
	velocity	7.36	8.71	8.47	8.12	7.89	7.52	7.03	6.26	7.59		7.98	8.29	7.70	6.62	8.13	7.12	

Invitational

date 13-Sep-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McLaughlin-Levrone, Sydne	time	6.52	11.89	17.47	23.37	29.42	35.61	42.10	49.11	49.11	4 / 1							
reaction time 0.161	interval		5.37	5.58	5.90	6.05	6.19	6.49	7.01		# of strides	11.89	11.48	12.24	13.50	23.37	25.74	2.37
	velocity	7.67	9.31	8.96	8.47	8.26	8.08	7.70	7.13	8.14	184.0	8.41	8.71	8.17	7.41	8.56	7.77	
Williams, Stacey-Ann (JAM)	time	6.63	12.22	18.16	24.28	30.38	36.71	43.35	50.53	50.53	6 / 2							
reaction time 0.158	interval		5.59	5.94	6.12	6.10	6.33	6.64	7.18		# of strides	12.22	12.06	12.43	13.82	24.28	26.25	1.97
	velocity	7.54	8.94	8.42	8.17	8.20	7.90	7.53	6.96	7.92	193.0	8.18	8.29	8.05	7.24	8.24	7.62	

Miklós, Andrea (ROU) (1999)	time	6.66	12.17	17.86	23.90	30.18	36.80	43.69	51.16	51.16	5 / 3							
reaction time 0.144	interval		5.51	5.69	6.04	6.28	6.62	6.89	7.47		# of strides	12.17	11.73	12.90	14.36	23.90	27.26	3.36
	velocity	7.51	9.07	8.79	8.28	7.96	7.55	7.26	6.69	7.82	202.0	8.22	8.53	7.75	6.96	8.37	7.34	
McPherson, Stephenie Ann (	time	6.98	12.72	18.67	24.79	30.92	37.28	43.95	51.24	51.24	7 / 4							
reaction time 0.126	interval		5.74	5.95	6.12	6.13	6.36	6.67	7.29		# of strides	12.72	12.07	12.49	13.96	24.79	26.45	1.66
	velocity	7.16	8.71	8.40	8.17	8.16	7.86	7.50	6.86	7.81	186.0	7.86	8.29	8.01	7.16	8.07	7.56	
Claes, Hanne (BEL) (1991)	time	6.84	12.62	18.65	24.91	31.34	37.96	44.77	52.03	52.03	3 / 5							
reaction time 0.219	interval		5.78	6.03	6.26	6.43	6.62	6.81	7.26		# of strides	12.62	12.29	13.05	14.07	24.91	27.12	2.21
	velocity	7.31	8.65	8.29	7.99	7.78	7.55	7.34	6.89	7.69	193.7	7.92	8.14	7.66	7.11	8.03	7.37	
Ponette, Helena (BEL) (2000)	time	6.93	12.54	18.43	24.61	30.97	37.77	45.09	53.08	53.08	8 / 6							
reaction time 0.157	interval		5.61	5.89	6.18	6.36	6.80	7.32	7.99		# of strides	12.54	12.07	13.16	15.31	24.61	28.47	3.86
	velocity	7.22	8.91	8.49	8.09	7.86	7.35	6.83	6.26	7.54	202.0	7.97	8.29	7.60	6.53	8.13	7.02	
Borga, Rebecca (ITA) (1998)	time	6.95	12.82	18.91	25.27	31.93	38.85	46.07	54.25	54.25	2 / 7							
reaction time 0.165	interval		5.87	6.09	6.36	6.66	6.92	7.22	8.18		# of strides	12.82	12.45	13.58	15.40	25.27	28.98	3.71
	velocity	7.19	8.52	8.21	7.86	7.51	7.23	6.93	6.11	7.37	210.0	7.80	8.03	7.36	6.49	7.91	6.90	

2024 Weltklasse (Zürich, SUI)

FINAL date 05-Sep-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jæger, Henriette (NOR) (200	time	6.71	12.30	18.06	23.99	30.23	36.74	43.41	50.49	50.49	4 / 1							
reaction time 0.138	interval		5.59	5.76	5.93	6.24	6.51	6.67	7.08		# of strides	12.30	11.69	12.75	13.75	23.99	26.50	2.51
	velocity	7.45	8.94	8.68	8.43	8.01	7.68	7.50	7.06	7.92		8.13	8.55	7.84	7.27	8.34	7.55	
Gogl-Walli, Susanne (AUT) (	time	6.82	12.40	18.14	24.06	30.26	36.77	43.49	50.60	50.60	5 / 2							
reaction time 0.166	interval		5.58	5.74	5.92	6.20	6.51	6.72	7.11	NR PB	# of strides	12.40	11.66	12.71	13.83	24.06	26.54	2.48
	velocity	7.33	8.96	8.71	8.45	8.06	7.68	7.44	7.03	7.91		8.06	8.58	7.87	7.23	8.31	7.54	
Kus, Anastzja (POL) (2007)	time	7.15	13.17	19.36	25.47	31.78	38.30	45.04	52.10	52.10	1 / 3							
reaction time 0.150	interval		6.02	6.19	6.11	6.31	6.52	6.74	7.06		# of strides	13.17	12.30	12.83	13.80	25.47	26.63	1.16
	velocity	6.99	8.31	8.08	8.18	7.92	7.67	7.42	7.08	7.68		7.59	8.13	7.79	7.25	7.85	7.51	
Saalberg, Eveline (NED) (199	time	6.94	12.60	18.47	24.57	30.99	37.74	44.68	52.27	52.27	6 / 4							
reaction time 0.203	interval		5.66	5.87	6.10	6.42	6.75	6.94	7.59		# of strides	12.60	11.97	13.17	14.53	24.57	27.70	3.13
	velocity	7.20	8.83	8.52	8.20	7.79	7.41	7.20	6.59	7.65		7.94	8.35	7.59	6.88	8.14	7.22	
Senn, Giulia (SUI) (2001)	time	6.78	12.71	18.77	25.00	31.45	38.14	45.09	52.52	52.52	3 / 5							
reaction time 0.156	interval		5.93	6.06	6.23	6.45	6.69	6.95	7.43		# of strides	12.71	12.29	13.14	14.38	25.00	27.52	2.52
	velocity	7.37	8.43	8.25	8.03	7.75	7.47	7.19	6.73	7.62		7.87	8.14	7.61	6.95	8.00	7.27	
Gubelmann, Catia (SUI) (200	time	6.91	12.72	18.77	25.06	31.53	38.26	45.22	52.60	52.60	7 / 6							
reaction time 0.164	interval		5.81	6.05	6.29	6.47	6.73	6.96	7.38		# of strides	12.72	12.34	13.20	14.34	25.06	27.54	2.48
	velocity	7.24	8.61	8.26	7.95	7.73	7.43	7.18	6.78	7.60		7.86	8.10	7.58	6.97	7.98	7.26	
Fahr, Annina (SUI) (1993)	time	6.88	12.59	18.50	24.68	31.07	37.86	44.96	52.87	52.87	8 / 7							
reaction time 0.163	interval		5.71	5.91	6.18	6.39	6.79	7.10	7.91		# of strides	12.59	12.09	13.18	15.01	24.68	28.19	3.51
	velocity	7.27	8.76	8.46	8.09	7.82	7.36	7.04	6.32	7.57		7.94	8.27	7.59	6.66	8.10	7.09	
Niederberger, Julia (SUI) (20	time	6.95	12.72	18.75	24.98	31.58	38.49	45.64	53.11	53.11	2 / 8							
reaction time 0.161	interval		5.77	6.03	6.23	6.60	6.91	7.15	7.47		# of strides	12.72	12.26	13.51	14.62	24.98	28.13	3.15
	velocity	7.19	8.67	8.29	8.03	7.58	7.24	6.99	6.69	7.53		7.86	8.16	7.40	6.84	8.01	7.11	

2024 Kamila Skolimowska Memorial (Silesia, POL)

FINAL date 25-Aug-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.56	11.96	17.59	23.43	29.61	35.69	42.01	48.66	48.66	6 / 1							
reaction time 0.177	interval		5.40	5.63	5.84	6.18	6.08	6.32	6.65		# of strides	11.96	11.47	12.26	12.97	23.43	25.23	1.80
	velocity	7.62	9.26	8.88	8.56	8.09	8.22	7.91	7.52	8.22	170.0	8.36	8.72	8.16	7.71	8.54	7.93	
Naser, Salwa Eid (BRN) (199	time	6.52	11.80	17.33	23.23	29.34	35.77	42.36	49.23	49.23	4 / 2							
reaction time 0.169	interval		5.28	5.53	5.90	6.11	6.43	6.59	6.87		# of strides	11.80	11.43	12.54	13.46	23.23	26.00	2.77
	velocity	7.67	9.47	9.04	8.47	8.18	7.78	7.59	7.28	8.13	186.0	8.47	8.75	7.97	7.43	8.61	7.69	
Kaczmarek, Natalia (POL) (19	time	6.76	12.29	17.82	23.71	30.00	36.56	43.21	49.95	49.95	5 / 3							
reaction time 0.167	interval		5.53	5.53	5.89	6.29	6.56	6.65	6.74		# of strides	12.29	11.42	12.85	13.39	23.71	26.24	2.53
	velocity	7.40	9.04	9.04	8.49	7.95	7.62	7.52	7.42	8.01	193.5	8.14	8.76	7.78	7.47	8.44	7.62	
Adeleke, Rhasidat (IRL) (200	time	6.56	11.80	17.37	23.27	29.42	35.81	42.57	50.00	50.00	7 / 4							
reaction time 0.153	interval		5.24	5.57	5.90	6.15	6.39	6.76	7.43		# of strides	11.80	11.47	12.54	14.19	23.27	26.73	3.46
	velocity	7.62	9.54	8.98	8.47	8.13	7.82	7.40	6.73	8.00		8.47	8.72	7.97	7.05	8.59	7.48	
Holmes, Alexis (USA) (2000)	time	6.63	12.12	17.79	23.83	30.08	36.62	43.27	50.01	50.01	3 / 5							
reaction time 0.148	interval		5.49	5.67	6.04	6.25	6.54	6.65	6.74		# of strides	12.12	11.71	12.79	13.39	23.83	26.18	2.35
	velocity	7.54	9.11	8.82	8.28	8.00	7.65	7.52	7.42	8.00		8.25	8.54	7.82	7.47	8.39	7.64	
Jæger, Henriette (NOR) (200	time	6.66	12.15	17.84	23.84	30.01	36.48	43.28	50.33	50.33	2 / 6							
reaction time 0.139	interval		5.49	5.69	6.00	6.17	6.47	6.80	7.05		# of strides	12.15	11.69	12.64	13.85	23.84	26.49	2.65
	velocity	7.51	9.11	8.79	8.33	8.10	7.73	7.35	7.09	7.95		8.23	8.55	7.91	7.22	8.39	7.55	
Klaver, Lieke (NED) (1998)	time	6.66	12.11	17.80	23.78	29.98	36.46	43.21	50.46	50.46	8 / 7							
reaction time 0.135	interval		5.45	5.69	5.98	6.20	6.48	6.75	7.25		# of strides	12.11	11.67	12.68	14.00	23.78	26.68	2.90
	velocity	7.51	9.17	8.79	8.36	8.06	7.72	7.41	6.90	7.93		8.26	8.57	7.89	7.14	8.41	7.50	
Williams, Sada (BAR) (1997)	time	6.71	12.42	18.29	24.29	30.60	36.96	43.61	50.82	50.82	9 / 8							
reaction time 0.168	interval		5.71	5.87	6.00	6.31	6.36	6.65	7.21		# of strides	12.42	11.87	12.67	13.86	24.29	26.53	2.24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity	7.45	8.76	8.52	8.33	7.92	7.86	7.52	6.93	7.87		8.05	8.42	7.89	7.22	8.23	7.54	
Nielsen, Laviai (GBR) (1996)	time	6.66	12.20	17.94	24.03	30.34	37.04	43.96	51.02	51.02	1 / 9							
reaction time 0.154	interval		5.54	5.74	6.09	6.31	6.70	6.92	7.06		# of strides	12.20	11.83	13.01	13.98	24.03	26.99	2.96
	velocity	7.51	9.03	8.71	8.21	7.92	7.46	7.23	7.08	7.84		8.20	8.45	7.69	7.15	8.32	7.41	

2024 Athletissima (Lausanne, SUI)

FINAL

date 22-Aug-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Gubelmann, Catia (SUI) (200	time	6.80	12.55	18.62	24.94	31.41	38.13	45.07	52.57	52.57	5 / 1							
reaction time 0.162	interval		5.75	6.07	6.32	6.47	6.72	6.94	7.50		# of strides	12.55	12.39	13.19	14.44	24.94	27.63	2.69
	velocity	7.35	8.70	8.24	7.91	7.73	7.44	7.20	6.67	7.61		7.97	8.07	7.58	6.93	8.02	7.24	
Wernli, Lena (SUI) (2001)	time	6.96	12.90	19.05	25.30	31.79	38.63	45.66	53.33	53.33	6 / 2							
reaction time 0.143	interval		5.94	6.15	6.25	6.49	6.84	7.03	7.67		# of strides	12.90	12.40	13.33	14.70	25.30	28.03	2.73
	velocity	7.18	8.42	8.13	8.00	7.70	7.31	7.11	6.52	7.50		7.75	8.06	7.50	6.80	7.91	7.14	
Fahr, Annina (SUI) (1993)	time	6.95	12.75	18.82	25.15	31.65	38.46	45.55	53.49	53.49	4 / 3							
reaction time 0.168	interval		5.80	6.07	6.33	6.50	6.81	7.09	7.94		# of strides	12.75	12.40	13.31	15.03	25.15	28.34	3.19
	velocity	7.19	8.62	8.24	7.90	7.69	7.34	7.05	6.30	7.48		7.84	8.06	7.51	6.65	7.95	7.06	
Disch, Karin (SUI) (1997)	time	6.97	12.97	19.23	25.82	32.57	39.62	46.72	54.03	54.03	8 / 4							
reaction time 0.154	interval		6.00	6.26	6.59	6.75	7.05	7.10	7.31		# of strides	12.97	12.85	13.80	14.41	25.82	28.21	2.39
	velocity	7.17	8.33	7.99	7.59	7.41	7.09	7.04	6.84	7.40		7.71	7.78	7.25	6.94	7.75	7.09	
Gröbli, Michelle (SUI) (2001)	time	7.01	12.88	19.02	25.46	32.17	39.25	46.62	54.58	54.58	3 / 5							
reaction time 0.164	interval		5.87	6.14	6.44	6.71	7.08	7.37	7.96		# of strides	12.88	12.58	13.79	15.33	25.46	29.12	3.66
	velocity	7.13	8.52	8.14	7.76	7.45	7.06	6.78	6.28	7.33		7.76	7.95	7.25	6.52	7.86	6.87	
Yuille, Aline (SUI) (2002)	time	7.12	13.03	19.21	25.66	32.29	39.29	46.62	54.87	54.87	7 / 6							
reaction time 0.201	interval		5.91	6.18	6.45	6.63	7.00	7.33	8.25		# of strides	13.03	12.63	13.63	15.58	25.66	29.21	3.55
	velocity	7.02	8.46	8.09	7.75	7.54	7.14	6.82	6.06	7.29		7.67	7.92	7.34	6.42	7.79	6.85	
Bruhin, Shoelle (SUI) (1999)	time	7.02	12.97	19.22	25.79	32.51	39.56	46.93	54.97	54.97	1 / 7							
reaction time 0.168	interval		5.95	6.25	6.57	6.72	7.05	7.37	8.04		# of strides	12.97	12.82	13.77	15.41	25.79	29.18	3.39
	velocity	7.12	8.40	8.00	7.61	7.44	7.09	6.78	6.22	7.28		7.71	7.80	7.26	6.49	7.75	6.85	
Martin, Sophie (SUI) (2000)	time	6.90	12.78	18.97	25.45	32.23	39.50	47.23	55.66	55.66	2 / 8							
reaction time 0.181	interval		5.88	6.19	6.48	6.78	7.27	7.73	8.43		# of strides	12.78	12.67	14.05	16.16	25.45	30.21	4.76
	velocity	7.25	8.50	8.08	7.72	7.37	6.88	6.47	5.93	7.19		7.82	7.89	7.12	6.19	7.86	6.62	

2024 Olympic Games (Paris, FRA)

FINAL

date 09-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.56	11.87	17.22	22.81	28.67	34.78	41.15	48.17	48.17	6 / 1							
reaction time 0.187	interval		5.31	5.35	5.59	5.86	6.11	6.37	7.02	AR OR	# of strides	11.87	10.94	11.97	13.39	22.81	25.36	2.55
	velocity	7.62	9.42	9.35	8.94	8.53	8.18	7.85	7.12	8.30	172.2	8.42	9.14	8.35	7.47	8.77	7.89	
Naser, Salwa Eid (BRN) (199	time	6.45	11.73	17.28	23.12	29.10	35.23	41.60	48.53	48.53	8 / 2							
reaction time 0.165	interval		5.28	5.55	5.84	5.98	6.13	6.37	6.93		# of strides	11.73	11.39	12.11	13.30	23.12	25.41	2.29
	velocity	7.75	9.47	9.01	8.56	8.36	8.16	7.85	7.22	8.24	184.0	8.53	8.78	8.26	7.52	8.65	7.87	
Kaczmarek, Natalia (POL) (19	time	6.64	12.09	17.50	23.22	29.32	35.66	42.06	48.98	48.98	7 / 3							
reaction time 0.176	interval		5.45	5.41	5.72	6.10	6.34	6.40	6.92		# of strides	12.09	11.13	12.44	13.32	23.22	25.76	2.54
	velocity	7.53	9.17	9.24	8.74	8.20	7.89	7.81	7.23	8.17	191.0	8.27	8.98	8.04	7.51	8.61	7.76	
Adeleke, Rhasidat (IRL) (200	time	6.58	12.01	17.54	23.29	29.23	35.51	42.02	49.28	49.28	4 / 4							
reaction time 0.153	interval		5.43	5.53	5.75	5.94	6.28	6.51	7.26		# of strides	12.01	11.28	12.22	13.77	23.29	25.99	2.70
	velocity	7.60	9.21	9.04	8.70	8.42	7.96	7.68	6.89	8.12	186.2	8.33	8.87	8.18	7.26	8.59	7.70	
Anning, Amber (GBR) (2000	time	6.55	11.95	17.57	23.39	29.56	35.97	42.50	49.29	49.29	5 / 5							
reaction time 0.185	interval		5.40	5.62	5.82	6.17	6.41	6.53	6.79	NR PB	# of strides	11.95	11.44	12.58	13.32	23.39	25.90	2.51
	velocity	7.63	9.26	8.90	8.59	8.10	7.80	7.66	7.36	8.12	180.0	8.37	8.74	7.95	7.51	8.55	7.72	
Holmes, Alexis (USA) (2000)	time	6.53	11.96	17.59	23.47	29.61	36.05	42.67	49.77	49.77	9 / 6							
reaction time 0.147	interval		5.43	5.63	5.88	6.14	6.44	6.62	7.10	PB	# of strides	11.96	11.51	12.58	13.72	23.47	26.30	2.83
	velocity	7.66	9.21	8.88	8.50	8.14	7.76	7.55	7.04	8.04	187.7	8.36	8.69	7.95	7.29	8.52	7.60	
Williams, Sada (BAR) (1997)	time	6.77	12.28	17.78	23.46	29.41	35.77	42.48	49.83	49.83	2 / 7							
reaction time 0.176	interval		5.51	5.50	5.68	5.95	6.36	6.71	7.35		# of strides	12.28	11.18	12.31	14.06	23.46	26.37	2.91
	velocity	7.39	9.07	9.09	8.80	8.40	7.86	7.45	6.80	8.03	193.5	8.14	8.94	8.12	7.11	8.53	7.58	
Jæger, Henriette (NOR) (200	time	6.63	12.04	17.63	23.47	29.62	36.06	42.71	49.96	49.96	3 / 8							
reaction time 0.142	interval		5.41	5.59	5.84	6.15	6.44	6.65	7.25		# of strides	12.04	11.43	12.59	13.90	23.47	26.49	3.02
	velocity	7.54	9.24	8.94	8.56	8.13	7.76	7.52	6.90	8.01	193.2	8.31	8.75	7.94	7.19	8.52	7.55	

Semi-Final 3

date 07-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (19	time	6.67	12.14	17.62	23.46	29.71	36.10	42.59	49.45	49.45	7 / 1							
reaction time 0.183	interval		5.47	5.48	5.84	6.25	6.39	6.49	6.86		# of strides	12.14	11.32	12.64	13.35	23.46	25.99	2.53
	velocity	7.50	9.14	9.12	8.56	8.00	7.82	7.70	7.29	8.09	191.0	8.24	8.83	7.91	7.49	8.53	7.70	
Anning, Amber (GBR) (2000	time	6.61	12.02	17.58	23.42	29.64	36.03	42.61	49.47	49.47	6 / 2							
reaction time 0.227	interval		5.41	5.56	5.84	6.22	6.39	6.58	6.86	PB	# of strides	12.02	11.40	12.61	13.44	23.42	26.05	2.63
	velocity	7.56	9.24	8.99	8.56	8.04	7.82	7.60	7.29	8.09	179.5	8.32	8.77	7.93	7.44	8.54	7.68	
Williams, Sada (BAR) (1997)	time	6.74	12.29	17.93	23.78	29.89	36.16	42.80	49.89	49.89	4 / 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 0.187	interval		5.55	5.64	5.85	6.11	6.27	6.64	7.09		# of strides	12.29	11.49	12.38	13.73	23.78	26.11	2.33
	velocity	7.42	9.01	8.87	8.55	8.18	7.97	7.53	7.05	8.02	192.0	8.14	8.70	8.08	7.28	8.41	7.66	
Ellis, Kendall (USA) (1996)	time	6.79	12.39	18.13	24.02	30.22	36.64	43.19	50.40	50.40	2 / 4							
reaction time 0.215	interval		5.60	5.74	5.89	6.20	6.42	6.55	7.21		# of strides	12.39	11.63	12.62	13.76	24.02	26.38	2.36
	velocity	7.36	8.93	8.71	8.49	8.06	7.79	7.63	6.93	7.94	183.2	8.07	8.60	7.92	7.27	8.33	7.58	
Gómez, Roxana (CUB) (1999	time	6.98	12.59	18.29	24.18	30.32	36.68	43.32	50.48	50.48	5 / 5							
reaction time 0.209	interval		5.61	5.70	5.89	6.14	6.36	6.64	7.16		# of strides	12.59	11.59	12.50	13.80	24.18	26.30	2.12
	velocity	7.16	8.91	8.77	8.49	8.14	7.86	7.53	6.98	7.92	191.0	7.94	8.63	8.00	7.25	8.27	7.60	
Morán, Paola (MEX) (1997)	time	6.71	12.39	18.22	24.27	30.51	36.92	43.59	50.73	50.73	9 / 6							
reaction time 0.183	interval		5.68	5.83	6.05	6.24	6.41	6.67	7.14		# of strides	12.39	11.88	12.65	13.81	24.27	26.46	2.19
	velocity	7.45	8.80	8.58	8.26	8.01	7.80	7.50	7.00	7.88	188.7	8.07	8.42	7.91	7.24	8.24	7.56	
Williams, Stacey-Ann (JAM)	time	6.77	12.27	18.06	24.02	30.17	36.62	43.41	50.79	50.79	8 / 7							
reaction time 0.153	interval		5.50	5.79	5.96	6.15	6.45	6.79	7.38		# of strides	12.27	11.75	12.60	14.17	24.02	26.77	2.75
	velocity	7.39	9.09	8.64	8.39	8.13	7.75	7.36	6.78	7.88	192.5	8.15	8.51	7.94	7.06	8.33	7.47	
Coetzee, Miranda Charlene (	time	6.87	12.54	18.28	24.32	30.63	37.13	44.03	51.60	51.60	3 / 8							
reaction time 0.217	interval		5.67	5.74	6.04	6.31	6.50	6.90	7.57		# of strides	12.54	11.78	12.81	14.47	24.32	27.28	2.96
	velocity	7.28	8.82	8.71	8.28	7.92	7.69	7.25	6.61	7.75	193.0	7.97	8.49	7.81	6.91	8.22	7.33	

Semi-Final 2

date 07-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19 time	6.60	12.00	17.45	23.13	29.07	35.33	41.84	49.21	49.21	6 / 1							
reaction time 0.195 interval		5.40	5.45	5.68	5.94	6.26	6.51	7.37		# of strides	12.00	11.13	12.20	13.88	23.13	26.08	2.95
velocity	7.58	9.26	9.17	8.80	8.42	7.99	7.68	6.78	8.13	173.0	8.33	8.98	8.20	7.20	8.65	7.67	
Holmes, Alexis (USA) (2000) time	6.63	12.17	17.83	23.81	29.97	36.42	42.97	50.00	50.00	5 / 2							
reaction time 0.164 interval		5.54	5.66	5.98	6.16	6.45	6.55	7.03		# of strides	12.17	11.64	12.61	13.58	23.81	26.19	2.38
velocity	7.54	9.03	8.83	8.36	8.12	7.75	7.63	7.11	8.00	182.5	8.22	8.59	7.93	7.36	8.40	7.64	
Nielsen, Laviai (GBR) (1996) time	6.63	12.13	17.73	23.63	29.84	36.39	43.25	50.69	50.69	7 / 3							
reaction time 0.158 interval		5.50	5.60	5.90	6.21	6.55	6.86	7.44		# of strides	12.13	11.50	12.76	14.30	23.63	27.06	3.43
velocity	7.54	9.09	8.93	8.47	8.05	7.63	7.29	6.72	7.89	194.0	8.24	8.70	7.84	6.99	8.46	7.39	
Pryce, Nickisha (JAM) (2000) time	6.59	11.98	17.57	23.47	29.65	36.15	43.07	50.77	50.77	8 / 4							
reaction time 0.160 interval		5.39	5.59	5.90	6.18	6.50	6.92	7.70		# of strides	11.98	11.49	12.68	14.62	23.47	27.30	3.83
velocity	7.59	9.28	8.94	8.47	8.09	7.69	7.23	6.49	7.88	189.0	8.35	8.70	7.89	6.84	8.52	7.33	
Miklos, Andrea (ROU) (1999) time	6.76	12.28	17.98	23.95	30.20	36.76	43.52	50.78	50.78	9 / 5							
reaction time 0.158 interval		5.52	5.70	5.97	6.25	6.56	6.76	7.26		# of strides	12.28	11.67	12.81	14.02	23.95	26.83	2.88
velocity	7.40	9.06	8.77	8.38	8.00	7.62	7.40	6.89	7.88	203.0	8.14	8.57	7.81	7.13	8.35	7.45	
Onojuvwevwo, Ella (NGR) (2 time	6.77	12.31	18.01	23.95	30.13	36.69	43.58	51.05	51.05	3 / 6							
reaction time 0.188 interval		5.54	5.70	5.94	6.18	6.56	6.89	7.47		# of strides	12.31	11.64	12.74	14.36	23.95	27.10	3.15
velocity	7.39	9.03	8.77	8.42	8.09	7.62	7.26	6.69	7.84	195.0	8.12	8.59	7.85	6.96	8.35	7.38	
Gogl-Walli, Susanne (AUT) (time	6.88	12.47	18.22	24.25	30.49	37.09	43.89	51.17	51.17	4 / 7							
reaction time 0.163 interval		5.59	5.75	6.03	6.24	6.60	6.80	7.28		# of strides	12.47	11.78	12.84	14.08	24.25	26.92	2.67
velocity	7.27	8.94	8.70	8.29	8.01	7.58	7.35	6.87	7.82	194.0	8.02	8.49	7.79	7.10	8.25	7.43	
Manuel, Lurdes Gloria (CZE) time	6.95	12.59	18.29	24.18	30.42	37.01	43.92	51.42	51.42	2 / 8							
reaction time 0.167 interval		5.64	5.70	5.89	6.24	6.59	6.91	7.50		# of strides	12.59	11.59	12.83	14.41	24.18	27.24	3.06
velocity	7.19	8.87	8.77	8.49	8.01	7.59	7.24	6.67	7.78	191.7	7.94	8.63	7.79	6.94	8.27	7.34	

Semi-Final 1

date 07-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199 time	6.49	11.81	17.27	23.00	28.96	35.21	41.86	49.08	49.08	7 / 1							
reaction time 0.167 interval		5.32	5.46	5.73	5.96	6.25	6.65	7.22		# of strides	11.81	11.19	12.21	13.87	23.00	26.08	3.08
velocity	7.70	9.40	9.16	8.73	8.39	8.00	7.52	6.93	8.15	187.0	8.47	8.94	8.19	7.21	8.70	7.67	
Adeleke, Rhasidat (IRL) (200 time	6.62	12.07	17.54	23.22	29.16	35.44	42.26	49.95	49.95	8 / 2							
reaction time 0.159 interval		5.45	5.47	5.68	5.94	6.28	6.82	7.69		# of strides	12.07	11.15	12.22	14.51	23.22	26.73	3.51
velocity	7.55	9.17	9.14	8.80	8.42	7.96	7.33	6.50	8.01	187.7	8.29	8.97	8.18	6.89	8.61	7.48	
Jæger, Henriette (NOR) (200 time	6.61	12.09	17.68	23.53	29.66	36.11	42.89	50.17	50.17	4 / 3							
reaction time 0.129 interval		5.48	5.59	5.85	6.13	6.45	6.78	7.28		# of strides	12.09	11.44	12.58	14.06	23.53	26.64	3.11
velocity	7.56	9.12	8.94	8.55	8.16	7.75	7.37	6.87	7.97	194.0	8.27	8.74	7.95	7.11	8.50	7.51	
Klaver, Lieke (NED) (1998) time	6.62	12.01	17.53	23.33	29.45	35.96	42.86	50.44	50.44	6 / 4							
reaction time 0.151 interval		5.39	5.52	5.80	6.12	6.51	6.90	7.58		# of strides	12.01	11.32	12.63	14.48	23.33	27.11	3.78
velocity	7.55	9.28	9.06	8.62	8.17	7.68	7.25	6.60	7.93	188.0	8.33	8.83	7.92	6.91	8.57	7.38	
Ohurougu, Victoria (GBR) (1 time	6.76	12.21	17.80	23.76	30.03	36.63	43.61	51.14	51.14	3 / 5							
reaction time 0.189 interval		5.45	5.59	5.96	6.27	6.60	6.98	7.53		# of strides	12.21	11.55	12.87	14.51	23.76	27.38	3.62
velocity	7.40	9.17	8.94	8.39	7.97	7.58	7.16	6.64	7.82	194.0	8.19	8.66	7.77	6.89	8.42	7.30	
Butler, Aaliyah (USA) (2003) time	6.61	12.00	17.57	23.44	29.62	36.18	43.24	51.18	51.18	5 / 6							
reaction time 0.160 interval		5.39	5.57	5.87	6.18	6.56	7.06	7.94		# of strides	12.00	11.44	12.74	15.00	23.44	27.74	4.30
velocity	7.56	9.28	8.98	8.52	8.09	7.62	7.08	6.30	7.82	196.0	8.33	8.74	7.85	6.67	8.53	7.21	
Scott, Gabby (PUR) (1997) time	6.76	12.36	18.11	24.10	30.40	36.99	43.90	51.22	51.22	2 / 7							
reaction time 0.164 interval		5.60	5.75	5.99	6.30	6.59	6.91	7.32		# of strides	12.36	11.74	12.89	14.23	24.10	27.12	3.02
velocity	7.40	8.93	8.70	8.35	7.94	7.59	7.24	6.83	7.81	185.2	8.09	8.52	7.76	7.03	8.30	7.37	
Bromfield, Junelle (JAM) (19 time	6.75	12.26	17.97	23.92	30.16	36.86	44.05	51.93	51.93	9 / 8							

reaction time 0.187	interval		5.51	5.71	5.95	6.24	6.70	7.19	7.88		# of strides	12.26	11.66	12.94	15.07	23.92	28.01	4.09
	velocity	7.41	9.07	8.76	8.40	8.01	7.46	6.95	6.35	7.70		8.16	8.58	7.73	6.64	8.36	7.14	

Repechage 4

date 06-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ellis, Kendall (USA) (1996)	time	6.79	12.33	18.12	24.09	30.28	36.66	43.22	50.44	50.44	8 / 1							
reaction time 0.203	interval		5.54	5.79	5.97	6.19	6.38	6.56	7.22		# of strides	12.33	11.76	12.57	13.78	24.09	26.35	2.26
	velocity	7.36	9.03	8.64	8.38	8.08	7.84	7.62	6.93	7.93	185.0	8.11	8.50	7.96	7.26	8.30	7.59	
Becker, Sophie (IRL) (1997)	time	6.73	12.30	18.01	24.01	30.23	36.78	43.72	51.28	51.28	6 / 2							
reaction time 0.184	interval		5.57	5.71	6.00	6.22	6.55	6.94	7.56		# of strides	12.30	11.71	12.77	14.50	24.01	27.27	3.26
	velocity	7.43	8.98	8.76	8.33	8.04	7.63	7.20	6.61	7.80	199.0	8.13	8.54	7.83	6.90	8.33	7.33	
Sherar, Zoe (CAN) (1999)	time	6.86	12.41	18.16	24.18	30.44	36.91	43.76	51.43	51.43	7 / 3							
reaction time 0.170	interval		5.55	5.75	6.02	6.26	6.47	6.85	7.67		# of strides	12.41	11.77	12.73	14.52	24.18	27.25	3.07
	velocity	7.29	9.01	8.70	8.31	7.99	7.73	7.30	6.52	7.78	188.0	8.06	8.50	7.86	6.89	8.27	7.34	
Licona, Lina (COL) (1998)	time	6.93	12.55	18.33	24.41	30.64	37.16	44.18	51.90	51.90	4 / 4							
reaction time 0.169	interval		5.62	5.78	6.08	6.23	6.52	7.02	7.72		# of strides	12.55	11.86	12.75	14.74	24.41	27.49	3.08
	velocity	7.22	8.90	8.65	8.22	8.03	7.67	7.12	6.48	7.71	207.0	7.97	8.43	7.84	6.78	8.19	7.28	
Vondrová, Lada (CZE) (1999)	time	6.86	12.44	18.21	24.23	30.51	37.17	44.31	52.15	52.15	5 / 5							
reaction time 0.197	interval		5.58	5.77	6.02	6.28	6.66	7.14	7.84		# of strides	12.44	11.79	12.94	14.98	24.23	27.92	3.69
	velocity	7.29	8.96	8.67	8.31	7.96	7.51	7.00	6.38	7.67	198.7	8.04	8.48	7.73	6.68	8.25	7.16	
Marinho, Tiffani (BRA) (199	time	6.97	12.64	18.57	24.69	31.04	37.61	44.60	52.32	52.32	2 / 6							
reaction time 0.194	interval		5.67	5.93	6.12	6.35	6.57	6.99	7.72		# of strides	12.64	12.05	12.92	14.71	24.69	27.63	2.94
	velocity	7.17	8.82	8.43	8.17	7.87	7.61	7.15	6.48	7.65	202.0	7.91	8.30	7.74	6.80	8.10	7.24	

Repechage 3

date 06-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ohurougu, Victoria (GBR) (1	time	6.81	12.36	18.07	23.97	30.08	36.50	43.27	50.59	50.59	8 / 1							
reaction time 0.191	interval		5.55	5.71	5.90	6.11	6.42	6.77	7.32		# of strides	12.36	11.61	12.53	14.09	23.97	26.62	2.65
	velocity	7.34	9.01	8.76	8.47	8.18	7.79	7.39	6.83	7.91	194.0	8.09	8.61	7.98	7.10	8.34	7.51	
Vaičule, Gunta (LAT) (1995)	time	7.02	12.72	18.51	24.48	30.75	37.17	43.75	50.93	50.93	2 / 2							
reaction time 0.192	interval		5.70	5.79	5.97	6.27	6.42	6.58	7.18		# of strides	12.72	11.76	12.69	13.76	24.48	26.45	1.97
	velocity	7.12	8.77	8.64	8.38	7.97	7.79	7.60	6.96	7.85	196.0	7.86	8.50	7.88	7.27	8.17	7.56	
Mangione, Alice (ITA) (1997)	time	6.87	12.48	18.26	24.33	30.57	37.02	43.74	51.07	51.07	6 / 3							
reaction time 0.170	interval		5.61	5.78	6.07	6.24	6.45	6.72	7.33	PB	# of strides	12.48	11.85	12.69	14.05	24.33	26.74	2.41
	velocity	7.28	8.91	8.65	8.24	8.01	7.75	7.44	6.82	7.83	192.5	8.01	8.44	7.88	7.12	8.22	7.48	
Beer, Ellie (AUS) (2003)	time	6.92	12.45	18.11	24.10	30.41	37.06	44.05	51.65	51.65	4 / 4							
reaction time 0.201	interval		5.53	5.66	5.99	6.31	6.65	6.99	7.60		# of strides	12.45	11.65	12.96	14.59	24.10	27.55	3.45
	velocity	7.23	9.04	8.83	8.35	7.92	7.52	7.15	6.58	7.74	189.0	8.03	8.58	7.72	6.85	8.30	7.26	
Azevedo, Cátia (POR) (1994)	time	6.99	12.68	18.42	24.47	30.81	37.47	44.47	52.04	52.04	5 / 5							
reaction time 0.198	interval		5.69	5.74	6.05	6.34	6.66	7.00	7.57		# of strides	12.68	11.79	13.00	14.57	24.47	27.57	3.10
	velocity	7.15	8.79	8.71	8.26	7.89	7.51	7.14	6.61	7.69	195.0	7.89	8.48	7.69	6.86	8.17	7.25	
Gale, Lauren (CAN) (2000)	time	6.86	12.37	18.11	24.20	30.66	37.59	44.90	52.68	52.68	3 / 6							
reaction time 0.186	interval		5.51	5.74	6.09	6.46	6.93	7.31	7.78		# of strides	12.37	11.83	13.39	15.09	24.20	28.48	4.28
	velocity	7.29	9.07	8.71	8.21	7.74	7.22	6.84	6.43	7.59	192.5	8.08	8.45	7.47	6.63	8.26	7.02	
Aguilar, Evelyn (COL) (1993)	time	6.86	12.64	18.57	24.70	31.00	37.64	44.79	52.86	52.86	7 / 7							
reaction time 0.156	interval		5.78	5.93	6.13	6.30	6.64	7.15	8.07		# of strides	12.64	12.06	12.94	15.22	24.70	28.16	3.46
	velocity	7.29	8.65	8.43	8.16	7.94	7.53	6.99	6.20	7.57		7.91	8.29	7.73	6.57	8.10	7.10	

Repechage 2

date 06-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Scott, Gabby (PUR) (1997)	time	6.63	12.02	17.61	23.52	29.76	36.20	43.06	50.52	50.52	4 / 1							
reaction time 0.159	interval		5.39	5.59	5.91	6.24	6.44	6.86	7.46	NR PB	# of strides	12.02	11.50	12.68	14.32	23.52	27.00	3.48
	velocity	7.54	9.28	8.94	8.46	8.01	7.76	7.29	6.70	7.92	185.0	8.32	8.70	7.89	6.98	8.50	7.41	
Coetzee, Miranda (RSA) (19	time	6.71	12.35	18.05	24.00	30.20	36.52	43.22	50.66	50.66	8 / 2							
reaction time 0.164	interval		5.64	5.70	5.95	6.20	6.32	6.70	7.44	PB	# of strides	12.35	11.65	12.52	14.14	24.00	26.66	2.66
	velocity	7.45	8.87	8.77	8.40	8.06	7.91	7.46	6.72	7.90	191.0	8.10	8.58	7.99	7.07	8.33	7.50	
Manuel, Lurdes Gloria (CZE)	time	6.98	12.67	18.34	24.20	30.37	36.81	43.60	50.81	50.81	5 / 3							
reaction time 0.178	interval		5.69	5.67	5.86	6.17	6.44	6.79	7.21		# of strides	12.67	11.53	12.61	14.00	24.20	26.61	2.41
	velocity	7.16	8.79	8.82	8.53	8.10	7.76	7.36	6.93	7.87	192.0	7.89	8.67	7.93	7.14	8.26	7.52	
Morauskaitė, Modesta (LTU)	time	7.02	12.88	18.79	24.95	31.20	37.66	44.27	51.33	51.33	6 / 4							
reaction time 0.171	interval		5.86	5.91	6.16	6.25	6.46	6.61	7.06		# of strides	12.88	12.07	12.71	13.67	24.95	26.38	1.43
	velocity	7.12	8.53	8.46	8.12	8.00	7.74	7.56	7.08	7.79	195.7	7.76	8.29	7.87	7.32	8.02	7.58	
Ponette, Helena (BEL) (2000	time	7.05	12.77	18.54	24.61	30.88	37.35	44.08	51.46	51.46	7 / 5							
reaction time 0.164	interval		5.72	5.77	6.07	6.27	6.47	6.73	7.38	PB	# of strides	12.77	11.84	12.74	14.11	24.61	26.85	2.24
	velocity	7.09	8.74	8.67	8.24	7.97	7.73	7.43	6.78	7.77	197.0	7.83	8.45	7.85	7.09	8.13	7.45	
Weil, Martina (CHI) (1999)	time	6.68	12.21	17.81	23.72	29.98	36.58	43.73	51.79	51.79	3 / 6							
reaction time 0.178	interval		5.53	5.60	5.91	6.26	6.60	7.15	8.06		# of strides	12.21	11.51	12.86	15.21	23.72	28.07	4.35
	velocity	7.49	9.04	8.93	8.46	7.99	7.58	6.99	6.20	7.72	193.0	8.19	8.69	7.78	6.57	8.43	7.13	
Miller-Uibo, Shaunae (BAH)	time	6.76	12.24	17.83	23.71	30.01	36.78	44.53	53.50	53.50	2 / 7							
reaction time 0.167	interval		5.48	5.59	5.88	6.30	6.77	7.75	8.97		# of strides	12.24	11.47	13.07	16.72	23.71	29.79	6.08
	velocity	7.40	9.12	8.94	8.50	7.94	7.39	6.45	5.57	7.48	179.0	8.17	8.72	7.65	5.98	8.44	6.71	

Repechage 1

date 06-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Onojuvwevwo, Ella (NGR) (2	time	6.83	12.31	18.07	24.07	30.17	36.54	43.29	50.59	50.59	5 / 1							
reaction time 0.208	interval		5.48	5.76	6.00	6.10	6.37	6.75	7.30		# of strides	12.31	11.76	12.47	14.05	24.07	26.52	2.45
	velocity	7.32	9.12	8.68	8.33	8.20	7.85	7.41	6.85	7.91	192.0	8.12	8.50	8.02	7.12	8.31	7.54	
Święty-Ersetic, Justyna (POL	time	7.01	12.63	18.42	24.40	30.61	37.01	43.58	50.89	50.89	4 / 2							
reaction time 0.229	interval		5.62	5.79	5.98	6.21	6.40	6.57	7.31		# of strides	12.63	11.77	12.61	13.88	24.40	26.49	2.09
	velocity	7.13	8.90	8.64	8.36	8.05	7.81	7.61	6.84	7.86	201.7	7.92	8.50	7.93	7.20	8.20	7.55	
Mawdsley, Sharlene (IRL) (1	time	6.76	12.37	18.14	24.09	30.29	36.81	43.69	51.18	51.18	3 / 3							
reaction time 0.169	interval		5.61	5.77	5.95	6.20	6.52	6.88	7.49		# of strides	12.37	11.72	12.72	14.37	24.09	27.09	3.00
	velocity	7.40	8.91	8.67	8.40	8.06	7.67	7.27	6.68	7.82	194.0	8.08	8.53	7.86	6.96	8.30	7.38	
Petržilková, Tereza (CZE) (19	time	6.96	12.72	18.65	24.76	30.95	37.36	44.12	51.46	51.46	7 / 4							
reaction time 0.170	interval		5.76	5.93	6.11	6.19	6.41	6.76	7.34		# of strides	12.72	12.04	12.60	14.10	24.76	26.70	1.94
	velocity	7.18	8.68	8.43	8.18	8.08	7.80	7.40	6.81	7.77	191.5	7.86	8.31	7.94	7.09	8.08	7.49	
Abrams, Aliyah (GUY) (1997)	time	6.81	12.45	18.31	24.33	30.61	37.18	44.20	51.84	51.84	8 / 5							
reaction time 0.174	interval		5.64	5.86	6.02	6.28	6.57	7.02	7.64		# of strides	12.45	11.88	12.85	14.66	24.33	27.51	3.18
	velocity	7.34	8.87	8.53	8.31	7.96	7.61	7.12	6.54	7.72	203.0	8.03	8.42	7.78	6.82	8.22	7.27	
Kiran, Pahal (IND) (2000)	time	6.84	12.50	18.41	24.59	31.03	37.76	44.86	52.59	52.59	6 / 6							
reaction time 0.185	interval		5.66	5.91	6.18	6.44	6.73	7.10	7.73		# of strides	12.50	12.09	13.17	14.83	24.59	28.00	3.41
	velocity	7.31	8.83	8.46	8.09	7.76	7.43	7.04	6.47	7.61	186.0	8.00	8.27	7.59	6.74	8.13	7.14	

Heat 6

date 05-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Adeleke, Rhasidat (IRL) (200	time	6.59	12.02	17.55	23.40	29.45	35.77	42.45	50.09	50.09	5 / 1							
reaction time 0.162	interval		5.43	5.53	5.85	6.05	6.32	6.68	7.64		# of strides	12.02	11.38	12.37	14.32	23.40	26.69	3.29
	velocity	7.59	9.21	9.04	8.55	8.26	7.91	7.49	6.54	7.99	187.0	8.32	8.79	8.08	6.98	8.55	7.49	
Holmes, Alexis (USA) (2000)	time	6.58	11.99	17.65	23.63	29.96	36.44	43.16	50.35	50.35	7 / 2							
reaction time 0.144	interval		5.41	5.66	5.98	6.33	6.48	6.72	7.19		# of strides	11.99	11.64	12.81	13.91	23.63	26.72	3.09
	velocity	7.60	9.24	8.83	8.36	7.90	7.72	7.44	6.95	7.94	178.0	8.34	8.59	7.81	7.19	8.46	7.49	
Bromfield, Junelle (JAM) (19	time	6.80	12.30	18.09	24.11	30.42	36.95	43.88	51.36	51.36	8 / 3							
reaction time 0.198	interval		5.50	5.79	6.02	6.31	6.53	6.93	7.48		# of strides	12.30	11.81	12.84	14.41	24.11	27.25	3.14
	velocity	7.35	9.09	8.64	8.31	7.92	7.66	7.22	6.68	7.79	179.0	8.13	8.47	7.79	6.94	8.30	7.34	
Coetzee, Miranda (RSA) (19	time	6.56	11.96	17.52	23.35	29.53	36.10	43.39	51.58	51.58	2 / 4							
reaction time 0.149	interval		5.40	5.56	5.83	6.18	6.57	7.29	8.19		# of strides	11.96	11.39	12.75	15.48	23.35	28.23	4.88
	velocity	7.62	9.26	8.99	8.58	8.09	7.61	6.86	6.11	7.75	199.0	8.36	8.78	7.84	6.46	8.57	7.08	
Vondrová, Lada (CZE) (1999)	time	6.80	12.43	18.24	24.33	30.63	37.21	44.20	51.80	51.80	6 / 5							
reaction time 0.179	interval		5.63	5.81	6.09	6.30	6.58	6.99	7.60		# of strides	12.43	11.90	12.88	14.59	24.33	27.47	3.14
	velocity	7.35	8.88	8.61	8.21	7.94	7.60	7.15	6.58	7.72	194.0	8.05	8.40	7.76	6.85	8.22	7.28	
Gale, Lauren (CAN) (2000)	time	6.80	12.35	18.09	24.20	30.72	37.72	45.16	53.13	53.13	3 / 6							
reaction time 0.207	interval		5.55	5.74	6.11	6.52	7.00	7.44	7.97		# of strides	12.35	11.85	13.52	15.41	24.20	28.93	4.73
	velocity	7.35	9.01	8.71	8.18	7.67	7.14	6.72	6.27	7.53		8.10	8.44	7.40	6.49	8.26	6.91	
Aguilar, Evelyn (COL) (1993)	time	6.97	12.74	18.64	24.72	31.09	37.80	45.12	53.36	53.36	4 / 7							
reaction time 0.165	interval		5.77	5.90	6.08	6.37	6.71	7.32	8.24		# of strides	12.74	11.98	13.08	15.56	24.72	28.64	3.92
	velocity	7.17	8.67	8.47	8.22	7.85	7.45	6.83	6.07	7.50		7.85	8.35	7.65	6.43	8.09	6.98	

Heat 5

date 05-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.73	12.20	17.74	23.52	29.54	35.77	42.25	49.42	49.42	5 / 1							
reaction time 0.164	interval		5.47	5.54	5.78	6.02	6.23	6.48	7.17		# of strides	12.20	11.32	12.25	13.65	23.52	25.90	2.38
	velocity	7.43	9.14	9.03	8.65	8.31	8.03	7.72	6.97	8.09	174.0	8.20	8.83	8.16	7.33	8.50	7.72	
Butler, Aaliyah (USA) (2003)	time	6.83	12.48	18.29	24.31	30.40	36.67	43.27	50.52	50.52	7 / 2							
reaction time 0.155	interval		5.65	5.81	6.02	6.09	6.27	6.60	7.25		# of strides	12.48	11.83	12.36	13.85	24.31	26.21	1.90
	velocity	7.32	8.85	8.61	8.31	8.21	7.97	7.58	6.90	7.92	190.0	8.01	8.45	8.09	7.22	8.23	7.63	
Gogl-Walli, Susanne (AUT) (	time	6.82	12.34	18.08	24.13	30.36	36.84	43.60	50.67	50.67	6 / 3							
reaction time 0.168	interval		5.52	5.74	6.05	6.23	6.48	6.76	7.07	PB	# of strides	12.34	11.79	12.71	13.83	24.13	26.54	2.41
	velocity	7.33	9.06	8.71	8.26	8.03	7.72	7.40	7.07	7.89	191.0	8.10	8.48	7.87	7.23	8.29	7.54	
Mawdsley, Sharlene (IRL) (1	time	6.77	12.42	18.22	24.26	30.48	36.87	43.50	50.71	50.71	8 / 4							
reaction time 0.147	interval		5.65	5.80	6.04	6.22	6.39	6.63	7.21	PB	# of strides	12.42	11.84	12.61	13.84	24.26	26.45	2.19
	velocity	7.39	8.85	8.62	8.28	8.04	7.82	7.54	6.93	7.89	194.0	8.05	8.45	7.93	7.23	8.24	7.56	
Abrams, Aliyah (GUY) (1997)	time	6.78	12.32	18.02	23.98	30.25	36.91	43.95	51.55	51.55	4 / 5							
reaction time 0.163	interval		5.54	5.70	5.96	6.27	6.66	7.04	7.60		# of strides	12.32	11.66	12.93	14.64	23.98	27.57	3.59
	velocity	7.37	9.03	8.77	8.39	7.97	7.51	7.10	6.58	7.76	203.7	8.12	8.58	7.73	6.83	8.34	7.25	
Manuel, Lurdes Gloria (CZE)	time	7.28	12.93	18.72	24.70	30.93	37.51	44.57	52.20	52.20	9 / 6							
reaction time 0.175	interval		5.65	5.79	5.98	6.23	6.58	7.06	7.63		# of strides	12.93	11.77	12.81	14.69	24.70	27.50	2.80
	velocity	6.87	8.85	8.64	8.36	8.03	7.60	7.08	6.55	7.66		7.73	8.50	7.81	6.81	8.10	7.27	
Kiran, Pahal (IND) (2000)	time	6.87	12.61	18.57	24.77	31.23	37.80	44.82	52.51	52.51	2 / 7							
reaction time 0.181	interval		5.74	5.96	6.20	6.46	6.57	7.02	7.69		# of strides	12.61	12.16	13.03	14.71	24.77	27.74	2.97
	velocity	7.28	8.71	8.39	8.06	7.74	7.61	7.12	6.50	7.62		7.93	8.22	7.67	6.80	8.07	7.21	
Bolingo, Cynthia (BEL) (199	time	6.80	12.48	18.34	24.52	31.10	37.94	45.11	52.77	52.77	3 / 8							

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 0.172	interval		5.68	5.86	6.18	6.58	6.84	7.17	7.66		# of strides	12.48	12.04	13.42	14.83	24.52	28.25	3.73
	velocity	7.35	8.80	8.53	8.09	7.60	7.31	6.97	6.53	7.58		8.01	8.31	7.45	6.74	8.16	7.08	

Heat 4

date 05-Aug-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (1	time	6.71	12.17	17.72	23.51	29.71	36.10	42.86	49.98	49.98	4 / 1							
reaction time 0.169	interval		5.46	5.55	5.79	6.20	6.39	6.76	7.12		# of strides	12.17	11.34	12.59	13.88	23.51	26.47	2.96
	velocity	7.45	9.16	9.01	8.64	8.06	7.82	7.40	7.02	8.00	189.0	8.22	8.82	7.94	7.20	8.51	7.56	
Gómez, Roxana (CUB) (1999	time	6.87	12.42	18.12	24.02	30.13	36.49	43.24	50.38	50.38	9 / 2							
reaction time 0.178	interval		5.55	5.70	5.90	6.11	6.36	6.75	7.14		# of strides	12.42	11.60	12.47	13.89	24.02	26.36	2.34
	velocity	7.28	9.01	8.77	8.47	8.18	7.86	7.41	7.00	7.94	189.0	8.05	8.62	8.02	7.20	8.33	7.59	
Williams, Sada (BAR) (1997)	time	6.67	12.20	17.90	23.80	29.93	36.20	43.00	50.45	50.45	5 / 3							
reaction time 0.204	interval		5.53	5.70	5.90	6.13	6.27	6.80	7.45		# of strides	12.20	11.60	12.40	14.25	23.80	26.65	2.85
	velocity	7.50	9.04	8.77	8.47	8.16	7.97	7.35	6.71	7.93	191.0	8.20	8.62	8.06	7.02	8.40	7.50	
Ohurougu, Victoria (GBR) (1	time	6.85	12.38	18.06	24.04	30.22	36.64	43.50	50.93	50.93	6 / 4							
reaction time 0.196	interval		5.53	5.68	5.98	6.18	6.42	6.86	7.43		# of strides	12.38	11.66	12.60	14.29	24.04	26.89	2.85
	velocity	7.30	9.04	8.80	8.36	8.09	7.79	7.29	6.73	7.85	193.2	8.08	8.58	7.94	7.00	8.32	7.44	
Vaičule, Gunta (LAT) (1995)	time	6.85	12.42	18.09	23.93	30.05	36.42	43.34	51.13	51.13	3 / 5							
reaction time 0.185	interval		5.57	5.67	5.84	6.12	6.37	6.92	7.79		# of strides	12.42	11.51	12.49	14.71	23.93	27.20	3.27
	velocity	7.30	8.98	8.82	8.56	8.17	7.85	7.23	6.42	7.82	194.5	8.05	8.69	8.01	6.80	8.36	7.35	
Ponette, Helena (BEL) (2000	time	7.03	12.58	18.30	24.21	30.42	36.96	44.05	51.75	51.75	2 / 6							
reaction time 0.160	interval		5.55	5.72	5.91	6.21	6.54	7.09	7.70		# of strides	12.58	11.63	12.75	14.79	24.21	27.54	3.33
	velocity	7.11	9.01	8.74	8.46	8.05	7.65	7.05	6.49	7.73		7.95	8.60	7.84	6.76	8.26	7.26	
Joseph, Esther (NGR) (2003)	time	6.72	12.25	18.06	24.17	30.46	37.12	44.32	52.13	52.13	8 / ~~7~~							
reaction time 0.219	interval		5.53	5.81	6.11	6.29	6.66	7.20	7.81	DQ	# of strides	12.25	11.92	12.95	15.01	24.17	27.96	3.79
	velocity	7.44	9.04	8.61	8.18	7.95	7.51	6.94	6.40	7.67		8.16	8.39	7.72	6.66	8.27	7.15	
Miller-Uibo, Shaunae (BAH)	time	6.84	12.50	18.35	24.49	32.05				2:22.29	7 / ~~8~~ 7							
reaction time 0.143	interval		5.66	5.85	6.14	7.56					# of strides	12.50	11.99			24.49		
	velocity	7.31	8.83	8.55	8.14	6.61						8.00	8.34			8.17		

Heat 3

date 05-Aug-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Anning, Amber (GBR) (2000	time	6.54	11.94	17.55	23.46	29.73	36.22	42.83	49.68	49.68	8 / 1							
reaction time 0.185	interval		5.40	5.61	5.91	6.27	6.49	6.61	6.85		# of strides	11.94	11.52	12.76	13.46	23.46	26.22	2.76
	velocity	7.65	9.26	8.91	8.46	7.97	7.70	7.56	7.30	8.05		8.38	8.68	7.84	7.43	8.53	7.63	
Klaver, Lieke (NED) (1998)	time	6.67	12.07	17.68	23.47	29.59	36.07	42.83	49.96	49.96	2 / 2							
reaction time 0.162	interval		5.40	5.61	5.79	6.12	6.48	6.76	7.13		# of strides	12.07	11.40	12.60	13.89	23.47	26.49	3.02
	velocity	7.50	9.26	8.91	8.64	8.17	7.72	7.40	7.01	8.01	186.0	8.29	8.77	7.94	7.20	8.52	7.55	
Morán, Paola (MEX) (1997)	time	6.67	12.37	18.30	24.45	30.65	37.08	43.82	51.04	51.04	6 / 3							
reaction time 0.173	interval		5.70	5.93	6.15	6.20	6.43	6.74	7.22		# of strides	12.37	12.08	12.63	13.96	24.45	26.59	2.14
	velocity	7.50	8.77	8.43	8.13	8.06	7.78	7.42	6.93	7.84	190.0	8.08	8.28	7.92	7.16	8.18	7.52	
Weil, Martina (CHI) (1999)	time	6.76	12.33	18.05	24.01	30.25	36.66	43.51	51.15	51.15	9 / 4							
reaction time 0.178	interval		5.57	5.72	5.96	6.24	6.41	6.85	7.64		# of strides	12.33	11.68	12.65	14.49	24.01	27.14	3.13
	velocity	7.40	8.98	8.74	8.39	8.01	7.80	7.30	6.54	7.82		8.11	8.56	7.91	6.90	8.33	7.37	
Mangione, Alice (ITA) (1997)	time	6.91	12.56	18.40	24.61	30.95	37.51	44.30	51.60	51.60	7 / 5							
reaction time 0.196	interval		5.65	5.84	6.21	6.34	6.56	6.79	7.30		# of strides	12.56	12.05	12.90	14.09	24.61	26.99	2.38
	velocity	7.24	8.85	8.56	8.05	7.89	7.62	7.36	6.85	7.75		7.96	8.30	7.75	7.10	8.13	7.41	
Onojuvwevwo, Ella (NGR) (2	time	6.66	12.07	17.59	23.36	29.49	36.11	43.36	51.65	51.65	3 / 6							
reaction time 0.173	interval		5.41	5.52	5.77	6.13	6.62	7.25	8.29		# of strides	12.07	11.29	12.75	15.54	23.36	28.29	4.93
	velocity	7.51	9.24	9.06	8.67	8.16	7.55	6.90	6.03	7.74	199.0	8.29	8.86	7.84	6.44	8.56	7.07	
Marinho, Tiffani (BRA) (199	time	6.95	12.75	18.79	24.93	31.25	37.82	44.82	52.62	52.62	4 / 7							
reaction time 0.188	interval		5.80	6.04	6.14	6.32	6.57	7.00	7.80		# of strides	12.75	12.18	12.89	14.80	24.93	27.69	2.76
	velocity	7.19	8.62	8.28	8.14	7.91	7.61	7.14	6.41	7.60		7.84	8.21	7.76	6.76	8.02	7.22	
Azevedo, Cátia (POR) (1994)	time	6.82	12.40	18.14	24.23	30.66	37.45	44.72	52.73	52.73	5 / 8							
reaction time 0.191	interval		5.58	5.74	6.09	6.43	6.79	7.27	8.01		# of strides	12.40	11.83	13.22	15.28	24.23	28.50	4.27
	velocity	7.33	8.96	8.71	8.21	7.78	7.36	6.88	6.24	7.59		8.06	8.45	7.56	6.54	8.25	7.02	

Heat 2

date 05-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pryce, Nickisha (JAM) (2000)	time	6.72	12.32	18.10	24.07	30.20	36.37	42.86	50.02	50.02	8 / 1							
reaction time 0.187	interval		5.60	5.78	5.97	6.13	6.17	6.49	7.16		# of strides	12.32	11.75	12.30	13.65	24.07	25.95	1.88
	velocity	7.44	8.93	8.65	8.38	8.16	8.10	7.70	6.98	8.00	182.0	8.12	8.51	8.13	7.33	8.31	7.71	
Nielsen, Laviai (GBR) (1996)	time	6.69	12.32	18.12	24.15	30.29	36.62	43.26	50.36	50.36	7 / 2							
reaction time 0.167	interval		5.63	5.80	6.03	6.14	6.33	6.64	7.10		# of strides	12.32	11.83	12.47	13.74	24.15	26.21	2.06
	velocity	7.47	8.88	8.62	8.29	8.14	7.90	7.53	7.04	7.94	194.0	8.12	8.45	8.02	7.28	8.28	7.63	
Jæger, Henriette (NOR) (200	time	6.67	12.11	17.79	23.73	29.87	36.23	43.06	50.39	50.39	2 / 3							
reaction time 0.176	interval		5.44	5.68	5.94	6.14	6.36	6.83	7.33		# of strides	12.11	11.62	12.50	14.16	23.73	26.66	2.93
	velocity	7.50	9.19	8.80	8.42	8.14	7.86	7.32	6.82	7.94		8.26	8.61	8.00	7.06	8.43	7.50	
Święty-Ersetic, Justyna (POL	time	6.94	12.51	18.33	24.47	30.71	37.06	43.73	50.95	50.95	4 / 4							
reaction time 0.192	interval		5.57	5.82	6.14	6.24	6.35	6.67	7.22		# of strides	12.51	11.96	12.59	13.89	24.47	26.48	2.01
	velocity	7.20	8.98	8.59	8.14	8.01	7.87	7.50	6.93	7.85	200.0	7.99	8.36	7.94	7.20	8.17	7.55	

Beer, Ellie (AUS) (2003)	time	6.74	12.23	17.94	24.02	30.29	36.82	43.81	51.47	51.47	6 / 5							
reaction time 0.183	interval		5.49	5.71	6.08	6.27	6.53	6.99	7.66	PB	# of strides	12.23	11.79	12.80	14.65	24.02	27.45	3.43
	velocity	7.42	9.11	8.76	8.22	7.97	7.66	7.15	6.53	7.77	188.0	8.18	8.48	7.81	6.83	8.33	7.29	
Licona, Lina (COL) (1998)	time	6.90	12.49	18.27	24.37	30.65	37.16	44.18	51.85	51.85	5 / 6							
reaction time 0.242	interval		5.59	5.78	6.10	6.28	6.51	7.02	7.67		# of strides	12.49	11.88	12.79	14.69	24.37	27.48	3.11
	velocity	7.25	8.94	8.65	8.20	7.96	7.68	7.12	6.52	7.71	204.0	8.01	8.42	7.82	6.81	8.21	7.28	
Sherar, Zoe (CAN) (1999)	time	6.99	12.71	18.48	24.52	30.73	37.20	44.17	51.97	51.97	3 / 7							
reaction time 0.160	interval		5.72	5.77	6.04	6.21	6.47	6.97	7.80		# of strides	12.71	11.81	12.68	14.77	24.52	27.45	2.93
	velocity	7.15	8.74	8.67	8.28	8.05	7.73	7.17	6.41	7.70		7.87	8.47	7.89	6.77	8.16	7.29	

Heat 1

date 05-Aug-24

Paris 2024 Olympic Games - Results Book (2024)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time	6.61	11.93	17.54	23.43	29.57	35.93	42.64	49.91	49.91	3 / 1							
reaction time 0.148	interval		5.32	5.61	5.89	6.14	6.36	6.71	7.27		# of strides	11.93	11.50	12.50	13.98	23.43	26.48	3.05
	velocity	7.56	9.40	8.91	8.49	8.14	7.86	7.45	6.88	8.01	187.7	8.38	8.70	8.00	7.15	8.54	7.55	
Williams, Stacey-Ann (JAM)	time	6.72	12.21	18.03	24.09	30.13	36.40	43.01	50.16	50.16	8 / 2							
reaction time 0.145	interval		5.49	5.82	6.06	6.04	6.27	6.61	7.15		# of strides	12.21	11.88	12.31	13.76	24.09	26.07	1.98
	velocity	7.44	9.11	8.59	8.25	8.28	7.97	7.56	6.99	7.97	190.0	8.19	8.42	8.12	7.27	8.30	7.67	
Miklos, Andrea (ROU) (1999)	time	6.70	12.13	17.83	23.88	30.14	36.57	43.29	50.54	50.54	4 / 3							
reaction time 0.149	interval		5.43	5.70	6.05	6.26	6.43	6.72	7.25	PB	# of strides	12.13	11.75	12.69	13.97	23.88	26.66	2.78
	velocity	7.46	9.21	8.77	8.26	7.99	7.78	7.44	6.90	7.91	200.7	8.24	8.51	7.88	7.16	8.38	7.50	
Scott, Gabby (PUR) (1997)	time	6.82	12.39	18.20	24.34	30.66	37.05	43.69	50.74	50.74	2 / 4							
reaction time 0.170	interval		5.57	5.81	6.14	6.32	6.39	6.64	7.05	NR PB	# of strides	12.39	11.95	12.71	13.69	24.34	26.40	2.06
	velocity	7.33	8.98	8.61	8.14	7.91	7.82	7.53	7.09	7.88		8.07	8.37	7.87	7.30	8.22	7.58	
Ellis, Kendall (USA) (1996)	time	6.83	12.40	18.13	24.18	30.41	36.86	43.57	51.16	51.16	5 / 5							
reaction time 0.195	interval		5.57	5.73	6.05	6.23	6.45	6.71	7.59		# of strides	12.40	11.78	12.68	14.30	24.18	26.98	2.80
	velocity	7.32	8.98	8.73	8.26	8.03	7.75	7.45	6.59	7.82	185.7	8.06	8.49	7.89	6.99	8.27	7.41	
Becker, Sophie (IRL) (1997)	time	6.65	12.14	17.81	23.85	30.25	36.98	44.11	51.84	51.84	6 / 6							
reaction time 0.165	interval		5.49	5.67	6.04	6.40	6.73	7.13	7.73		# of strides	12.14	11.71	13.13	14.86	23.85	27.99	4.14
	velocity	7.52	9.11	8.82	8.28	7.81	7.43	7.01	6.47	7.72	199.2	8.24	8.54	7.62	6.73	8.39	7.15	
Petržilková, Tereza (CZE) (19	time	6.97	12.61	18.53	24.70	31.00	37.54	44.44	51.92	51.92	9 / 7							
reaction time 0.192	interval		5.64	5.92	6.17	6.30	6.54	6.90	7.48		# of strides	12.61	12.09	12.84	14.38	24.70	27.22	2.52
	velocity	7.17	8.87	8.45	8.10	7.94	7.65	7.25	6.68	7.70		7.93	8.27	7.79	6.95	8.10	7.35	
Morauskaitė, Modesta (LTU)	time	6.83	12.41	18.20	24.27	30.52	37.06	44.11	52.00	52.00	7 / 8							
reaction time 0.175	interval		5.58	5.79	6.07	6.25	6.54	7.05	7.89		# of strides	12.41	11.86	12.79	14.94	24.27	27.73	3.46
	velocity	7.32	8.96	8.64	8.24	8.00	7.65	7.09	6.34	7.69	198.0	8.06	8.43	7.82	6.69	8.24	7.21	

2024 Japanese National High School Championsips (Fukuoka, JPN)

FINAL

date 28-Jul-24

Takashima (2024) - national high school sports festival - biomechanics data

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hatakeyama, Konomi (JPN)	time		13.41		26.51		40.21		54.89	54.89	9 / 1							
reaction time 0.200	interval				13.10		13.70		14.68	PB	# of strides	13.41	13.10	13.70	14.68	26.51	28.38	1.87
	velocity		7.46		7.63		7.30		6.81	7.29		7.46	7.63	7.30	6.81	7.54	7.05	
Saito, Akari (JPN) (2007)	time		13.78		26.88		40.44		54.95	54.95	5 / 2							
reaction time 0.241	interval				13.10		13.56		14.51		# of strides	13.78	13.10	13.56	14.51	26.88	28.07	1.19
	velocity		7.26		7.63		7.37		6.89	7.28		7.26	7.63	7.37	6.89	7.44	7.13	
Nagamachi, Aoi (JPN) (2006)	time		13.86		26.88		40.77		55.35	55.35	7 / 3							
reaction time 0.291	interval				13.02		13.89		14.58		# of strides	13.86	13.02	13.89	14.58	26.88	28.47	1.59
	velocity		7.22		7.68		7.20		6.86	7.23		7.22	7.68	7.20	6.86	7.44	7.02	
Kikuchi Himeka (JPN) (2006)	time		13.70		27.24		41.02		55.50	55.50	6 / 4							
reaction time 0.227	interval				13.54		13.78		14.48		# of strides	13.70	13.54	13.78	14.48	27.24	28.26	1.02
	velocity		7.30		7.39		7.26		6.91	7.21		7.30	7.39	7.26	6.91	7.34	7.08	
Yajima, Aki (JPN) (2007)	time		13.93		27.03		40.54		56.10	56.10	4 / 5							
reaction time 0.200	interval				13.10		13.51		15.56		# of strides	13.93	13.10	13.51	15.56	27.03	29.07	2.04
	velocity		7.18		7.63		7.40		6.43	7.13		7.18	7.63	7.40	6.43	7.40	6.88	
Williams, Shamayamian (JPN	time		13.53		27.06		41.02		56.60	56.60	3 / 6							
reaction time 0.244	interval				13.53		13.96		15.58		# of strides	13.53	13.53	13.96	15.58	27.06	29.54	2.48
	velocity		7.39		7.39		7.16		6.42	7.07		7.39	7.39	7.16	6.42	7.39	6.77	
Tsumoto, Erika (JPN) (2007)	time		13.56		27.31		41.54		57.50	57.50	2 / 7							
reaction time 0.199	interval				13.75		14.23		15.96		# of strides	13.56	13.75	14.23	15.96	27.31	30.19	2.88
	velocity		7.37		7.27		7.03		6.27	6.96		7.37	7.27	7.03	6.27	7.32	6.62	
Matsuda, Yowa (JPN) (2006)	time		15.53		30.80		45.91		61.76	61.76	8 / 8							
reaction time	interval				15.27		15.11		15.85		# of strides	15.53	15.27	15.11	15.85	30.80	30.96	0.16
	velocity		6.44		6.55		6.62		6.31	6.48		6.44	6.55	6.62	6.31	6.49	6.46	

2024 London Athletics Meet (London, GBR)

FINAL

date 20-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pryce, Nickisha (JAM) (2001)	time	6.61	11.99	17.46	23.17	29.17	35.29	41.67	48.57	48.57	6 / 1							
reaction time 0.159	interval		5.38	5.47	5.71	6.00	6.12	6.38	6.90	NR PB	# of strides	11.99	11.18	12.12	13.28	23.17	25.40	2.23

	velocity	7.56	9.29	9.14	8.76	8.33	8.17	7.84	7.25	8.24	183.0	8.34	8.94	8.25	7.53	8.63	7.87	
Kaczmarek, Natalia (POL) (1	time	6.70	12.21	17.63	23.31	29.28	35.51	41.93	48.90	48.90	5 / 2							
reaction time 0.169	interval		5.51	5.42	5.68	5.97	6.23	6.42	6.97	NR PB	# of strides	12.21	11.10	12.20	13.39	23.31	25.59	2.28
	velocity	7.46	9.07	9.23	8.80	8.38	8.03	7.79	7.17	8.18	191.5	8.19	9.01	8.20	7.47	8.58	7.82	
Klaver, Lieke (NED) (1998)	time	6.59	11.90	17.35	23.05	29.11	35.43	42.18	49.58	49.58	3 / 3							
reaction time 0.160	interval		5.31	5.45	5.70	6.06	6.32	6.75	7.40	PB	# of strides	11.90	11.15	12.38	14.15	23.05	26.53	3.48
	velocity	7.59	9.42	9.17	8.77	8.25	7.91	7.41	6.76	8.07		8.40	8.97	8.08	7.07	8.68	7.54	
Anning, Amber (GBR) (2000	time	6.61	12.09	17.73	23.59	29.80	36.18	42.76	49.63	49.63	4 / 4							
reaction time 0.192	interval		5.48	5.64	5.86	6.21	6.38	6.58	6.87		# of strides	12.09	11.50	12.59	13.45	23.59	26.04	2.45
	velocity	7.56	9.12	8.87	8.53	8.05	7.84	7.60	7.28	8.06		8.27	8.70	7.94	7.43	8.48	7.68	
Nielsen, Laviai (GBR) (1996)	time	6.61	12.12	17.77	23.68	29.82	36.18	42.80	49.87	49.87	7 / 5							
reaction time 0.144	interval		5.51	5.65	5.91	6.14	6.36	6.62	7.07	PB	# of strides	12.12	11.56	12.50	13.69	23.68	26.19	2.51
	velocity	7.56	9.07	8.85	8.46	8.14	7.86	7.55	7.07	8.02		8.25	8.65	8.00	7.30	8.45	7.64	
Irby-Jackson, Lynna (USA) (	time	6.64	12.14	17.82	23.67	29.78	36.15	42.98	50.71	50.71	2 / 6							
reaction time 0.173	interval		5.50	5.68	5.85	6.11	6.37	6.83	7.73		# of strides	12.14	11.53	12.48	14.56	23.67	27.04	3.37
	velocity	7.53	9.09	8.80	8.55	8.18	7.85	7.32	6.47	7.89		8.24	8.67	8.01	6.87	8.45	7.40	
Ohurougu, Victoria (GBR) (1	time	6.96	12.52	18.25	24.19	30.44	36.85	43.59	50.76	50.76	1 / 7							
reaction time 0.163	interval		5.56	5.73	5.94	6.25	6.41	6.74	7.17		# of strides	12.52	11.67	12.66	13.91	24.19	26.57	2.38
	velocity	7.18	8.99	8.73	8.42	8.00	7.80	7.42	6.97	7.88		7.99	8.57	7.90	7.19	8.27	7.53	
Diggs, Talitha (USA) (2002)	time	6.77	12.38	18.15	24.24	30.62	37.25	44.30	52.47	52.47	8 / 8							
reaction time 0.147	interval		5.61	5.77	6.09	6.38	6.63	7.05	8.17		# of strides	12.38	11.86	13.01	15.22	24.24	28.23	3.99
	velocity	7.39	8.91	8.67	8.21	7.84	7.54	7.09	6.12	7.62		8.08	8.43	7.69	6.57	8.25	7.08	

National FINAL

date 20-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
John, Yemi Mary (GBR) (200	time	6.82	12.54	18.42	24.59	30.92	37.39	44.07	51.18	51.18	4 / 1							
reaction time 0.178	interval		5.72	5.88	6.17	6.33	6.47	6.68	7.11		# of strides	12.54	12.05	12.80	13.79	24.59	26.59	2.00
	velocity	7.33	8.74	8.50	8.10	7.90	7.73	7.49	7.03	7.82		7.97	8.30	7.81	7.25	8.13	7.52	
Yeargin, Nicole (GBR) (1997)	time	6.90	12.64	18.61	24.88	31.30	37.83	44.50	51.64	51.64	6 / 2							
reaction time 0.167	interval		5.74	5.97	6.27	6.42	6.53	6.67	7.14		# of strides	12.64	12.24	12.95	13.81	24.88	26.76	1.88
	velocity	7.25	8.71	8.38	7.97	7.79	7.66	7.50	7.00	7.75		7.91	8.17	7.72	7.24	8.04	7.47	
Pipi, Ama (GBR) (1995)	time	6.81	12.48	18.35	24.47	30.93	37.63	44.45	51.87	51.87	3 / 3							
reaction time 0.149	interval		5.67	5.87	6.12	6.46	6.70	6.82	7.42		# of strides	12.48	11.99	13.16	14.24	24.47	27.40	2.93
	velocity	7.34	8.82	8.52	8.17	7.74	7.46	7.33	6.74	7.71		8.01	8.34	7.60	7.02	8.17	7.30	
Williams, Jodie (GBR) (1993)	time	6.88	12.66	18.61	24.82	31.27	37.88	44.68	52.06	52.06	5 / 4							
reaction time 0.163	interval		5.78	5.95	6.21	6.45	6.61	6.80	7.38		# of strides	12.66	12.16	13.06	14.18	24.82	27.24	2.42
	velocity	7.27	8.65	8.40	8.05	7.75	7.56	7.35	6.78	7.68		7.90	8.22	7.66	7.05	8.06	7.34	
Malik, Poppy (GBR) (2003)	time	6.80	12.58	18.51	24.79	31.27	37.89	44.66	52.23	52.23	1 / 5							
reaction time 0.163	interval		5.78	5.93	6.28	6.48	6.62	6.77	7.57	PB	# of strides	12.58	12.21	13.10	14.34	24.79	27.44	2.65
	velocity	7.35	8.65	8.43	7.96	7.72	7.55	7.39	6.61	7.66		7.95	8.19	7.63	6.97	8.07	7.29	
Kelly, Hannah (GBR) (2000)	time	6.86	12.67	18.71	24.96	31.44	38.05	44.81	52.30	52.30	7 / 6							
reaction time 0.148	interval		5.81	6.04	6.25	6.48	6.61	6.76	7.49		# of strides	12.67	12.29	13.09	14.25	24.96	27.34	2.38
	velocity	7.29	8.61	8.28	8.00	7.72	7.56	7.40	6.68	7.65		7.89	8.14	7.64	7.02	8.01	7.32	
Brier, Hannah (GBR) (1998)	time	6.85	12.77	18.84	25.14	31.61	38.31	45.29	52.94	52.94	8 / 7							
reaction time 0.150	interval		5.92	6.07	6.30	6.47	6.70	6.98	7.65		# of strides	12.77	12.37	13.17	14.63	25.14	27.80	2.66
	velocity	7.30	8.45	8.24	7.94	7.73	7.46	7.16	6.54	7.56		7.83	8.08	7.59	6.84	7.96	7.19	
Newnham, Emily (GBR) (200	time	7.18	13.00	18.98	25.21	31.64	38.46	45.55	53.48	53.48	2 / 8							
reaction time 0.134	interval		5.82	5.98	6.23	6.43	6.82	7.09	7.93		# of strides	13.00	12.21	13.25	15.02	25.21	28.27	3.06
	velocity	6.96	8.59	8.36	8.03	7.78	7.33	7.05	6.31	7.48		7.69	8.19	7.55	6.66	7.93	7.07	

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

FINAL

date 12-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Adeleke, Rhasidat (IRL) (200	time	6.69	12.09	17.54	23.25	29.22	35.38	41.93	49.17	49.17	5 / 1							
reaction time 0.161	interval		5.40	5.45	5.71	5.97	6.16	6.55	7.24		# of strides	12.09	11.16	12.13	13.79	23.25	25.92	2.67
	velocity	7.47	9.26	9.17	8.76	8.38	8.12	7.63	6.91	8.14	184.0	8.27	8.96	8.24	7.25	8.60	7.72	
Klaver, Lieke (NED) (1998)	time	6.63	11.94	17.35	22.99	29.03	35.37	42.14	49.64	49.64	3 / 2							
reaction time 0.153	interval		5.31	5.41	5.64	6.04	6.34	6.77	7.50	PB	# of strides	11.94	11.05	12.38	14.27	22.99	26.65	3.66
	velocity	7.54	9.42	9.24	8.87	8.28	7.89	7.39	6.67	8.06	185.0	8.38	9.05	8.08	7.01	8.70	7.50	
Ellis, Kendall (USA) (1996)	time	6.86	12.40	18.06	23.96	30.20	36.61	43.28	50.39	50.39	4 / 3							
reaction time 0.224	interval		5.54	5.66	5.90	6.24	6.41	6.67	7.11		# of strides	12.40	11.56	12.65	13.78	23.96	26.43	2.47
	velocity	7.29	9.03	8.83	8.47	8.01	7.80	7.50	7.03	7.94		8.06	8.65	7.91	7.26	8.35	7.57	
Brossier, Amandine (FRA) (	time	6.81	12.35	18.07	24.03	30.20	36.51	43.20	50.43	50.43	7 / 4							
reaction time 0.197	interval		5.54	5.72	5.96	6.17	6.31	6.69	7.23	PB	# of strides	12.35	11.68	12.48	13.92	24.03	26.40	2.37
	velocity	7.34	9.03	8.74	8.39	8.10	7.92	7.47	6.92	7.93	203.0	8.10	8.56	8.01	7.18	8.32	7.58	
Manuel, Lurdes Gloria (CZE)	time	7.05	12.67	18.25	24.08	30.24	36.63	43.37	50.72	50.72	6 / 5							
reaction time 0.196	interval		5.62	5.58	5.83	6.16	6.39	6.74	7.35		# of strides	12.67	11.41	12.55	14.09	24.08	26.64	2.56
	velocity	7.09	8.90	8.96	8.58	8.12	7.82	7.42	6.80	7.89	189.0	7.89	8.76	7.97	7.10	8.31	7.51	
Montoya, Emma (FRA) (199	time	7.04	12.79	18.66	24.74	30.97	37.44	44.30	51.76	51.76	8 / 6							

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 0.178	interval		5.75	5.87	6.08	6.23	6.47	6.86	7.46	PB	# of strides	12.79	11.95	12.70	14.32	24.74	27.02	2.28
	velocity	7.10	8.70	8.52	8.22	8.03	7.73	7.29	6.70	7.73		7.82	8.37	7.87	6.98	8.08	7.40	
Grebo, Shana (FRA) (2000)	time	6.84	12.45	18.24	24.27	30.71	37.43	44.47	52.02	52.02	2 / 7							
reaction time 0.194	interval		5.61	5.79	6.03	6.44	6.72	7.04	7.55		# of strides	12.45	11.82	13.16	14.59	24.27	27.75	3.48
	velocity	7.31	8.91	8.64	8.29	7.76	7.44	7.10	6.62	7.69		8.03	8.46	7.60	6.85	8.24	7.21	

2024 Meeting de Paris (Paris, FRA)

FINAL date 07-Jul-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.70	12.24	17.91	23.75	29.77	35.96	42.38	49.20	49.20	5 / 1							
reaction time 0.188	interval		5.54	5.67	5.84	6.02	6.19	6.42	6.82		# of strides	12.24	11.51	12.21	13.24	23.75	25.45	1.70
	velocity	7.46	9.03	8.82	8.56	8.31	8.08	7.79	7.33	8.13	171.0	8.17	8.69	8.19	7.55	8.42	7.86	
Kaczmarek, Natalia (POL) (1!	time	6.79	12.35	17.95	23.83	30.14	36.41	43.02	49.82	49.82	6 / 2							
reaction time 0.174	interval		5.56	5.60	5.88	6.31	6.27	6.61	6.80		# of strides	12.35	11.48	12.58	13.41	23.83	25.99	2.16
	velocity	7.36	8.99	8.93	8.50	7.92	7.97	7.56	7.35	8.03	193.0	8.10	8.71	7.95	7.46	8.39	7.70	
Naser, Salwa Eid (BRN) (199!	time	6.77	12.16	17.76	23.65	29.76	36.00	42.69	49.82	49.82	3 / 3							
reaction time 0.171	interval		5.39	5.60	5.89	6.11	6.24	6.69	7.13		# of strides	12.16	11.49	12.35	13.82	23.65	26.17	2.52
	velocity	7.39	9.28	8.93	8.49	8.18	8.01	7.47	7.01	8.03	186.0	8.22	8.70	8.10	7.24	8.46	7.64	
Holmes, Alexis (USA) (2000)	time	6.68	12.28	18.12	24.13	30.32	36.61	43.16	50.02	50.02	4 / 4							
reaction time 0.175	interval		5.60	5.84	6.01	6.19	6.29	6.55	6.86		# of strides	12.28	11.85	12.48	13.41	24.13	25.89	1.76
	velocity	7.49	8.93	8.56	8.32	8.08	7.95	7.63	7.29	8.00	180.2	8.14	8.44	8.01	7.46	8.29	7.72	
Nielsen, Laviai (GBR) (1996)	time	6.66	12.29	18.16	24.19	30.34	36.67	43.39	50.67	50.67	8 / 5							
reaction time 0.165	interval		5.63	5.87	6.03	6.15	6.33	6.72	7.28	PB	# of strides	12.29	11.90	12.48	14.00	24.19	26.48	2.29
	velocity	7.51	8.88	8.52	8.29	8.13	7.90	7.44	6.87	7.89	192.0	8.14	8.40	8.01	7.14	8.27	7.55	
Klaver, Lieke (NED) (1998)	time	6.76	12.28	18.07	24.04	30.20	36.58	43.42	50.89	50.89	7 / 6							
reaction time 0.202	interval		5.52	5.79	5.97	6.16	6.38	6.84	7.47		# of strides	12.28	11.76	12.54	14.31	24.04	26.85	2.81
	velocity	7.40	9.06	8.64	8.38	8.12	7.84	7.31	6.69	7.86	186.2	8.14	8.50	7.97	6.99	8.32	7.45	
Miklós, Andrea (ROU) (1999)	time	6.81	12.33	17.94	23.88	30.17	36.69	43.60	51.08	51.08	2 / 7							
reaction time 0.188	interval		5.52	5.61	5.94	6.29	6.52	6.91	7.48		# of strides	12.33	11.55	12.81	14.39	23.88	27.20	3.32
	velocity	7.34	9.06	8.91	8.42	7.95	7.67	7.24	6.68	7.83	203.0	8.11	8.66	7.81	6.95	8.38	7.35	
Brossier, Amandine (FRA) (	time	6.82	12.40	18.14	24.08	30.32	36.72	43.69	51.27	51.27	1 / 8							
reaction time 0.206	interval		5.58	5.74	5.94	6.24	6.40	6.97	7.58		# of strides	12.40	11.68	12.64	14.55	24.08	27.19	3.11
	velocity	7.33	8.96	8.71	8.42	8.01	7.81	7.17	6.60	7.80	207.0	8.06	8.56	7.91	6.87	8.31	7.36	

2024 FBK Games (Hengelo, NED)

National FINAL date 07-Jul-24

Omega Timing (2024) - continental tour gold race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
van Leur, Madelief (NED) (20	time	6.96	12.67	18.59	24.71	31.10	37.84	45.13	53.04	53.04	6 / 1							
reaction time 0.195	interval		5.71	5.92	6.12	6.39	6.74	7.29	7.91	NU18R PB	# of strides	12.67	12.04	13.13	15.20	24.71	28.33	3.62
	velocity	7.18	8.76	8.45	8.17	7.82	7.42	6.86	6.32	7.54		7.89	8.31	7.62	6.58	8.09	7.06	
Bouma, Andrea (NED) (1999	time	7.01	12.73	18.60	24.73	31.16	37.97	45.23	53.34	53.34	7 / 2							
reaction time 0.191	interval		5.72	5.87	6.13	6.43	6.81	7.26	8.11		# of strides	12.73	12.00	13.24	15.37	24.73	28.61	3.88
	velocity	7.13	8.74	8.52	8.16	7.78	7.34	6.89	6.17	7.50		7.86	8.33	7.55	6.51	8.09	6.99	
Müller, Laura (GER) (1995)	time	6.96	12.71	18.61	24.72	31.11	37.98	45.51	53.73	53.73	2 / 3							
reaction time 0.170	interval		5.75	5.90	6.11	6.39	6.87	7.53	8.22		# of strides	12.71	12.01	13.26	15.75	24.72	29.01	4.29
	velocity	7.18	8.70	8.47	8.18	7.82	7.28	6.64	6.08	7.44		7.87	8.33	7.54	6.35	8.09	6.89	
Franke, Nina (NED) (2002)	time	6.97	12.68	18.51	24.64	31.15	38.15	45.69	54.11	54.11	4 / 4							
reaction time 0.153	interval		5.71	5.83	6.13	6.51	7.00	7.54	8.42		# of strides	12.68	11.96	13.51	15.96	24.64	29.47	4.83
	velocity	7.17	8.76	8.58	8.16	7.68	7.14	6.63	5.94	7.39		7.89	8.36	7.40	6.27	8.12	6.79	
Veninga, Dominique (NED) (	time	7.00	12.65	18.55	24.71	31.23	38.19	45.71	54.12	54.12	1 / 5							
reaction time 0.209	interval		5.65	5.90	6.16	6.52	6.96	7.52	8.41		# of strides	12.65	12.06	13.48	15.93	24.71	29.41	4.70
	velocity	7.14	8.85	8.47	8.12	7.67	7.18	6.65	5.95	7.39		7.91	8.29	7.42	6.28	8.09	6.80	
Ellsworth, Maureen (NED) (1	time	7.17	13.11	19.13	25.43	32.05	39.09	46.39	54.30	54.30	8 / 6							
reaction time 0.158	interval		5.94	6.02	6.30	6.62	7.04	7.30	7.91		# of strides	13.11	12.32	13.66	15.21	25.43	28.87	3.44
	velocity	6.97	8.42	8.31	7.94	7.55	7.10	6.85	6.32	7.37		7.63	8.12	7.32	6.57	7.86	6.93	
de Blaaauw, Britt (NED) (200	time	6.90	12.60	18.50	24.56	31.10	38.20	46.08	55.06	55.06	3 / 7							
reaction time 0.177	interval		5.70	5.90	6.06	6.54	7.10	7.88	8.98		# of strides	12.60	11.96	13.64	16.86	24.56	30.50	5.94
	velocity	7.25	8.77	8.47	8.25	7.65	7.04	6.35	5.57	7.26		7.94	8.36	7.33	5.93	8.14	6.56	

2024 USA Olympic Trials (Eugene, OR)

FINAL date 23-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ellis, Kendall (USA) (1996)	time		12.11		23.96		36.35		49.46	49.46	8 / 1							
reaction time	interval				11.85		12.39		13.11	PB	# of strides	12.11	11.85	12.39	13.11	23.96	25.50	1.54
	velocity		8.26		8.44		8.07		7.63	8.09		8.26	8.44	8.07	7.63	8.35	7.84	
Butler, Aaliyah (USA) (2003)	time		12.01		23.70		36.15		49.71	49.71	5 / 2							
reaction time	interval				11.69		12.45		13.56	PB	# of strides	12.01	11.69	12.45	13.56	23.70	26.01	2.31
	velocity		8.33		8.55		8.03		7.37	8.05	192.0	8.33	8.55	8.03	7.37	8.44	7.69	
Holmes, Alexis (USA) (2000)	time		12.09		23.90		36.49		49.78	49.78	3 / 4							
reaction time	interval				11.81		12.59		13.29	PB	# of strides	12.09	11.81	12.59	13.29	23.90	25.88	1.98
	velocity		8.27		8.47		7.94		7.52	8.04	187.7	8.27	8.47	7.94	7.52	8.37	7.73	

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

Brown, Kaylyn (USA) (2004)	time	11.90	23.54	36.29	50.07	50.07	7 / 4										
reaction time	interval		11.64	12.75	13.78		# of strides	11.90	11.64	12.75	13.78	23.54	26.53	2.99			
	velocity	8.40	8.59	7.84	7.26	7.99		8.40	8.59	7.84	7.26	8.50	7.54				
Hayes, Quanera (USA) (1992	time	12.45	24.57	37.19	50.55	50.55	1 / 5										
reaction time	interval		12.12	12.62	13.36		# of strides	12.45	12.12	12.62	13.36	24.57	25.98	1.41			
	velocity	8.03	8.25	7.92	7.49	7.91		8.03	8.25	7.92	7.49	8.14	7.70				
Whittaker, Isabella (USA) (20	time	12.32	24.31	37.10	50.68	50.68	9 / 6										
reaction time	interval		11.99	12.79	13.58		# of strides	12.32	11.99	12.79	13.58	24.31	26.37	2.06			
	velocity	8.12	8.34	7.82	7.36	7.89		8.12	8.34	7.82	7.36	8.23	7.58				
Irby-Jackson, Lynna (USA) (	time	11.84	23.88	36.48	50.74	50.74	6 / 7										
reaction time	interval		12.04	12.60	14.26		# of strides	11.84	12.04	12.60	14.26	23.88	26.86	2.98			
	velocity	8.45	8.31	7.94	7.01	7.88	183.0	8.45	8.31	7.94	7.01	8.38	7.45				
Ford, JaMeesia (USA) (2005)	time	12.20	24.03	36.89	50.80	50.80	2 / 8										
reaction time	interval		11.83	12.86	13.91		# of strides	12.20	11.83	12.86	13.91	24.03	26.77	2.74			
	velocity	8.20	8.45	7.78	7.19	7.87	187.0	8.20	8.45	7.78	7.19	8.32	7.47				
Little, Shamier (USA) (1995)	time	12.02	23.69	36.28	50.96	50.96	4 / 9										
reaction time	interval		11.67	12.59	14.68		# of strides	12.02	11.67	12.59	14.68	23.69	27.27	3.58			
	velocity	8.32	8.57	7.94	6.81	7.85	190.0	8.32	8.57	7.94	6.81	8.44	7.33				

Semi-Final 3

date 22-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Irby-Jackson, Lynna (USA) (	time		11.98		23.66		36.23		50.17	50.17	7 / 1							
reaction time	interval				11.68		12.57		13.94		# of strides	11.98	11.68	12.57	13.94	23.66	26.51	2.85
	velocity		8.35		8.56		7.96		7.17	7.97	181.2	8.35	8.56	7.96	7.17	8.45	7.54	
Whittaker, Isabella (USA) (20	time		12.35		23.96		36.73		50.48	50.48	5 / 2							
reaction time	interval				11.61		12.77		13.75		# of strides	12.35	11.61	12.77	13.75	23.96	26.52	2.56
	velocity		8.10		8.61		7.83		7.27	7.92	187.0	8.10	8.61	7.83	7.27	8.35	7.54	
Joseph, Rachel (USA) (2004)	time		12.37		23.99		36.64		50.74	50.74	8 / 3							
reaction time	interval				11.62		12.65		14.10	PB	# of strides	12.37	11.62	12.65	14.10	23.99	26.75	2.76
	velocity		8.08		8.61		7.91		7.09	7.88		8.08	8.61	7.91	7.09	8.34	7.48	
Diggs, Talitha (USA) (2002)	time		12.10		23.66		36.63		50.78	50.78	9 / 4							
reaction time	interval				11.56		12.97		14.15		# of strides	12.10	11.56	12.97	14.15	23.66	27.12	3.46
	velocity		8.26		8.65		7.71		7.07	7.88		8.26	8.65	7.71	7.07	8.45	7.37	
Effiong, Rosey (USA) (2001)	time		12.22		23.81		36.50		50.92	50.92	6 / 5							
reaction time	interval				11.59		12.69		14.42		# of strides	12.22	11.59	12.69	14.42	23.81	27.11	3.30
	velocity		8.18		8.63		7.88		6.93	7.86	193.0	8.18	8.63	7.88	6.93	8.40	7.38	
Robinson, Na'Asha (USA) (1	time		12.14		23.52		36.56		51.65	51.65	4 / 6							
reaction time	interval				11.38		13.04		15.09		# of strides	12.14	11.38	13.04	15.09	23.52	28.13	4.61
	velocity		8.24		8.79		7.67		6.63	7.74	197.0	8.24	8.79	7.67	6.63	8.50	7.11	
Whitney, Kaylin (USA) (1998	time		12.45		24.02		37.05		51.79	51.79	1 / 7							
reaction time	interval				11.57		13.03		14.74		# of strides	12.45	11.57	13.03	14.74	24.02	27.77	3.75
	velocity		8.03		8.64		7.67		6.78	7.72		8.03	8.64	7.67	6.78	8.33	7.20	
Okolo, Courtney (USA) (199	time		12.48		24.22		37.33		52.11	52.11	2 / 8							
reaction time	interval				11.74		13.11		14.78		# of strides	12.48	11.74	13.11	14.78	24.22	27.89	3.67
	velocity		8.01		8.52		7.63		6.77	7.68		8.01	8.52	7.63	6.77	8.26	7.17	
Holman, Ziyah (USA) (2002)	time		12.45		24.43		37.63		53.00	53.00	3 / 9							
reaction time	interval				11.98		13.20		15.37		# of strides	12.45	11.98	13.20	15.37	24.43	28.57	4.14
	velocity		8.03		8.35		7.58		6.51	7.55		8.03	8.35	7.58	6.51	8.19	7.00	

Semi-Final 2

date 22-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ellis, Kendall (USA) (1996)	time		12.27		23.64		35.93		49.81	49.81	4 / 1							
reaction time	interval				11.37		12.29		13.88	PB	# of strides	12.27	11.37	12.29	13.88	23.64	26.17	2.53
	velocity		8.15		8.80		8.14		7.20	8.03	184.0	8.15	8.80	8.14	7.20	8.46	7.64	
Little, Shamier (USA) (1995)	time		12.48		24.01		36.62		50.16	50.16	8 / 2							
reaction time	interval				11.53		12.61		13.54		# of strides	12.48	11.53	12.61	13.54	24.01	26.15	2.14
	velocity		8.01		8.67		7.93		7.39	7.97		8.01	8.67	7.93	7.39	8.33	7.65	
Hayes, Quanera (USA) (1992	time		12.44		23.86		36.37		50.46	50.46	5 / 3							
reaction time	interval				11.42		12.51		14.09		# of strides	12.44	11.42	12.51	14.09	23.86	26.60	2.74
	velocity		8.04		8.76		7.99		7.10	7.93	184.0	8.04	8.76	7.99	7.10	8.38	7.52	
Harris, Kimberly (USA) (2002	time		12.40		24.02		36.82		51.26	51.26	6 / 4							
reaction time	interval				11.62		12.80		14.44		# of strides	12.40	11.62	12.80	14.44	24.02	27.24	3.22
	velocity		8.06		8.61		7.81		6.93	7.80	197.0	8.06	8.61	7.81	6.93	8.33	7.34	
Whyte, Madison (USA) (200	time		12.39		24.01		36.93		51.49	51.49	3 / 5							
reaction time	interval				11.62		12.92		14.56	PB	# of strides	12.39	11.62	12.92	14.56	24.01	27.48	3.47
	velocity		8.07		8.61		7.74		6.87	7.77	183.0	8.07	8.61	7.74	6.87	8.33	7.28	
Lewis, Lauren (USA) (2005)	time		12.51		24.29		37.34		51.55	51.55	9 / 6							
reaction time	interval				11.78		13.05		14.21		# of strides	12.51	11.78	13.05	14.21	24.29	27.26	2.97
	velocity		7.99		8.49		7.66		7.04	7.76		7.99	8.49	7.66	7.04	8.23	7.34	

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

Arnold, Jermaisha (USA) (20	time	12.61		24.03		36.73		51.58	51.58	7 / 7						
reaction time	interval			11.42		12.70		14.85		# of strides	12.61	11.42	12.70	14.85	24.03	27.55	3.52
	velocity	7.93		8.76		7.87		6.73	7.75	197.0	7.93	8.76	7.87	6.73	8.32	7.26	
McDowell, Jessica (USA) (20	time	12.24		23.84		36.93		51.75	51.75	2 / 8						
reaction time	interval			11.60		13.09		14.82		# of strides	12.24	11.60	13.09	14.82	23.84	27.91	4.07
	velocity	8.17		8.62		7.64		6.75	7.73		8.17	8.62	7.64	6.75	8.39	7.17	
Pipion, Ceonna (USA) (2002	time	12.89		25.14		38.37		52.76	52.76	1 / 9						
reaction time	interval			12.25		13.23		14.39		# of strides	12.89	12.25	13.23	14.39	25.14	27.62	2.48
	velocity	7.76		8.16		7.56		6.95	7.58		7.76	8.16	7.56	6.95	7.96	7.24	

Semi-Final 1

date 22-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brown, Kaylyn (USA) (2004)	time		11.98		23.53		36.17		49.71	49.71	8 / 1							
reaction time	interval				11.55		12.64		13.54		# of strides	11.98	11.55	12.64	13.54	23.53	26.18	2.65
	velocity		8.35		8.66		7.91		7.39	8.05		8.35	8.66	7.91	7.39	8.50	7.64	
Butler, Aaliyah (USA) (2003)	time		12.34		23.74		36.16		50.01	50.01	5 / 2							
reaction time	interval				11.40		12.42		13.85		# of strides	12.34	11.40	12.42	13.85	23.74	26.27	2.53
	velocity		8.10		8.77		8.05		7.22	8.00	189.7	8.10	8.77	8.05	7.22	8.42	7.61	
Holmes, Alexis (USA) (2000)	time		12.15		23.59		36.35		50.19	50.19	6 / 4							
reaction time	interval				11.44		12.76		13.84	PB	# of strides	12.15	11.44	12.76	13.84	23.59	26.60	3.01
	velocity		8.23		8.74		7.84		7.23	7.97	183.0	8.23	8.74	7.84	7.23	8.48	7.52	
Ford, JaMeesia (USA) (2005)	time		12.02		23.50		36.18		50.33	50.33	4 / 4							
reaction time	interval				11.48		12.68		14.15	PB	# of strides	12.02	11.48	12.68	14.15	23.50	26.83	3.33
	velocity		8.32		8.71		7.89		7.07	7.95	184.0	8.32	8.71	7.89	7.07	8.51	7.45	
Lear, Bailey (USA) (2001)	time		12.33		24.12		36.74		50.94	50.94	7 / 5							
reaction time	interval				11.79		12.62		14.20	PB	# of strides	12.33	11.79	12.62	14.20	24.12	26.82	2.70
	velocity		8.11		8.48		7.92		7.04	7.85		8.11	8.48	7.92	7.04	8.29	7.46	
Martin, Jania (USA) (2000)	time		12.42		24.65		37.83		52.34	52.34	1 / 6							
reaction time	interval				12.23		13.18		14.51		# of strides	12.42	12.23	13.18	14.51	24.65	27.69	3.04
	velocity		8.05		8.18		7.59		6.89	7.64		8.05	8.18	7.59	6.89	8.11	7.22	
Jones, Jan'Taijah (USA) (200	time		12.74		24.89		37.92		52.41	52.41	9 / ~~7~~							
reaction time	interval				12.15		13.03		14.49	DQ	# of strides	12.74	12.15	13.03	14.49	24.89	27.52	2.63
	velocity		7.85		8.23		7.67		6.90	7.63		7.85	8.23	7.67	6.90	8.04	7.27	
Williams, Kiah (USA) (2002)	time		12.11		24.00		37.03		52.54	52.54	3 / ~~8~~ 7							
reaction time	interval				11.89		13.03		15.51		# of strides	12.11	11.89	13.03	15.51	24.00	28.54	4.54
	velocity		8.26		8.41		7.67		6.45	7.61		8.26	8.41	7.67	6.45	8.33	7.01	
Peoples, Paris (USA) (2000)	time		12.47		24.17		37.28		52.68	52.68	2 / ~~9~~ 8							
reaction time	interval				11.70		13.11		15.40		# of strides	12.47	11.70	13.11	15.40	24.17	28.51	4.34
	velocity		8.02		8.55		7.63		6.49	7.59		8.02	8.55	7.63	6.49	8.27	7.02	

Heat 5

date 21-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Joseph, Rachel (USA) (2004)	time		12.44		24.28		37.09		50.92	50.92	4 / 1							
reaction time	interval				11.84		12.81		13.83	PB	# of strides	12.44	11.84	12.81	13.83	24.28	26.64	2.36
	velocity		8.04		8.45		7.81		7.23	7.86	182.5	8.04	8.45	7.81	7.23	8.24	7.51	
Hayes, Quanera (USA) (1992)	time		12.35		24.18		37.26		50.94	50.94	7 / 2							
reaction time	interval				11.83		13.08		13.68		# of strides	12.35	11.83	13.08	13.68	24.18	26.76	2.58
	velocity		8.10		8.45		7.65		7.31	7.85	183.0	8.10	8.45	7.65	7.31	8.27	7.47	
Brown, Kaylyn (USA) (2004)	time		11.96		23.48		36.74		51.09	51.09	3 / 3							
reaction time	interval				11.52		13.26		14.35		# of strides	11.96	11.52	13.26	14.35	23.48	27.61	4.13
	velocity		8.36		8.68		7.54		6.97	7.83	185.0	8.36	8.68	7.54	6.97	8.52	7.24	
Jones, Jan'Taijah (USA) (200	time		12.73		24.57		37.37		51.59	51.59	5 / 4							
reaction time	interval				11.84		12.80		14.22		# of strides	12.73	11.84	12.80	14.22	24.57	27.02	2.45
	velocity		7.86		8.45		7.81		7.03	7.75	196.0	7.86	8.45	7.81	7.03	8.14	7.40	
Williams, Kiah (USA) (2002)	time		12.37		24.59		37.64		52.04	52.04	6 / 5							
reaction time	interval				12.22		13.05		14.40		# of strides	12.37	12.22	13.05	14.40	24.59	27.45	2.86
	velocity		8.08		8.18		7.66		6.94	7.69	186.7	8.08	8.18	7.66	6.94	8.13	7.29	
Griffin, Jada (USA) (1999)	time		12.74		24.83		38.43		53.29	53.29	8 / 6							
reaction time	interval				12.09		13.60		14.86		# of strides	12.74	12.09	13.60	14.86	24.83	28.46	3.63
	velocity		7.85		8.27		7.35		6.73	7.51		7.85	8.27	7.35	6.73	8.05	7.03	

Heat 4

date 21-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Holmes, Alexis (USA) (2000)	time		12.22		24.06		37.23		51.05	51.05	3 / 1							
reaction time	interval				11.84		13.17		13.82		# of strides	12.22	11.84	13.17	13.82	24.06	26.99	2.93
	velocity		8.18		8.45		7.59		7.24	7.84	183.7	8.18	8.45	7.59	7.24	8.31	7.41	
Effiong, Rosey (USA) (2001)	time		12.34		24.14		37.03		51.21	51.21	8 / 2							
reaction time	interval				11.80		12.89		14.18		# of strides	12.34	11.80	12.89	14.18	24.14	27.07	2.93
	velocity		8.10		8.47		7.76		7.05	7.81	192.5	8.10	8.47	7.76	7.05	8.29	7.39	
Ford, JaMeesia (USA) (2005)	time		12.54		24.53		37.83		51.55	51.55	4 / 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	interval		11.99	13.30	13.72		# of strides	12.54	11.99	13.30	13.72	24.53	27.02	2.49
	velocity	7.97	8.34	7.52	7.29	7.76	183.0	7.97	8.34	7.52	7.29	8.15	7.40	
Lewis, Lauren (USA) (2005)	time	12.60	24.56	37.73	51.73	51.73	6 / 4							
reaction time	interval		11.96	13.17	14.00		# of strides	12.60	11.96	13.17	14.00	24.56	27.17	2.61
	velocity	7.94	8.36	7.59	7.14	7.73	197.0	7.94	8.36	7.59	7.14	8.14	7.36	
Okolo, Courtney (USA) (199	time	12.78	24.96	38.01	51.79	51.79	9 / 5							
reaction time	interval		12.18	13.05	13.78		# of strides	12.78	12.18	13.05	13.78	24.96	26.83	1.87
	velocity	7.82	8.21	7.66	7.26	7.72	197.0	7.82	8.21	7.66	7.26	8.01	7.45	
Whitney, Kaylin (USA) (1998	time	12.63	24.33	37.43	52.18	52.18	7 / 6							
reaction time	interval		11.70	13.10	14.75		# of strides	12.63	11.70	13.10	14.75	24.33	27.85	3.52
	velocity	7.92	8.55	7.63	6.78	7.67	184.0	7.92	8.55	7.63	6.78	8.22	7.18	
Perry, Corrssia (USA) (1996)	time	12.52	24.52	38.16	53.37	53.37	5 / 7							
reaction time	interval		12.00	13.64	15.21		# of strides	12.52	12.00	13.64	15.21	24.52	28.85	4.33
	velocity	7.99	8.33	7.33	6.57	7.49	198.2	7.99	8.33	7.33	6.57	8.16	6.93	

Heat 3

date 21-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Little, Shamier (USA) (1995)	time		12.34		24.15		36.71		50.13	50.13	7 / 1							
reaction time	interval				11.81		12.56		13.42		# of strides	12.34	11.81	12.56	13.42	24.15	25.98	1.83
	velocity		8.10		8.47		7.96		7.45	7.98	185.0	8.10	8.47	7.96	7.45	8.28	7.70	
Harris, Kimberly (USA) (2002	time		12.50		24.23		36.99		51.07	51.07	6 / 2							
reaction time	interval				11.73		12.76		14.08	PB	# of strides	12.50	11.73	12.76	14.08	24.23	26.84	2.61
	velocity		8.00		8.53		7.84		7.10	7.83	195.0	8.00	8.53	7.84	7.10	8.25	7.45	
Arnold, Jermaisha (USA) (20	time		12.83		24.56		37.21		51.20	51.20	8 / 3							
reaction time	interval				11.73		12.65		13.99		# of strides	12.83	11.73	12.65	13.99	24.56	26.64	2.08
	velocity		7.79		8.53		7.91		7.15	7.81	192.0	7.79	8.53	7.91	7.15	8.14	7.51	
Peoples, Paris (USA) (2000)	time		12.48		24.18		37.18		52.20	52.20	4 / 4							
reaction time	interval				11.70		13.00		15.02		# of strides	12.48	11.70	13.00	15.02	24.18	28.02	3.84
	velocity		8.01		8.55		7.69		6.66	7.66	194.5	8.01	8.55	7.69	6.66	8.27	7.14	
Pipion, Ceonna (USA) (2002	time		12.79		25.09		38.11		52.28	52.28	5 / 5							
reaction time	interval				12.30		13.02		14.17		# of strides	12.79	12.30	13.02	14.17	25.09	27.19	2.10
	velocity		7.82		8.13		7.68		7.06	7.65	198.8	7.82	8.13	7.68	7.06	7.97	7.36	
Singletary, Maya (USA) (199	time		12.35		24.26		37.49		52.97	52.97	9 / 6							
reaction time	interval				11.91		13.23		15.48		# of strides	12.35	11.91	13.23	15.48	24.26	28.71	4.45
	velocity		8.10		8.40		7.56		6.46	7.55		8.10	8.40	7.56	6.46	8.24	6.97	

Heat 2

date 21-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Butler, Aaliyah (USA) (2003)	time		12.05		23.59		36.48		50.44	50.44	3 / 1							
reaction time	interval				11.54		12.89		13.96		# of strides	12.05	11.54	12.89	13.96	23.59	26.85	3.26
	velocity		8.30		8.67		7.76		7.16	7.93	191.0	8.30	8.67	7.76	7.16	8.48	7.45	
Whittaker, Isabella (USA) (20	time		12.32		24.18		37.17		51.18	51.18	9 / 2							
reaction time	interval				11.86		12.99		14.01		# of strides	12.32	11.86	12.99	14.01	24.18	27.00	2.82
	velocity		8.12		8.43		7.70		7.14	7.82		8.12	8.43	7.70	7.14	8.27	7.41	
Ellis, Kendall (USA) (1996)	time		12.37		24.08		37.20		51.22	51.22	5 / 3							
reaction time	interval				11.71		13.12		14.02		# of strides	12.37	11.71	13.12	14.02	24.08	27.14	3.06
	velocity		8.08		8.54		7.62		7.13	7.81	188.0	8.08	8.54	7.62	7.13	8.31	7.37	
Robinson, Na'Asha (USA) (1	time		12.31		23.92		36.95		51.30	51.30	8 / 4							
reaction time	interval				11.61		13.03		14.35	=PB	# of strides	12.31	11.61	13.03	14.35	23.92	27.38	3.46
	velocity		8.12		8.61		7.67		6.97	7.80	194.0	8.12	8.61	7.67	6.97	8.36	7.30	
McDowell, Jessica (USA) (20	time		12.10		23.90		37.20		52.12	52.12	4 / 5							
reaction time	interval				11.80		13.30		14.92		# of strides	12.10	11.80	13.30	14.92	23.90	28.22	4.32
	velocity		8.26		8.47		7.52		6.70	7.67	196.0	8.26	8.47	7.52	6.70	8.37	7.09	
Murphy, Bryannia (USA) (20	time		12.46		24.44		37.87		53.03	53.03	6 / 6							
reaction time	interval				11.98		13.43		15.16		# of strides	12.46	11.98	13.43	15.16	24.44	28.59	4.15
	velocity		8.03		8.35		7.45		6.60	7.54	200.0	8.03	8.35	7.45	6.60	8.18	7.00	
Manson, Taylor (USA) (1999)	time		12.37		24.18		37.81		53.49	53.49	7 / 7							
reaction time	interval				11.81		13.63		15.68		# of strides	12.37	11.81	13.63	15.68	24.18	29.31	5.13
	velocity		8.08		8.47		7.34		6.38	7.48	196.0	8.08	8.47	7.34	6.38	8.27	6.82	

Heat 1

date 21-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Irby-Jackson, Lynna (USA) (	time		11.96		23.74		36.38		50.89	50.89	3 / 1							
reaction time	interval				11.78		12.64		14.51		# of strides	11.96	11.78	12.64	14.51	23.74	27.15	3.41
	velocity		8.36		8.49		7.91		6.89	7.86	182.0	8.36	8.49	7.91	6.89	8.42	7.37	
Lear, Bailey (USA) (2001)	time		12.42		24.26		37.14		51.12	51.12	5 / 2							
reaction time	interval				11.84		12.88		13.98		# of strides	12.42	11.84	12.88	13.98	24.26	26.86	2.60
	velocity		8.05		8.45		7.76		7.15	7.82	191.2	8.05	8.45	7.76	7.15	8.24	7.45	
Diggs, Talitha (USA) (2002)	time		12.36		24.33		37.29		51.57	51.57	4 / 3							
reaction time	interval				11.97		12.96		14.28		# of strides	12.36	11.97	12.96	14.28	24.33	27.24	2.91
	velocity		8.09		8.35		7.72		7.00	7.76	196.0	8.09	8.35	7.72	7.00	8.22	7.34	

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Whyte, Madison (USA) (200	time		12.35		24.51		37.39		51.85	51.85	6 / 4							
reaction time	interval				12.16		12.88		14.46		# of strides	12.35	12.16	12.88	14.46	24.51	27.34	2.83
	velocity		8.10		8.22		7.76		6.92	7.71	182.0	8.10	8.22	7.76	6.92	8.16	7.32	
Holman, Ziyah (USA) (2002)	time		12.56		24.59		37.66		51.96	51.96	7 / 5							
reaction time	interval				12.03		13.07		14.30		# of strides	12.56	12.03	13.07	14.30	24.59	27.37	2.78
	velocity		7.96		8.31		7.65		6.99	7.70	196.0	7.96	8.31	7.65	6.99	8.13	7.31	
Martin, Jania (USA) (2000)	time		12.52		24.61		37.71		52.12	52.12	9 / 6							
reaction time	interval				12.09		13.10		14.41		# of strides	12.52	12.09	13.10	14.41	24.61	27.51	2.90
	velocity		7.99		8.27		7.63		6.94	7.67		7.99	8.27	7.63	6.94	8.13	7.27	
Wright, Jessica (USA) (2000)	time		12.76		24.90		38.01		52.76	52.76	8 / 7							
reaction time	interval				12.14		13.11		14.75		# of strides	12.76	12.14	13.11	14.75	24.90	27.86	2.96
	velocity		7.84		8.24		7.63		6.78	7.58		7.84	8.24	7.63	6.78	8.03	7.18	

2024 European Athletics Championships (Roma, ITA)

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (19	time		12.22		23.59		35.84		48.98	48.98	7 / 1							
reaction time 0.188	interval				11.37		12.25		13.14	NR PB	# of strides	12.22	11.37	12.25	13.14	23.59	25.39	1.80
	velocity		8.18		8.80		8.16		7.61	8.17	192.0	8.18	8.80	8.16	7.61	8.48	7.88	
Adeleke, Rhasidat (IRL) (200	time		12.29		23.69		35.82		49.07	49.07	6 / 2							
reaction time 0.104	interval				11.40		12.13		13.25	NR PB	# of strides	12.29	11.40	12.13	13.25	23.69	25.38	1.69
	velocity		8.14		8.77		8.24		7.55	8.15		8.14	8.77	8.24	7.55	8.44	7.88	
Klaver, Lieke (NED) (1998)	time		12.45		23.92		36.34		50.08	50.08	8 / 3							
reaction time 0.185	interval				11.47		12.42		13.74		# of strides	12.45	11.47	12.42	13.74	23.92	26.16	2.24
	velocity		8.03		8.72		8.05		7.28	7.99	184.0	8.03	8.72	8.05	7.28	8.36	7.65	
Manuel, Lurdes Gloria (CZE)	time		12.53		24.07		36.79		50.52	50.52	3 / 4							
reaction time 0.368	interval				11.54		12.72		13.73	NJR PB	# of strides	12.53	11.54	12.72	13.73	24.07	26.45	2.38
	velocity		7.98		8.67		7.86		7.28	7.92		7.98	8.67	7.86	7.28	8.31	7.56	
Miklós, Andrea (ROU) (1999)	time		12.30		23.84		36.41		50.71	50.71	9 / 5							
reaction time 0.285	interval				11.54		12.57		14.30		# of strides	12.30	11.54	12.57	14.30	23.84	26.87	3.03
	velocity		8.13		8.67		7.96		6.99	7.89		8.13	8.67	7.96	6.99	8.39	7.44	
Nielsen, Laviai (GBR) (1996)	time		12.44		24.29		36.86		50.71	50.71	5 / 6							
reaction time 0.171	interval				11.85		12.57		13.85	PB	# of strides	12.44	11.85	12.57	13.85	24.29	26.42	2.13
	velocity		8.04		8.44		7.96		7.22	7.89		8.04	8.44	7.96	7.22	8.23	7.57	
Gogl-Walli, Susanne (AUT) (	time		12.50		24.39		37.21		51.23	51.23	2 / 7							
reaction time 0.225	interval				11.89		12.82		14.02		# of strides	12.50	11.89	12.82	14.02	24.39	26.84	2.45
	velocity		8.00		8.41		7.80		7.13	7.81		8.00	8.41	7.80	7.13	8.20	7.45	
Mawdsley, Sharlene (IRL) (19	time		12.33		24.09		36.82		51.59	51.59	4 / 8							
reaction time 0.201	interval				11.76		12.73		14.77		# of strides	12.33	11.76	12.73	14.77	24.09	27.50	3.41
	velocity		8.11		8.50		7.86		6.77	7.75		8.11	8.50	7.86	6.77	8.30	7.27	

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Klaver, Lieke (NED) (1998)	time		12.24		24.05		37.00		50.57	50.57	7 / 1							
reaction time 0.189	interval				11.81		12.95		13.57		# of strides	12.24	11.81	12.95	13.57	24.05	26.52	2.47
	velocity		8.17		8.47		7.72		7.37	7.91	186.0	8.17	8.47	7.72	7.37	8.32	7.54	
Mawdsley, Sharlene (IRL) (19	time		12.43		24.38		37.17		50.99	50.99	8 / 2							
reaction time 0.200	interval				11.95		12.79		13.82		# of strides	12.43	11.95	12.79	13.82	24.38	26.61	2.23
	velocity		8.05		8.37		7.82		7.24	7.84	192.5	8.05	8.37	7.82	7.24	8.20	7.52	
Mangione, Alice (ITA) (1997)	time		12.79		25.23		38.06		51.34	51.34	9 / 3							
reaction time 0.248	interval				12.44		12.83		13.28	PB	# of strides	12.79	12.44	12.83	13.28	25.23	26.11	0.88
	velocity		7.82		8.04		7.79		7.53	7.79	194.0	7.82	8.04	7.79	7.53	7.93	7.66	
Ponette, Helena (BEL) (2000)	time		12.57		24.36		37.27		51.65	51.65	5 / 4							
reaction time 0.243	interval				11.79		12.91		14.38		# of strides	12.57	11.79	12.91	14.38	24.36	27.29	2.93
	velocity		7.96		8.48		7.75		6.95	7.74	199.0	7.96	8.48	7.75	6.95	8.21	7.33	
Shostak, Maryana (UKR) (20	time		12.70		24.79		37.83		51.99	51.99	2 / 5							
reaction time 0.158	interval				12.09		13.04		14.16	PB	# of strides	12.70	12.09	13.04	14.16	24.79	27.20	2.41
	velocity		7.87		8.27		7.67		7.06	7.69	193.0	7.87	8.27	7.67	7.06	8.07	7.35	
Ohuruogu, Victoria (GBR) (1	time		12.43		24.23		37.25		52.07	52.07	6 / 6							
reaction time 0.224	interval				11.80		13.02		14.82		# of strides	12.43	11.80	13.02	14.82	24.23	27.84	3.61
	velocity		8.05		8.47		7.68		6.75	7.68	194.7	8.05	8.47	7.68	6.75	8.25	7.18	
Senn, Giulia (SUI) (2001)	time		12.36		24.41		37.73		52.16	52.16	4 / 7							
reaction time 0.183	interval				12.05		13.32		14.43		# of strides	12.36	12.05	13.32	14.43	24.41	27.75	3.34
	velocity		8.09		8.30		7.51		6.93	7.67	194.0	8.09	8.30	7.51	6.93	8.19	7.21	
Święty-Ersetic, Justyna (POL	time		12.67		24.65		37.75		52.18	52.18	3 / 8							
reaction time 0.197	interval				11.98		13.10		14.43		# of strides	12.67	11.98	13.10	14.43	24.65	27.53	2.88
	velocity		7.89		8.35		7.63		6.93	7.67	204.0	7.89	8.35	7.63	6.93	8.11	7.26	

Semi-Final 2

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	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

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

Kaczmarek, Natalia (POL) (1	time	12.30	24.31	37.08	50.70	50.70	8 / 1							
reaction time 0.187	interval		12.01	12.77	13.62		# of strides	12.30	12.01	12.77	13.62	24.31	26.39	2.08
	velocity	8.13	8.33	7.83	7.34	7.89	192.0	8.13	8.33	7.83	7.34	8.23	7.58	
Miklós, Andrea (ROU) (1999)	time	12.35	24.37	37.22	51.13	51.13	5 / 2							
reaction time 0.197	interval		12.02	12.85	13.91		# of strides	12.35	12.02	12.85	13.91	24.37	26.76	2.39
	velocity	8.10	8.32	7.78	7.19	7.82	203.0	8.10	8.32	7.78	7.19	8.21	7.47	
Gogl-Walli, Susanne (AUT) (	time	12.38	24.35	37.08	51.14	51.14	6 / 3							
reaction time 0.241	interval		11.97	12.73	14.06		# of strides	12.38	11.97	12.73	14.06	24.35	26.79	2.44
	velocity	8.08	8.35	7.86	7.11	7.82	192.2	8.08	8.35	7.86	7.11	8.21	7.47	
Becker, Sophie (IRL) (1997)	time	12.15	24.33	37.28	51.54	51.54	7 / 4							
reaction time 0.219	interval		12.18	12.95	14.26		# of strides	12.15	12.18	12.95	14.26	24.33	27.21	2.88
	velocity	8.23	8.21	7.72	7.01	7.76	196.5	8.23	8.21	7.72	7.01	8.22	7.35	
Petržilková, Tereza (CZE) (19	time	12.76	25.00	37.99	52.05	52.05	9 / 5							
reaction time 0.206	interval		12.24	12.99	14.06		# of strides	12.76	12.24	12.99	14.06	25.00	27.05	2.05
	velocity	7.84	8.17	7.70	7.11	7.68	195.0	7.84	8.17	7.70	7.11	8.00	7.39	
Polinari, Anna (ITA) (1999)	time	12.91	25.44	38.45	52.53	52.53	4 / 6							
reaction time 0.174	interval		12.53	13.01	14.08		# of strides	12.91	12.53	13.01	14.08	25.44	27.09	1.65
	velocity	7.75	7.98	7.69	7.10	7.61		7.75	7.98	7.69	7.10	7.86	7.38	
Segura, Berta (ESP) (2003)	time	13.02	25.40	38.45	52.53	52.53	3 / 7							
reaction time 0.306	interval		12.38	13.05	14.08		# of strides	13.02	12.38	13.05	14.08	25.40	27.13	1.73
	velocity	7.68	8.08	7.66	7.10	7.61		7.68	8.08	7.66	7.10	7.87	7.37	
Lilja, Lisa (SWE) (1996)	time	12.81	25.40	38.39	52.55	52.55	2 / 8							
reaction time 0.195	interval		12.59	12.99	14.16		# of strides	12.81	12.59	12.99	14.16	25.40	27.15	1.75
	velocity	7.81	7.94	7.70	7.06	7.61		7.81	7.94	7.70	7.06	7.87	7.37	

Semi-Final 1

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Adeleke, Rhasidat (IRL) (200	time		12.35		24.32		37.09		50.54	50.54	8 / 1							
reaction time 0.172	interval				11.97		12.77		13.45		# of strides	12.35	11.97	12.77	13.45	24.32	26.22	1.90
	velocity		8.10		8.35		7.83		7.43	7.91	186.7	8.10	8.35	7.83	7.43	8.22	7.63	
Nielsen, Laviai (GBR) (1996)	time		12.25		23.95		36.90		50.73	50.73	5 / 2							
reaction time 0.160	interval				11.70		12.95		13.83	PB	# of strides	12.25	11.70	12.95	13.83	23.95	26.78	2.83
	velocity		8.16		8.55		7.72		7.23	7.88	194.0	8.16	8.55	7.72	7.23	8.35	7.47	
Manuel, Lurdes Gloria (CZE)	time		13.00		24.77		37.30		51.06	51.06	7 / 3							
reaction time 0.203	interval				11.77		12.53		13.76		# of strides	13.00	11.77	12.53	13.76	24.77	26.29	1.52
	velocity		7.69		8.50		7.98		7.27	7.83	188.5	7.69	8.50	7.98	7.27	8.07	7.61	
Brossier, Amandine (FRA) (	time		12.79		24.96		37.60		51.78	51.78	9 / 4							
reaction time 0.205	interval				12.17		12.64		14.18		# of strides	12.79	12.17	12.64	14.18	24.96	26.82	1.86
	velocity		7.82		8.22		7.91		7.05	7.72	205.0	7.82	8.22	7.91	7.05	8.01	7.46	
Trevisan, Giancaria (ITA) (19	time		12.63		25.12		38.34		52.59	52.59	2 / 5							
reaction time 0.188	interval				12.49		13.22		14.25		# of strides	12.63	12.49	13.22	14.25	25.12	27.47	2.35
	velocity		7.92		8.01		7.56		7.02	7.61	204.7	7.92	8.01	7.56	7.02	7.96	7.28	
Ertzgaard, Astri (NOR) (2002	time		12.68		24.85		38.17		52.82	52.82	3 / 6							
reaction time 0.174	interval				12.17		13.32		14.65		# of strides	12.68	12.17	13.32	14.65	24.85	27.97	3.12
	velocity		7.89		8.22		7.51		6.83	7.57	206.5	7.89	8.22	7.51	6.83	8.05	7.15	
Morauskaité, Modesta (LTU)	time		12.54		24.49		37.87		52.95	52.95	6 / 7							
reaction time 0.169	interval				11.95		13.38		15.08		# of strides	12.54	11.95	13.38	15.08	24.49	28.46	3.97
	velocity		7.97		8.37		7.47		6.63	7.55	201.5	7.97	8.37	7.47	6.63	8.17	7.03	
Niederberger, Julia (SUI) (20	time		12.46		24.47		37.82		52.97	52.97	4 / 8							
reaction time 0.180	interval				12.01		13.35		15.15		# of strides	12.46	12.01	13.35	15.15	24.47	28.50	4.03
	velocity		8.03		8.33		7.49		6.60	7.55	205.0	8.03	8.33	7.49	6.60	8.17	7.02	

Heat 3

date 08-Jun-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Petržilková, Tereza (CZE) (19	time		12.70		24.85		37.76		51.96	51.96	3 / 1							
reaction time 0.222	interval				12.15		12.91		14.20		# of strides	12.70	12.15	12.91	14.20	24.85	27.11	2.26
	velocity		7.87		8.23		7.75		7.04	7.70		7.87	8.23	7.75	7.04	8.05	7.38	
Polinari, Anna (ITA) (1999)	time		12.98		25.14		37.90		52.06	52.06	8 / 2							
reaction time 0.199	interval				12.16		12.76		14.16		# of strides	12.98	12.16	12.76	14.16	25.14	26.92	1.78
	velocity		7.70		8.22		7.84		7.06	7.68		7.70	8.22	7.84	7.06	7.96	7.43	
Ponette, Helena (BEL) (2000	time		12.99		25.27		38.45		52.57	52.57	4 / 3							
reaction time 0.195	interval				12.28		13.18		14.12		# of strides	12.99	12.28	13.18	14.12	25.27	27.30	2.03
	velocity		7.70		8.14		7.59		7.08	7.61		7.70	8.14	7.59	7.08	7.91	7.33	
Ertzgaard, Astri (NOR) (2002	time		13.18		25.49		38.40		52.78	52.78	6 / 4							
reaction time 0.249	interval				12.31		12.91		14.38		# of strides	13.18	12.31	12.91	14.38	25.49	27.29	1.80
	velocity		7.59		8.12		7.75		6.95	7.58		7.59	8.12	7.75	6.95	7.85	7.33	
Baas, Mette (FIN) (2000)	time		13.44		26.14		38.76		52.94	52.94	7 / 5							
reaction time 0.252	interval				12.70		12.62		14.18		# of strides	13.44	12.70	12.62	14.18	26.14	26.80	0.66
	velocity		7.44		7.87		7.92		7.05	7.56		7.44	7.87	7.92	7.05	7.65	7.46	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ćirić, Maja (SRB) (1989)	time		12.59		24.85		38.18		52.96	52.96	5 / 6							
reaction time 0.239	interval				12.26		13.33		14.78		# of strides	12.59	12.26	13.33	14.78	24.85	28.11	3.26
	velocity		7.94		8.16		7.50		6.77	7.55		7.94	8.16	7.50	6.77	8.05	7.11	
Melnyk, Tetyana (UKR) (199	time		13.16		25.57		39.01		54.06	54.06	9 / 7							
reaction time 0.267	interval				12.41		13.44		15.05		# of strides	13.16	12.41	13.44	15.05	25.57	28.49	2.92
	velocity		7.60		8.06		7.44		6.64	7.40		7.60	8.06	7.44	6.64	7.82	7.02	

Heat 2

date 08-Jun-24

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		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Manuel, Lurdes Gloria (CZE)	time		13.30		25.46		38.02		51.36	51.36	8 / 1							
reaction time 0.212	interval				12.16		12.56		13.34		# of strides	13.30	12.16	12.56	13.34	25.46	25.90	0.44
	velocity		7.52		8.22		7.96		7.50	7.79		7.52	8.22	7.96	7.50	7.86	7.72	
Mangione, Alice (ITA) (1997)	time		12.70		24.97		37.94		51.71	51.71	5 / 2							
reaction time 0.287	interval				12.27		12.97		13.77		# of strides	12.70	12.27	12.97	13.77	24.97	26.74	1.77
	velocity		7.87		8.15		7.71		7.26	7.74		7.87	8.15	7.71	7.26	8.01	7.48	
Segura, Berta (ESP) (2003)	time		12.70		24.58		37.54		51.92	51.92	3 / 3							
reaction time 0.296	interval				11.88		12.96		14.38	PB	# of strides	12.70	11.88	12.96	14.38	24.58	27.34	2.76
	velocity		7.87		8.42		7.72		6.95	7.70		7.87	8.42	7.72	6.95	8.14	7.32	
Święty-Ersetic, Justyna (POL	time		12.92		25.31		38.29		52.01	52.01	9 / 4							
reaction time 0.285	interval				12.39		12.98		13.72		# of strides	12.92	12.39	12.98	13.72	25.31	26.70	1.39
	velocity		7.74		8.07		7.70		7.29	7.69		7.74	8.07	7.70	7.29	7.90	7.49	
Shostak, Maryana (UKR) (20	time		12.98		25.35		38.28		52.07	52.07	7 / 5							
reaction time 0.173	interval				12.37		12.93		13.79	PB	# of strides	12.98	12.37	12.93	13.79	25.35	26.72	1.37
	velocity		7.70		8.08		7.73		7.25	7.68		7.70	8.08	7.73	7.25	7.89	7.49	
Lilja, Lisa (SWE) (1996)	time		12.91		25.13		37.96		52.18	52.18	6 / 6							
reaction time 0.193	interval				12.22		12.83		14.22	PB	# of strides	12.91	12.22	12.83	14.22	25.13	27.05	1.92
	velocity		7.75		8.18		7.79		7.03	7.67		7.75	8.18	7.79	7.03	7.96	7.39	
Senn, Giulia (SUI) (2001)	time		12.62		25.03		38.08		52.24	52.24	4 / 7							
reaction time 0.176	interval				12.41		13.05		14.16		# of strides	12.62	12.41	13.05	14.16	25.03	27.21	2.18
	velocity		7.92		8.06		7.66		7.06	7.66		7.92	8.06	7.66	7.06	7.99	7.35	

Heat 1

date 08-Jun-24

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brossier, Amandine (FRA) (	time		12.70		24.67		37.36		51.30	51.30	6 / 1							
reaction time 0.207	interval				11.97		12.69		13.94		# of strides	12.70	11.97	12.69	13.94	24.67	26.63	1.96
	velocity		7.87		8.35		7.88		7.17	7.80		7.87	8.35	7.88	7.17	8.11	7.51	
Baumgart-Witan, Iga (POL)	time		12.95		24.89		37.68		52.18	52.18	7 / 2							
reaction time 0.180	interval				11.94		12.79		14.50		# of strides	12.95	11.94	12.79	14.50	24.89	27.29	2.40
	velocity		7.72		8.38		7.82		6.90	7.67		7.72	8.38	7.82	6.90	8.04	7.33	
Trevisan, Giancaria (ITA) (19	time		12.63		24.69		37.78		52.22	52.22	4 / 3							
reaction time 0.192	interval				12.06		13.09		14.44		# of strides	12.63	12.06	13.09	14.44	24.69	27.53	2.84
	velocity		7.92		8.29		7.64		6.93	7.66		7.92	8.29	7.64	6.93	8.10	7.26	
Niederberger, Julia (SUI) (20	time		12.78		24.76		37.81		52.42	52.42	8 / 4							
reaction time 0.193	interval				11.98		13.05		14.61		# of strides	12.78	11.98	13.05	14.61	24.76	27.66	2.90
	velocity		7.82		8.35		7.66		6.84	7.63		7.82	8.35	7.66	6.84	8.08	7.23	
Azevedo, Cátia (POR) (1994)	time		12.71		24.65		37.68		52.53	52.53	9 / 5							
reaction time 0.243	interval				11.94		13.03		14.85		# of strides	12.71	11.94	13.03	14.85	24.65	27.88	3.23
	velocity		7.87		8.38		7.67		6.73	7.61		7.87	8.38	7.67	6.73	8.11	7.17	
Karpiuk, Kateryna (UKR) (19	time		12.92		25.03		38.29		53.06	53.06	5 / 6							
reaction time 0.179	interval				12.11		13.26		14.77		# of strides	12.92	12.11	13.26	14.77	25.03	28.03	3.00
	velocity		7.74		8.26		7.54		6.77	7.54		7.74	8.26	7.54	6.77	7.99	7.14	

2024 Bauhaus Galan (Stockholm, SWE)

FINAL

date 02-Jun-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Holmes, Alexis (USA) (2000)	time	6.69	12.25	17.93	24.06	30.41	37.02	43.92	51.18	51.18	5 / 1							
reaction time 0.142	interval		5.56	5.68	6.13	6.35	6.61	6.90	7.26		# of strides	12.25	11.81	12.96	14.16	24.06	27.12	3.06
	velocity	7.47	8.99	8.80	8.16	7.87	7.56	7.25	6.89	7.82		8.16	8.47	7.72	7.06	8.31	7.37	
Geldenhuys, Zenéy (RSA) (2	time	6.79	12.47	18.33	24.50	30.94	37.56	44.61	52.12	52.12	2 / 2							
reaction time 0.160	interval		5.68	5.86	6.17	6.44	6.62	7.05	7.51		# of strides	12.47	12.03	13.06	14.56	24.50	27.62	3.12
	velocity	7.36	8.80	8.53	8.10	7.76	7.55	7.09	6.66	7.67		8.02	8.31	7.66	6.87	8.16	7.24	
Becker, Sophie (IRL) (1997)	time	6.72	12.32	18.21	24.52	31.09	37.90	44.80	52.17	52.17	7 / 3							
reaction time 0.170	interval		5.60	5.89	6.31	6.57	6.81	6.90	7.37		# of strides	12.32	12.20	13.38	14.27	24.52	27.65	3.13
	velocity	7.44	8.93	8.49	7.92	7.61	7.34	7.25	6.78	7.67		8.12	8.20	7.47	7.01	8.16	7.23	
de Witte, Lisanne (NED) (19	time	7.09	12.98	18.87	25.12	31.58	38.19	45.01	52.17	52.17	3 / 4							
reaction time 0.182	interval		5.89	5.89	6.25	6.46	6.61	6.82	7.16		# of strides	12.98	12.14	13.07	13.98	25.12	27.05	1.93
	velocity	7.05	8.49	8.49	8.00	7.74	7.56	7.33	6.98	7.67		7.70	8.24	7.65	7.15	7.96	7.39	
Frobe, Linnéa (SWE) (1998)	time	6.98	12.74	18.82	25.16	31.61	38.40	45.75	54.03	54.03	8 / 5							
reaction time 0.210	interval		5.76	6.08	6.34	6.45	6.79	7.35	8.28		# of strides	12.74	12.42	13.24	15.63	25.16	28.87	3.71
	velocity	7.16	8.68	8.22	7.89	7.75	7.36	6.80	6.04	7.40		7.85	8.05	7.55	6.40	7.95	6.93	
Claesson, Jonna (SWE) (200	time	7.05	12.92	18.94	25.38	32.15	39.17	46.54	54.57	54.57	4 / 6							

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 0.222	interval		5.87	6.02	6.44	6.77	7.02	7.37	8.03		# of strides	12.92	12.46	13.79	15.40	25.38	29.19	3.81
	velocity	7.09	8.52	8.31	7.76	7.39	7.12	6.78	6.23	7.33		7.74	8.03	7.25	6.49	7.88	6.85	
Hjelmer, Moa (SWE) (1990)	time	7.00	12.76	18.80	25.27	32.03	39.12	46.53	54.79	54.79	6 / 7							
reaction time 0.176	interval		5.76	6.04	6.47	6.76	7.09	7.41	8.26		# of strides	12.76	12.51	13.85	15.67	25.27	29.52	4.25
	velocity	7.14	8.68	8.28	7.73	7.40	7.05	6.75	6.05	7.30		7.84	7.99	7.22	6.38	7.91	6.78	
Risber Thoor, Josephine (SV	time	7.23	13.32	19.43	25.82	32.53	39.49	47.00	55.55	55.55	1 / 8							
reaction time 0.214	interval		6.09	6.11	6.39	6.71	6.96	7.51	8.55		# of strides	13.32	12.50	13.67	16.06	25.82	29.73	3.91
	velocity	6.92	8.21	8.18	7.82	7.45	7.18	6.66	5.85	7.20		7.51	8.00	7.32	6.23	7.75	6.73	

2024 Bislett Games (Oslo, NOR)

FINAL date 30-May-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.80	12.33	18.06	23.84	29.79	36.04	42.46	49.30	49.30	6 / 1							
reaction time 0.161	interval		5.53	5.73	5.78	5.95	6.25	6.42	6.84		# of strides	12.33	11.51	12.20	13.26	23.84	25.46	1.62
	velocity	7.35	9.04	8.73	8.65	8.40	8.00	7.79	7.31	8.11	171.5	8.11	8.69	8.20	7.54	8.39	7.86	
Kaczmarek, Natalia (POL) (1	time	6.80	12.29	17.85	23.72	29.79	36.31	42.83	49.80	49.80	5 / 2							
reaction time 0.150	interval		5.49	5.56	5.87	6.07	6.52	6.52	6.97		# of strides	12.29	11.43	12.59	13.49	23.72	26.08	2.36
	velocity	7.35	9.11	8.99	8.52	8.24	7.67	7.67	7.17	8.03	195.0	8.14	8.75	7.94	7.41	8.43	7.67	
Holmes, Alexis (USA) (2000)	time	6.69	12.15	17.79	23.66	29.85	36.34	43.11	50.40	50.40	8 / 3							
reaction time 0.154	interval		5.46	5.64	5.87	6.19	6.49	6.77	7.29		# of strides	12.15	11.51	12.68	14.06	23.66	26.74	3.08
	velocity	7.47	9.16	8.87	8.52	8.08	7.70	7.39	6.86	7.94	185.2	8.23	8.69	7.89	7.11	8.45	7.48	
Klaver, Lieke (NED) (1998)	time	6.77	12.26	17.97	23.77	29.89	36.42	43.24	50.62	50.62	7 / 4							
reaction time 0.171	interval		5.49	5.71	5.80	6.12	6.53	6.82	7.38		# of strides	12.26	11.51	12.65	14.20	23.77	26.85	3.08
	velocity	7.39	9.11	8.76	8.62	8.17	7.66	7.33	6.78	7.90	186.5	8.16	8.69	7.91	7.04	8.41	7.45	
Williams, Sada (BAR) (1997)	time	6.72	12.28	17.99	23.77	29.81	36.37	43.24	50.71	50.71	3 / 5							
reaction time 0.182	interval		5.56	5.71	5.78	6.04	6.56	6.87	7.47		# of strides	12.28	11.49	12.60	14.34	23.77	26.94	3.17
	velocity	7.44	8.99	8.76	8.65	8.28	7.62	7.28	6.69	7.89	192.2	8.14	8.70	7.94	6.97	8.41	7.42	
Jæger, Henriette (NOR) (200	time	6.76	12.34	18.06	24.03	30.16	36.73	43.58	50.81	50.81	4 / 6							
reaction time 0.154	interval		5.58	5.72	5.97	6.13	6.57	6.85	7.23	NR PB	# of strides	12.34	11.69	12.70	14.08	24.03	26.78	2.75
	velocity	7.40	8.96	8.74	8.38	8.16	7.61	7.30	6.92	7.87	196.2	8.10	8.55	7.87	7.10	8.32	7.47	
Nielsen, Laviai (GBR) (1996)	time	6.73	12.46	18.29	24.39	30.64	37.18	43.83	51.04	51.04	2 / 7							
reaction time 0.147	interval		5.73	5.83	6.10	6.25	6.54	6.65	7.21		# of strides	12.46	11.93	12.79	13.86	24.39	26.65	2.26
	velocity	7.43	8.73	8.58	8.20	8.00	7.65	7.52	6.93	7.84	191.0	8.03	8.38	7.82	7.22	8.20	7.50	
Ohurougu, Victoria (GBR) (1	time	7.03	12.72	18.47	24.58	30.78	37.33	44.30	51.61	51.61	1 / 8							
reaction time 0.161	interval		5.69	5.75	6.11	6.20	6.55	6.97	7.31		# of strides	12.72	11.86	12.75	14.28	24.58	27.03	2.45
	velocity	7.11	8.79	8.70	8.18	8.06	7.63	7.17	6.84	7.75	194.2	7.86	8.43	7.84	7.00	8.14	7.40	

2024 Shimane High School Championships (Izumo, JPN)

FINAL date 24-May-24

Shimizu (2024) - shimane high school championships 2024 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Okuni, Chinatsu (JPN)	time		14.42		28.20		42.91		57.54	57.54	7 / 1							
reaction time	interval				13.78		14.71		14.63		# of strides	14.42	13.78	14.71	14.63	28.20	29.34	1.14
	velocity		6.93		7.26		6.80		6.84	6.95		6.93	7.26	6.80	6.84	7.09	6.82	
Esumi, Kazuka (JPN)	time		13.53		26.93		41.88		57.88	57.88	6 / 2							
reaction time	interval				13.40		14.95		16.00		# of strides	13.53	13.40	14.95	16.00	26.93	30.95	4.02
	velocity		7.39		7.46		6.69		6.25	6.91		7.39	7.46	6.69	6.25	7.43	6.46	
Noda, Kazuha (JPN)	time		14.07		28.33		42.47		60.06	60.06	5 / 3							
reaction time	interval				14.26		14.14		17.59		# of strides	14.07	14.26	14.14	17.59	28.33	31.73	3.40
	velocity		7.11		7.01		7.07		5.69	6.66		7.11	7.01	7.07	5.69	7.06	6.30	
Yamamoto, Mizuke (JPN)	time		14.40		28.63		43.76		60.47	60.47	8 / 4							
reaction time	interval				14.23		15.13		16.71		# of strides	14.40	14.23	15.13	16.71	28.63	31.84	3.21
	velocity		6.94		7.03		6.61		5.98	6.61		6.94	7.03	6.61	5.98	6.99	6.28	
Matsui, Minata (JPN)	time		14.97		29.45		44.99		61.97	61.97	9 / 5							
reaction time	interval				14.48		15.54		16.98		# of strides	14.97	14.48	15.54	16.98	29.45	32.52	3.07
	velocity		6.68		6.91		6.44		5.89	6.45		6.68	6.91	6.44	5.89	6.79	6.15	
Ishikawa, Akane (JPN)	time		13.96		28.15		44.31		62.44	62.44	3 / 6							
reaction time	interval				14.19		16.16		18.13		# of strides	13.96	14.19	16.16	18.13	28.15	34.29	6.14
	velocity		7.16		7.05		6.19		5.52	6.41		7.16	7.05	6.19	5.52	7.10	5.83	
Kishimoto, Reina (JPN)	time		14.60		29.08		45.16		62.68	62.68	2 / 7							
reaction time	interval				14.48		16.08		17.52		# of strides	14.60	14.48	16.08	17.52	29.08	33.60	4.52
	velocity		6.85		6.91		6.22		5.71	6.38		6.85	6.91	6.22	5.71	6.88	5.95	
Mitsui, Sakiya (JPN)	time		14.05		28.57		45.04		63.70	63.70	4 / 8							
reaction time	interval				14.52		16.47		18.66		# of strides	14.05	14.52	16.47	18.66	28.57	35.13	6.56
	velocity		7.12		6.89		6.07		5.36	6.28		7.12	6.89	6.07	5.36	7.00	5.69	

2024 Seashore Doha Meeting (Doha, QAT)

FINAL - West Asiar date 10-May-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
William Karlo, Lucia (SSD) (2	0.182	no information available								56.83	8 / 1						# of strides	
Taslakian, Greta (LBN) (1985	time	7.45	13.72	20.35	27.31	34.61	42.25	50.10	58.36	58.36	5 / 2							

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 0.208	interval		6.27	6.63	6.96	7.30	7.64	7.85	8.26		# of strides	13.72	13.59	14.94	16.11	27.31	31.05	3.74
	velocity	6.71	7.97	7.54	7.18	6.85	6.54	6.37	6.05	6.85		7.29	7.36	6.69	6.21	7.32	6.44	
Nohra, Maria (LBN) (2001)	time	7.11	13.26	19.93	27.02	34.39	42.03	49.97	58.36	58.36	7 / 3							
reaction time 0.179	interval		6.15	6.67	7.09	7.37	7.64	7.94	8.39		# of strides	13.26	13.76	15.01	16.33	27.02	31.34	4.32
	velocity	7.03	8.13	7.50	7.05	6.78	6.54	6.30	5.96	6.85		7.54	7.27	6.66	6.12	7.40	6.38	
Almohamad, Ghufran (SYR)	time	7.44	13.92	20.75	27.95	35.44	43.39	51.65	60.74	60.74	6 / 4							
reaction time 0.180	interval		6.48	6.83	7.20	7.49	7.95	8.26	9.09		# of strides	13.92	14.03	15.44	17.35	27.95	32.79	4.84
	velocity	6.72	7.72	7.32	6.94	6.68	6.29	6.05	5.50	6.59		7.18	7.13	6.48	5.76	7.16	6.10	
Al Qassimi, Hanaa Juma Mas	time	7.17	13.34	19.86	26.89	34.45	42.63	51.47	61.96	61.96	3 / 5							
reaction time 0.178	interval		6.17	6.52	7.03	7.56	8.18	8.84	10.49		# of strides	13.34	13.55	15.74	19.33	26.89	35.07	8.18
	velocity	6.97	8.10	7.67	7.11	6.61	6.11	5.66	4.77	6.46		7.50	7.38	6.35	5.17	7.44	5.70	

2024 Xiamen Diamond League (Xiamen, CHN)

FINAL date 20-Apr-24

Omega Timing (2024) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.74	12.32	18.03	23.97	30.11	36.47	43.01	50.08	50.08	5 / 1							
reaction time 0.180	interval		5.58	5.71	5.94	6.14	6.36	6.54	7.07		# of strides	12.32	11.65	12.50	13.61	23.97	26.11	2.14
	velocity	7.42	8.96	8.76	8.42	8.14	7.86	7.65	7.07	7.99		173.0	8.12	8.58	8.00	7.35	8.34	7.66
Kaczmarek, Natalia (POL) (19	time	6.79	12.41	18.07	24.02	30.21	36.68	43.31	50.29	50.29	6 / 2							
reaction time 0.180	interval		5.62	5.66	5.95	6.19	6.47	6.63	6.98		# of strides	12.41	11.61	12.66	13.61	24.02	26.27	2.25
	velocity	7.36	8.90	8.83	8.40	8.08	7.73	7.54	7.16	7.95		193.0	8.06	8.61	7.90	7.35	8.33	7.61
Wilson, Britton (USA) (2000)	time	6.90	12.67	18.45	24.36	30.48	36.89	43.70	51.26	51.26	7 / 3							
reaction time 0.178	interval		5.77	5.78	5.91	6.12	6.41	6.81	7.56		# of strides	12.67	11.69	12.53	14.37	24.36	26.90	2.54
	velocity	7.25	8.67	8.65	8.46	8.17	7.80	7.34	6.61	7.80		183.0	7.89	8.55	7.98	6.96	8.21	7.43
Williams, Sada (BAR) (1997)	time	6.62	12.25	17.98	23.98	30.34	37.05	44.17	51.97	51.97	4 / 4							
reaction time 0.179	interval		5.63	5.73	6.00	6.36	6.71	7.12	7.80		# of strides	12.25	11.73	13.07	14.92	23.98	27.99	4.01
	velocity	7.55	8.88	8.73	8.33	7.86	7.45	7.02	6.41	7.70		194.0	8.16	8.53	7.65	6.70	8.34	7.15
Beer, Ellie (AUS) (2003)	time	6.91	12.43	18.22	24.42	30.90	37.64	44.67	52.36	52.36	9 / 5							
reaction time 0.222	interval		5.52	5.79	6.20	6.48	6.74	7.03	7.69		# of strides	12.43	11.99	13.22	14.72	24.42	27.94	3.52
	velocity	7.24	9.06	8.64	8.06	7.72	7.42	7.11	6.50	7.64		189.0	8.05	8.34	7.56	6.79	8.19	7.16
Whitney, Kaylin (USA) (1998	time	6.98	12.68	18.47	24.48	30.82	37.56	44.68	52.47	52.47	2 / 6							
reaction time 0.256	interval		5.70	5.79	6.01	6.34	6.74	7.12	7.79		# of strides	12.68	11.80	13.08	14.91	24.48	27.99	3.51
	velocity	7.16	8.77	8.64	8.32	7.89	7.42	7.02	6.42	7.62		7.89	8.47	7.65	6.71	8.17	7.15	
Abrams, Aliyah (GUY) (1997)	time	6.91	12.63	18.48	24.53	30.90	37.63	44.81	52.69	52.69	3 / 7							
reaction time 0.160	interval		5.72	5.85	6.05	6.37	6.73	7.18	7.88		# of strides	12.63	11.90	13.10	15.06	24.53	28.16	3.63
	velocity	7.24	8.74	8.55	8.26	7.85	7.43	6.96	6.35	7.59		205.5	7.92	8.40	7.63	6.64	8.15	7.10
Aguilar, Evelis (COL) (1993)	time	7.13	13.16	19.38	25.77	32.20	38.81	45.62	52.97	52.97	8 / 8							
reaction time 0.151	interval		6.03	6.22	6.39	6.43	6.61	6.81	7.35		# of strides	13.16	12.61	13.04	14.16	25.77	27.20	1.43
	velocity	7.01	8.29	8.04	7.82	7.78	7.56	7.34	6.80	7.55		185.7	7.60	7.93	7.67	7.06	7.76	7.35
Guei, Floria (FRA) (1990)	time	7.07	13.00	19.11	25.38	31.96	38.75	45.86	53.65	53.65	1 / 9							
reaction time 0.167	interval		5.93	6.11	6.27	6.58	6.79	7.11	7.79		# of strides	13.00	12.38	13.37	14.90	25.38	28.27	2.89
	velocity	7.07	8.43	8.18	7.97	7.60	7.36	7.03	6.42	7.46		7.69	8.08	7.48	6.71	7.88	7.07	

2023 Japanese National Sports Festival (Kagoshima, JPN) (300m)

FINAL date 15-Oct-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aono, Shuri (JPN) (2000)	time	6.93	12.72	18.56	24.59	30.79	37.33			37.33	5 / 1							***100-300m***
reaction time 0.197	interval		5.79	5.84	6.03	6.20	6.54			PB	# of strides	12.72	11.87	12.74		24.59		*24.61*
	velocity	7.22	8.64	8.56	8.29	8.06	7.65			8.04	148.0	7.86	8.42	7.85		8.13		*8.13*
Moriyama, Shizuho (JPN) (2	time	6.61	12.22	18.07	24.21	30.63	37.56			37.56	7 / 2							***100-300m***
reaction time 0.197	interval		5.61	5.85	6.14	6.42	6.93			PB	# of strides	12.22	11.99	13.35		24.21		*25.34*
	velocity	7.56	8.91	8.55	8.14	7.79	7.22			7.99	154.0	8.18	8.34	7.49		8.26		*7.89*
Matsumoto, Nanako (JPN) (	time	6.93	12.61	18.49	24.70	31.10	37.87			37.87	6 / 3							***100-300m***
reaction time 0.282	interval		5.68	5.88	6.21	6.40	6.77				# of strides	12.61	12.09	13.17		24.70		*25.26*
	velocity	7.22	8.80	8.50	8.05	7.81	7.39			7.92	150.5	7.93	8.27	7.59		8.10		*7.92*
Kuboyama, Haruna (JPN) (1	time	6.82	12.54	18.46	24.63	31.09	38.09			38.09	4 / 4							***100-300m***
reaction time 0.341	interval		5.72	5.92	6.17	6.46	7.00				# of strides	12.54	12.09	13.46		24.63		*25.55*
	velocity	7.33	8.74	8.45	8.10	7.74	7.14			7.88	157.0	7.97	8.27	7.43		8.12		*7.83*
Iwata, Yuna (JPN) (1997)	time	6.90	12.66	18.60	24.85	31.28	38.15			38.15	3 / 5							***100-300m***
reaction time 0.181	interval		5.76	5.94	6.25	6.43	6.87				# of strides	12.66	12.19	13.30		24.85		*25.49*
	velocity	7.25	8.68	8.42	8.00	7.78	7.28			7.86	158.5	7.90	8.20	7.52		8.05		*7.85*

U20 FINAL date 14-Oct-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yamagata, Aiha (JPN) (2005)	time	6.71	12.49	18.54	24.72	31.04	37.73			37.73	5 / 1							***100-300m***
reaction time 0.208	interval		5.78	6.05	6.18	6.32	6.69			PB	# of strides	12.49	12.23	13.01		24.72		*25.24*
	velocity	7.45	8.65	8.26	8.09	7.91	7.47			7.95		8.01	8.18	7.69		8.09		*7.92*
Miyachi, Ririka (JPN) (2005)	time	6.91	12.65	18.58	24.71	31.14	38.35			38.35	6 / 2							***100-300m***
reaction time 0.186	interval		5.74	5.93	6.13	6.43	7.21			PB	# of strides	12.65	12.06	13.64		24.71		*25.70*
	velocity	7.24	8.71	8.43	8.16	7.78	6.93			7.82		7.91	8.29	7.33		8.09		*7.78*

Saita, Jennifer (JPN) (2006)	time	6.62	12.26	18.23	24.52	31.20	38.43		38.43	2 / 3						***100-300m***
reaction time 0.193	interval		5.64	5.97	6.29	6.68	7.23		PB	# of strides	12.26	12.26	13.91		24.52	*26.17*
	velocity	7.55	8.87	8.38	7.95	7.49	6.92		7.81		8.16	8.16	7.19		8.16	*7.64*
Ehara, Mizuyu (JPN) (2005)	time	7.03	12.85	18.81	24.96	31.49	38.48		38.48	3 / 4						***100-300m***
reaction time 0.192	interval		5.82	5.96	6.15	6.53	6.99		PB	# of strides	12.85	12.11	13.52		24.96	*25.63*
	velocity	7.11	8.59	8.39	8.13	7.66	7.15		7.80		7.78	8.26	7.40		8.01	*7.80*
Miura, Karen (JPN) (2005)	time	6.91	12.72	18.78	25.11	31.62	38.53		38.53	4 / 5						***100-300m***
reaction time 0.180	interval		5.81	6.06	6.33	6.51	6.91		PB	# of strides	12.72	12.39	13.42		25.11	*25.81*
	velocity	7.24	8.61	8.25	7.90	7.68	7.24		7.79		7.86	8.07	7.45		7.96	*7.75*

2023 Prefontaine Classic (Eugene, OR)

FINAL

date 17-Sep-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.83	12.45	18.06	23.91	29.98	36.27	42.74	49.58	49.58	5 / 1							
reaction time 0.182	interval		5.62	5.61	5.85	6.07	6.29	6.47	6.84		# of strides	12.45	11.46	12.36	13.31	23.91	25.67	1.76
	velocity	7.32	8.90	8.91	8.55	8.24	7.95	7.73	7.31	8.07	172.2	8.03	8.73	8.09	7.51	8.36	7.79	
Kaczmarek, Natalia (POL) (1!	time	6.84	12.51	18.22	24.32	30.58	36.97	43.51	50.38	50.38	6 / 2							
reaction time 0.160	interval		5.67	5.71	6.10	6.26	6.39	6.54	6.87		# of strides	12.51	11.81	12.65	13.41	24.32	26.06	1.74
	velocity	7.31	8.82	8.76	8.20	7.99	7.82	7.65	7.28	7.94	193.0	7.99	8.47	7.91	7.46	8.22	7.67	
Klaver, Lieke (NED) (1998)	time	6.76	12.40	18.21	24.35	30.61	37.00	43.56	50.47	50.47	8 / 3							
reaction time 0.139	interval		5.64	5.81	6.14	6.26	6.39	6.56	6.91		# of strides	12.40	11.95	12.65	13.47	24.35	26.12	1.77
	velocity	7.40	8.87	8.61	8.14	7.99	7.82	7.62	7.24	7.93		8.06	8.37	7.91	7.42	8.21	7.66	
McLeod, Candice (JAM) (19!	time	6.79	12.37	18.04	23.98	30.13	36.53	43.34	50.76	50.76	4 / 4							
reaction time 0.157	interval		5.58	5.67	5.94	6.15	6.40	6.81	7.42		# of strides	12.37	11.61	12.55	14.23	23.98	26.78	2.80
	velocity	7.36	8.96	8.82	8.42	8.13	7.81	7.34	6.74	7.88	200.5	8.08	8.61	7.97	7.03	8.34	7.47	
Williams, Sada (BAR) (1997)	time	6.69	12.35	18.16	24.25	30.41	36.86	43.67	51.07	51.07	7 / 5							
reaction time 0.190	interval		5.66	5.81	6.09	6.16	6.45	6.81	7.40		# of strides	12.35	11.90	12.61	14.21	24.25	26.82	2.57
	velocity	7.47	8.83	8.61	8.21	8.12	7.75	7.34	6.76	7.83		8.10	8.40	7.93	7.04	8.25	7.46	
Ohurougu, Victoria (GBR) (1	time	6.88	12.50	18.33	24.47	30.77	37.28	44.03	51.15	51.15	3 / 6							
reaction time 0.162	interval		5.62	5.83	6.14	6.30	6.51	6.75	7.12		# of strides	12.50	11.97	12.81	13.87	24.47	26.68	2.21
	velocity	7.27	8.90	8.58	8.14	7.94	7.68	7.41	7.02	7.82		8.00	8.35	7.81	7.21	8.17	7.50	
Irby-Jackson, Lynna (USA) (	time	6.63	12.04	17.79	23.86	30.10	36.65	43.67	51.60	51.60	9 / 7							
reaction time 0.175	interval		5.41	5.75	6.07	6.24	6.55	7.02	7.93		# of strides	12.04	11.82	12.79	14.95	23.86	27.74	3.88
	velocity	7.54	9.24	8.70	8.24	8.01	7.63	7.12	6.31	7.75		8.31	8.46	7.82	6.69	8.38	7.21	
Abrams, Aliyah (GUY) (1997)	time	6.77	12.37	18.15	24.29	30.62	37.27	44.31	51.97	51.97	2 / 8							
reaction time 0.137	interval		5.60	5.78	6.14	6.33	6.65	7.04	7.66		# of strides	12.37	11.92	12.98	14.70	24.29	27.68	3.39
	velocity	7.39	8.93	8.65	8.14	7.90	7.52	7.10	6.53	7.70		8.08	8.39	7.70	6.80	8.23	7.23	

2023 Memorial van Damme (Brussels, BEL)

FINAL

date 08-Sep-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bolingo, Cynthia (BEL) (199	time	6.71	12.20	17.87	23.79	30.01	36.46	43.15	50.09	50.09	4 / 1							
reaction time 0.186	interval		5.49	5.67	5.92	6.22	6.45	6.69	6.94		# of strides	12.20	11.59	12.67	13.63	23.79	26.30	2.51
	velocity	7.45	9.11	8.82	8.45	8.04	7.75	7.47	7.20	7.99	192.0	8.20	8.63	7.89	7.34	8.41	7.60	
Klaver, Lieke (NED) (1998)	time	6.59	11.97	17.59	23.47	29.78	36.32	43.03	50.16	50.16	6 / 2							
reaction time 0.180	interval		5.38	5.62	5.88	6.31	6.54	6.71	7.13		# of strides	11.97	11.50	12.85	13.84	23.47	26.69	3.22
	velocity	7.59	9.29	8.90	8.50	7.92	7.65	7.45	7.01	7.97	186.0	8.35	8.70	7.78	7.23	8.52	7.49	
Little, Shamier (USA) (1995)	time	6.59	11.99	17.56	23.46	29.64	36.14	43.01	50.58	50.58	5 / 3							
reaction time 0.152	interval		5.40	5.57	5.90	6.18	6.50	6.87	7.57		# of strides	11.99	11.47	12.68	14.44	23.46	27.12	3.66
	velocity	7.59	9.26	8.98	8.47	8.09	7.69	7.28	6.61	7.91	190.0	8.34	8.72	7.89	6.93	8.53	7.37	
Ohurougu, Victoria (GBR) (1	time	6.92	12.66	18.47	24.45	30.60	37.02	43.73	50.81	50.81	8 / 4							
reaction time 0.218	interval		5.74	5.81	5.98	6.15	6.42	6.71	7.08		# of strides	12.66	11.79	12.57	13.79	24.45	26.36	1.91
	velocity	7.23	8.71	8.61	8.36	8.13	7.79	7.45	7.06	7.87		7.90	8.48	7.96	7.25	8.18	7.59	
McLeod, Candice (JAM) (19!	time	6.78	12.25	17.93	23.87	30.10	36.57	43.41	50.82	50.82	7 / 5							
reaction time 0.175	interval		5.47	5.68	5.94	6.23	6.47	6.84	7.41		# of strides	12.25	11.62	12.70	14.25	23.87	26.95	3.08
	velocity	7.37	9.14	8.80	8.42	8.03	7.73	7.31	6.75	7.87	199.2	8.16	8.61	7.87	7.02	8.38	7.42	
Nielsen, Laviai (GBR) (1996)	time	6.69	12.18	17.92	23.92	30.16	36.67	43.47	50.84	50.84	3 / 6							
reaction time 0.174	interval		5.49	5.74	6.00	6.24	6.51	6.80	7.37		# of strides	12.18	11.74	12.75	14.17	23.92	26.92	3.00
	velocity	7.47	9.11	8.71	8.33	8.01	7.68	7.35	6.78	7.87		8.21	8.52	7.84	7.06	8.36	7.43	
Ponette, Helena (BEL) (2000)	time	7.02	12.55	18.33	24.42	30.74	37.29	44.25	51.87	51.87	2 / 7							
reaction time 0.148	interval		5.53	5.78	6.09	6.32	6.55	6.96	7.62		# of strides	12.55	11.87	12.87	14.58	24.42	27.45	3.03
	velocity	7.12	9.04	8.65	8.21	7.91	7.63	7.18	6.56	7.71		7.97	8.42	7.77	6.86	8.19	7.29	

B Race

date 08-Sep-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brossier, Amandine (FRA) (	time	6.86	12.53	18.40	24.49	30.75	37.15	43.97	51.40	51.40	8 / 1							
reaction time 0.191	interval		5.67	5.87	6.09	6.26	6.40	6.82	7.43		# of strides	12.53	11.96	12.66	14.25	24.49	26.91	2.42
	velocity	7.29	8.82	8.52	8.21	7.99	7.81	7.33	6.73	7.78		7.98	8.36	7.90	7.02	8.17	7.43	
Vervaet, Imke (BEL) (1993)	time	6.76	12.39	18.21	24.34	30.84	37.62	44.64	52.00	52.00	6 / 2							
reaction time 0.157	interval		5.63	5.82	6.13	6.50	6.78	7.02	7.36		# of strides	12.39	11.95	13.28	14.38	24.34	27.66	3.32
	velocity	7.40	8.88	8.59	8.16	7.69	7.37	7.12	6.79	7.69		8.07	8.37	7.53	6.95	8.22	7.23	

Whitney, Kaylin (USA) (1998	time	7.03	12.87	18.86	25.06	31.56	38.20	44.99	52.11	52.11	3 / 3							
reaction time 0.215	interval		5.84	5.99	6.20	6.50	6.64	6.79	7.12		# of strides	12.87	12.19	13.14	13.91	25.06	27.05	1.99
	velocity	7.11	8.56	8.35	8.06	7.69	7.53	7.36	7.02	7.68		7.77	8.20	7.61	7.19	7.98	7.39	
Saalberg, Eveline (NED) (199	time	6.93	12.65	18.50	24.66	31.11	37.84	44.78	52.31	52.31	7 / 4							
reaction time 0.222	interval		5.72	5.85	6.16	6.45	6.73	6.94	7.53		# of strides	12.65	12.01	13.18	14.47	24.66	27.65	2.99
	velocity	7.22	8.74	8.55	8.12	7.75	7.43	7.20	6.64	7.65		7.91	8.33	7.59	6.91	8.11	7.23	
Peeters, Cathelijn (NED) (19	time	7.04	12.91	18.99	25.36	31.87	38.56	45.44	52.72	52.72	4 / 5							
reaction time 0.222	interval		5.87	6.08	6.37	6.51	6.69	6.88	7.28		# of strides	12.91	12.45	13.20	14.16	25.36	27.36	2.00
	velocity	7.10	8.52	8.22	7.85	7.68	7.47	7.27	6.87	7.59		7.75	8.03	7.58	7.06	7.89	7.31	
Laus, Camille (BEL) (1993)	time	7.17	13.27	19.52	26.03	32.68	39.47	46.30	53.31	53.31	5 / 6							
reaction time 0.218	interval		6.10	6.25	6.51	6.65	6.79	6.83	7.01		# of strides	13.27	12.76	13.44	13.84	26.03	27.28	1.25
	velocity	6.97	8.20	8.00	7.68	7.52	7.36	7.32	7.13	7.50		7.54	7.84	7.44	7.23	7.68	7.33	
Gaye, Fatou (SEN) (1997)	time	6.83	12.85	19.15	25.74	32.72	39.74	46.84	54.19	54.19	2 / 7							
reaction time 0.197	interval		6.02	6.30	6.59	6.98	7.02	7.10	7.35		# of strides	12.85	12.89	14.00	14.45	25.74	28.45	2.71
	velocity	7.32	8.31	7.94	7.59	7.16	7.12	7.04	6.80	7.38		7.78	7.76	7.14	6.92	7.77	7.03	
Lambert, Kylie (BEL) (2004)	time	6.91	12.78	19.02	25.46	32.21	39.30	46.77	54.84	54.84	1 / 8							
reaction time 0.178	interval		5.87	6.24	6.44	6.75	7.09	7.47	8.07		# of strides	12.78	12.68	13.84	15.54	25.46	29.38	3.92
	velocity	7.24	8.52	8.01	7.76	7.41	7.05	6.69	6.20	7.29		7.82	7.89	7.23	6.44	7.86	6.81	

2023 Xiamen Diamond League (Xiamen, CHN)

FINAL date 02-Sep-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.70	12.40	18.20	24.20	30.20	36.40	42.70	49.36	49.36	5 / 1							
reaction time 0.160	interval		5.70	5.80	6.00	6.00	6.20	6.30	6.66		# of strides	12.40	11.80	12.20	12.96	24.20	25.16	0.96
	velocity	7.46	8.77	8.62	8.33	8.33	8.06	7.94	7.51	8.10	171.2	8.06	8.47	8.20	7.72	8.26	7.95	
McLeod, Candice (JAM) (19	time	6.75	12.32	18.05	24.02	30.14	36.51	43.07	50.19	50.19	6 / 2							
reaction time 0.160	interval		5.57	5.73	5.97	6.12	6.37	6.56	7.12		# of strides	12.32	11.70	12.49	13.68	24.02	26.17	2.15
	velocity	7.41	8.98	8.73	8.38	8.17	7.85	7.62	7.02	7.97	197.7	8.12	8.55	8.01	7.31	8.33	7.64	
Irby-Jackson, Lynna (USA) (	time	6.60	12.16	18.17	24.33	30.53	36.84	43.36	50.45	50.45	3 / 3							
reaction time 0.155	interval		5.56	6.01	6.16	6.20	6.31	6.52	7.09		# of strides	12.16	12.17	12.51	13.61	24.33	26.12	1.79
	velocity	7.58	8.99	8.32	8.12	8.06	7.92	7.67	7.05	7.93	181.0	8.22	8.22	7.99	7.35	8.22	7.66	
Williams, Sada (BAR) (1997)	time	6.65	12.27	18.07	24.07	30.22	36.68	43.44	50.95	50.95	4 / 4							
reaction time 0.198	interval		5.62	5.80	6.00	6.15	6.46	6.76	7.51		# of strides	12.27	11.80	12.61	14.27	24.07	26.88	2.81
	velocity	7.52	8.90	8.62	8.33	8.13	7.74	7.40	6.66	7.85		8.15	8.47	7.93	7.01	8.31	7.44	
Ohurougu, Victoria (GBR) (1	time	6.97	12.69	18.67	24.81	30.96	37.38	44.05	51.24	51.24	8 / 5							
reaction time 0.221	interval		5.72	5.98	6.14	6.15	6.42	6.67	7.19		# of strides	12.69	12.12	12.57	13.86	24.81	26.43	1.62
	velocity	7.17	8.74	8.36	8.14	8.13	7.79	7.50	6.95	7.81		7.88	8.25	7.96	7.22	8.06	7.57	
Diggs, Talitha (USA) (2002)	time	6.74	12.46	18.51	24.76	31.09	37.56	44.20	51.27	51.27	7 / 6							
reaction time 0.156	interval		5.72	6.05	6.25	6.33	6.47	6.64	7.07		# of strides	12.46	12.30	12.80	13.71	24.76	26.51	1.75
	velocity	7.42	8.74	8.26	8.00	7.90	7.73	7.53	7.07	7.80		8.03	8.13	7.81	7.29	8.08	7.54	
Weil, Martina (CHI) (1999)	time	6.72	12.29	18.24	24.37	30.73	37.35	44.10	51.30	51.30	1 / 7							
reaction time 0.160	interval		5.57	5.95	6.13	6.36	6.62	6.75	7.20		# of strides	12.29	12.08	12.98	13.95	24.37	26.93	2.56
	velocity	7.44	8.98	8.40	8.16	7.86	7.55	7.41	6.94	7.80		8.14	8.28	7.70	7.17	8.21	7.43	
Pipi, Ama (GER) (1995)	time	6.87	12.57	18.50	24.73	31.10	37.49	44.14	51.51	51.51	9 / 8							
reaction time 0.198	interval		5.70	5.93	6.23	6.37	6.39	6.65	7.37		# of strides	12.57	12.16	12.76	14.02	24.73	26.78	2.05
	velocity	7.28	8.77	8.43	8.03	7.85	7.82	7.52	6.78	7.77		7.96	8.22	7.84	7.13	8.09	7.47	
Dunmore, Makenzie (USA) (	time	6.76	12.39	18.35	24.68	31.49	38.63	45.97	53.85	53.85	2 / 9							
reaction time 0.135	interval		5.63	5.96	6.33	6.81	7.14	7.34	7.88		# of strides	12.39	12.29	13.95	15.22	24.68	29.17	4.49
	velocity	7.40	8.88	8.39	7.90	7.34	7.00	6.81	6.35	7.43		8.07	8.14	7.17	6.57	8.10	6.86	

2023 Weltklasse (Zürich, SUI)

FINAL date 31-Aug-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.78	12.39	18.27	24.48	30.83	37.32	44.20	51.83	51.83	6 / 1							
reaction time 0.156	interval		5.61	5.88	6.21	6.35	6.49	6.88	7.63		# of strides	12.39	12.09	12.84	14.51	24.48	27.35	2.87
	velocity	7.37	8.91	8.50	8.05	7.87	7.70	7.27	6.55	7.72	177.0	8.07	8.27	7.79	6.89	8.17	7.31	
Fahr, Annina (SUI) (1993)	time	6.87	12.58	18.47	24.61	30.94	37.48	44.39	51.97	51.97	3 / 2							
reaction time 0.156	interval		5.71	5.89	6.14	6.33	6.54	6.91	7.58		# of strides	12.58	12.03	12.87	14.49	24.61	27.36	2.75
	velocity	7.28	8.76	8.49	8.14	7.90	7.65	7.24	6.60	7.70		7.95	8.31	7.77	6.90	8.13	7.31	
Niederberger, Julia (SUI) (20	time	6.86	12.59	18.48	24.63	31.03	37.77	44.75	52.11	52.11	5 / 3							
reaction time 0.153	interval		5.73	5.89	6.15	6.40	6.74	6.98	7.36		# of strides	12.59	12.04	13.14	14.34	24.63	27.48	2.85
	velocity	7.29	8.73	8.49	8.13	7.81	7.42	7.16	6.79	7.68		7.94	8.31	7.61	6.97	8.12	7.28	
de Witte, Lisanne (NED) (19	time	7.03	12.84	18.77	24.94	31.31	37.99	44.94	52.23	52.23	2 / 4							
reaction time 0.166	interval		5.81	5.93	6.17	6.37	6.68	6.95	7.29		# of strides	12.84	12.10	13.05	14.24	24.94	27.29	2.35
	velocity	7.11	8.61	8.43	8.10	7.85	7.49	7.19	6.86	7.66		7.79	8.26	7.66	7.02	8.02	7.33	
Senn, Giulia (SUI) (2001)	time	6.83	12.71	18.79	24.98	31.31	37.93	44.91	52.28	52.28	7 / 5							
reaction time 0.168	interval		5.88	6.08	6.19	6.33	6.62	6.98	7.37		# of strides	12.71	12.27	12.95	14.35	24.98	27.30	2.32
	velocity	7.32	8.50	8.22	8.08	7.90	7.55	7.16	6.78	7.65	191.2	7.87	8.15	7.72	6.97	8.01	7.33	
Saalberg, Eveline (NED) (199	time	6.82	12.41	18.17	24.21	30.63	37.41	44.57	52.32	52.32	4 / 6							

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 0.209	interval		5.59	5.76	6.04	6.42	6.78	7.16	7.75		# of strides	12.41	11.80	13.20	14.91	24.21	28.11	3.90
	velocity	7.33	8.94	8.68	8.28	7.79	7.37	6.98	6.45	7.65		8.06	8.47	7.58	6.71	8.26	7.11	
Schmidt, Alica (GER) (1998)	time	6.79	12.46	18.29	24.39	30.79	37.54	44.69	52.43	52.43	8 / 7							
reaction time 0.155	interval		5.67	5.83	6.10	6.40	6.75	7.15	7.74		# of strides	12.46	11.93	13.15	14.89	24.39	28.04	3.65
	velocity	7.36	8.82	8.58	8.20	7.81	7.41	6.99	6.46	7.63		8.03	8.38	7.60	6.72	8.20	7.13	
Newnham, Emily (GBR) (200	time	7.06	13.01	19.28	25.81	32.29	38.80	45.51	52.59	52.59	1 / 8							
reaction time 0.177	interval		5.95	6.27	6.53	6.48	6.51	6.71	7.08		# of strides	13.01	12.80	12.99	13.79	25.81	26.78	0.97
	velocity	7.08	8.40	7.97	7.66	7.72	7.68	7.45	7.06	7.61		7.69	7.81	7.70	7.25	7.75	7.47	

2023 World Athletics Championships (Budapest, HUN)

FINAL

date 23-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time		12.28		23.36		35.34		48.76	48.76	7 / 1							
reaction time 0.200	interval				11.08		11.98		13.42	NR PB	# of strides	12.28	11.08	11.98	13.42	23.36	25.40	2.04
	velocity		8.14		9.03		8.35		7.45	8.20	172.0	8.14	9.03	8.35	7.45	8.56	7.87	
Kaczmarek, Natalia (POL) (19	time		12.30		23.46		35.92		49.57	49.57	6 / 2							
reaction time 0.168	interval				11.16		12.46		13.65		# of strides	12.30	11.16	12.46	13.65	23.46	26.11	2.65
	velocity		8.13		8.96		8.03		7.33	8.07	192.0	8.13	8.96	8.03	7.33	8.53	7.66	
Williams, Sada (BAR) (1997)	time		12.08		23.49		35.90		49.60	49.60	8 / 3							
reaction time 0.183	interval				11.41		12.41		13.70		# of strides	12.08	11.41	12.41	13.70	23.49	26.11	2.62
	velocity		8.28		8.76		8.06		7.30	8.06	190.5	8.28	8.76	8.06	7.30	8.51	7.66	
Adeleke, Rhasidat (IRL) (200	time		12.22		23.54		35.90		50.13	50.13	4 / 4							
reaction time 0.181	interval				11.32		12.36		14.23		# of strides	12.22	11.32	12.36	14.23	23.54	26.59	3.05
	velocity		8.18		8.83		8.09		7.03	7.98	184.7	8.18	8.83	8.09	7.03	8.50	7.52	
Bolingo, Cynthia (BEL) (199	time		12.19		23.66		36.30		50.33	50.33	2 / 5							
reaction time 0.190	interval				11.47		12.64		14.03		# of strides	12.19	11.47	12.64	14.03	23.66	26.67	3.01
	velocity		8.20		8.72		7.91		7.13	7.95	195.0	8.20	8.72	7.91	7.13	8.45	7.50	
Klaver, Lieke (NED) (1998)	time		11.96		23.06		35.61		50.33	50.33	5 / 6							
reaction time 0.145	interval				11.10		12.55		14.72		# of strides	11.96	11.10	12.55	14.72	23.06	27.27	4.21
	velocity		8.36		9.01		7.97		6.79	7.95	187.0	8.36	9.01	7.97	6.79	8.67	7.33	
McLeod, Candice (JAM) (19	time		12.36		22.63		36.40		51.08	51.08	3 / 7							
reaction time 0.167	interval				10.27		13.77		14.68		# of strides	12.36	10.27	13.77	14.68	22.63	28.45	5.82
	velocity		8.09		9.74		7.26		6.81	7.83	203.0	8.09	9.74	7.26	6.81	8.84	7.03	
Diggs, Talitha (USA) (2002)	0.167	no information available								51.25	9 / 8						# of strides	202.00

Semi-Final 3

date 21-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (19	time		12.19		23.58		36.21		49.50	49.50	5 / 1							
reaction time 0.173	interval				11.39		12.63		13.29		# of strides	12.19	11.39	12.63	13.29	23.58	25.92	2.34
	velocity		8.20		8.78		7.92		7.52	8.08	192.0	8.20	8.78	7.92	7.52	8.48	7.72	
Williams, Sada (BAR) (1997)	time		12.21		23.90		36.19		49.58	49.58	7 / 2							
reaction time 0.191	interval				11.69		12.29		13.39	NR PB	# of strides	12.21	11.69	12.29	13.39	23.90	25.68	1.78
	velocity		8.19		8.55		8.14		7.47	8.07	190.0	8.19	8.55	8.14	7.47	8.37	7.79	
Irby-Jackson, Lynna (USA) (	time		12.10		23.91		36.84		50.71	50.71	4 / 3							
reaction time 0.173	interval				11.81		12.93		13.87		# of strides	12.10	11.81	12.93	13.87	23.91	26.80	2.89
	velocity		8.26		8.47		7.73		7.21	7.89	183.7	8.26	8.47	7.73	7.21	8.36	7.46	
Ohuruogu, Victoria (GBR) (1	time		12.39		24.21		36.91		50.74	50.74	8 / 4							
reaction time 0.238	interval				11.82		12.70		13.83		# of strides	12.39	11.82	12.70	13.83	24.21	26.53	2.32
	velocity		8.07		8.46		7.87		7.23	7.88	192.0	8.07	8.46	7.87	7.23	8.26	7.54	
Miklós, Andrea (ROU) (1999)	time		12.43		24.09		36.98		50.77	50.77	6 / 5							
reaction time 0.178	interval				11.66		12.89		13.79		# of strides	12.43	11.66	12.89	13.79	24.09	26.68	2.59
	velocity		8.05		8.58		7.76		7.25	7.88	203.0	8.05	8.58	7.76	7.25	8.30	7.50	
Young, Charokee (JAM) (20(	time		12.62		24.34		37.49		51.40	51.40	3 / 6							
reaction time 0.207	interval				11.72		13.15		13.91		# of strides	12.62	11.72	13.15	13.91	24.34	27.06	2.72
	velocity		7.92		8.53		7.60		7.19	7.78		7.92	8.53	7.60	7.19	8.22	7.39	
Gogl-Walli, Susanne (AUT) (	time		12.50		24.25		37.37		51.50	51.50	2 / 7							
reaction time 0.168	interval				11.75		13.12		14.13		# of strides	12.50	11.75	13.12	14.13	24.25	27.25	3.00
	velocity		8.00		8.51		7.62		7.08	7.77		8.00	8.51	7.62	7.08	8.25	7.34	
Petržilková, Tereza (CZE) (19	time		12.83		24.86		37.87		51.94	51.94	9 / 8							
reaction time 0.192	interval				12.03		13.01		14.07		# of strides	12.83	12.03	13.01	14.07	24.86	27.08	2.22
	velocity		7.79		8.31		7.69		7.11	7.70		7.79	8.31	7.69	7.11	8.05	7.39	

Semi-Final 2

date 21-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Klaver, Lieke (NED) (1998)	time		12.15		23.52		36.16		49.87	49.87	6 / 1							
reaction time 0.177	interval				11.37		12.64		13.71		# of strides	12.15	11.37	12.64	13.71	23.52	26.35	2.83
	velocity		8.23		8.80		7.91		7.29	8.02	182.2	8.23	8.80	7.91	7.29	8.50	7.59	
Diggs, Talitha (USA) (2002)	time		12.29		23.97		36.72		50.86	50.86	9 / 2							
reaction time 0.174	interval				11.68		12.75		14.14		# of strides	12.29	11.68	12.75	14.14	23.97	26.89	2.92
	velocity		8.14		8.56		7.84		7.07	7.86	200.5	8.14	8.56	7.84	7.07	8.34	7.44	

Gómez, Roxana (CUB) (1999	time	12.68	24.33	36.91	51.07	51.07	7 / 3									
reaction time 0.227	interval		11.65	12.58	14.16		# of strides	12.68	11.65	12.58	14.16	24.33	26.74	2.41		
	velocity	7.89	8.58	7.95	7.06	7.83	193.0	7.89	8.58	7.95	7.06	8.22	7.48			
Pipi, Ama (GBR) (1995)	time	12.42	23.89	36.80	51.17	51.17	5 / 4									
reaction time 0.173	interval		11.47	12.91	14.37		# of strides	12.42	11.47	12.91	14.37	23.89	27.28	3.39		
	velocity	8.05	8.72	7.75	6.96	7.82	194.2	8.05	8.72	7.75	6.96	8.37	7.33			
Pryce, Nickisha (JAM) (2001)	time	12.10	23.39	36.25	51.24	51.24	8 / 5									
reaction time 0.186	interval		11.29	12.86	14.99		# of strides	12.10	11.29	12.86	14.99	23.39	27.85	4.46		
	velocity	8.26	8.86	7.78	6.67	7.81	191.0	8.26	8.86	7.78	6.67	8.55	7.18			
Scott, Gabby (PUR) (1997)	time	12.48	24.19	37.36	51.52	51.52	4 / 6									
reaction time 0.177	interval		11.71	13.17	14.16		# of strides	12.48	11.71	13.17	14.16	24.19	27.33	3.14		
	velocity	8.01	8.54	7.59	7.06	7.76		8.01	8.54	7.59	7.06	8.27	7.32			
Mawdsley, Sharlene (IRL) (19	time	12.47	24.13	37.24	51.78	51.78	2 / 7									
reaction time 0.177	interval		11.66	13.11	14.54		# of strides	12.47	11.66	13.11	14.54	24.13	27.65	3.52		
	velocity	8.02	8.58	7.63	6.88	7.72		8.02	8.58	7.63	6.88	8.29	7.23			
Morauskaitè, Modesta Justè	time	12.42	24.13	37.21	52.15	52.15	3 / 8									
reaction time 0.160	interval		11.71	13.08	14.94		# of strides	12.42	11.71	13.08	14.94	24.13	28.02	3.89		
	velocity	8.05	8.54	7.65	6.69	7.67		8.05	8.54	7.65	6.69	8.29	7.14			

Semi-Final 1

date 21-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	12.29		23.68		36.08		49.54	49.54	7 / 1							
reaction time 0.187	interval			11.39		12.40		13.46		# of strides	12.29	11.39	12.40	13.46	23.68	25.86	2.18
	velocity	8.14		8.78		8.06		7.43	8.07	171.0	8.14	8.78	8.06	7.43	8.45	7.73	
Adeleke, Rhasidat (IRL) (200	time	12.48		24.20		36.63		49.87	49.87	5 / 2							
reaction time 0.161	interval			11.72		12.43		13.24		# of strides	12.48	11.72	12.43	13.24	24.20	25.67	1.47
	velocity	8.01		8.53		8.05		7.55	8.02	185.5	8.01	8.53	8.05	7.55	8.26	7.79	
Bolingo, Cynthia (BEL) (199	time	12.23		23.71		36.46		49.96	49.96	8 / 3							
reaction time 0.184	interval			11.48		12.75		13.50	NR PB	# of strides	12.23	11.48	12.75	13.50	23.71	26.25	2.54
	velocity	8.18		8.71		7.84		7.41	8.01	191.0	8.18	8.71	7.84	7.41	8.44	7.62	
McLeod, Candice (JAM) (19	time	12.56		24.15		36.90		50.62	50.62	9 / 4							
reaction time 0.206	interval			11.59		12.75		13.72		# of strides	12.56	11.59	12.75	13.72	24.15	26.47	2.32
	velocity	7.96		8.63		7.84		7.29	7.90	201.0	7.96	8.63	7.84	7.29	8.28	7.56	
Aguilar, Evelyn (COL) (1993)	time	12.42		24.14		37.06		51.07	51.07	2 / 5							
reaction time 0.157	interval			11.72		12.92		14.01	PB	# of strides	12.42	11.72	12.92	14.01	24.14	26.93	2.79
	velocity	8.05		8.53		7.74		7.14	7.83		8.05	8.53	7.74	7.14	8.29	7.43	
Morán, Paola (MEX) (1997)	time	12.58		24.32		37.18		51.46	51.46	6 / 6							
reaction time 0.215	interval			11.74		12.86		14.28		# of strides	12.58	11.74	12.86	14.28	24.32	27.14	2.82
	velocity	7.95		8.52		7.78		7.00	7.77	190.0	7.95	8.52	7.78	7.00	8.22	7.37	
Vondrová, Lada (CZE) (1999	time	12.39		24.02		37.07		51.50	51.50	3 / 7							
reaction time 0.196	interval			11.63		13.05		14.43		# of strides	12.39	11.63	13.05	14.43	24.02	27.48	3.46
	velocity	8.07		8.60		7.66		6.93	7.77		8.07	8.60	7.66	6.93	8.33	7.28	
van Der Walt, Zenéy (RSA) (:	time	12.61		24.39		37.42		51.54	51.54	4 / 8							
reaction time 0.202	interval			11.78		13.03		14.12		# of strides	12.61	11.78	13.03	14.12	24.39	27.15	2.76
	velocity	7.93		8.49		7.67		7.08	7.76		7.93	8.49	7.67	7.08	8.20	7.37	

Heat 6

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	12.37		23.82		36.16		49.90	49.90	5 / 1							
reaction time 0.207	interval			11.45		12.34		13.74		# of strides	12.37	11.45	12.34	13.74	23.82	26.08	2.26
	velocity	8.08		8.73		8.10		7.28	8.02	172.0	8.08	8.73	8.10	7.28	8.40	7.67	
Ohuruogu, Victoria (GBR) (1	time	12.46		24.10		36.76		50.60	50.60	2 / 2							
reaction time 0.181	interval			11.64		12.66		13.84		# of strides	12.46	11.64	12.66	13.84	24.10	26.50	2.40
	velocity	8.03		8.59		7.90		7.23	7.91	192.0	8.03	8.59	7.90	7.23	8.30	7.55	
Diggs, Talitha (USA) (2002)	time	12.34		24.20		37.04		50.87	50.87	9 / 3							
reaction time 0.175	interval			11.86		12.84		13.83		# of strides	12.34	11.86	12.84	13.83	24.20	26.67	2.47
	velocity	8.10		8.43		7.79		7.23	7.86	199.0	8.10	8.43	7.79	7.23	8.26	7.50	
Vondrová, Lada (CZE) (1999	time	12.57		24.57		37.23		50.92	50.92	3 / 4							
reaction time 0.232	interval			12.00		12.66		13.69	PB	# of strides	12.57	12.00	12.66	13.69	24.57	26.35	1.78
	velocity	7.96		8.33		7.90		7.30	7.86	194.0	7.96	8.33	7.90	7.30	8.14	7.59	
Morauskaitè, Modesta Justè	time	12.50		24.15		36.83		51.06	51.06	7 / 5							
reaction time 0.159	interval			11.65		12.68		14.23		# of strides	12.50	11.65	12.68	14.23	24.15	26.91	2.76
	velocity	8.00		8.58		7.89		7.03	7.83	194.2	8.00	8.58	7.89	7.03	8.28	7.43	
Young, Charokee (JAM) (20(	time	12.49		24.11		36.87		51.24	51.24	8 / 6							
reaction time 0.222	interval			11.62		12.76		14.37		# of strides	12.49	11.62	12.76	14.37	24.11	27.13	3.02
	velocity	8.01		8.61		7.84		6.96	7.81	194.7	8.01	8.61	7.84	6.96	8.30	7.37	
Marinho, Tiffani (BRA) (199	time	12.78		25.09		38.39		53.12	53.12	6 / 7							
reaction time 0.184	interval			12.31		13.30		14.73		# of strides	12.78	12.31	13.30	14.73	25.09	28.03	2.94
	velocity	7.82		8.12		7.52		6.79	7.53		7.82	8.12	7.52	6.79	7.97	7.14	

Viljoen, Marlie (RSA) (2000)	time	12.70	24.99	38.40	53.73	53.73	4 / 8										
reaction time 0.189	interval		12.29	13.41	15.33		# of strides	12.70	12.29	13.41	15.33	24.99	28.74	3.75			
	velocity	7.87	8.14	7.46	6.52	7.44		7.87	8.14	7.46	6.52	8.00	6.96				

Heat 5

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Adeleke, Rhasidat (IRL) (200	time		12.90							50.80	5 / 1							
reaction time 0.163	interval										# of strides	12.90						
	velocity		7.75							7.87	185.5	7.75						
Miklós, Andrea (ROU) (1999)	time		12.55							51.24	4 / 2							
reaction time 0.192	interval										# of strides	12.55						
	velocity		7.97							7.81	199.7	7.97						
Petržilková, Tereza (CZE) (19	time		12.75							51.30	6 / 3							
reaction time 0.152	interval										# of strides	12.75						
	velocity		7.84							7.80	195.0	7.84						
Jæger, Henriette (NOR) (200	time		12.80							51.33	8 / 4							
reaction time 0.164	interval										# of strides	12.80						
	velocity		7.81							7.79	198.0	7.81						
Abrams, Aliyah (GUY) (1997)	time		12.45							51.44	3 / 5							
reaction time 0.229	interval										# of strides	12.45						
	velocity		8.03							7.78	202.5	8.03						
Ponette, Helena (BEL) (2000)	time		12.68							51.52	9 / 6							
reaction time 0.212	interval									PB	# of strides	12.68						
	velocity		7.89							7.76		7.89						
Baas, Mette (FIN) (2000)	time		12.87							52.74	7 / 7							
reaction time 0.135	interval										# of strides	12.87						
	velocity		7.77							7.58		7.77						
de Carvalho, Tabata (BRA) (	time		12.46							54.15	2 / 8							
reaction time 0.181	interval										# of strides	12.46						
	velocity		8.03							7.39		8.03						

Heat 4

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pryce, Nickisha (JAM) (2001)	time		12.30		23.77		36.31		50.38	50.38	9 / 1							
reaction time 0.210	interval				11.47		12.54		14.07		# of strides	12.30	11.47	12.54	14.07	23.77	26.61	2.84
	velocity		8.13		8.72		7.97		7.11	7.94	187.5	8.13	8.72	7.97	7.11	8.41	7.52	
Gómez, Roxana (CUB) (1999	time		12.56		24.10		36.81		50.86	50.86	6 / 2							
reaction time 0.207	interval				11.54		12.71		14.05		# of strides	12.56	11.54	12.71	14.05	24.10	26.76	2.66
	velocity		7.96		8.67		7.87		7.12	7.86	190.2	7.96	8.67	7.87	7.12	8.30	7.47	
Scott, Gabby (PUR) (1997)	time		12.40		24.18		37.15		51.07	51.07	7 / 3							
reaction time 0.171	interval				11.78		12.97		13.92		# of strides	12.40	11.78	12.97	13.92	24.18	26.89	2.71
	velocity		8.06		8.49		7.71		7.18	7.83	184.0	8.06	8.49	7.71	7.18	8.27	7.44	
Weil, Martina (CHI) (1999)	time		12.50		24.30		37.42		51.35	51.35	3 / 4							
reaction time 0.159	interval				11.80		13.12		13.93		# of strides	12.50	11.80	13.12	13.93	24.30	27.05	2.75
	velocity		8.00		8.47		7.62		7.18	7.79	187.2	8.00	8.47	7.62	7.18	8.23	7.39	
Konrad, Grace (CAN) (1999)	time		12.66		25.02		38.03		51.60	51.60	8 / 5							
reaction time 0.193	interval				12.36		13.01		13.57	PB	# of strides	12.66	12.36	13.01	13.57	25.02	26.58	1.56
	velocity		7.90		8.09		7.69		7.37	7.75		7.90	8.09	7.69	7.37	7.99	7.52	
Senn, Giulia (SUI) (2001)	time		12.60		24.72		37.95		52.66	52.66	5 / 6							
reaction time 0.157	interval				12.12		13.23		14.71		# of strides	12.60	12.12	13.23	14.71	24.72	27.94	3.22
	velocity		7.94		8.25		7.56		6.80	7.60		7.94	8.25	7.56	6.80	8.09	7.16	
Rapai, Fanni (HUN) (2000)	time		12.92		25.02		38.38		52.73	52.73	2 / 7							
reaction time 0.177	interval				12.10		13.36		14.35	PB	# of strides	12.92	12.10	13.36	14.35	25.02	27.71	2.69
	velocity		7.74		8.26		7.49		6.97	7.59		7.74	8.26	7.49	6.97	7.99	7.22	
Wilson, Britton (USA) (2000)	time		12.74		24.37		37.54		53.87	53.87	4 / 8							
reaction time 0.190	interval				11.63		13.17		16.33		# of strides	12.74	11.63	13.17	16.33	24.37	29.50	5.13
	velocity		7.85		8.60		7.59		6.12	7.43		7.85	8.60	7.59	6.12	8.21	6.78	

Heat 3

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams, Sada (BAR) (1997)	time		12.00		23.30		35.97		50.78	50.78	9 / 1							
reaction time 0.172	interval				11.30		12.67		14.81		# of strides	12.00	11.30	12.67	14.81	23.30	27.48	4.18
	velocity		8.33		8.85		7.89		6.75	7.88	189.5	8.33	8.85	7.89	6.75	8.58	7.28	
Morán, Paola (MEX) (1997)	time		12.41		24.53		37.35		51.59	51.59	6 / 2							
reaction time 0.189	interval				12.12		12.82		14.24		# of strides	12.41	12.12	12.82	14.24	24.53	27.06	2.53
	velocity		8.06		8.25		7.80		7.02	7.75	188.0	8.06	8.25	7.80	7.02	8.15	7.39	
van Der Walt, Zenéy (RSA) (	time		12.49		24.14		37.20		51.76	51.76	4 / 3							
reaction time 0.215	interval				11.65		13.06		14.56		# of strides	12.49	11.65	13.06	14.56	24.14	27.62	3.48
	velocity		8.01		8.58		7.66		6.87	7.73	184.2	8.01	8.58	7.66	6.87	8.29	7.24	
Azevedo, Cátia (POR) (1994)	time		12.79		24.72		37.63		51.93	51.93	5 / 4							
reaction time 0.191	interval				11.93		12.91		14.30		# of strides	12.79	11.93	12.91	14.30	24.72	27.21	2.49

	velocity	7.82	8.38	7.75	6.99	7.70	193.7	7.82	8.38	7.75	6.99	8.09	7.35		
Brossier, Amandine (FRA) (	time	12.81	24.76	37.56	51.98	51.98	7 / 5								
reaction time 0.183	interval		11.95	12.80	14.42		# of strides	12.81	11.95	12.80	14.42	24.76	27.22	2.46	
	velocity	7.81	8.37	7.81	6.93	7.70	204.0	7.81	8.37	7.81	6.93	8.08	7.35		
Uko, Imaobong Nse (NGR) (	time	12.89	25.13	38.35	52.24	52.24	2 / 6								
reaction time 0.206	interval		12.24	13.22	13.89		# of strides	12.89	12.24	13.22	13.89	25.13	27.11	1.98	
	velocity	7.76	8.17	7.56	7.20	7.66	192.0	7.76	8.17	7.56	7.20	7.96	7.38		
Miller-Uibo, Shaunae (BAH)	time	12.65	24.80	37.70	52.65	52.65	8 / 7								
reaction time 0.151	interval		12.15	12.90	14.95		# of strides	12.65	12.15	12.90	14.95	24.80	27.85	3.05	
	velocity	7.91	8.23	7.75	6.69	7.60	178.0	7.91	8.23	7.75	6.69	8.06	7.18		
Elliott, Rosie (NZL) (1997)	time	13.23	25.63	38.80	52.88	52.88	3 / 8								
reaction time 0.167	interval		12.40	13.17	14.08		# of strides	13.23	12.40	13.17	14.08	25.63	27.25	1.62	
	velocity	7.56	8.06	7.59	7.10	7.56	186.0	7.56	8.06	7.59	7.10	7.80	7.34		

Heat 2

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Klaver, Lieke (NED) (1998)	time		12.20		23.76		36.71		50.52	50.52	6 / 1							
reaction time 0.203	interval				11.56		12.95		13.81		# of strides	12.20	11.56	12.95	13.81	23.76	26.76	3.00
	velocity		8.20		8.65		7.72		7.24	7.92	182.7	8.20	8.65	7.72	7.24	8.42	7.47	
Pipi, Ama (GBR) (1995)	time		12.37		24.11		37.02		50.81	50.81	9 / 2							
reaction time 0.168	interval				11.74		12.91		13.79		# of strides	12.37	11.74	12.91	13.79	24.11	26.70	2.59
	velocity		8.08		8.52		7.75		7.25	7.87	192.0	8.08	8.52	7.75	7.25	8.30	7.49	
Irby-Jackson, Lynna (USA) (	time		12.06		23.83		36.57		50.81	50.81	7 / 3							
reaction time 0.187	interval				11.77		12.74		14.24		# of strides	12.06	11.77	12.74	14.24	23.83	26.98	3.15
	velocity		8.29		8.50		7.85		7.02	7.87	183.0	8.29	8.50	7.85	7.02	8.39	7.41	
Gogl-Walli, Susanne (AUT) (	time		12.48		24.27		37.18		51.00	51.00	4 / 4							
reaction time 0.173	interval				11.79		12.91		13.82		# of strides	12.48	11.79	12.91	13.82	24.27	26.73	2.46
	velocity		8.01		8.48		7.75		7.24	7.84		8.01	8.48	7.75	7.24	8.24	7.48	
Aguilar, Evelyn (COL) (1993)	time		12.37		24.09		36.90		51.27	51.27	2 / 5							
reaction time 0.163	interval				11.72		12.81		14.37	PB	# of strides	12.37	11.72	12.81	14.37	24.09	27.18	3.09
	velocity		8.08		8.53		7.81		6.96	7.80		8.08	8.53	7.81	6.96	8.30	7.36	
Constantine, Kyra (CAN) (1	time		12.61		24.70		37.81		52.28	52.28	8 / 6							
reaction time 0.171	interval				12.09		13.11		14.47		# of strides	12.61	12.09	13.11	14.47	24.70	27.58	2.88
	velocity		7.93		8.27		7.63		6.91	7.65		7.93	8.27	7.63	6.91	8.10	7.25	
Caicedo, Nicole (ECU) (2000	time		12.08		23.89		36.97		52.82	52.82	3 / 7							
reaction time 0.227	interval				11.81		13.08		15.85		# of strides	12.08	11.81	13.08	15.85	23.89	28.93	5.04
	velocity		8.28		8.47		7.65		6.31	7.57		8.28	8.47	7.65	6.31	8.37	6.91	
Richard, Janet (MLT) (1998)	time		12.97		25.51		39.24		54.50	54.50	5 / 8							
reaction time 0.172	interval				12.54		13.73		15.26		# of strides	12.97	12.54	13.73	15.26	25.51	28.99	3.48
	velocity		7.71		7.97		7.28		6.55	7.34		7.71	7.97	7.28	6.55	7.84	6.90	

Heat 1

date 20-Aug-23

Seiko Timing (2023) - world championship race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (1	time		12.39		23.74		36.65		50.02	50.02	7 / 1							
reaction time 0.179	interval				11.35		12.91		13.37		# of strides	12.39	11.35	12.91	13.37	23.74	26.28	2.54
	velocity		8.07		8.81		7.75		7.48	8.00	190.2	8.07	8.81	7.75	7.48	8.42	7.61	
Bolingo, Cynthia (BEL) (199	time		12.45		24.08		36.84		50.29	50.29	2 / 2							
reaction time 0.187	interval				11.63		12.76		13.45		# of strides	12.45	11.63	12.76	13.45	24.08	26.21	2.13
	velocity		8.03		8.60		7.84		7.43	7.95	192.0	8.03	8.60	7.84	7.43	8.31	7.63	
McLeod, Candice (JAM) (19	time		12.46		24.01		36.60		50.37	50.37	4 / 3							
reaction time 0.190	interval				11.55		12.59		13.77		# of strides	12.46	11.55	12.59	13.77	24.01	26.36	2.35
	velocity		8.03		8.66		7.94		7.26	7.94	198.0	8.03	8.66	7.94	7.26	8.33	7.59	
Mawdsley, Sharlene (IRL) (1	time		12.41		23.90		36.83		51.17	51.17	5 / 4							
reaction time 0.169	interval				11.49		12.93		14.34	PB	# of strides	12.41	11.49	12.93	14.34	23.90	27.27	3.37
	velocity		8.06		8.70		7.73		6.97	7.82	195.5	8.06	8.70	7.73	6.97	8.37	7.33	
Vaičule, Gunta (LAT) (1995)	time		12.69		24.29		37.06		51.36	51.36	6 / 5							
reaction time 0.192	interval				11.60		12.77		14.30		# of strides	12.69	11.60	12.77	14.30	24.29	27.07	2.78
	velocity		7.88		8.62		7.83		6.99	7.79	196.0	7.88	8.62	7.83	6.99	8.23	7.39	
Mangione, Alice (ITA) (1997)	time		12.62		24.51		37.62		51.57	51.57	8 / 6							
reaction time 0.189	interval				11.89		13.11		13.95		# of strides	12.62	11.89	13.11	13.95	24.51	27.06	2.55
	velocity		7.92		8.41		7.63		7.17	7.76	191.0	7.92	8.41	7.63	7.17	8.16	7.39	
Coetzee, Miranda (RSA) (19	time		12.34		24.06		37.01		52.30	52.30	3 / 7							
reaction time 0.184	interval				11.72		12.95		15.29		# of strides	12.34	11.72	12.95	15.29	24.06	28.24	4.18
	velocity		8.10		8.53		7.72		6.54	7.65	196.0	8.10	8.53	7.72	6.54	8.31	7.08	
Karpiuk, Kateryna (UKR) (19	time		12.76		24.71		37.98		52.66	52.66	9 / 8							
reaction time 0.198	interval				11.95		13.27		14.68		# of strides	12.76	11.95	13.27	14.68	24.71	27.95	3.24
	velocity		7.84		8.37		7.54		6.81	7.60		7.84	8.37	7.54	6.81	8.09	7.16	

2023 Japanese National High School Championsips (Sapporo, JPN)

FINAL

date 02-Aug-23

Takashima (2023) - national high school sports festival - biomechanics data

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miyaji, Rika (JPN)	time		13.06		26.24		40.07		54.24	54.24	7 / 1							
reaction time 0.242	interval				13.18		13.83		14.17		# of strides	13.06	13.18	13.83	14.17	26.24	28.00	1.76
	velocity		7.66		7.59		7.23		7.06	7.37		7.66	7.59	7.23	7.06	7.62	7.14	
Akasaka, Miyu (JPN)	time		13.46		27.03		40.24		54.28	54.28	5 / 2							
reaction time 0.291	interval				13.57		13.21		14.04		# of strides	13.46	13.57	13.21	14.04	27.03	27.25	0.22
	velocity		7.43		7.37		7.57		7.12	7.37		7.43	7.37	7.57	7.12	7.40	7.34	
Seta, Hina (JPN)	time		13.90		27.29		40.86		54.79	54.79	4 / 3							
reaction time 0.257	interval				13.39		13.57		13.93		# of strides	13.90	13.39	13.57	13.93	27.29	27.50	0.21
	velocity		7.19		7.47		7.37		7.18	7.30		7.19	7.47	7.37	7.18	7.33	7.27	
Yuhara, Mizuki (JPN)	time		13.85		27.21		40.69		55.26	55.26	3 / 4							
reaction time 0.213	interval				13.36		13.48		14.57		# of strides	13.85	13.36	13.48	14.57	27.21	28.05	0.84
	velocity		7.22		7.49		7.42		6.86	7.24		7.22	7.49	7.42	6.86	7.35	7.13	
Itani, Hina (JPN)	time		13.30		26.49		40.59		55.37	55.37	6 / 5							
reaction time 0.241	interval				13.19		14.10		14.78		# of strides	13.30	13.19	14.10	14.78	26.49	28.88	2.39
	velocity		7.52		7.58		7.09		6.77	7.22		7.52	7.58	7.09	6.77	7.55	6.93	
Koyama, Nagisa (JPN)	time		13.23		26.59		40.91		55.88	55.88	9 / 6							
reaction time 0.232	interval				13.36		14.32		14.97		# of strides	13.23	13.36	14.32	14.97	26.59	29.29	2.70
	velocity		7.56		7.49		6.98		6.68	7.16		7.56	7.49	6.98	6.68	7.52	6.83	
Yuicai, Isokai (JPN)	time		13.30		26.84		41.14		55.94	55.94	8 / 7							
reaction time 0.262	interval				13.54		14.30		14.80		# of strides	13.30	13.54	14.30	14.80	26.84	29.10	2.26
	velocity		7.52		7.39		6.99		6.76	7.15		7.52	7.39	6.99	6.76	7.45	6.87	
Williams, Shamayamian (JPN	time		13.46		26.88		40.92		55.99	55.99	2 / 8							
reaction time 0.272	interval				13.42		14.04		15.07		# of strides	13.46	13.42	14.04	15.07	26.88	29.11	2.23
	velocity		7.43		7.45		7.12		6.64	7.14		7.43	7.45	7.12	6.64	7.44	6.87	

2023 Chinese National Championships (Quzhou, CHN)

FINAL date 23-Jul-23

Shandong Athletics Sport Science (2023)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hao Miao (CHN) (2002)	time		13.00		26.01		39.81	46.79	54.07	54.07	6 / 1							
reaction time 0.338	interval				13.01		13.80	6.98	7.28		# of strides	13.00	13.01	13.80	14.26	26.01	28.06	2.05
	velocity		7.69		7.69		7.25	7.16	6.87	7.40	196.0	7.69	7.69	7.25	7.01	7.69	7.13	
Kong Yingying (CHN) (2003)	time		13.21		25.96		39.47	46.64	54.39	54.39	4 / 2							
reaction time 0.285	interval				12.75		13.51	7.17	7.75	PB	# of strides	13.21	12.75	13.51	14.92	25.96	28.43	2.47
	velocity		7.57		7.84		7.40	6.97	6.45	7.35	198.0	7.57	7.84	7.40	6.70	7.70	7.03	
Zhang Jialin (CHN) (2001)	time		13.36		26.26		40.01	47.16	54.62	54.62	5 / 3							
reaction time 0.301	interval				12.90		13.75	7.15	7.46		# of strides	13.36	12.90	13.75	14.61	26.26	28.36	2.10
	velocity		7.49		7.75		7.27	6.99	6.70	7.32	197.0	7.49	7.75	7.27	6.84	7.62	7.05	
Zhou Li (CHN) (2003)	time		13.21		25.64		39.24	46.73	54.65	54.65	2 / 4							
reaction time 0.260	interval				12.43		13.60	7.49	7.92		# of strides	13.21	12.43	13.60	15.41	25.64	29.01	3.37
	velocity		7.57		8.05		7.35	6.68	6.31	7.32	210.0	7.57	8.05	7.35	6.49	7.80	6.89	
Liang Nuo (CHN) (1999)	time		13.18		26.19		39.99	47.26	55.12	55.12	7 / 5							
reaction time 0.282	interval				13.01		13.80	7.27	7.86		# of strides	13.18	13.01	13.80	15.13	26.19	28.93	2.74
	velocity		7.59		7.69		7.25	6.88	6.36	7.26	204.7	7.59	7.69	7.25	6.61	7.64	6.91	
Huang Shiyao (CHN) (2002)	time		13.70		27.01		40.77	47.86	55.36	55.36	8 / 6							
reaction time 0.226	interval				13.31		13.76	7.09	7.50		# of strides	13.70	13.31	13.76	14.59	27.01	28.35	1.34
	velocity		7.30		7.51		7.27	7.05	6.67	7.23	201.0	7.30	7.51	7.27	6.85	7.40	7.05	
Yang Qi (CHN) (2000)	time		13.33		26.86		40.91	48.04	55.37	55.37	1 / 7							
reaction time 0.231	interval				13.53		14.05	7.13	7.33		# of strides	13.33	13.53	14.05	14.46	26.86	28.51	1.65
	velocity		7.50		7.39		7.12	7.01	6.82	7.22	199.0	7.50	7.39	7.12	6.92	7.45	7.02	
Wang Jiuxiang (CHN) (2001)	time		13.29		26.16		40.31	47.73	55.60	55.60	3 / 8							
reaction time 0.253	interval				12.87		14.15	7.42	7.87		# of strides	13.29	12.87	14.15	15.29	26.16	29.44	3.28
	velocity		7.52		7.77		7.07	6.74	6.35	7.19	214.7	7.52	7.77	7.07	6.54	7.65	6.79	

2023 Herculis Meeting International d'Athlétisme (Monaco, MON)

FINAL date 21-Jul-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (19	time	6.79	12.36	17.98	23.83	29.92	36.33	42.84	49.63	49.63	6 / 1							
reaction time 0.174	interval		5.57	5.62	5.85	6.09	6.41	6.51	6.79		# of strides	12.36	11.47	12.50	13.30	23.83	25.80	1.97
	velocity	7.36	8.98	8.90	8.55	8.21	7.80	7.68	7.36	8.06	189.5	8.09	8.72	8.00	7.52	8.39	7.75	
Little, Shamier (USA) (1995)	time	6.68	12.07	17.57	23.32	29.43	35.75	42.40	49.68	49.68	8 / 2							
reaction time 0.259	interval		5.39	5.50	5.75	6.11	6.32	6.65	7.28	PB	# of strides	12.07	11.25	12.43	13.93	23.32	26.36	3.04
	velocity	7.49	9.28	9.09	8.70	8.18	7.91	7.52	6.87	8.05		8.29	8.89	8.05	7.18	8.58	7.59	
Klaver, Lieke (NED) (1998)	time	6.67	12.02	17.56	23.34	29.49	36.01	42.78	49.99	49.99	4 / 3							
reaction time 0.247	interval		5.35	5.54	5.78	6.15	6.52	6.77	7.21		# of strides	12.02	11.32	12.67	13.98	23.34	26.65	3.31
	velocity	7.50	9.35	9.03	8.65	8.13	7.67	7.39	6.93	8.00	184.5	8.32	8.83	7.89	7.15	8.57	7.50	
Adeleke, Rhasidat (IRL) (200	time	6.74	12.23	17.79	23.58	29.60	35.90	42.55	49.99	49.99	5 / 4							
reaction time 0.144	interval		5.49	5.56	5.79	6.02	6.30	6.65	7.44		# of strides	12.23	11.35	12.32	14.09	23.58	26.41	2.83
	velocity	7.42	9.11	8.99	8.64	8.31	7.94	7.52	6.72	8.00	184.7	8.18	8.81	8.12	7.10	8.48	7.57	
Williams, Sada (BAR) (1997)	time	6.52	11.89	17.41	23.18	29.26	35.70	42.53	50.00	50.00	7 / 5							

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 0.185	interval		5.37	5.52	5.77	6.08	6.44	6.83	7.47		# of strides	11.89	11.29	12.52	14.30	23.18	26.82	3.64
	velocity	7.67	9.31	9.06	8.67	8.22	7.76	7.32	6.69	8.00		8.41	8.86	7.99	6.99	8.63	7.46	
Moraa, Mary (KEN) (2000)	time	7.04	12.73	18.58	24.63	30.83	37.21	43.71	50.48	50.48	3 / 6							
reaction time 0.180	interval		5.69	5.85	6.05	6.20	6.38	6.50	6.77		# of strides	12.73	11.90	12.58	13.27	24.63	25.85	1.22
	velocity	7.10	8.79	8.55	8.26	8.06	7.84	7.69	7.39	7.92		7.86	8.40	7.95	7.54	8.12	7.74	
van der Walt, Zenéy (RSA) (2	time	6.84	12.53	18.39	24.36	30.60	37.19	43.98	51.20	51.20	1 / 7							
reaction time 0.178	interval		5.69	5.86	5.97	6.24	6.59	6.79	7.22		# of strides	12.53	11.83	12.83	14.01	24.36	26.84	2.48
	velocity	7.31	8.79	8.53	8.38	8.01	7.59	7.36	6.93	7.81		7.98	8.45	7.79	7.14	8.21	7.45	
Kielbasinska, Anna (POL) (1	time	6.82	12.60	18.56	24.70	31.05	37.79	44.83	52.67	52.67	2 / 8							
reaction time 0.189	interval		5.78	5.96	6.14	6.35	6.74	7.04	7.84		# of strides	12.60	12.10	13.09	14.88	24.70	27.97	3.27
	velocity	7.33	8.65	8.39	8.14	7.87	7.42	7.10	6.38	7.59		7.94	8.26	7.64	6.72	8.10	7.15	

2023 European Athletics U23 Championships (Espoo, FIN)

FINAL

date 14-Jul-23

European Athletics (2023) - european athletics U23 championships results book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
John, Yemi Mary (GBR) (200	time		13.00		24.81		37.10		51.04	51.04	7 / 1							
reaction time 0.167	interval				11.81		12.29		13.94	PB	# of strides	13.00	11.81	12.29	13.94	24.81	26.23	1.42
	velocity		7.69		8.47		8.14		7.17	7.84	193.5	7.69	8.47	8.14	7.17	8.06	7.62	
Jæger, Henriette (NOR) (200	time		12.56		24.38		37.30		51.06	51.06	6 / 2							
reaction time 0.171	interval				11.82		12.92		13.76	NR	# of strides	12.56	11.82	12.92	13.76	24.38	26.68	2.30
	velocity		7.96		8.46		7.74		7.27	7.83	197.5	7.96	8.46	7.74	7.27	8.20	7.50	
Hodgkinson, Keely (GBR) (2	time		12.75		24.86		38.17		51.76	51.76	5 / 3							
reaction time 0.233	interval				12.11		13.31		13.59	PB	# of strides	12.75	12.11	13.31	13.59	24.86	26.90	2.04
	velocity		7.84		8.26		7.51		7.36	7.73	197.2	7.84	8.26	7.51	7.36	8.05	7.43	
Sedney, Zoë (NED) (2001)	time		12.39		24.46		37.52		52.02	52.02	4 / 4							
reaction time 0.175	interval				12.07		13.06		14.50	PB	# of strides	12.39	12.07	13.06	14.50	24.46	27.56	3.10
	velocity		8.07		8.29		7.66		6.90	7.69	193.5	8.07	8.29	7.66	6.90	8.18	7.26	
Senn, Giulia (SUI) (2001)	time		12.40		24.34		37.76		52.33	52.33	3 / 5							
reaction time 0.170	interval				11.94		13.42		14.57		# of strides	12.40	11.94	13.42	14.57	24.34	27.99	3.65
	velocity		8.06		8.38		7.45		6.86	7.64	196.7	8.06	8.38	7.45	6.86	8.22	7.15	
Wright, Katriina (FIN) (2003)	time		12.60		24.89		38.27		52.65	52.65	8 / 6							
reaction time 0.205	interval				12.29		13.38		14.38		# of strides	12.60	12.29	13.38	14.38	24.89	27.76	2.87
	velocity		7.94		8.14		7.47		6.95	7.60	198.0	7.94	8.14	7.47	6.95	8.04	7.20	
Ertzgaard, Astri (NOR) (2002	time		12.81		24.93		38.39		52.95	52.95	2 / 7							
reaction time 0.187	interval				12.12		13.46		14.56		# of strides	12.81	12.12	13.46	14.56	24.93	28.02	3.09
	velocity		7.81		8.25		7.43		6.87	7.55	201.0	7.81	8.25	7.43	6.87	8.02	7.14	
Segura, Berta (ESP) (2003)	time		13.22		25.33		38.68		53.56	53.56	1 / 8							
reaction time 0.243	interval				12.11		13.35		14.88		# of strides	13.22	12.11	13.35	14.88	25.33	28.23	2.90
	velocity		7.56		8.26		7.49		6.72	7.47	189.0	7.56	8.26	7.49	6.72	7.90	7.08	

Semi-Final 2

date 13-Jul-23

European Athletics (2023) - european athletics U23 championships results book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
John, Yemi Mary (GBR) (200	time		13.15		25.56		38.72		51.80	51.80	4 / 1							
reaction time 0.203	interval				12.41		13.16		13.08		# of strides	13.15	12.41	13.16	13.08	25.56	26.24	0.68
	velocity		7.60		8.06		7.60		7.65	7.72		7.60	8.06	7.60	7.65	7.82	7.62	
Jæger, Henriette (NOR) (200	time		12.56		24.82		38.63		52.78	52.78	5 / 2							
reaction time 0.177	interval				12.26		13.81		14.15		# of strides	12.56	12.26	13.81	14.15	24.82	27.96	3.14
	velocity		7.96		8.16		7.24		7.07	7.58		7.96	8.16	7.24	7.07	8.06	7.15	
Senn, Giulia (SUI) (2001)	time		12.86		25.57		39.11		53.20	53.20	6 / 3							
reaction time 0.192	interval				12.71		13.54		14.09		# of strides	12.86	12.71	13.54	14.09	25.57	27.63	2.06
	velocity		7.78		7.87		7.39		7.10	7.52		7.78	7.87	7.39	7.10	7.82	7.24	
Avilés, Carmen (ESP) (2002)	time		13.13		25.78		39.28		53.56	53.56	7 / 4							
reaction time 0.233	interval				12.65		13.50		14.28		# of strides	13.13	12.65	13.50	14.28	25.78	27.78	2.00
	velocity		7.62		7.91		7.41		7.00	7.47		7.62	7.91	7.41	7.00	7.76	7.20	
Drljačić, Veronika (CRO) (20	time		13.22		25.87		39.70		53.83	53.83	8 / 5							
reaction time 0.240	interval				12.65		13.83		14.13		# of strides	13.22	12.65	13.83	14.13	25.87	27.96	2.09
	velocity		7.56		7.91		7.23		7.08	7.43		7.56	7.91	7.23	7.08	7.73	7.15	
Kharashchuk, Tetyana (UKR	time		13.39		26.57		40.62		54.55	54.55	1 / 6							
reaction time 0.220	interval				13.18		14.05		13.93		# of strides	13.39	13.18	14.05	13.93	26.57	27.98	1.41
	velocity		7.47		7.59		7.12		7.18	7.33		7.47	7.59	7.12	7.18	7.53	7.15	
Foudraz, Eleonora (ITA) (20	time		13.49		26.75		40.82		54.64	54.64	2 / 7							
reaction time 0.163	interval				13.26		14.07		13.82		# of strides	13.49	13.26	14.07	13.82	26.75	27.89	1.14
	velocity		7.41		7.54		7.11		7.24	7.32		7.41	7.54	7.11	7.24	7.48	7.17	
Formella, Aleksandra (POL) (	time		13.53		26.59		40.61		54.78	54.78	3 / 8							
reaction time 0.273	interval				13.06		14.02		14.17		# of strides	13.53	13.06	14.02	14.17	26.59	28.19	1.60
	velocity		7.39		7.66		7.13		7.06	7.30		7.39	7.66	7.13	7.06	7.52	7.09	

Semi-Final 1

date 13-Jul-23

European Athletics (2023) - european athletics U23 championships results book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sedney, Zoë (NED) (2001)	time		12.56		24.87		38.29		52.11	52.11	1 / 1							
reaction time 0.176	interval				12.31		13.42		13.82	PB	# of strides	12.56	12.31	13.42	13.82	24.87	27.24	2.37

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

	velocity	7.96	8.12	7.45	7.24	7.68		7.96	8.12	7.45	7.24	8.04	7.34	
Hodgkinson, Keely (GBR) (2	time	13.15	25.94	39.54	52.44	52.44	7 / 2							
reaction time 0.239	interval		12.79	13.60	12.90		# of strides	13.15	12.79	13.60	12.90	25.94	26.50	0.56
	velocity	7.60	7.82	7.35	7.75	7.63		7.60	7.82	7.35	7.75	7.71	7.55	
Wright, Katriina (FIN) (2003)	time	12.91	25.70	39.48	52.92	52.92	5 / 3							
reaction time 0.239	interval		12.79	13.78	13.44		# of strides	12.91	12.79	13.78	13.44	25.70	27.22	1.52
	velocity	7.75	7.82	7.26	7.44	7.56		7.75	7.82	7.26	7.44	7.78	7.35	
Segura, Berta (ESP) (2003)	time	13.29	25.44	38.96	52.95	52.95	4 / 4							
reaction time 0.280	interval		12.15	13.52	13.99		# of strides	13.29	12.15	13.52	13.99	25.44	27.51	2.07
	velocity	7.52	8.23	7.40	7.15	7.55		7.52	8.23	7.40	7.15	7.86	7.27	
Ertzgaard, Astri (NOR) (2002	time	13.12	25.69	39.37	52.97	52.97	8 / 5							
reaction time 0.221	interval		12.57	13.68	13.60		# of strides	13.12	12.57	13.68	13.60	25.69	27.28	1.59
	velocity	7.62	7.96	7.31	7.35	7.55		7.62	7.96	7.31	7.35	7.79	7.33	
Gubelmann, Catia (SUI) (200	time	13.02	25.73	39.73	53.13	53.13	6 / 6							
reaction time 0.179	interval		12.71	14.00	13.40		# of strides	13.02	12.71	14.00	13.40	25.73	27.40	1.67
	velocity	7.68	7.87	7.14	7.46	7.53		7.68	7.87	7.14	7.46	7.77	7.30	
Accame, Ilaria Elivira (ITA) (2	time	13.22	25.67	39.15	53.19	53.19	3 / 7							
reaction time 0.270	interval		12.45	13.48	14.04		# of strides	13.22	12.45	13.48	14.04	25.67	27.52	1.85
	velocity	7.56	8.03	7.42	7.12	7.52		7.56	8.03	7.42	7.12	7.79	7.27	
Rami, Laura Elena (ITA) (200	time	13.23	25.73	39.68	54.49	54.49	2 / 8							
reaction time 0.495	interval		12.50	13.95	14.81		# of strides	13.23	12.50	13.95	14.81	25.73	28.76	3.03
	velocity	7.56	8.00	7.17	6.75	7.34		7.56	8.00	7.17	6.75	7.77	6.95	

2023 USATF National Championships (Eugene, OR)

FINAL date 08-Jul-23

Track Newsletter (2023) - USATF championships/WCT women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McLaughlin-Levrone, Sydne	time		11.89		23.24		35.38		48.74	48.74	5 / 1							
reaction time 0.238	interval				11.35		12.14		13.36	PB	# of strides	11.89	11.35	12.14	13.36	23.24	25.50	2.26
	velocity		8.41		8.81		8.24		7.49	8.21		8.41	8.81	8.24	7.49	8.61	7.84	
Wilson, Britton (USA) (2000)	time		12.30		23.45		35.82		49.79	49.79	4 / 2							
reaction time 0.190	interval				11.15		12.37		13.97		# of strides	12.30	11.15	12.37	13.97	23.45	26.34	2.89
	velocity		8.13		8.97		8.08		7.16	8.03		8.13	8.97	8.08	7.16	8.53	7.59	
Diggs, Talitha (USA) (2002)	time		12.41		24.21		36.77		49.93	49.93	7 / 3							
reaction time 0.177	interval				11.80		12.56		13.16	PB	# of strides	12.41	11.80	12.56	13.16	24.21	25.72	1.51
	velocity		8.06		8.47		7.96		7.60	8.01		8.06	8.47	7.96	7.60	8.26	7.78	
Irby-Jackson, Lynna (USA) (	time		12.11		23.95		36.30		50.11	50.11	3 / 4							
reaction time 0.194	interval				11.84		12.35		13.81		# of strides	12.11	11.84	12.35	13.81	23.95	26.16	2.21
	velocity		8.26		8.45		8.10		7.24	7.98		8.26	8.45	8.10	7.24	8.35	7.65	
Effiong, Rosey (USA) (2001)	time		12.20		23.81		36.44		50.41	50.41	6 / 5							
reaction time 0.197	interval				11.61		12.63		13.97		# of strides	12.20	11.61	12.63	13.97	23.81	26.60	2.79
	velocity		8.20		8.61		7.92		7.16	7.93		8.20	8.61	7.92	7.16	8.40	7.52	
Dunmore, Makenzie (USA) (	time		12.34		23.83		36.43		50.96	50.96	2 / 6							
reaction time 0.186	interval				11.49		12.60		14.53		# of strides	12.34	11.49	12.60	14.53	23.83	27.13	3.30
	velocity		8.10		8.70		7.94		6.88	7.85		8.10	8.70	7.94	6.88	8.39	7.37	
Arnold, Jermaisha (USA) (20	time		12.90		24.72		37.43		51.12	51.12	8 / 7							
reaction time 0.260	interval				11.82		12.71		13.69		# of strides	12.90	11.82	12.71	13.69	24.72	26.40	1.68
	velocity		7.75		8.46		7.87		7.30	7.82		7.75	8.46	7.87	7.30	8.09	7.58	
Hayes, Quanera (USA) (1992)	time		12.35		23.85		36.58		51.50	51.50	1 / 8							
reaction time 0.247	interval				11.50		12.73		14.92		# of strides	12.35	11.50	12.73	14.92	23.85	27.65	3.80
	velocity		8.10		8.70		7.86		6.70	7.77		8.10	8.70	7.86	6.70	8.39	7.23	

2023 Athletissima (Lausanne, SUI)

B Race date 30-Jun-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pellaud, Rachel (SUI) (1995)	time	7.12	12.99	19.11	25.53	32.06	38.78	45.66	53.11	53.11	4 / 1							
reaction time 0.173	interval		5.87	6.12	6.42	6.53	6.72	6.88	7.45		# of strides	12.99	12.54	13.25	14.33	25.53	27.58	2.05
	velocity	7.02	8.52	8.17	7.79	7.66	7.44	7.27	6.71	7.53		7.70	7.97	7.55	6.98	7.83	7.25	
Salamin, Noémie (SUI) (1999)	time	7.02	12.81	18.92	25.27	31.80	38.60	45.76	53.46	53.46	5 / 2							
reaction time 0.215	interval		5.79	6.11	6.35	6.53	6.80	7.16	7.70		# of strides	12.81	12.46	13.33	14.86	25.27	28.19	2.92
	velocity	7.12	8.64	8.18	7.87	7.66	7.35	6.98	6.49	7.48		7.81	8.03	7.50	6.73	7.91	7.09	
Gubelmann, Catia (SUI) (200	time	6.83	12.55	18.51	24.84	31.46	38.56	45.87	53.61	53.61	6 / 3							
reaction time 0.120	interval		5.72	5.96	6.33	6.62	7.10	7.31	7.74	PB	# of strides	12.55	12.29	13.72	15.05	24.84	28.77	3.93
	velocity	7.32	8.74	8.39	7.90	7.55	7.04	6.84	6.46	7.46		7.97	8.14	7.29	6.64	8.05	6.95	
Disch, Karin (SUI) (1997)	time	7.10	13.19	19.56	26.16	32.88	39.92	47.08	54.50	54.50	8 / 4							
reaction time 0.216	interval		6.09	6.37	6.60	6.72	7.04	7.16	7.42	PB	# of strides	13.19	12.97	13.76	14.58	26.16	28.34	2.18
	velocity	7.04	8.21	7.85	7.58	7.44	7.10	6.98	6.74	7.34		7.58	7.71	7.27	6.86	7.65	7.06	
King, Sarah (SUI) (1996)	time	7.14	13.02	19.10	25.56	32.24	39.35	46.68	54.50	54.50	7 / 5							
reaction time 0.245	interval		5.88	6.08	6.46	6.68	7.11	7.33	7.82		# of strides	13.02	12.54	13.79	15.15	25.56	28.94	3.38
	velocity	7.00	8.50	8.22	7.74	7.49	7.03	6.82	6.39	7.34		7.68	7.97	7.25	6.60	7.82	6.91	

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

Liem, Michelle (SUI) (2005)	time	7.05	12.78	18.76	25.09	31.78	38.90	46.48	54.58	54.58	3 / 6							
reaction time 0.166	interval		5.73	5.98	6.33	6.69	7.12	7.58	8.10		# of strides	12.78	12.31	13.81	15.68	25.09	29.49	4.40
	velocity	7.09	8.73	8.36	7.90	7.47	7.02	6.60	6.17	7.33		7.82	8.12	7.24	6.38	7.97	6.78	
Lerf, Seraina (SUI) (2002)	time	7.31	13.53	20.05	26.74	33.42	40.35	47.58	55.43	55.43	1 / 7							
reaction time 0.163	interval		6.22	6.52	6.69	6.68	6.93	7.23	7.85		# of strides	13.53	13.21	13.61	15.08	26.74	28.69	1.95
	velocity	6.84	8.04	7.67	7.47	7.49	7.22	6.92	6.37	7.22		7.39	7.57	7.35	6.63	7.48	6.97	
Martin, Sophie (SUI) (2000)	time	7.04	12.92	19.09	25.61	32.46	39.80	47.66	56.25	56.25	2 / 8							
reaction time 0.164	interval		5.88	6.17	6.52	6.85	7.34	7.86	8.59		# of strides	12.92	12.69	14.19	16.45	25.61	30.64	5.03
	velocity	7.10	8.50	8.10	7.67	7.30	6.81	6.36	5.82	7.11		7.74	7.88	7.05	6.08	7.81	6.53	

2023 USATF New York City Grand Prix (Randalls Island, NY)

FINAL date 24-Jun-23

Track Newsletter (2023) - USATF NYC grand prix

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McLaughlin-Levrone, Sydne	time				23.74				49.51	49.51	/ 1							
reaction time	interval								25.77	PB	# of strides					23.74	25.77	2.03
	velocity				8.42				7.76	8.08						8.42	7.76	
Thomas, Gabrielle (USA) (19	time				23.71				50.29	50.29	/ 2							
reaction time	interval								26.58		# of strides					23.71	26.58	2.87
	velocity				8.44				7.52	7.95						8.44	7.52	

2023 Bislett Games (Oslo, NOR)

National FINAL date 15-Jun-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Al-Saiddi, Line (NOR) (2006)	time	6.96	12.85	18.89	25.07	31.61	38.52	45.63	53.28	53.28	4 / 1							
reaction time 0.142	interval		5.89	6.04	6.18	6.54	6.91	7.11	7.65	PB	# of strides	12.85	12.22	13.45	14.76	25.07	28.21	3.14
	velocity	7.18	8.49	8.28	8.09	7.65	7.24	7.03	6.54	7.51		7.78	8.18	7.43	6.78	7.98	7.09	
Kendall, Nicole (GBR) (1996)	time	6.91	12.64	18.61	24.84	31.47	38.48	45.71	53.50	53.50	5 / 2							
reaction time 0.192	interval		5.73	5.97	6.23	6.63	7.01	7.23	7.79		# of strides	12.64	12.20	13.64	15.02	24.84	28.66	3.82
	velocity	7.24	8.73	8.38	8.03	7.54	7.13	6.92	6.42	7.48		7.91	8.20	7.33	6.66	8.05	6.98	
Slettum, Elisabeth (NOR) (19	time	6.93	12.83	18.95	25.37	32.06	39.01	46.16	53.60	53.60	6 / 3							
reaction time 0.185	interval		5.90	6.12	6.42	6.69	6.95	7.15	7.44		# of strides	12.83	12.54	13.64	14.59	25.37	28.23	2.86
	velocity	7.22	8.47	8.17	7.79	7.47	7.19	6.99	6.72	7.46		7.79	7.97	7.33	6.85	7.88	7.08	
Gautadottir, Marin Stray (NC	time	7.14	13.11	19.47	26.06	32.72	39.80	47.33	55.22	55.22	8 / 4							
reaction time 0.177	interval		5.97	6.36	6.59	6.66	7.08	7.53	7.89	PB	# of strides	13.11	12.95	13.74	15.42	26.06	29.16	3.10
	velocity	7.00	8.38	7.86	7.59	7.51	7.06	6.64	6.34	7.24		7.63	7.72	7.28	6.49	7.67	6.86	
Amlie, Sigrid Kongssund (N	time	7.37	13.71	20.23	26.74	33.47	40.51	47.70	55.34	55.34	2 / 5							
reaction time 0.186	interval		6.34	6.52	6.51	6.73	7.04	7.19	7.64		# of strides	13.71	13.03	13.77	14.83	26.74	28.60	1.86
	velocity	6.78	7.89	7.67	7.68	7.43	7.10	6.95	6.54	7.23		7.29	7.67	7.26	6.74	7.48	6.99	
Krab Scheibelein, Anna (DEI	time	7.21	13.40	19.83	26.38	33.21	40.39	47.98	56.21	56.21	7 / 6							
reaction time 0.173	interval		6.19	6.43	6.55	6.83	7.18	7.59	8.23	PB	# of strides	13.40	12.98	14.01	15.82	26.38	29.83	3.45
	velocity	6.93	8.08	7.78	7.63	7.32	6.96	6.59	6.08	7.12		7.46	7.70	7.14	6.32	7.58	6.70	
Haugen, Nora (NOR) (2003)	time	7.52	13.90	20.65	27.51	34.41	41.43	48.67	56.54	56.54	1 / 7							
reaction time 0.178	interval		6.38	6.75	6.86	6.90	7.02	7.24	7.87		# of strides	13.90	13.61	13.92	15.11	27.51	29.03	1.52
	velocity	6.65	7.84	7.41	7.29	7.25	7.12	6.91	6.35	7.07		7.19	7.35	7.18	6.62	7.27	6.89	

2023 Meeting de Paris (Paris, FRA)

FINAL date 09-Jun-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.62	12.13	17.69	23.43	29.30	35.40	41.85	49.12	49.12	5 / 1							
reaction time 0.189	interval		5.51	5.56	5.74	5.87	6.10	6.45	7.27		# of strides	12.13	11.30	11.97	13.72	23.43	25.69	2.26
	velocity	7.55	9.07	8.99	8.71	8.52	8.20	7.75	6.88	8.14	171.0	8.24	8.85	8.35	7.29	8.54	7.79	
McLaughlin-Levrone, Sydne	time	6.30	11.59	17.02	22.66	28.59	34.94	41.88	49.71	49.71	4 / 2							
reaction time 0.155	interval		5.29	5.43	5.64	5.93	6.35	6.94	7.83	PB	# of strides	11.59	11.07	12.28	14.77	22.66	27.05	4.39
	velocity	7.94	9.45	9.21	8.87	8.43	7.87	7.20	6.39	8.05	185.7	8.63	9.03	8.14	6.77	8.83	7.39	
Naser, Salwa Eid (BRN) (199	time	6.52	11.81	17.30	23.15	29.37	35.97	42.75	49.95	49.95	3 / 3							
reaction time 0.143	interval		5.29	5.49	5.85	6.22	6.60	6.78	7.20		# of strides	11.81	11.34	12.82	13.98	23.15	26.80	3.65
	velocity	7.67	9.45	9.11	8.55	8.04	7.58	7.37	6.94	8.01	186.2	8.47	8.82	7.80	7.15	8.64	7.46	
Kaczmarek, Natalia (POL) (19	time	6.54	12.03	17.62	23.48	29.69	36.19	42.87	50.10	50.10	6 / 4							
reaction time 0.160	interval		5.49	5.59	5.86	6.21	6.50	6.68	7.23		# of strides	12.03	11.45	12.71	13.91	23.48	26.62	3.14
	velocity	7.65	9.11	8.94	8.53	8.05	7.69	7.49	6.92	7.98	191.7	8.31	8.73	7.87	7.19	8.52	7.51	
Klaver, Lieke (NED) (1998)	time	6.46	11.84	17.45	23.38	29.64	36.17	42.89	50.32	50.32	7 / 5							
reaction time 0.132	interval		5.38	5.61	5.93	6.26	6.53	6.72	7.43		# of strides	11.84	11.54	12.79	14.15	23.38	26.94	3.56
	velocity	7.74	9.29	8.91	8.43	7.99	7.66	7.44	6.73	7.95	183.7	8.45	8.67	7.82	7.07	8.55	7.42	
McLeod, Candice (JAM) (19	time	6.76	12.40	18.19	24.18	30.40	36.82	43.49	50.80	50.80	2 / 6							
reaction time 0.173	interval		5.64	5.79	5.99	6.22	6.42	6.67	7.31		# of strides	12.40	11.78	12.64	13.98	24.18	26.62	2.44
	velocity	7.40	8.87	8.64	8.35	8.04	7.79	7.50	6.84	7.87		8.06	8.49	7.91	7.15	8.27	7.51	
Hall, Anna (USA) (2001)	time	6.54	12.02	17.76	23.72	29.89	36.45	43.35	50.82	50.82	8 / 7							
reaction time 0.179	interval		5.48	5.74	5.96	6.17	6.56	6.90	7.47	PB	# of strides	12.02	11.70	12.73	14.37	23.72	27.10	3.38
	velocity	7.65	9.12	8.71	8.39	8.10	7.62	7.25	6.69	7.87	182.0	8.32	8.55	7.86	6.96	8.43	7.38	
Pipi, Ama (GER) (1995)	time	6.65	12.13	17.92	24.00	30.50	37.22	44.13	51.76	51.76	1 / 8							
reaction time 0.153	interval		5.48	5.79	6.08	6.50	6.72	6.91	7.63		# of strides	12.13	11.87	13.22	14.54	24.00	27.76	3.76

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity	7.52	9.12	8.64	8.22	7.69	7.44	7.24	6.55	7.73		8.24	8.42	7.56	6.88	8.33	7.20	

2023 FBK Games (Hengelo, NED)

FINAL date 04-Jun-23

Omega Timing (2023) - continental tour race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bol, Femke (NED) (2000)	time	6.70	12.30	18.09	24.11	30.39	36.82	43.39	50.11	50.11	4 / 1							
reaction time 0.167	interval		5.60	5.79	6.02	6.28	6.43	6.57	6.72		# of strides	12.30	11.81	12.71	13.29	24.11	26.00	1.89
	velocity	7.46	8.93	8.64	8.31	7.96	7.78	7.61	7.44	7.98	182.5	8.13	8.47	7.87	7.52	8.30	7.69	
Jonathas, Wadeline (USA) (1	time	6.68	12.36	18.32	24.49	30.88	37.50	44.39	51.74	51.74	6 / 2							
reaction time 0.178	interval		5.68	5.96	6.17	6.39	6.62	6.89	7.35		# of strides	12.36	12.13	13.01	14.24	24.49	27.25	2.76
	velocity	7.49	8.80	8.39	8.10	7.82	7.55	7.26	6.80	7.73	179.0	8.09	8.24	7.69	7.02	8.17	7.34	
Müller, Laura (GER) (1995)	time	6.81	12.37	18.10	24.14	30.52	37.22	44.37	52.08	52.08	8 / 3							
reaction time 0.235	interval		5.56	5.73	6.04	6.38	6.70	7.15	7.71		# of strides	12.37	11.77	13.08	14.86	24.14	27.94	3.80
	velocity	7.34	8.99	8.73	8.28	7.84	7.46	6.99	6.49	7.68		8.08	8.50	7.65	6.73	8.29	7.16	
Mawdsley, Sharlene (IRL) (1!	time	6.74	12.40	18.36	24.54	30.91	37.62	44.66	52.14	52.14	5 / 4							
reaction time 0.143	interval		5.66	5.96	6.18	6.37	6.71	7.04	7.48		# of strides	12.40	12.14	13.08	14.52	24.54	27.60	3.06
	velocity	7.42	8.83	8.39	8.09	7.85	7.45	7.10	6.68	7.67	192.5	8.06	8.24	7.65	6.89	8.15	7.25	
Saalberg, Eveline (NED) (199	time	6.84	12.45	18.33	24.47	30.98	37.75	44.84	52.57	52.57	3 / 5							
reaction time 0.234	interval		5.61	5.88	6.14	6.51	6.77	7.09	7.73		# of strides	12.45	12.02	13.28	14.82	24.47	28.10	3.63
	velocity	7.31	8.91	8.50	8.14	7.68	7.39	7.05	6.47	7.61		8.03	8.32	7.53	6.75	8.17	7.12	
de Witte, Lisanne (NED) (19!	time	7.21	13.13	19.22	25.53	32.03	38.78	45.70	53.10	53.10	1 / 6							
reaction time 0.244	interval		5.92	6.09	6.31	6.50	6.75	6.92	7.40		# of strides	13.13	12.40	13.25	14.32	25.53	27.57	2.04
	velocity	6.93	8.45	8.21	7.92	7.69	7.41	7.23	6.76	7.53		7.62	8.06	7.55	6.98	7.83	7.25	
Brossier, Amandine (FRA) (	time	6.93	12.59	18.53	24.78	31.30	38.23	45.63	53.65	53.65	2 / 7							
reaction time 0.171	interval		5.66	5.94	6.25	6.52	6.93	7.40	8.02		# of strides	12.59	12.19	13.45	15.42	24.78	28.87	4.09
	velocity	7.22	8.83	8.42	8.00	7.67	7.22	6.76	6.23	7.46		7.94	8.20	7.43	6.49	8.07	6.93	
Nekhubui, Shirley (RSA) (20	time	6.95	12.75	18.88	25.30	31.94	38.90	46.39	54.64	54.64	7 / 8							
reaction time 0.189	interval		5.80	6.13	6.42	6.64	6.96	7.49	8.25		# of strides	12.75	12.55	13.60	15.74	25.30	29.34	4.04
	velocity	7.19	8.62	8.16	7.79	7.53	7.18	6.68	6.06	7.32		7.84	7.97	7.35	6.35	7.91	6.82	

2023 Golden Gala Pietro Mennea (Firenze, ITA)

FINAL date 02-Jun-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (1!	time	6.74	12.33	19.97	23.93	30.12	36.60	43.35	50.41	50.41	4 / 1							
reaction time 0.142	interval		5.59	7.64	3.96	6.19	6.48	6.75	7.06		# of strides	12.33	11.60	12.67	13.81	23.93	26.48	2.55
	velocity	7.42	8.94	6.54	12.63	8.08	7.72	7.41	7.08	7.93	194.0	8.11	8.62	7.89	7.24	8.36	7.55	
Klaver, Lieke (NED) (1998)	time	6.62	12.16	17.90	23.92	30.20	36.73	43.52	50.75	50.75	6 / 2							
reaction time 0.137	interval		5.54	5.74	6.02	6.28	6.53	6.79	7.23		# of strides	12.16	11.76	12.81	14.02	23.92	26.83	2.91
	velocity	7.55	9.03	8.71	8.31	7.96	7.66	7.36	6.92	7.88		8.22	8.50	7.81	7.13	8.36	7.45	
Irby-Jackson, Lynna (USA) (	time	6.66	12.28	18.26	24.43	30.55	36.85	43.54	50.84	50.84	8 / 3							
reaction time 0.183	interval		5.62	5.98	6.17	6.12	6.30	6.69	7.30		# of strides	12.28	12.15	12.42	13.99	24.43	26.41	1.98
	velocity	7.51	8.90	8.36	8.10	8.17	7.94	7.47	6.85	7.87		8.14	8.23	8.05	7.15	8.19	7.57	
Gómez, Roxana (CUB) (1999	time	7.01	12.64	18.44	24.44	30.63	37.08	43.93	51.29	51.29	2 / 4							
reaction time 0.193	interval		5.63	5.80	6.00	6.19	6.45	6.85	7.36		# of strides	12.64	11.80	12.64	14.21	24.44	26.85	2.41
	velocity	7.13	8.88	8.62	8.33	8.08	7.75	7.30	6.79	7.80		7.91	8.47	7.91	7.04	8.18	7.45	
Abrams, Aliyah (GUY) (1997)	time	6.67	12.22	18.00	23.99	30.22	36.76	43.72	51.31	51.31	7 / 5							
reaction time 0.134	interval		5.55	5.78	5.99	6.23	6.54	6.96	7.59		# of strides	12.22	11.77	12.77	14.55	23.99	27.32	3.33
	velocity	7.50	9.01	8.65	8.35	8.03	7.65	7.18	6.59	7.80		8.18	8.50	7.83	6.87	8.34	7.32	
Kielbasinska, Anna (POL) (1!	time	6.65	12.37	18.24	24.46	30.79	37.43	44.39	51.76	51.76	3 / 6							
reaction time 0.157	interval		5.72	5.87	6.22	6.33	6.64	6.96	7.37		# of strides	12.37	12.09	12.97	14.33	24.46	27.30	2.84
	velocity	7.52	8.74	8.52	8.04	7.90	7.53	7.18	6.78	7.73		8.08	8.27	7.71	6.98	8.18	7.33	
McLeod, Candice (JAM) (19!	time	6.71	12.28	18.08	24.20	30.44	37.01	44.16	52.09	52.09	5 / 7							
reaction time 0.132	interval		5.57	5.80	6.12	6.24	6.57	7.15	7.93		# of strides	12.28	11.92	12.81	15.08	24.20	27.89	3.69
	velocity	7.45	8.98	8.62	8.17	8.01	7.61	6.99	6.31	7.68	204.0	8.14	8.39	7.81	6.63	8.26	7.17	
Mangione, Alice (ITA) (1997)	time	6.88	12.59	18.59	24.82	31.25	37.96	45.05	52.61	52.61	1 / 8							
reaction time 0.130	interval		5.71	6.00	6.23	6.43	6.71	7.09	7.56		# of strides	12.59	12.23	13.14	14.65	24.82	27.79	2.97
	velocity	7.27	8.76	8.33	8.03	7.78	7.45	7.05	6.61	7.60		7.94	8.18	7.61	6.83	8.06	7.20	

2023 Japanese National Championsips (Osaka, JPN)

FINAL date 02-Jun-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kuboyama, Haruna (JPN) (1!	time	6.83	12.75	18.82	25.09	31.68	38.55	45.68	53.19	53.19	7 / 1							
reaction time 0.169	interval		5.92	6.07	6.27	6.59	6.87	7.13	7.51		# of strides	12.75	12.34	13.46	14.64	25.09	28.10	3.01
	velocity	7.32	8.45	8.24	7.97	7.59	7.28	7.01	6.66	7.52	210.5	7.84	8.10	7.43	6.83	7.97	7.12	
Kojima, Yuzuki (JPN) (2004)	time	6.84	12.90	19.12	25.63	32.42	39.33	46.48	53.99	53.99	3 / 2							
reaction time 0.196	interval		6.06	6.22	6.51	6.79	6.91	7.15	7.51	PB	# of strides	12.90	12.73	13.70	14.66	25.63	28.36	2.73
	velocity	7.31	8.25	8.04	7.68	7.36	7.24	6.99	6.66	7.41	203.0	7.75	7.86	7.30	6.82	7.80	7.05	
Adachi, Marin (JPN) (2003)	time	6.91	13.03	19.30	25.68	32.28	39.10	46.31	54.05	54.05	5 / 3							
reaction time 0.185	interval		6.12	6.27	6.38	6.60	6.82	7.21	7.74		# of strides	13.03	12.65	13.42	14.95	25.68	28.37	2.69
	velocity	7.24	8.17	7.97	7.84	7.58	7.33	6.93	6.46	7.40	208.0	7.67	7.91	7.45	6.69	7.79	7.05	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200-400m	Differential
Matsumoto, Nanako (JPN) (	time	6.93	13.00	19.22	25.69	32.41	39.45	46.78	54.43	54.43	6 / 4							
reaction time 0.230	interval		6.07	6.22	6.47	6.72	7.04	7.33	7.65		# of strides	13.00	12.69	13.76	14.98	25.69	28.74	3.05
	velocity	7.22	8.24	8.04	7.73	7.44	7.10	6.82	6.54	7.35	205.0	7.69	7.88	7.27	6.68	7.79	6.96	
Iwata, Yuna (JPN) (1997)	time	6.97	12.95	19.07	25.46	32.14	39.12	46.55	54.48	54.48	8 / 5							
reaction time 0.171	interval		5.98	6.12	6.39	6.68	6.98	7.43	7.93		# of strides	12.95	12.51	13.66	15.36	25.46	29.02	3.56
	velocity	7.17	8.36	8.17	7.82	7.49	7.16	6.73	6.31	7.34	213.5	7.72	7.99	7.32	6.51	7.86	6.89	

Heat 3

date 01-Jun-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200-400m	Differential
Kuboyama, Haruna (JPN) (1!	time	6.98	13.14	19.44	25.87	32.39	39.12	46.22	53.76	53.76	5 / 1							
reaction time 0.243	interval		6.16	6.30	6.43	6.52	6.73	7.10	7.54		# of strides	13.14	12.73	13.25	14.64	25.87	27.89	2.02
	velocity	7.16	8.12	7.94	7.78	7.67	7.43	7.04	6.63	7.44	208.0	7.61	7.86	7.55	6.83	7.73	7.17	
Adachi, Marin (JPN) (2003)	time	7.07	13.32	19.69	26.21	32.85	39.65	46.68	54.29	54.29	8 / 2							
reaction time 0.182	interval		6.25	6.37	6.52	6.64	6.80	7.03	7.61		# of strides	13.32	12.89	13.44	14.64	26.21	28.08	1.87
	velocity	7.07	8.00	7.85	7.67	7.53	7.35	7.11	6.57	7.37		7.51	7.76	7.44	6.83	7.63	7.12	

Heat 2

date 01-Jun-23

Yamanaka (2024) - analysis of men's and women's 400m and 300m runs in the 2023 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200-400m	Differential
Matsumoto, Nanako (JPN) (	time	6.95	13.04	19.25	25.72	32.39	39.32	46.58	54.35	54.35	2 / 1							
reaction time 0.255	interval		6.09	6.21	6.47	6.67	6.93	7.26	7.77		# of strides	13.04	12.68	13.60	15.03	25.72	28.63	2.91
	velocity	7.19	8.21	8.05	7.73	7.50	7.22	6.89	6.44	7.36		7.67	7.89	7.35	6.65	7.78	6.99	
Iwata, Yuna (JPN) (1997)	time	6.92	12.97	19.19	25.69	32.48	39.46	46.67	54.41	54.41	7 / 2							
reaction time 0.167	interval		6.05	6.22	6.50	6.79	6.98	7.21	7.74		# of strides	12.97	12.72	13.77	14.95	25.69	28.72	3.03
	velocity	7.23	8.26	8.04	7.69	7.36	7.16	6.93	6.46	7.35		7.71	7.86	7.26	6.69	7.79	6.96	
Kojima, Yuzuki (JPN) (2004)	time	7.02	13.03	19.27	25.81	32.48	39.43	46.64	54.42	54.42	6 / 3							
reaction time 0.207	interval		6.01	6.24	6.54	6.67	6.95	7.21	7.78		# of strides	13.03	12.78	13.62	14.99	25.81	28.61	2.80
	velocity	7.12	8.32	8.01	7.65	7.50	7.19	6.93	6.43	7.35		7.67	7.82	7.34	6.67	7.75	6.99	

2023 Shimane High School Championships (Izumo, JPN)

FINAL

date 26-May-23

Shimizu (2023) - shimane high school championships 2023 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200-400m	Differential
Okuni, Chinatsu (JPN)	time		14.85		29.43		44.29		59.61	59.61	3 / 1							
reaction time	interval				14.58		14.86		15.32		# of strides	14.85	14.58	14.86	15.32	29.43	30.18	0.75
	velocity		6.73		6.86		6.73		6.53	6.71		6.73	6.86	6.73	6.53	6.80	6.63	
Saito, Yuna (JPN)	time		15.44		28.97		44.08		60.52	60.52	5 / 2							
reaction time	interval				13.53		15.11		16.44		# of strides	15.44	13.53	15.11	16.44	28.97	31.55	2.58
	velocity		6.48		7.39		6.62		6.08	6.61		6.48	7.39	6.62	6.08	6.90	6.34	
Kaneko, Akira (JPN)	time		14.12		28.28		43.75		60.93	60.93	6 / 3							
reaction time	interval				14.16		15.47		17.18		# of strides	14.12	14.16	15.47	17.18	28.28	32.65	4.37
	velocity		7.08		7.06		6.46		5.82	6.56		7.08	7.06	6.46	5.82	7.07	6.13	
Matsui, Minata (JPN)	time		14.53		28.93		45.06		61.30	60.99	4 / 4							
reaction time	interval				14.40		16.13		16.24		# of strides	14.53	14.40	16.13	16.24	28.93	32.37	3.44
	velocity		6.88		6.94		6.20		6.16	6.56		6.88	6.94	6.20	6.16	6.91	6.18	
Moriyoshi, Hinata (JPN)	time		14.88		29.68		45.06		61.30	61.30	2 / 5							
reaction time	interval				14.80		15.38		16.24		# of strides	14.88	14.80	15.38	16.24	29.68	31.62	1.94
	velocity		6.72		6.76		6.50		6.16	6.53		6.72	6.76	6.50	6.16	6.74	6.33	
Kanayama, Aoi (JPN)	time		14.73		29.42		45.08		62.40	62.40	8 / 6							
reaction time	interval				14.69		15.66		17.32		# of strides	14.73	14.69	15.66	17.32	29.42	32.98	3.56
	velocity		6.79		6.81		6.39		5.77	6.41		6.79	6.81	6.39	5.77	6.80	6.06	
Yamamoto, Mizuke (JPN)	time		15.00		30.32		46.12		64.24	64.24	1 / 7							
reaction time	interval				15.32		15.80		18.12		# of strides	15.00	15.32	15.80	18.12	30.32	33.92	3.60
	velocity		6.67		6.53		6.33		5.52	6.23		6.67	6.53	6.33	5.52	6.60	5.90	
Kishimoto, Reina (JPN)	time		14.57		29.23		46.38		64.37	64.37	7 / 8							
reaction time	interval				14.66		17.15		17.99		# of strides	14.57	14.66	17.15	17.99	29.23	35.14	5.91
	velocity		6.86		6.82		5.83		5.56	6.21		6.86	6.82	5.83	5.56	6.84	5.69	

2023 Doha Diamond League (Doha, QAT)

FINAL

date 05-May-23

Omega Timing (2023) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.84	12.53	18.45	24.60	30.79	37.19	43.59	50.51	50.51	5 / 1							
reaction time 0.183	interval		5.69	5.92	6.15	6.19	6.40	6.40	6.92		# of strides	12.53	12.07	12.59	13.32	24.60	25.91	1.31
	velocity	7.31	8.79	8.45	8.13	8.08	7.81	7.81	7.23	7.92	174.7	7.98	8.29	7.94	7.51	8.13	7.72	
Little, Shamier (USA) (1995)	time	6.65	12.11	18.04	24.30	30.73	37.26	43.82	50.84	50.84	6 / 2							
reaction time 0.177	interval		5.46	5.93	6.26	6.43	6.53	6.56	7.02		# of strides	12.11	12.19	12.96	13.58	24.30	26.54	2.24
	velocity	7.52	9.16	8.43	7.99	7.78	7.66	7.62	7.12	7.87	191.0	8.26	8.20	7.72	7.36	8.23	7.54	
Kaczmarek, Natalia (POL) (1!	time	6.89	12.70	18.94	25.22	31.59	38.09	44.60	51.64	51.64	8 / 3							
reaction time 0.171	interval		5.81	6.24	6.28	6.37	6.50	6.51	7.04		# of strides	12.70	12.52	12.87	13.55	25.22	26.42	1.20
	velocity	7.26	8.61	8.01	7.96	7.85	7.69	7.68	7.10	7.75	195.0	7.87	7.99	7.77	7.38	7.93	7.57	
Williams, Sada (BAR) (1997)	time	6.74	12.40	18.40	24.63	30.95	37.58	44.52	52.05	52.05	4 / 4							
reaction time 0.184	interval		5.66	6.00	6.23	6.32	6.63	6.94	7.53		# of strides	12.40	12.23	12.95	14.47	24.63	27.42	2.79
	velocity	7.42	8.83	8.33	8.03	7.91	7.54	7.20	6.64	7.68	193.5	8.06	8.18	7.72	6.91	8.12	7.29	
McLeod, Candice (JAM) (19!	time	6.82	12.47	18.56	24.78	31.11	37.67	44.69	52.43	52.43	7 / 5							

reaction time 0.172	interval		5.65	6.09	6.22	6.33	6.56	7.02	7.74		# of strides	12.47	12.31	12.89	14.76	24.78	27.65	2.87
	velocity	7.33	8.85	8.21	8.04	7.90	7.62	7.12	6.46	7.63	203.0	8.02	8.12	7.76	6.78	8.07	7.23	
McPherson, Stephenie Ann (time		6.90	12.58	18.54	24.74	31.13	37.92	44.95	52.93	52.93	3 / 6							
reaction time 0.139	interval		5.68	5.96	6.20	6.39	6.79	7.03	7.98		# of strides	12.58	12.16	13.18	15.01	24.74	28.19	3.45
	velocity	7.25	8.80	8.39	8.06	7.82	7.36	7.11	6.27	7.56	193.0	7.95	8.22	7.59	6.66	8.08	7.09	
Święty-Ersetic, Justyna (POL time		7.14	12.98	19.15	25.61	32.20	38.95	45.73	53.08	53.08	2 / 7							
reaction time 0.181	interval		5.84	6.17	6.46	6.59	6.75	6.78	7.35		# of strides	12.98	12.63	13.34	14.13	25.61	27.47	1.86
	velocity	7.00	8.56	8.10	7.74	7.59	7.41	7.37	6.80	7.54		7.70	7.92	7.50	7.08	7.81	7.28	
Jefferson, Kyra (USA) (1994) time		6.85	12.60	18.76	25.20	31.92	38.84	45.91	54.00	54.00	1 / 8							
reaction time 0.164	interval		5.75	6.16	6.44	6.72	6.92	7.07	8.09		# of strides	12.60	12.60	13.64	15.16	25.20	28.80	3.60
	velocity	7.30	8.70	8.12	7.76	7.44	7.23	7.07	6.18	7.41		7.94	7.94	7.33	6.60	7.94	6.94	

2022 Weltklasse (Zürich, SUI)

FINAL

date 08-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19 time	6.81	12.33	17.96	23.67	29.50	35.60	42.04	48.99	48.99	6 / 1							
reaction time 0.172 interval		5.52	5.63	5.71	5.83	6.10	6.44	6.95	NR PB	# of strides	12.33	11.34	11.93	13.39	23.67	25.32	1.65
velocity	7.34	9.06	8.88	8.76	8.58	8.20	7.76	7.19	8.16	170.5	8.11	8.82	8.38	7.47	8.45	7.90	
Cofil, Fiordaliza (DOM) (200 time	6.78	12.47	18.30	24.23	30.30	36.57	43.10	49.93	49.93	4 / 2							
reaction time 0.162 interval		5.69	5.83	5.93	6.07	6.27	6.53	6.83		# of strides	12.47	11.76	12.34	13.36	24.23	25.70	1.47
velocity	7.37	8.79	8.58	8.43	8.24	7.97	7.66	7.32	8.01		8.02	8.50	8.10	7.49	8.25	7.78	
Williams, Sada (BAR) (1997) time	6.60	12.18	17.88	23.70	29.66	35.99	42.75	49.98	49.98	5 / 3							
reaction time 0.133 interval		5.58	5.70	5.82	5.96	6.33	6.76	7.23		# of strides	12.18	11.52	12.29	13.99	23.70	26.28	2.58
velocity	7.58	8.96	8.77	8.59	8.39	7.90	7.40	6.92	8.00	193.5	8.21	8.68	8.14	7.15	8.44	7.61	
McLeod, Candice (JAM) (19 time	6.66	12.18	17.88	23.76	29.75	36.07	42.76	50.03	50.03	7 / 4							
reaction time 0.149 interval		5.52	5.70	5.88	5.99	6.32	6.69	7.27		# of strides	12.18	11.58	12.31	13.96	23.76	26.27	2.51
velocity	7.51	9.06	8.77	8.50	8.35	7.91	7.47	6.88	8.00		8.21	8.64	8.12	7.16	8.42	7.61	
Kaczmarek, Natalia (POL) (1 time	6.84	12.50	18.34	24.32	30.51	37.05	43.84	50.74	50.74	3 / 5							
reaction time 0.143 interval		5.66	5.84	5.98	6.19	6.54	6.79	6.90		# of strides	12.50	11.82	12.73	13.69	24.32	26.42	2.10
velocity	7.31	8.83	8.56	8.36	8.08	7.65	7.36	7.25	7.88		8.00	8.46	7.86	7.30	8.22	7.57	
Kiełbasinska, Anna (POL) (1 time	6.59	12.27	18.16	24.17	30.45	36.97	43.74	50.93	50.93	8 / 6							
reaction time 0.158 interval		5.68	5.89	6.01	6.28	6.52	6.77	7.19		# of strides	12.27	11.90	12.80	13.96	24.17	26.76	2.59
velocity	7.59	8.80	8.49	8.32	7.96	7.67	7.39	6.95	7.85		8.15	8.40	7.81	7.16	8.27	7.47	
Klaver, Lieke (NED) (1998) time	6.72	12.31	18.19	24.22	30.54	37.23	44.17	51.55	51.55	1 / 7							
reaction time 0.172 interval		5.59	5.88	6.03	6.32	6.69	6.94	7.38		# of strides	12.31	11.91	13.01	14.32	24.22	27.33	3.11
velocity	7.44	8.94	8.50	8.29	7.91	7.47	7.20	6.78	7.76		8.12	8.40	7.69	6.98	8.26	7.32	
McPherson, Stephenie Ann (time	6.97	12.72	18.67	24.68	30.87	37.38	44.44	52.32	52.32	2 / 8							
reaction time 0.127 interval		5.75	5.95	6.01	6.19	6.51	7.06	7.88		# of strides	12.72	11.96	12.70	14.94	24.68	27.64	2.96
velocity	7.17	8.70	8.40	8.32	8.08	7.68	7.08	6.35	7.65		7.86	8.36	7.87	6.69	8.10	7.24	

National FINAL

date 08-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brossier, Amandine (FRA) (time	6.75	12.33	18.06	24.01	30.22	36.72	43.66	51.21	51.21	6 / 1							
reaction time 0.151 interval		5.58	5.73	5.95	6.21	6.50	6.94	7.55	=PB	# of strides	12.33	11.68	12.71	14.49	24.01	27.20	3.19
velocity	7.41	8.96	8.73	8.40	8.05	7.69	7.20	6.62	7.81		8.11	8.56	7.87	6.90	8.33	7.35	
Walli, Susanne (AUT) (1996) time	7.04	12.73	18.59	24.59	30.86	37.53	44.53	51.74	51.74	4 / 2							
reaction time 0.148 interval		5.69	5.86	6.00	6.27	6.67	7.00	7.21		# of strides	12.73	11.86	12.94	14.21	24.59	27.15	2.56
velocity	7.10	8.79	8.53	8.33	7.97	7.50	7.14	6.93	7.73		7.86	8.43	7.73	7.04	8.13	7.37	
Lemmens, Silke (SUI) (1999) time	6.71	12.39	18.27	24.46	30.92	37.67	44.64	52.03	52.03	7 / 3							
reaction time 0.172 interval		5.68	5.88	6.19	6.46	6.75	6.97	7.39		# of strides	12.39	12.07	13.21	14.36	24.46	27.57	3.11
velocity	7.45	8.80	8.50	8.08	7.74	7.41	7.17	6.77	7.69		8.07	8.29	7.57	6.96	8.18	7.25	
Fahr, Annina (SUI) (1993) time	6.96	12.80	18.82	24.97	31.24	37.78	44.62	52.05	52.05	8 / 4							
reaction time 0.167 interval		5.84	6.02	6.15	6.27	6.54	6.84	7.43	PB	# of strides	12.80	12.17	12.81	14.27	24.97	27.08	2.11
velocity	7.18	8.56	8.31	8.13	7.97	7.65	7.31	6.73	7.68		7.81	8.22	7.81	7.01	8.01	7.39	
Saalberg, Eveline (NED) (199 time	6.97	12.61	18.41	24.52	31.00	37.91	44.97	52.40	52.40	5 / 5							
reaction time 0.207 interval		5.64	5.80	6.11	6.48	6.91	7.06	7.43		# of strides	12.61	11.91	13.39	14.49	24.52	27.88	3.36
velocity	7.17	8.87	8.62	8.18	7.72	7.24	7.08	6.73	7.63		7.93	8.40	7.47	6.90	8.16	7.17	
de Witte, Lisanne (SUI) (199 time	7.01	12.90	19.00	25.32	31.85	38.59	45.53	52.71	52.71	1 / 6							
reaction time 0.150 interval		5.89	6.10	6.32	6.53	6.74	6.94	7.18		# of strides	12.90	12.42	13.27	14.12	25.32	27.39	2.07
velocity	7.13	8.49	8.20	7.91	7.66	7.42	7.20	6.96	7.59		7.75	8.05	7.54	7.08	7.90	7.30	
Niederberger, Julia (SUI) (20 time	6.84	12.72	18.81	25.00	31.43	38.23	45.35	52.86	52.86	2 / 7							
reaction time 0.172 interval		5.88	6.09	6.19	6.43	6.80	7.12	7.51		# of strides	12.72	12.28	13.23	14.63	25.00	27.86	2.86
velocity	7.31	8.50	8.21	8.08	7.78	7.35	7.02	6.66	7.57		7.86	8.14	7.56	6.84	8.00	7.18	
Giger, Yasmin (SUI) (1999) time	7.10	13.09	19.21	25.48	31.89	38.60	45.59	52.90	52.90	3 / 8							
reaction time 0.156 interval		5.99	6.12	6.27	6.41	6.71	6.99	7.31		# of strides	13.09	12.39	13.12	14.30	25.48	27.42	1.94
velocity	7.04	8.35	8.17	7.97	7.80	7.45	7.15	6.84	7.56		7.64	8.07	7.62	6.99	7.85	7.29	

2022 Memorial van Damme (Brussels, BEL)

FINAL

date 02-Sep-22

Omega Timing (2022) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

Cofil, Fiordaliza (DOM) (200	time	6.75	12.45	18.22	24.12	30.18	36.43	42.86	49.80	49.80	2 / 1							
reaction time 0.160	interval		5.70	5.77	5.90	6.06	6.25	6.43	6.94	PB	# of strides	12.45	11.67	12.31	13.37	24.12	25.68	1.56
	velocity	7.41	8.77	8.67	8.47	8.25	8.00	7.78	7.20	8.03		8.03	8.57	8.12	7.48	8.29	7.79	
Williams, Sada (BAR) (1997)	time	6.65	12.17	17.72	23.51	29.53	35.99	42.83	50.15	50.15	4 / 2							
reaction time 0.169	interval		5.52	5.55	5.79	6.02	6.46	6.84	7.32		# of strides	12.17	11.34	12.48	14.16	23.51	26.64	3.13
	velocity	7.52	9.06	9.01	8.64	8.31	7.74	7.31	6.83	7.98		8.22	8.82	8.01	7.06	8.51	7.51	
Bolingo, Cynthia (BEL) (199	time	6.66	12.27	17.72	23.87	29.98	36.39	43.07	50.19	50.19	5 / 3							
reaction time 0.172	interval		5.61	5.45	6.15	6.11	6.41	6.68	7.12	NR PB	# of strides	12.27	11.60	12.52	13.80	23.87	26.32	2.45
	velocity	7.51	8.91	9.17	8.13	8.18	7.80	7.49	7.02	7.97		8.15	8.62	7.99	7.25	8.38	7.60	
Moraa, Mary (KEN) (2000)	time	7.10	12.92	18.68	24.63	30.81	37.25	43.83	50.67	50.67	3 / 4							
reaction time 0.168	interval		5.82	5.76	5.95	6.18	6.44	6.58	6.84	NR PB	# of strides	12.92	11.71	12.62	13.42	24.63	26.04	1.41
	velocity	7.04	8.59	8.68	8.40	8.09	7.76	7.60	7.31	7.89		7.74	8.54	7.92	7.45	8.12	7.68	
McLeod, Candice (JAM) (19	time	7.02	12.71	18.40	24.28	30.39	36.79	43.46	50.76	50.76	8 / 5							
reaction time 0.214	interval		5.69	5.69	5.88	6.11	6.40	6.67	7.30		# of strides	12.71	11.57	12.51	13.97	24.28	26.48	2.20
	velocity	7.12	8.79	8.79	8.50	8.18	7.81	7.50	6.85	7.88		7.87	8.64	7.99	7.16	8.24	7.55	
Klaver, Lieke (NED) (1998)	time	6.69	12.26	17.94	23.87	30.16	36.76	43.58	50.87	50.87	7 / 6							
reaction time 0.182	interval		5.57	5.68	5.93	6.29	6.60	6.82	7.29		# of strides	12.26	11.61	12.89	14.11	23.87	27.00	3.13
	velocity	7.47	8.98	8.80	8.43	7.95	7.58	7.33	6.86	7.86		8.16	8.61	7.76	7.09	8.38	7.41	
Kiełbasinska, Anna (POL) (1!	time	6.59	12.31	18.09	24.10	30.41	37.06	43.98	51.63	51.63	6 / 7							
reaction time 0.150	interval		5.72	5.78	6.01	6.31	6.65	6.92	7.65		# of strides	12.31	11.79	12.96	14.57	24.10	27.53	3.43
	velocity	7.59	8.74	8.65	8.32	7.92	7.52	7.23	6.54	7.75		8.12	8.48	7.72	6.86	8.30	7.26	
McPherson, Stephenie Ann (	time	6.70	12.22	17.95	23.84	29.96	36.56	43.66	51.73	51.73	1 / 8							
reaction time 0.136	interval		5.52	5.73	5.89	6.12	6.60	7.10	8.07		# of strides	12.22	11.62	12.72	15.17	23.84	27.89	4.05
	velocity	7.46	9.06	8.73	8.49	8.17	7.58	7.04	6.20	7.73		8.18	8.61	7.86	6.59	8.39	7.17	

National FINAL

date 02-Sep-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bolingo, Cynthia (BEL) (199	time	6.87	12.51	18.34	24.40	30.64	37.17	44.20	51.74	51.74	2 / 1							
reaction time 0.176	interval		5.64	5.83	6.06	6.24	6.53	7.03	7.54		# of strides	12.51	11.89	12.77	14.57	24.40	27.34	2.94
	velocity	7.28	8.87	8.58	8.25	8.01	7.66	7.11	6.63	7.73		7.99	8.41	7.83	6.86	8.20	7.32	
Ponette, Helena (BEL) (2000	time	6.97	12.60	18.35	24.38	30.72	37.46	44.40	51.82	51.82	6 / 2							
reaction time 0.146	interval		5.63	5.75	6.03	6.34	6.74	6.94	7.42	PB	# of strides	12.60	11.78	13.08	14.36	24.38	27.44	3.06
	velocity	7.17	8.88	8.70	8.29	7.89	7.42	7.20	6.74	7.72		7.94	8.49	7.65	6.96	8.20	7.29	
Clayton, Rushell (JAM) (199	time	6.98	12.64	18.53	24.69	31.03	37.71	44.69	52.02	52.02	8 / 3							
reaction time 0.233	interval		5.66	5.89	6.16	6.34	6.68	6.98	7.33	PB	# of strides	12.64	12.05	13.02	14.31	24.69	27.33	2.64
	velocity	7.16	8.83	8.49	8.12	7.89	7.49	7.16	6.82	7.69		7.91	8.30	7.68	6.99	8.10	7.32	
Saalberg, Eveline (NED) (199	time	6.96	12.58	18.38	24.44	30.80	37.59	44.74	52.48	52.48	7 / 4							
reaction time 0.226	interval		5.62	5.80	6.06	6.36	6.79	7.15	7.74		# of strides	12.58	11.86	13.15	14.89	24.44	28.04	3.60
	velocity	7.18	8.90	8.62	8.25	7.86	7.36	6.99	6.46	7.62		7.95	8.43	7.60	6.72	8.18	7.13	
Laus, Camille (BEL) (1993)	time	7.06	12.94	19.01	25.39	32.01	38.88	45.78	52.93	52.93	5 / 5							
reaction time 0.226	interval		5.88	6.07	6.38	6.62	6.87	6.90	7.15		# of strides	12.94	12.45	13.49	14.05	25.39	27.54	2.15
	velocity	7.08	8.50	8.24	7.84	7.55	7.28	7.25	6.99	7.56		7.73	8.03	7.41	7.12	7.88	7.26	
Vervaet, Imke (BEL) (1993)	time	6.84	12.53	18.54	24.88	31.53	38.50	45.69	53.00	53.00	4 / 6							
reaction time 0.160	interval		5.69	6.01	6.34	6.65	6.97	7.19	7.31		# of strides	12.53	12.35	13.62	14.50	24.88	28.12	3.24
	velocity	7.31	8.79	8.32	7.89	7.52	7.17	6.95	6.84	7.55		7.98	8.10	7.34	6.90	8.04	7.11	
Couckuyt, Paulien (BEL) (19	time	6.91	12.78	18.93	25.38	32.03	38.86	45.97	53.45	53.45	3 / 7							
reaction time 0.204	interval		5.87	6.15	6.45	6.65	6.83	7.11	7.48		# of strides	12.78	12.60	13.48	14.59	25.38	28.07	2.69
	velocity	7.24	8.52	8.13	7.75	7.52	7.32	7.03	6.68	7.48		7.82	7.94	7.42	6.85	7.88	7.13	
Hespel, Nina (BEL) (2001)	time	6.90	12.65	18.76	25.19	31.85	38.82	46.23	54.47	54.47	1 / 8							
reaction time 0.196	interval		5.75	6.11	6.43	6.66	6.97	7.41	8.24		# of strides	12.65	12.54	13.63	15.65	25.19	29.28	4.09
	velocity	7.25	8.70	8.18	7.78	7.51	7.17	6.75	6.07	7.34		7.91	7.97	7.34	6.39	7.94	6.83	

2022 Athletissima (Lausanne, SUI)

FINAL

date 26-Aug-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.60	11.98	17.51	23.29	29.35	35.83	42.55	49.87	49.87	6 / 1							
reaction time 0.178	interval		5.38	5.53	5.78	6.06	6.48	6.72	7.32		# of strides	11.98	11.31	12.54	14.04	23.29	26.58	3.29
	velocity	7.58	9.29	9.04	8.65	8.25	7.72	7.44	6.83	8.02	173.7	8.35	8.84	7.97	7.12	8.59	7.52	
Williams, Sada (BAR) (1997)	time	6.64	12.14	17.78	23.59	29.56	35.95	42.67	49.94	49.94	5 / 2							
reaction time 0.168	interval		5.50	5.64	5.81	5.97	6.39	6.72	7.27		# of strides	12.14	11.45	12.36	13.99	23.59	26.35	2.76
	velocity	7.53	9.09	8.87	8.61	8.38	7.82	7.44	6.88	8.01	197.0	8.24	8.73	8.09	7.15	8.48	7.59	
Cofil, Fiordaliza (DOM) (200	time	6.64	12.23	18.00	24.02	30.12	36.51	43.02	50.13	50.13	8 / 3							
reaction time 0.168	interval		5.59	5.77	6.02	6.10	6.39	6.51	7.11	PB	# of strides	12.23	11.79	12.49	13.62	24.02	26.11	2.09
	velocity	7.53	8.94	8.67	8.31	8.20	7.82	7.68	7.03	7.98	189.5	8.18	8.48	8.01	7.34	8.33	7.66	
McLeod, Candice (JAM) (19	time	6.71	12.21	17.86	23.78	29.94	36.43	43.26	50.80	50.80	7 / 4							
reaction time 0.162	interval		5.50	5.65	5.92	6.16	6.49	6.83	7.54		# of strides	12.21	11.57	12.65	14.37	23.78	27.02	3.24
	velocity	7.45	9.09	8.85	8.45	8.12	7.70	7.32	6.63	7.87	200.7	8.19	8.64	7.91	6.96	8.41	7.40	
Kaczmarek, Natalia (POL) (1!	time	6.80	12.40	18.22	24.26	30.55	37.16	43.89	51.03	51.03	3 / 5							
reaction time 0.150	interval		5.60	5.82	6.04	6.29	6.61	6.73	7.14		# of strides	12.40	11.86	12.90	13.87	24.26	26.77	2.51
	velocity	7.35	8.93	8.59	8.28	7.95	7.56	7.43	7.00	7.84		8.06	8.43	7.75	7.21	8.24	7.47	

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

Klaver, Lieke (NED) (1998)	time	6.70	12.21	18.00	24.03	30.40	37.13	43.91	51.15	51.15	4 / 6							
reaction time 0.194	interval		5.51	5.79	6.03	6.37	6.73	6.78	7.24		# of strides	12.21	11.82	13.10	14.02	24.03	27.12	3.09
	velocity	7.46	9.07	8.64	8.29	7.85	7.43	7.37	6.91	7.82		8.19	8.46	7.63	7.13	8.32	7.37	
McPherson, Stephenie Ann (	time	6.85	12.51	18.46	24.56	30.80	37.26	44.11	51.63	51.63	2 / 7							
reaction time 0.139	interval		5.66	5.95	6.10	6.24	6.46	6.85	7.52		# of strides	12.51	12.05	12.70	14.37	24.56	27.07	2.51
	velocity	7.30	8.83	8.40	8.20	8.01	7.74	7.30	6.65	7.75		7.99	8.30	7.87	6.96	8.14	7.39	
Williams, Jodie (GBR) (1993)	time	6.57	12.10	17.90	23.99	30.46	37.32	44.52	52.31	52.31	1 / 8							
reaction time 0.148	interval		5.53	5.80	6.09	6.47	6.86	7.20	7.79		# of strides	12.10	11.89	13.33	14.99	23.99	28.32	4.33
	velocity	7.61	9.04	8.62	8.21	7.73	7.29	6.94	6.42	7.65		8.26	8.41	7.50	6.67	8.34	7.06	

National FINAL

date 26-Aug-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Giger, Yasmin (SUI) (1999)	time	7.0	12.9	19.0	25.3	31.7	38.3	45.2	52.42	52.42	6 / 1							
reaction time 0.150	interval		5.90	6.10	6.30	6.40	6.60	6.90	7.22	PB	# of strides	12.90	12.40	13.00	14.12	25.30	27.12	1.82
	velocity	7.14	8.47	8.20	7.94	7.81	7.58	7.25	6.93	7.63		7.75	8.06	7.69	7.08	7.91	7.37	
Fahr, Annina (SUI) (1993)	time	6.9	12.7	18.7	24.9	31.3	38.0	45.1	52.91	52.91	4 / 2							
reaction time 0.176	interval		5.80	6.00	6.20	6.40	6.70	7.10	7.81	PB	# of strides	12.70	12.20	13.10	14.91	24.90	28.01	3.11
	velocity	7.25	8.62	8.33	8.06	7.81	7.46	7.04	6.40	7.56		7.87	8.20	7.63	6.71	8.03	7.14	
Lemmens, Silke (SUI) (1999)	time	6.7	12.5	18.5	24.8	31.4	38.2	45.4	53.14	53.14	5 / 3							
reaction time 0.181	interval		5.80	6.00	6.30	6.60	6.80	7.20	7.74		# of strides	12.50	12.30	13.40	14.94	24.80	28.34	3.54
	velocity	7.46	8.62	8.33	7.94	7.58	7.35	6.94	6.46	7.53		8.00	8.13	7.46	6.69	8.06	7.06	
Pellaud, Rachel (SUI) (1995)	time	7.1	13.1	19.2	25.5	32.1	39.0	46.0	53.47	53.47	2 / 4							
reaction time 0.153	interval		6.00	6.10	6.30	6.60	6.90	7.00	7.47		# of strides	13.10	12.40	13.50	14.47	25.50	27.97	2.47
	velocity	7.04	8.33	8.20	7.94	7.58	7.25	7.14	6.69	7.48		7.63	8.06	7.41	6.91	7.84	7.15	
King, Sarah (SUI) (1996)	time	6.9	12.5	18.4	24.7	31.3	38.3	45.9	54.00	54.00	3 / 5							
reaction time 0.194	interval		5.60	5.90	6.30	6.60	7.00	7.60	8.10		# of strides	12.50	12.20	13.60	15.70	24.70	29.30	4.60
	velocity	7.25	8.93	8.47	7.94	7.58	7.14	6.58	6.17	7.41		8.00	8.20	7.35	6.37	8.10	6.83	
Gröbli, Michelle (SUI) (2001)	time	6.8	12.7	18.8	25.2	31.8	38.7	46.0	54.09	54.09	7 / 6							
reaction time 0.154	interval		5.90	6.10	6.40	6.60	6.90	7.30	8.09		# of strides	12.70	12.50	13.50	15.39	25.20	28.89	3.69
	velocity	7.35	8.47	8.20	7.81	7.58	7.25	6.85	6.18	7.40		7.87	8.00	7.41	6.50	7.94	6.92	
Salamin, Noémie (SUI) (1999)	time	7.1	13.1	19.3	25.9	32.8	39.9	47.3	55.35	55.35	8 / 7							
reaction time 0.206	interval		6.00	6.20	6.60	6.90	7.10	7.40	8.05		# of strides	13.10	12.80	14.00	15.45	25.90	29.45	3.55
	velocity	7.04	8.33	8.06	7.58	7.25	7.04	6.76	6.21	7.23		7.63	7.81	7.14	6.47	7.72	6.79	
Rusca, Alizée (SUI) (1999)	time	6.8	12.8	19.1	25.7	32.6	39.8	47.5	55.88	55.88	1 / 8							
reaction time 0.159	interval		6.00	6.30	6.60	6.90	7.20	7.70	8.38	PB	# of strides	12.80	12.90	14.10	16.08	25.70	30.18	4.48
	velocity	7.35	8.33	7.94	7.58	7.25	6.94	6.49	5.97	7.16		7.81	7.75	7.09	6.22	7.78	6.63	

2022 European Athletics Championships (Munich, GER)

FINAL

date 17-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bol, Femke (NED) (2000)	time		12.20		23.70		36.17		49.44	49.44	5 / 1							
reaction time 0.252	interval				11.50		12.47		13.27	NR PB	# of strides	12.20	11.50	12.47	13.27	23.70	25.74	2.04
	velocity		8.20		8.70		8.02		7.54	8.09	180.0	8.20	8.70	8.02	7.54	8.44	7.77	
Kaczmarek, Natalia (POL) (1!	time		12.17		23.59		36.29		49.94	49.94	6 / 2							
reaction time 0.178	interval				11.42		12.70		13.65		# of strides	12.17	11.42	12.70	13.65	23.59	26.35	2.76
	velocity		8.22		8.76		7.87		7.33	8.01	195.0	8.22	8.76	7.87	7.33	8.48	7.59	
Kiełbasinska, Anna (POL) (1!	time		12.39		24.21		36.90		50.29	50.29	4 / 3							
reaction time 0.225	interval				11.82		12.69		13.39		# of strides	12.39	11.82	12.69	13.39	24.21	26.08	1.87
	velocity		8.07		8.46		7.88		7.47	7.95	194.0	8.07	8.46	7.88	7.47	8.26	7.67	
Ohuruogu, Victoria (GBR) (1	time		12.51		24.43		37.04		50.51	50.51	3 / 4							
reaction time 0.269	interval				11.92		12.61		13.47		# of strides	12.51	11.92	12.61	13.47	24.43	26.08	1.65
	velocity		7.99		8.39		7.93		7.42	7.92	192.0	7.99	8.39	7.93	7.42	8.19	7.67	
Adeleke, Rhasidat (IRL) (200	time		12.32		23.94		36.60		50.53	50.53	1 / 5							
reaction time 0.199	interval				11.62		12.66		13.93	NR PB	# of strides	12.32	11.62	12.66	13.93	23.94	26.59	2.65
	velocity		8.12		8.61		7.90		7.18	7.92	183.0	8.12	8.61	7.90	7.18	8.35	7.52	
Klaver, Lieke (NED) (1998)	time		12.08		23.36		36.26		50.56	50.56	8 / 6							
reaction time 0.195	interval				11.28		12.90		14.30		# of strides	12.08	11.28	12.90	14.30	23.36	27.20	3.84
	velocity		8.28		8.87		7.75		6.99	7.91	187.0	8.28	8.87	7.75	6.99	8.56	7.35	
Bolingo, Cynthia (BEL) (199	time		12.18		24.05		36.98		50.94	50.94	7 / 7							
reaction time 0.227	interval				11.87		12.93		13.96		# of strides	12.18	11.87	12.93	13.96	24.05	26.89	2.84
	velocity		8.21		8.42		7.73		7.16	7.85	189.0	8.21	8.42	7.73	7.16	8.32	7.44	
Baumgart-Witan, Iga (POL) (	time		12.64		24.41		37.11		51.28	51.28	2 / 8							
reaction time 0.228	interval				11.77		12.70		14.17		# of strides	12.64	11.77	12.70	14.17	24.41	26.87	2.46
	velocity		7.91		8.50		7.87		7.06	7.80	180.0	7.91	8.50	7.87	7.06	8.19	7.44	

Semi-Final 3

date 16-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bol, Femke (NED) (2000)	time		12.41		24.02		36.58		50.60	50.60	6 / 1							
reaction time 0.243	interval				11.61		12.56		14.02		# of strides	12.41	11.61	12.56	14.02	24.02	26.58	2.56
	velocity		8.06		8.61		7.96		7.13	7.91	179.7	8.06	8.61	7.96	7.13	8.33	7.52	

Bolingo, Cynthia (BEL) (199	time	12.35	24.39	37.15	50.83	50.83	8 / 2								
reaction time 0.217	interval		12.04	12.76	13.68		# of strides	12.35	12.04	12.76	13.68	24.39	26.44	2.05	
	velocity	8.10	8.31	7.84	7.31	7.87	189.7	8.10	8.31	7.84	7.31	8.20	7.56		
Adeleke, Rhasidat (IRL) (200	time	12.47	24.29	37.06	51.08	51.08	4 / 3								
reaction time 0.254	interval		11.82	12.77	14.02		# of strides	12.47	11.82	12.77	14.02	24.29	26.79	2.50	
	velocity	8.02	8.46	7.83	7.13	7.83	185.0	8.02	8.46	7.83	7.13	8.23	7.47		
Brossier, Amandine (FRA) (	time	12.54	24.50	37.14	51.21	51.21	7 / 4								
reaction time 0.158	interval		11.96	12.64	14.07		# of strides	12.54	11.96	12.64	14.07	24.50	26.71	2.21	
	velocity	7.97	8.36	7.91	7.11	7.81	202.0	7.97	8.36	7.91	7.11	8.16	7.49		
Yeargin, Nicole (GBR) (1997)	time	12.69	24.71	37.78	52.09	52.09	5 / 5								
reaction time 0.238	interval		12.02	13.07	14.31		# of strides	12.69	12.02	13.07	14.31	24.71	27.38	2.67	
	velocity	7.88	8.32	7.65	6.99	7.68	194.0	7.88	8.32	7.65	6.99	8.09	7.30		
Święty-Ersetic, Justyna (POL	time	12.96	25.07	38.10	52.17	52.17	3 / 6								
reaction time 0.284	interval		12.11	13.03	14.07		# of strides	12.96	12.11	13.03	14.07	25.07	27.10	2.03	
	velocity	7.72	8.26	7.67	7.11	7.67	209.0	7.72	8.26	7.67	7.11	7.98	7.38		
Walli, Susanne (AUT) (1996)	time	12.72	24.91	38.10	52.58	52.58	1 / 7								
reaction time 0.279	interval		12.19	13.19	14.48		# of strides	12.72	12.19	13.19	14.48	24.91	27.67	2.76	
	velocity	7.86	8.20	7.58	6.91	7.61	197.0	7.86	8.20	7.58	6.91	8.03	7.23		
Schmidt, Alica (GER) (1998)	time	12.87	25.12	38.43	53.12	53.12	2 / 8								
reaction time 0.208	interval		12.25	13.31	14.69		# of strides	12.87	12.25	13.31	14.69	25.12	28.00	2.88	
	velocity	7.77	8.16	7.51	6.81	7.53	185.0	7.77	8.16	7.51	6.81	7.96	7.14		

Semi-Final 2

date 16-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kaczmarek, Natalia (POL) (1!	time		12.48		24.15		36.99		50.40	50.40	6 / 1							
reaction time 0.200	interval				11.67		12.84		13.41		# of strides	12.48	11.67	12.84	13.41	24.15	26.25	2.10
	velocity		8.01		8.57		7.79		7.46	7.94	194.2	8.01	8.57	7.79	7.46	8.28	7.62	
Ohuruogu, Victoria (GBR) (1	time		12.50		24.29		36.93		50.50	50.50	5 / 2							
reaction time 0.243	interval				11.79		12.64		13.57	PB	# of strides	12.50	11.79	12.64	13.57	24.29	26.21	1.92
	velocity		8.00		8.48		7.91		7.37	7.92	192.0	8.00	8.48	7.91	7.37	8.23	7.63	
Morauskaitė, Modesta (LTU)	time		12.35		24.05		37.02		51.70	51.70	4 / 3							
reaction time 0.179	interval				11.70		12.97		14.68		# of strides	12.35	11.70	12.97	14.68	24.05	27.65	3.60
	velocity		8.10		8.55		7.71		6.81	7.74	191.0	8.10	8.55	7.71	6.81	8.32	7.23	
Vondrová, Lada (CZE) (1999)	time		12.37		24.34		37.28		51.83	51.83	3 / 4							
reaction time 0.258	interval				11.97		12.94		14.55		# of strides	12.37	11.97	12.94	14.55	24.34	27.49	3.15
	velocity		8.08		8.35		7.73		6.87	7.72	196.0	8.08	8.35	7.73	6.87	8.22	7.28	
Mangione, Alice (ITA) (1997)	time		12.78		24.87		38.02		52.02	52.02	7 / 5							
reaction time 0.179	interval				12.09		13.15		14.00		# of strides	12.78	12.09	13.15	14.00	24.87	27.15	2.28
	velocity		7.82		8.27		7.60		7.14	7.69	194.7	7.82	8.27	7.60	7.14	8.04	7.37	
Saalberg, Eveline (NED) (199	time		12.60		24.50		37.88		52.45	52.45	8 / 6							
reaction time 0.279	interval				11.90		13.38		14.57		# of strides	12.60	11.90	13.38	14.57	24.50	27.95	3.45
	velocity		7.94		8.40		7.47		6.86	7.63	195.7	7.94	8.40	7.47	6.86	8.16	7.16	
Lemmens, Silke (SUI) (1999)	time		12.68		25.06		38.51		53.08	53.08	2 / 7							
reaction time 0.225	interval				12.38		13.45		14.57		# of strides	12.68	12.38	13.45	14.57	25.06	28.02	2.96
	velocity		7.89		8.08		7.43		6.86	7.54	196.0	7.89	8.08	7.43	6.86	7.98	7.14	
Laus, Camille (BEL) (1993)	time		13.01		25.62		39.55		54.28	54.28	1 / 8							
reaction time 0.265	interval				12.61		13.93		14.73		# of strides	13.01	12.61	13.93	14.73	25.62	28.66	3.04
	velocity		7.69		7.93		7.18		6.79	7.37	197.0	7.69	7.93	7.18	6.79	7.81	6.98	

Semi-Final 1

date 16-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kiełbasinska, Anna (POL) (1!	time		12.17		23.90		36.72		50.45	50.45	3 / 1							
reaction time 0.203	interval				11.73		12.82		13.73		# of strides	12.17	11.73	12.82	13.73	23.90	26.55	2.65
	velocity		8.22		8.53		7.80		7.28	7.93	194.0	8.22	8.53	7.80	7.28	8.37	7.53	
Klaver, Lieke (NED) (1998)	time		12.12		23.73		36.74		50.59	50.59	6 / 2							
reaction time 0.198	interval				11.61		13.01		13.85		# of strides	12.12	11.61	13.01	13.85	23.73	26.86	3.13
	velocity		8.25		8.61		7.69		7.22	7.91	185.0	8.25	8.61	7.69	7.22	8.43	7.45	
Baumgart-Witan, Iga (POL) (	time		12.72		24.38		37.11		51.17	51.17	5 / 3							
reaction time 0.209	interval				11.66		12.73		14.06		# of strides	12.72	11.66	12.73	14.06	24.38	26.79	2.41
	velocity		7.86		8.58		7.86		7.11	7.82	181.0	7.86	8.58	7.86	7.11	8.20	7.47	
Vaičule, Gunta (LAT) (1995)	time		12.68		24.29		37.06		51.25	51.25	1 / 4							
reaction time 0.179	interval				11.61		12.77		14.19	PB	# of strides	12.68	11.61	12.77	14.19	24.29	26.96	2.67
	velocity		7.89		8.61		7.83		7.05	7.80	196.5	7.89	8.61	7.83	7.05	8.23	7.42	
Azevedo, Cátia (POR) (1994)	time		12.80		24.83		37.78		51.42	51.42	8 / 5							
reaction time 0.229	interval				12.03		12.95		13.64		# of strides	12.80	12.03	12.95	13.64	24.83	26.59	1.76
	velocity		7.81		8.31		7.72		7.33	7.78	194.0	7.81	8.31	7.72	7.33	8.05	7.52	
Nielsen, Laviai (GBR) (1996)	time		12.42		24.28		37.22		51.53	51.53	7 / 6							
reaction time 0.162	interval				11.86		12.94		14.31		# of strides	12.42	11.86	12.94	14.31	24.28	27.25	2.97
	velocity		8.05		8.43		7.73		6.99	7.76	195.0	8.05	8.43	7.73	6.99	8.24	7.34	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Petržilková, Tereza (CZE) (19	time		12.84		24.89		38.02		52.38	52.38	2 / 7							
reaction time 0.222	interval				12.05		13.13		14.36		# of strides	12.84	12.05	13.13	14.36	24.89	27.49	2.60
	velocity		7.79		8.30		7.62		6.96	7.64	193.0	7.79	8.30	7.62	6.96	8.04	7.28	
Schwab, Corinna (GER) (199	time		12.37		24.11		37.16		52.70	52.70	4 / 8							
reaction time 0.281	interval				11.74		13.05		15.54		# of strides	12.37	11.74	13.05	15.54	24.11	28.59	4.48
	velocity		8.08		8.52		7.66		6.44	7.59	195.0	8.08	8.52	7.66	6.44	8.30	7.00	

Heat 3

date 15-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Azevedo, Cátia (POR) (1994)	time		12.88		24.71		37.45		51.63	51.63	3 / 1							
reaction time 0.284	interval				11.83		12.74		14.18		# of strides	12.88	11.83	12.74	14.18	24.71	26.92	2.21
	velocity		7.76		8.45		7.85		7.05	7.75	196.0	7.76	8.45	7.85	7.05	8.09	7.43	
Vaičule, Gunta (LAT) (1995)	time		12.77		24.71		37.80		52.26	52.26	4 / 2							
reaction time 0.249	interval				11.94		13.09		14.46		# of strides	12.77	11.94	13.09	14.46	24.71	27.55	2.84
	velocity		7.83		8.38		7.64		6.92	7.65	191.0	7.83	8.38	7.64	6.92	8.09	7.26	
Schmidt, Alica (GER) (1998)	time		12.57		24.74		37.87		52.52	52.52	5 / 3							
reaction time 0.203	interval				12.17		13.13		14.65		# of strides	12.57	12.17	13.13	14.65	24.74	27.78	3.04
	velocity		7.96		8.22		7.62		6.83	7.62	184.2	7.96	8.22	7.62	6.83	8.08	7.20	
Polinari, Anna (ITA) (1999)	time		12.87		25.09		38.10		52.60	52.60	8 / 4							
reaction time 0.188	interval				12.22		13.01		14.50		# of strides	12.87	12.22	13.01	14.50	25.09	27.51	2.42
	velocity		7.77		8.18		7.69		6.90	7.60	188.7	7.77	8.18	7.69	6.90	7.97	7.27	
Lacoste, Sokhna (FRA) (200	time		12.56		24.56		37.75		52.62	52.62	2 / 5							
reaction time 0.316	interval				12.00		13.19		14.87		# of strides	12.56	12.00	13.19	14.87	24.56	28.06	3.50
	velocity		7.96		8.33		7.58		6.72	7.60	206.0	7.96	8.33	7.58	6.72	8.14	7.13	
Mawdsley, Sharlene (IRL) (19	time		12.81		25.05		37.96		52.63	52.63	6 / 6							
reaction time 0.192	interval				12.24		12.91		14.67		# of strides	12.81	12.24	12.91	14.67	25.05	27.58	2.53
	velocity		7.81		8.17		7.75		6.82	7.60	192.0	7.81	8.17	7.75	6.82	7.98	7.25	
van den Broeck, Naomi (BEL	time		12.73		25.06		38.20		52.80	52.80	1 / 7							
reaction time 0.157	interval				12.33		13.14		14.60		# of strides	12.73	12.33	13.14	14.60	25.06	27.74	2.68
	velocity		7.86		8.11		7.61		6.85	7.58	213.5	7.86	8.11	7.61	6.85	7.98	7.21	
Reyes, Norcady (GIB) (2003)	time		14.02		28.04		42.96		59.59	59.59	7 / 8							
reaction time 0.250	interval				14.02		14.92		16.63		# of strides	14.02	14.02	14.92	16.63	28.04	31.55	3.51
	velocity		7.13		7.13		6.70		6.01	6.71		7.13	7.13	6.70	6.01	7.13	6.34	

Heat 2

date 15-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Baumgart-Witan, Iga (POL) (	time		12.55		24.36		36.98		51.09	51.09	5 / 1							
reaction time 0.229	interval				11.81		12.62		14.11		# of strides	12.55	11.81	12.62	14.11	24.36	26.73	2.37
	velocity		7.97		8.47		7.92		7.09	7.83	180.0	7.97	8.47	7.92	7.09	8.21	7.48	
Brossier, Amandine (FRA) (	time		12.44		24.23		37.01		51.26	51.26	4 / 2							
reaction time 0.203	interval				11.79		12.78		14.25		# of strides	12.44	11.79	12.78	14.25	24.23	27.03	2.80
	velocity		8.04		8.48		7.82		7.02	7.80	200.7	8.04	8.48	7.82	7.02	8.25	7.40	
Walli, Susanne (AUT) (1996)	time		12.35		24.23		37.25		51.73	51.73	3 / 3							
reaction time 0.250	interval				11.88		13.02		14.48		# of strides	12.35	11.88	13.02	14.48	24.23	27.50	3.27
	velocity		8.10		8.42		7.68		6.91	7.73	194.0	8.10	8.42	7.68	6.91	8.25	7.27	
Laus, Camille (BEL) (1993)	time		12.67		24.92		37.99		51.91	51.91	8 / 4							
reaction time 0.248	interval				12.25		13.07		13.92		# of strides	12.67	12.25	13.07	13.92	24.92	26.99	2.07
	velocity		7.89		8.16		7.65		7.18	7.71	198.0	7.89	8.16	7.65	7.18	8.03	7.41	
Mangione, Alice (ITA) (1997)	time		12.77		24.96		37.89		51.92	51.92	7 / 5							
reaction time 0.181	interval				12.19		12.93		14.03		# of strides	12.77	12.19	12.93	14.03	24.96	26.96	2.00
	velocity		7.83		8.20		7.73		7.13	7.70	195.0	7.83	8.20	7.73	7.13	8.01	7.42	
Petržilková, Tereza (CZE) (19	time		12.76		24.97		37.97		52.35	52.35	2 / 6							
reaction time 0.205	interval				12.21		13.00		14.38		# of strides	12.76	12.21	13.00	14.38	24.97	27.38	2.41
	velocity		7.84		8.19		7.69		6.95	7.64	190.0	7.84	8.19	7.69	6.95	8.01	7.30	
Richard, Janet (MLT) (1998)	time		12.84		25.55		38.80		53.49	53.49	6 / 7							
reaction time 0.206	interval				12.71		13.25		14.69	NR PB	# of strides	12.84	12.71	13.25	14.69	25.55	27.94	2.39
	velocity		7.79		7.87		7.55		6.81	7.48	207.7	7.79	7.87	7.55	6.81	7.83	7.16	
Thureson, Milja (FIN) (1994)	time		12.58		24.89		38.19		53.63	53.63	1 / 8							
reaction time 0.178	interval				12.31		13.30		15.44		# of strides	12.58	12.31	13.30	15.44	24.89	28.74	3.85
	velocity		7.95		8.12		7.52		6.48	7.46	198.0	7.95	8.12	7.52	6.48	8.04	6.96	

Heat 1

date 15-Aug-22

European Athletics (2022) - european athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Nielsen, Laviai (GBR) (1996)	time		12.37		24.58		37.60		51.60	51.60	7 / 1							
reaction time 0.175	interval				12.21		13.02		14.00		# of strides	12.37	12.21	13.02	14.00	24.58	27.02	2.44
	velocity		8.08		8.19		7.68		7.14	7.75		8.08	8.19	7.68	7.14	8.14	7.40	
Saalberg, Eveline (NED) (199	time		12.55		24.38		37.59		51.81	51.81	5 / 2							
reaction time 0.267	interval				11.83		13.21		14.22		# of strides	12.55	11.83	13.21	14.22	24.38	27.43	3.05
	velocity		7.97		8.45		7.57		7.03	7.72		7.97	8.45	7.57	7.03	8.20	7.29	
Lemmens, Silke (SUI) (1999)	time		12.39		24.42		37.60		52.27	52.27	4 / 3							
reaction time 0.231	interval				12.03		13.18		14.67		# of strides	12.39	12.03	13.18	14.67	24.42	27.85	3.43

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

	velocity		8.07		8.31		7.59		6.82	7.65		8.07	8.31	7.59	6.82	8.19	7.18	
Troiani, Virginia (ITA) (1996)	time		13.23		25.48		38.51		52.83	52.83	6 / 4							
reaction time 0.247	interval				12.25		13.03		14.32		# of strides	13.23	12.25	13.03	14.32	25.48	27.35	1.87
	velocity		7.56		8.16		7.67		6.98	7.57		7.56	8.16	7.67	6.98	7.85	7.31	
Bass, Mette (FIN) (2000)	time		12.54		24.69		38.19		53.02	53.02	2 / 5							
reaction time 0.164	interval				12.15		13.50		14.83		# of strides	12.54	12.15	13.50	14.83	24.69	28.33	3.64
	velocity		7.97		8.23		7.41		6.74	7.54		7.97	8.23	7.41	6.74	8.10	7.06	
Healy, Phil (IRL) (1994)	time		12.47		24.44		37.75		53.10	53.10	3 / 6							
reaction time 0.274	interval				11.97		13.31		15.35		# of strides	12.47	11.97	13.31	15.35	24.44	28.66	4.22
	velocity		8.02		8.35		7.51		6.51	7.53		8.02	8.35	7.51	6.51	8.18	6.98	
Oppegaard, Linn (NOR) (199	time		12.93		25.38		38.69		53.29	53.29	8 / 7							
reaction time 0.260	interval				12.45		13.31		14.60		# of strides	12.93	12.45	13.31	14.60	25.38	27.91	2.53
	velocity		7.73		8.03		7.51		6.85	7.51		7.73	8.03	7.51	6.85	7.88	7.17	

2022 Herculis Meeting International d'Athlétisme (Monaco, MON)

FINAL date 10-Aug-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.56	11.90	17.47	23.32	29.31	35.43	41.97	49.28	49.28	4 / 1							
reaction time 0.146	interval		5.34	5.57	5.85	5.99	6.12	6.54	7.31		# of strides	11.90	11.42	12.11	13.85	23.32	25.96	2.64
	velocity	7.62	9.36	8.98	8.55	8.35	8.17	7.65	6.84	8.12	173.5	8.40	8.76	8.26	7.22	8.58	7.70	
McLeod, Candice (JAM) (19	time	6.79	12.36	18.06	23.97	30.04	36.30	42.85	49.87	49.87	7 / 2							
reaction time 0.137	interval		5.57	5.70	5.91	6.07	6.26	6.55	7.02		# of strides	12.36	11.61	12.33	13.57	23.97	25.90	1.93
	velocity	7.36	8.98	8.77	8.46	8.24	7.99	7.63	7.12	8.02	198.2	8.09	8.61	8.11	7.37	8.34	7.72	
Williams, Sada (BAR) (1997)	time	6.79	12.37	18.05	23.90	29.90	36.22	42.93	50.10	50.10	5 / 3							
reaction time 0.189	interval		5.58	5.68	5.85	6.00	6.32	6.71	7.17		# of strides	12.37	11.53	12.32	13.88	23.90	26.20	2.30
	velocity	7.36	8.96	8.80	8.55	8.33	7.91	7.45	6.97	7.98	192.0	8.08	8.67	8.12	7.20	8.37	7.63	
McPherson, Stephenie Ann (	time	6.82	12.45	18.27	24.29	30.47	36.89	43.59	50.52	50.52	6 / 4							
reaction time 0.138	interval		5.63	5.82	6.02	6.18	6.42	6.70	6.93		# of strides	12.45	11.84	12.60	13.63	24.29	26.23	1.94
	velocity	7.33	8.88	8.59	8.31	8.09	7.79	7.46	7.22	7.92	186.5	8.03	8.45	7.94	7.34	8.23	7.62	
Cofil, Fiordaliza (DOM) (200	time	6.74	12.43	18.25	24.31	30.51	36.80	43.39	50.55	50.55	3 / 5							
reaction time 0.166	interval		5.69	5.82	6.06	6.20	6.29	6.59	7.16		# of strides	12.43	11.88	12.49	13.75	24.31	26.24	1.93
	velocity	7.42	8.79	8.59	8.25	8.06	7.95	7.59	6.98	7.91		8.05	8.42	8.01	7.27	8.23	7.62	
Bromfield, Junelle (JAM) (19	time	6.75	12.30	18.07	24.07	30.25	36.73	43.59	50.93	50.93	2 / 6							
reaction time 0.194	interval		5.55	5.77	6.00	6.18	6.48	6.86	7.34		# of strides	12.30	11.77	12.66	14.20	24.07	26.86	2.79
	velocity	7.41	9.01	8.67	8.33	8.09	7.72	7.29	6.81	7.85		8.13	8.50	7.90	7.04	8.31	7.45	
Whitney, Kaylin (USA) (1998	time	6.86	12.52	18.35	24.30	30.43	36.89	43.67	51.02	51.02	8 / 7							
reaction time 0.222	interval		5.66	5.83	5.95	6.13	6.46	6.78	7.35		# of strides	12.52	11.78	12.59	14.13	24.30	26.72	2.42
	velocity	7.29	8.83	8.58	8.40	8.16	7.74	7.37	6.80	7.84	185.2	7.99	8.49	7.94	7.08	8.23	7.49	
Lacoste, Sokhna (FRA) (200	time	7.06	12.79	18.81	25.08	31.64	38.45	45.63	53.21	53.21	1 / 8							
reaction time 0.258	interval		5.73	6.02	6.27	6.56	6.81	7.18	7.58		# of strides	12.79	12.29	13.37	14.76	25.08	28.13	3.05
	velocity	7.08	8.73	8.31	7.97	7.62	7.34	6.96	6.60	7.52		7.82	8.14	7.48	6.78	7.97	7.11	

2022 Commonwealth Games (Birmingham, GBR)

FINAL date 07-Aug-22

Longines Timing (2022) - commonwealth games race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams, Sada (BAR) (1997)	time	6.6	12.3	18.2	24.1	30.0	36.2	42.8	49.90	49.90	6 / 1							
reaction time 0.169	interval		5.70	5.90	5.90	5.90	6.20	6.60	7.10		# of strides	12.30	11.80	12.10	13.70	24.10	25.80	1.70
	velocity	7.58	8.77	8.47	8.47	8.47	8.06	7.58	7.04	8.02	194.0	8.13	8.47	8.26	7.30	8.30	7.75	
Ohuruogu, Victoria (GBR) (1	time	6.8	12.5	18.3	24.4	30.6	37.1	43.7	50.72	50.72	4 / 2							
reaction time 0.147	interval		5.70	5.80	6.10	6.20	6.50	6.60	7.02	PB	# of strides	12.50	11.90	12.70	13.62	24.40	26.32	1.92
	velocity	7.35	8.77	8.62	8.20	8.06	7.69	7.58	7.12	7.89	195.5	8.00	8.40	7.87	7.34	8.20	7.60	
Williams, Jodie (GBR) (1993)	time	6.6	12.3	18.3	24.5	30.7	37.0	43.8	51.26	51.26	9 / 3							
reaction time 0.130	interval		5.70	6.00	6.20	6.20	6.30	6.80	7.46		# of strides	12.30	12.20	12.50	14.26	24.50	26.76	2.26
	velocity	7.58	8.77	8.33	8.06	8.06	7.94	7.35	6.70	7.80	192.0	8.13	8.20	8.00	7.01	8.16	7.47	
Pipi, Ama (GBR) (1995)	time	6.8	12.6	18.7	24.9	31.2	37.7	44.4	51.36	51.36	8 / 4							
reaction time 0.204	interval		5.80	6.10	6.20	6.30	6.50	6.70	6.96		# of strides	12.60	12.30	12.80	13.66	24.90	26.46	1.56
	velocity	7.35	8.62	8.20	8.06	7.94	7.69	7.46	7.18	7.79	196.0	7.94	8.13	7.81	7.32	8.03	7.56	
Bromfield, Junelle (JAM) (19	time	6.8	12.5	18.4	24.6	30.8	37.3	44.1	51.45	51.45	3 / 5							
reaction time 0.188	interval		5.70	5.90	6.20	6.20	6.50	6.80	7.35		# of strides	12.50	12.10	12.70	14.15	24.60	26.85	2.25
	velocity	7.35	8.77	8.47	8.06	8.06	7.69	7.35	6.80	7.77	185.7	8.00	8.26	7.87	7.07	8.13	7.45	
Simwaka, Asimenye (MAW) (	time	6.5	11.8	17.6	23.8	30.1	36.7	43.7	51.55	51.55	5 / 6							
reaction time 0.190	interval		5.30	5.80	6.20	6.30	6.60	7.00	7.85	NR PB	# of strides	11.80	12.00	12.90	14.85	23.80	27.75	3.95
	velocity	7.69	9.43	8.62	8.06	7.94	7.58	7.14	6.37	7.76	211.0	8.47	8.33	7.75	6.73	8.40	7.21	
Constantine, Kyra (CAN) (1	time	6.8	12.6	18.7	25.0	31.2	37.8	44.6	51.75	51.75	7 / 7							
reaction time 0.129	interval		5.80	6.10	6.30	6.20	6.60	6.80	7.15		# of strides	12.60	12.40	12.80	13.95	25.00	26.75	1.75
	velocity	7.35	8.62	8.20	7.94	8.06	7.58	7.35	6.99	7.73	176.2	7.94	8.06	7.81	7.17	8.00	7.48	
Clark, Zoey (GBR) (1994)	time	6.6	12.2	18.1	24.2	30.6	37.3	44.3	51.90	51.90	2 / 8							
reaction time 0.169	interval		5.60	5.90	6.10	6.40	6.70	7.00	7.60		# of strides	12.20	12.00	13.10	14.60	24.20	27.70	3.50
	velocity	7.58	8.93	8.47	8.20	7.81	7.46	7.14	6.58	7.71	204.0	8.20	8.33	7.63	6.85	8.26	7.22	

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

Semi-Final 2

date 05-Aug-22

Longines Timing (2022) - commonwealth games race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams, Sada (BAR) (1997)	time	6.6	12.3	18.2	24.2	30.4	37.0	44.0	51.59	51.59	5 / 1							
reaction time 0.202	interval		5.70	5.90	6.00	6.20	6.60	7.00	7.59		# of strides	12.30	11.90	12.80	14.59	24.20	27.39	3.19
	velocity	7.58	8.77	8.47	8.33	8.06	7.58	7.14	6.59	7.75	195.0	8.13	8.40	7.81	6.85	8.26	7.30	
Constantine, Kyra (CAN) (19	time	6.7	12.3	18.2	24.4	30.9	37.7	44.5	51.78	51.78	7 / 2							
reaction time 0.138	interval		5.60	5.90	6.20	6.50	6.80	6.80	7.28		# of strides	12.30	12.10	13.30	14.08	24.40	27.38	2.98
	velocity	7.46	8.93	8.47	8.06	7.69	7.35	7.35	6.87	7.72	177.0	8.13	8.26	7.52	7.10	8.20	7.30	
Williams, Jodie (GBR) (1993)	time	6.6	12.1	17.9	24.0	30.4	37.2	44.2	51.98	51.98	8 / 3							
reaction time 0.128	interval		5.50	5.80	6.10	6.40	6.80	7.00	7.78		# of strides	12.10	11.90	13.20	14.78	24.00	27.98	3.98
	velocity	7.58	9.09	8.62	8.20	7.81	7.35	7.14	6.43	7.70	192.5	8.26	8.40	7.58	6.77	8.33	7.15	
Bromfield, Junelle (JAM) (19	time	6.6	12.2	18.1	24.2	30.7	37.5	44.6	52.18	52.18	6 / 4							
reaction time 0.184	interval		5.60	5.90	6.10	6.50	6.80	7.10	7.58		# of strides	12.20	12.00	13.30	14.68	24.20	27.98	3.78
	velocity	7.58	8.93	8.47	8.20	7.69	7.35	7.04	6.60	7.67	185.0	8.20	8.33	7.52	6.81	8.26	7.15	
Yeargin, Nicole (GBR) (1997)	time	6.7	12.5	18.4	24.6	31.1	37.8	44.7	52.24	52.24	9 / 5							
reaction time 0.153	interval		5.80	5.90	6.20	6.50	6.70	6.90	7.54		# of strides	12.50	12.10	13.20	14.44	24.60	27.64	3.04
	velocity	7.46	8.62	8.47	8.06	7.69	7.46	7.25	6.63	7.66	200.2	8.00	8.26	7.58	6.93	8.13	7.24	
Abrams, Aliyah (GUY) (1997)	time	6.7	12.4	18.4	24.7	31.2	38.0	45.1	52.82	52.82	4 / 6							
reaction time 0.145	interval		5.70	6.00	6.30	6.50	6.80	7.10	7.72		# of strides	12.40	12.30	13.30	14.82	24.70	28.12	3.42
	velocity	7.46	8.77	8.33	7.94	7.69	7.35	7.04	6.48	7.57	202.0	8.06	8.13	7.52	6.75	8.10	7.11	
Powell, Micha (CAN) (1995)	time	6.9	12.6	18.6	24.8	31.4	38.4	45.7	53.37	53.37	2 / 7							
reaction time 0.208	interval		5.70	6.00	6.20	6.60	7.00	7.30	7.67		# of strides	12.60	12.20	13.60	14.97	24.80	28.57	3.77
	velocity	7.25	8.77	8.33	8.06	7.58	7.14	6.85	6.52	7.49	197.0	7.94	8.20	7.35	6.68	8.06	7.00	
Mutua, Veronica (KEN) (199	time	7.0	12.8	18.9	25.3	31.9	39.1	46.6	54.80	54.80	3 / 8							
reaction time 0.158	interval		5.80	6.10	6.40	6.60	7.20	7.50	8.20		# of strides	12.80	12.50	13.80	15.70	25.30	29.50	4.20
	velocity	7.14	8.62	8.20	7.81	7.58	6.94	6.67	6.10	7.30	214.0	7.81	8.00	7.25	6.37	7.91	6.78	

Semi-Final 1

date 05-Aug-22

Longines Timing (2022) - commonwealth games race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ohuruogu, Victoria (GBR) (1	time	6.7	12.3	18.1	24.2	30.5	37.0	43.7	51.00	51.00	5 / 1							
reaction time 0.160	interval		5.60	5.80	6.10	6.30	6.50	6.70	7.30		# of strides	12.30	11.90	12.80	14.00	24.20	26.80	2.60
	velocity	7.46	8.93	8.62	8.20	7.94	7.69	7.46	6.85	7.84	195.0	8.13	8.40	7.81	7.14	8.26	7.46	
Simwaka, Asimenye (MAW) (	time	6.5	11.9	17.5	23.6	30.1	36.9	43.9	51.70	51.70	9 / 2							
reaction time 0.186	interval		5.40	5.60	6.10	6.50	6.80	7.00	7.80	NR PB	# of strides	11.90	11.70	13.30	14.80	23.60	28.10	4.50
	velocity	7.69	9.26	8.93	8.20	7.69	7.35	7.14	6.41	7.74	209.0	8.40	8.55	7.52	6.76	8.47	7.12	
Pipi, Ama (GBR) (1995)	time	6.8	12.3	18.2	24.3	30.7	37.4	44.3	51.95	51.95	6 / 3							
reaction time 0.176	interval		5.50	5.90	6.10	6.40	6.70	6.90	7.65		# of strides	12.30	12.00	13.10	14.55	24.30	27.65	3.35
	velocity	7.35	9.09	8.47	8.20	7.81	7.46	7.25	6.54	7.70	200.5	8.13	8.33	7.63	6.87	8.23	7.23	
Clark, Zoey (GBR) (1994)	time	6.7	12.2	18.3	24.5	31.0	37.7	44.5	51.99	51.99	7 / 4							
reaction time 0.153	interval		5.50	6.10	6.20	6.50	6.70	6.80	7.49		# of strides	12.20	12.30	13.20	14.29	24.50	27.49	2.99
	velocity	7.46	9.09	8.20	8.06	7.69	7.46	7.35	6.68	7.69	201.7	8.20	8.13	7.58	7.00	8.16	7.28	
George, Patience (NGR) (199	time	6.6	12.1	17.8	23.8	30.2	37.1	44.5	52.90	52.90	3 / 5							
reaction time 0.183	interval		5.50	5.70	6.00	6.40	6.90	7.40	8.40		# of strides	12.10	11.70	13.30	15.80	23.80	29.10	5.30
	velocity	7.58	9.09	8.77	8.33	7.81	7.25	6.76	5.95	7.56	200.0	8.26	8.55	7.52	6.33	8.40	6.87	
Stiverne, Aiyanna (CAN) (19	time	6.6	12.3	18.2	24.5	31.1	38.1	45.4	53.52	53.52	4 / 6							
reaction time 0.134	interval		5.70	5.90	6.30	6.60	7.00	7.30	8.12		# of strides	12.30	12.20	13.60	15.42	24.50	29.02	4.52
	velocity	7.58	8.77	8.47	7.94	7.58	7.14	6.85	6.16	7.47	208.0	8.13	8.20	7.35	6.49	8.16	6.89	
Shida, Leni (UGA) (1994)	time	6.9	12.6	18.8	25.3	32.0	39.0	46.0	53.77	53.77	8 / 7							
reaction time 0.178	interval		5.70	6.20	6.50	6.70	7.00	7.00	7.77		# of strides	12.60	12.70	13.70	14.77	25.30	28.47	3.17
	velocity	7.25	8.77	8.06	7.69	7.46	7.14	7.14	6.44	7.44		7.94	7.87	7.30	6.77	7.91	7.02	
Jele, Lydia (BOT) (1990)	time	6.7	12.4	18.3	24.6	31.3	38.6	46.3	55.09	55.09	2 / 8							
reaction time 0.185	interval		5.70	5.90	6.30	6.70	7.30	7.70	8.79		# of strides	12.40	12.20	14.00	16.49	24.60	30.49	5.89
	velocity	7.46	8.77	8.47	7.94	7.46	6.85	6.49	5.69	7.26	205.0	8.06	8.20	7.14	6.06	8.13	6.56	

2022 Silesia Kamila Skolimowska Memorial (Chorzów, POL)

FINAL

date 06-Aug-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bol, Femke (NED) (2000)	time	6.80	12.36	18.12	24.03	30.07	36.38	42.94	49.75	49.75	4 / 1							
reaction time 0.172	interval		5.56	5.76	5.91	6.04	6.31	6.56	6.81	NR PB	# of strides	12.36	11.67	12.35	13.37	24.03	25.72	1.69
	velocity	7.35	8.99	8.68	8.46	8.28	7.92	7.62	7.34	8.04		8.09	8.57	8.10	7.48	8.32	7.78	
Kaczmarek, Natalia (POL) (1	time	6.83	12.53	18.27	24.23	30.37	36.69	43.13	49.86	49.86	6 / 2							
reaction time 0.145	interval		5.70	5.74	5.96	6.14	6.32	6.44	6.73	PB	# of strides	12.53	11.70	12.46	13.17	24.23	25.63	1.40
	velocity	7.32	8.77	8.71	8.39	8.14	7.91	7.76	7.43	8.02		7.98	8.55	8.03	7.59	8.25	7.80	
McLeod, Candice (JAM) (19	time	6.83	12.46	18.27	24.29	30.41	36.65	43.14	50.22	50.22	7 / 3							
reaction time 0.183	interval		5.63	5.81	6.02	6.12	6.24	6.49	7.08		# of strides	12.46	11.83	12.36	13.57	24.29	25.93	1.64
	velocity	7.32	8.88	8.61	8.31	8.17	8.01	7.70	7.06	7.96	199.0	8.03	8.45	8.09	7.37	8.23	7.71	
McPherson, Stephenie Ann (	time	6.82	12.48	18.27	24.28	30.32	36.61	43.14	50.31	50.31	5 / 4							
reaction time 0.149	interval		5.66	5.79	6.01	6.04	6.29	6.53	7.17		# of strides	12.48	11.80	12.33	13.70	24.28	26.03	1.75
	velocity	7.33	8.83	8.64	8.32	8.28	7.95	7.66	6.97	7.95		8.01	8.47	8.11	7.30	8.24	7.68	
Kiełbasinska, Anna (POL) (1	time	6.64	12.29	18.11	24.16	30.34	36.75	43.37	50.57	50.57	3 / 5							

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 0.154	interval		5.65	5.82	6.05	6.18	6.41	6.62	7.20		# of strides	12.29	11.87	12.59	13.82	24.16	26.41	2.25
	velocity	7.53	8.85	8.59	8.26	8.09	7.80	7.55	6.94	7.91		8.14	8.42	7.94	7.24	8.28	7.57	
Cofil, Fiordaliza (DOM) (200	time	6.76	12.41	18.38	24.74	31.27	37.75	44.23	51.36	51.36	9 / 6							
reaction time 0.190	interval		5.65	5.97	6.36	6.53	6.48	6.48	7.13		# of strides	12.41	12.33	13.01	13.61	24.74	26.62	1.88
	velocity	7.40	8.85	8.38	7.86	7.66	7.72	7.72	7.01	7.79		8.06	8.11	7.69	7.35	8.08	7.51	
Schwab, Corinna (GER) (199	time	6.87	12.52	18.45	24.72	31.02	37.50	44.29	51.72	51.72	2 / 7							
reaction time 0.209	interval		5.65	5.93	6.27	6.30	6.48	6.79	7.43		# of strides	12.52	12.20	12.78	14.22	24.72	27.00	2.28
	velocity	7.28	8.85	8.43	7.97	7.94	7.72	7.36	6.73	7.73		7.99	8.20	7.82	7.03	8.09	7.41	
Jefferson, Kyra (USA) (1994)	time	6.73	12.38	18.24	24.47	30.87	37.46	44.35	51.93	51.93	1 / 8							
reaction time 0.195	interval		5.65	5.86	6.23	6.40	6.59	6.89	7.58		# of strides	12.38	12.09	12.99	14.47	24.47	27.46	2.99
	velocity	7.43	8.85	8.53	8.03	7.81	7.59	7.26	6.60	7.70		8.08	8.27	7.70	6.91	8.17	7.28	

National FINAL

date 06-Aug-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Gacka, Kinga (POL) (2001)	time	6.92	12.68	18.59	24.77	31.25	38.05	45.06	52.62	52.62	6 / 1							
reaction time 0.184	interval		5.76	5.91	6.18	6.48	6.80	7.01	7.56		# of strides	12.68	12.09	13.28	14.57	24.77	27.85	3.08
	velocity	7.23	8.68	8.46	8.09	7.72	7.35	7.13	6.61	7.60		7.89	8.27	7.53	6.86	8.07	7.18	
Holub-Kowalik, Malgorzata (	time	7.07	12.88	18.88	25.11	31.55	38.23	45.32	53.24	53.24	5 / 2							
reaction time 0.231	interval		5.81	6.00	6.23	6.44	6.68	7.09	7.92		# of strides	12.88	12.23	13.12	15.01	25.11	28.13	3.02
	velocity	7.07	8.61	8.33	8.03	7.76	7.49	7.05	6.31	7.51		7.76	8.18	7.62	6.66	7.96	7.11	
Formella, Aleksandra (POL) (	time	7.03	12.73	18.83	25.37	32.12	38.98	46.15	53.86	53.86	4 / 3							
reaction time 0.151	interval		5.70	6.10	6.54	6.75	6.86	7.17	7.71		# of strides	12.73	12.64	13.61	14.88	25.37	28.49	3.12
	velocity	7.11	8.77	8.20	7.65	7.41	7.29	6.97	6.49	7.43		7.86	7.91	7.35	6.72	7.88	7.02	
Drozd, Wiktoria (POL) (2001)	time	7.02	12.84	18.92	25.28	31.91	38.92	46.30	54.22	54.22	7 / 4							
reaction time 0.192	interval		5.82	6.08	6.36	6.63	7.01	7.38	7.92		# of strides	12.84	12.44	13.64	15.30	25.28	28.94	3.66
	velocity	7.12	8.59	8.22	7.86	7.54	7.13	6.78	6.31	7.38		7.79	8.04	7.33	6.54	7.91	6.91	
Korzuch, Julia (POL) (1995)	time	7.23	13.33	19.56	26.05	32.74	39.73	46.89	54.51	54.51	8 / 5							
reaction time 0.135	interval		6.10	6.23	6.49	6.69	6.99	7.16	7.62		# of strides	13.33	12.72	13.68	14.78	26.05	28.46	2.41
	velocity	6.92	8.20	8.03	7.70	7.47	7.15	6.98	6.56	7.34		7.50	7.86	7.31	6.77	7.68	7.03	
Gaworska, Aleksandra (POL)	time	7.13	12.98	19.03	25.39	32.04	39.08	46.58	54.79	54.79	3 / 6							
reaction time 0.202	interval		5.85	6.05	6.36	6.65	7.04	7.50	8.21		# of strides	12.98	12.41	13.69	15.71	25.39	29.40	4.01
	velocity	7.01	8.55	8.26	7.86	7.52	7.10	6.67	6.09	7.30		7.70	8.06	7.30	6.37	7.88	6.80	
Gola, Marlena (POL) (1998)	time	7.03	13.15	19.57	26.32	33.24	40.55	48.21	56.36	56.36	9 / 7							
reaction time 0.174	interval		6.12	6.42	6.75	6.92	7.31	7.66	8.15		# of strides	13.15	13.17	14.23	15.81	26.32	30.04	3.72
	velocity	7.11	8.17	7.79	7.41	7.23	6.84	6.53	6.13	7.10		7.60	7.59	7.03	6.33	7.60	6.66	
Sokolowska, Julia (POL) (20(	time	7.25	13.58	20.12	26.87	33.90	41.09	48.56	56.61	56.61	2 / 8							
reaction time 0.172	interval		6.33	6.54	6.75	7.03	7.19	7.47	8.05		# of strides	13.58	13.29	14.22	15.52	26.87	29.74	2.87
	velocity	6.90	7.90	7.65	7.41	7.11	6.95	6.69	6.21	7.07		7.36	7.52	7.03	6.44	7.44	6.72	

2022 Japanese National High School Championships (Naruto, JPN)

FINAL

date 03-Aug-22

Kishima (2022) - national high school championships biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kojima, Yuzuki (JPN) (2004)	time		13.25		26.15		39.53		54.04	54.04	6 / 1							
reaction time 0.206	interval				12.90		13.38		14.51	PB	# of strides	13.25	12.90	13.38	14.51	26.15	27.89	1.74
	velocity		7.55		7.75		7.47		6.89	7.40	201.2	7.55	7.75	7.47	6.89	7.65	7.17	
Nakao, Yuzuki (JPN) (2004)	time		13.30		26.13		39.83		55.20	55.20	5 / 2							
reaction time 0.185	interval				12.83		13.70		15.37	PB	# of strides	13.30	12.83	13.70	15.37	26.13	29.07	2.94
	velocity		7.52		7.79		7.30		6.51	7.25	203.0	7.52	7.79	7.30	6.51	7.65	6.88	
Yamauchi, Soyo (JPN) (2004)	time		13.28		26.16		40.01		55.26	55.26	9 / 3							
reaction time 0.224	interval				12.88		13.85		15.25		# of strides	13.28	12.88	13.85	15.25	26.16	29.10	2.94
	velocity		7.53		7.76		7.22		6.56	7.24	201.0	7.53	7.76	7.22	6.56	7.65	6.87	
Seta, Haruna (JPN) (2006)	time		13.57		26.40		40.28		55.43	55.43	2 / 4							
reaction time 0.211	interval				12.83		13.88		15.15	PB	# of strides	13.57	12.83	13.88	15.15	26.40	29.03	2.63
	velocity		7.37		7.79		7.20		6.60	7.22	198.2	7.37	7.79	7.20	6.60	7.58	6.89	
Miyachi, Ririka (JPN) (2005)	time		13.57		26.75		40.80		55.64	55.64	7 / 5							
reaction time 0.201	interval				13.18		14.05		14.84	PB	# of strides	13.57	13.18	14.05	14.84	26.75	28.89	2.14
	velocity		7.37		7.59		7.12		6.74	7.19	198.7	7.37	7.59	7.12	6.74	7.48	6.92	
Taniguchi, Rina (JPN) (2004)	time		13.58		26.76		40.41		55.80	55.80	3 / 6							
reaction time 0.232	interval				13.18		13.65		15.39		# of strides	13.58	13.18	13.65	15.39	26.76	29.04	2.28
	velocity		7.36		7.59		7.33		6.50	7.17	207.7	7.36	7.59	7.33	6.50	7.47	6.89	
Itani, Haruna (JPN) (2005)	time		13.47		26.65		40.87		56.25	56.25	8 / 7							
reaction time 0.195	interval				13.18		14.22		15.38	PB	# of strides	13.47	13.18	14.22	15.38	26.65	29.60	2.95
	velocity		7.42		7.59		7.03		6.50	7.11		7.42	7.59	7.03	6.50	7.50	6.76	
Hirano, Riho (JPN) (2005)	time		13.97		27.27		41.49		56.29	56.29	4 / 8							
reaction time 0.224	interval				13.30		14.22		14.80		# of strides	13.97	13.30	14.22	14.80	27.27	29.02	1.75
	velocity		7.16		7.52		7.03		6.76	7.11		7.16	7.52	7.03	6.76	7.33	6.89	

2022 World Athletics Championships (Eugene, OR)

FINAL

date 22-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

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

Miller-Uibo, Shaunae (BAH)	time	11.76	23.24	35.61	49.11	49.11	3 / 1							
reaction time 0.123	interval		11.48	12.37	13.50		# of strides	11.76	11.48	12.37	13.50	23.24	25.87	2.63
	velocity	8.50	8.71	8.08	7.41	8.14	173.5	8.50	8.71	8.08	7.41	8.61	7.73	
Paulino, Marileidy (DOM) (19	time	12.21	23.78	36.10	49.60	49.60	6 / 2							
reaction time 0.189	interval		11.57	12.32	13.50		# of strides	12.21	11.57	12.32	13.50	23.78	25.82	2.04
	velocity	8.19	8.64	8.12	7.41	8.06	175.2	8.19	8.64	8.12	7.41	8.41	7.75	
Williams, Sada (BAR) (1997)	time	12.13	23.55	35.80	49.75	49.75	7 / 3							
reaction time 0.181	interval		11.42	12.25	13.95	NR PB	# of strides	12.13	11.42	12.25	13.95	23.55	26.20	2.65
	velocity	8.24	8.76	8.16	7.17	8.04	192.0	8.24	8.76	8.16	7.17	8.49	7.63	
Klaver, Lieke (NED) (1998)	time	11.87	23.42	36.17	50.33	50.33	8 / 4							
reaction time 0.107	interval		11.55	12.75	14.16		# of strides	11.87	11.55	12.75	14.16	23.42	26.91	3.49
	velocity	8.42	8.66	7.84	7.06	7.95	189.0	8.42	8.66	7.84	7.06	8.54	7.43	
McPherson, Stephenie Ann (	time	12.36	23.98	36.52	50.36	50.36	2 / 5							
reaction time 0.131	interval		11.62	12.54	13.84		# of strides	12.36	11.62	12.54	13.84	23.98	26.38	2.40
	velocity	8.09	8.61	7.97	7.23	7.94		8.09	8.61	7.97	7.23	8.34	7.58	
Cofil, Fiordaliza (DOM) (200	time	12.12	23.71	36.65	50.57	50.57	4 / 6							
reaction time 0.173	interval		11.59	12.94	13.92		# of strides	12.12	11.59	12.94	13.92	23.71	26.86	3.15
	velocity	8.25	8.63	7.73	7.18	7.91	190.7	8.25	8.63	7.73	7.18	8.44	7.45	
McLeod, Candice (JAM) (19	time	12.30	24.17	36.65	50.78	50.78	5 / 7							
reaction time 0.159	interval		11.87	12.48	14.13		# of strides	12.30	11.87	12.48	14.13	24.17	26.61	2.44
	velocity	8.13	8.42	8.01	7.08	7.88	200.2	8.13	8.42	8.01	7.08	8.27	7.52	
Kiełbasińska, Anna (POL) (1	time	12.28	24.12	36.89	50.81	50.81	1 / 8							
reaction time 0.147	interval		11.84	12.77	13.92		# of strides	12.28	11.84	12.77	13.92	24.12	26.69	2.57
	velocity	8.14	8.45	7.83	7.18	7.87		8.14	8.45	7.83	7.18	8.29	7.49	

Semi-Final 3

date 20-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	12.18		23.67		36.22		49.98	49.98	3 / 1							
reaction time 0.171	interval			11.49		12.55		13.76		# of strides	12.18	11.49	12.55	13.76	23.67	26.31	2.64
	velocity	8.21		8.70		7.97		7.27	8.00	173.0	8.21	8.70	7.97	7.27	8.45	7.60	
Williams, Sada (BAR) (1997)	time	12.37		24.28		36.37		50.12	50.12	5 / 2							
reaction time 0.168	interval			11.91		12.09		13.75		# of strides	12.37	11.91	12.09	13.75	24.28	25.84	1.56
	velocity	8.08		8.40		8.27		7.27	7.98	193.0	8.08	8.40	8.27	7.27	8.24	7.74	
Diggs, Talitha (USA) (2002)	time	12.38		24.48		37.05		50.84	50.84	6 / 3							
reaction time 0.147	interval			12.10		12.57		13.79		# of strides	12.38	12.10	12.57	13.79	24.48	26.36	1.88
	velocity	8.08		8.26		7.96		7.25	7.87	195.0	8.08	8.26	7.96	7.25	8.17	7.59	
Gómez, Roxana (CUB) (1999	time	12.70		24.77		37.40		51.12	51.12	7 / 4							
reaction time 0.192	interval			12.07		12.63		13.72		# of strides	12.70	12.07	12.63	13.72	24.77	26.35	1.58
	velocity	7.87		8.29		7.92		7.29	7.82	188.0	7.87	8.29	7.92	7.29	8.07	7.59	
Young, Charokee (JAM) (20(	time	12.49		24.22		36.96		51.41	51.41	2 / 5							
reaction time 0.175	interval			11.73		12.74		14.45		# of strides	12.49	11.73	12.74	14.45	24.22	27.19	2.97
	velocity	8.01		8.53		7.85		6.92	7.78	196.0	8.01	8.53	7.85	6.92	8.26	7.36	
Vondrová, Lada (CZE) (1999)	time	12.23		24.12		36.85		51.47	51.47	1 / 6							
reaction time 0.199	interval			11.89		12.73		14.62		# of strides	12.23	11.89	12.73	14.62	24.12	27.35	3.23
	velocity	8.18		8.41		7.86		6.84	7.77	197.0	8.18	8.41	7.86	6.84	8.29	7.31	
Morauskaité, Modesta Justé	time	12.37		24.49		37.11		52.19	52.19	4 / 7							
reaction time 0.176	interval			12.12		12.62		15.08		# of strides	12.37	12.12	12.62	15.08	24.49	27.70	3.21
	velocity	8.08		8.25		7.92		6.63	7.66	194.0	8.08	8.25	7.92	6.63	8.17	7.22	
Pipi, Ama (GBR) (1995)	time	12.48		24.64		37.70		52.28	52.28	8 / 8							
reaction time 0.174	interval			12.16		13.06		14.58		# of strides	12.48	12.16	13.06	14.58	24.64	27.64	3.00
	velocity	8.01		8.22		7.66		6.86	7.65		8.01	8.22	7.66	6.86	8.12	7.24	

Semi-Final 2

date 20-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Cofil, Fiordaliza (DOM) (200	time	12.18		23.83		36.67		50.14	50.14	5 / 1							
reaction time 0.158	interval			11.65		12.84		13.47	PB	# of strides	12.18	11.65	12.84	13.47	23.83	26.31	2.48
	velocity	8.21		8.58		7.79		7.42	7.98	191.0	8.21	8.58	7.79	7.42	8.39	7.60	
Klaver, Lieke (NED) (1998)	time	12.09		23.80		36.69		50.18	50.18	8 / 2							
reaction time 0.140	interval			11.71		12.89		13.49	NR PB	# of strides	12.09	11.71	12.89	13.49	23.80	26.38	2.58
	velocity	8.27		8.54		7.76		7.41	7.97	184.0	8.27	8.54	7.76	7.41	8.40	7.58	
McPherson, Stephenie Ann (	time	12.38		24.07		36.72		50.56	50.56	3 / 3							
reaction time 0.133	interval			11.69		12.65		13.84		# of strides	12.38	11.69	12.65	13.84	24.07	26.49	2.42
	velocity	8.08		8.55		7.91		7.23	7.91	187.7	8.08	8.55	7.91	7.23	8.31	7.55	
Yeargin, Nicole (GBR) (1997)	time	12.65		24.89		37.57		51.22	51.22	2 / 4							
reaction time 0.156	interval			12.24		12.68		13.65		# of strides	12.65	12.24	12.68	13.65	24.89	26.33	1.44
	velocity	7.91		8.17		7.89		7.33	7.81		7.91	8.17	7.89	7.33	8.04	7.60	
Kaczmarek, Natalia (POL) (1	time	12.51		24.40		37.30		51.34	51.34	4 / 5							
reaction time 0.141	interval			11.89		12.90		14.04		# of strides	12.51	11.89	12.90	14.04	24.40	26.94	2.54
	velocity	7.99		8.41		7.75		7.12	7.79	197.2	7.99	8.41	7.75	7.12	8.20	7.42	

Abrams, Aliyah (GUY) (1997)	time	12.46	24.54	37.52	51.79	51.79	6 / 6								
reaction time 0.157	interval		12.08	12.98	14.27		# of strides	12.46	12.08	12.98	14.27	24.54	27.25	2.71	
	velocity	8.03	8.28	7.70	7.01	7.72	198.0	8.03	8.28	7.70	7.01	8.15	7.34		
Scott, Gabby (PUR) (1997)	time	12.59	24.65	37.69	51.97	51.97	7 / 7								
reaction time 0.215	interval		12.06	13.04	14.28		# of strides	12.59	12.06	13.04	14.28	24.65	27.32	2.67	
	velocity	7.94	8.29	7.67	7.00	7.70	188.7	7.94	8.29	7.67	7.00	8.11	7.32		
Walli, Susanne (AUT) (1996)	time	12.73	24.97	38.13	52.37	52.37	1 / 8								
reaction time 0.157	interval		12.24	13.16	14.24		# of strides	12.73	12.24	13.16	14.24	24.97	27.40	2.43	
	velocity	7.86	8.17	7.60	7.02	7.64		7.86	8.17	7.60	7.02	8.01	7.30		

Semi-Final 1

date 20-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time		11.78		23.43		35.71		49.55	49.55	6 / 1							
reaction time 0.129	interval				11.65		12.28		13.84		# of strides	11.78	11.65	12.28	13.84	23.43	26.12	2.69
	velocity		8.49		8.58		8.14		7.23	8.07	172.0	8.49	8.58	8.14	7.23	8.54	7.66	
McLeod, Candice (JAM) (19	time		12.25		23.74		36.28		50.05	50.05	3 / 2							
reaction time 0.149	interval				11.49		12.54		13.77		# of strides	12.25	11.49	12.54	13.77	23.74	26.31	2.57
	velocity		8.16		8.70		7.97		7.26	7.99	198.7	8.16	8.70	7.97	7.26	8.42	7.60	
Kiełbasińska, Anna (POL) (1	time		12.19		23.93		36.57		50.65	50.65	4 / 3							
reaction time 0.158	interval				11.74		12.64		14.08		# of strides	12.19	11.74	12.64	14.08	23.93	26.72	2.79
	velocity		8.20		8.52		7.91		7.10	7.90	196.2	8.20	8.52	7.91	7.10	8.36	7.49	
Adeleke, Rhasidat (IRL) (200	time		12.33		24.15		36.68		50.81	50.81	5 / 4							
reaction time 0.178	interval				11.82		12.53		14.13		# of strides	12.33	11.82	12.53	14.13	24.15	26.66	2.51
	velocity		8.11		8.46		7.98		7.08	7.87	183.0	8.11	8.46	7.98	7.08	8.28	7.50	
Ohuruogu, Victoria (GBR) (1	time		12.55		24.55		37.29		50.99	50.99	8 / 5							
reaction time 0.178	interval				12.00		12.74		13.70	PB	# of strides	12.55	12.00	12.74	13.70	24.55	26.44	1.89
	velocity		7.97		8.33		7.85		7.30	7.84	193.2	7.97	8.33	7.85	7.30	8.15	7.56	
Irby, Lynna (USA) (1998)	time		12.07		24.24		36.80		51.00	51.00	7 / 6							
reaction time 0.184	interval				12.17		12.56		14.20		# of strides	12.07	12.17	12.56	14.20	24.24	26.76	2.52
	velocity		8.29		8.22		7.96		7.04	7.84	183.0	8.29	8.22	7.96	7.04	8.25	7.47	
Azevedo, Cátia (POR) (1994)	time		12.75		24.73		37.66		51.79	51.79	1 / 7							
reaction time 0.169	interval				11.98		12.93		14.13		# of strides	12.75	11.98	12.93	14.13	24.73	27.06	2.33
	velocity		7.84		8.35		7.73		7.08	7.72		7.84	8.35	7.73	7.08	8.09	7.39	
de Carvalho, Tabata (BRA) (	time		12.40		24.64		37.89		52.42	52.42	2 / 8							
reaction time 0.203	interval				12.24		13.25		14.53		# of strides	12.40	12.24	13.25	14.53	24.64	27.78	3.14
	velocity		8.06		8.17		7.55		6.88	7.63		8.06	8.17	7.55	6.88	8.12	7.20	

Heat 6

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kiełbasińska, Anna (POL) (1	time		12.22		24.18		37.11		50.63	50.63	7 / 1							
reaction time 0.151	interval				11.96		12.93		13.52		# of strides	12.22	11.96	12.93	13.52	24.18	26.45	2.27
	velocity		8.18		8.36		7.73		7.40	7.90	195.0	8.18	8.36	7.73	7.40	8.27	7.56	
McLeod, Candice (JAM) (19	time		12.24		24.11		36.82		50.76	50.76	1 / 2							
reaction time 0.160	interval				11.87		12.71		13.94		# of strides	12.24	11.87	12.71	13.94	24.11	26.65	2.54
	velocity		8.17		8.42		7.87		7.17	7.88		8.17	8.42	7.87	7.17	8.30	7.50	
Ohuruogu, Victoria (GBR) (1	time		12.67		24.78		37.40		51.07	51.07	6 / 3							
reaction time 0.190	interval				12.11		12.62		13.67		# of strides	12.67	12.11	12.62	13.67	24.78	26.29	1.51
	velocity		7.89		8.26		7.92		7.32	7.83	193.5	7.89	8.26	7.92	7.32	8.07	7.61	
Vondrová, Lada (CZE) (1999)	0.199	no information available								51.55	8 / 4						# of strides	195.50
McDonald, Natassha (CAN)	time		12.52		24.91		37.99		52.41	52.41	5 / 5							
reaction time 0.169	interval				12.39		13.08		14.42		# of strides	12.52	12.39	13.08	14.42	24.91	27.50	2.59
	velocity		7.99		8.07		7.65		6.93	7.63	170.0	7.99	8.07	7.65	6.93	8.03	7.27	
Marinho, Tiffani (BRA) (199	time		12.92		25.29		38.39		52.80	52.80	3 / 6							
reaction time 0.188	interval				12.37		13.10		14.41		# of strides	12.92	12.37	13.10	14.41	25.29	27.51	2.22
	velocity		7.74		8.08		7.63		6.94	7.58	202.0	7.74	8.08	7.63	6.94	7.91	7.27	
Vallabouy, Shereen (MAS) (1	time		12.56		25.14		38.67		53.57	53.57	2 / 7							
reaction time 0.190	interval				12.58		13.53		14.90		# of strides	12.56	12.58	13.53	14.90	25.14	28.43	3.29
	velocity		7.96		7.95		7.39		6.71	7.47		7.96	7.95	7.39	6.71	7.96	7.03	
Elliott, Rosie (NZL) (1997)	time		13.54		26.15		39.75		54.92	54.92	4 / 8							
reaction time 0.147	interval				12.61		13.60		15.17		# of strides	13.54	12.61	13.60	15.17	26.15	28.77	2.62
	velocity		7.39		7.93		7.35		6.59	7.28		7.39	7.93	7.35	6.59	7.65	6.95	

Heat 5

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Cofil, Fiordaliza (DOM) (200	time		12.60		24.75		37.77		51.19	51.19	7 / 1							
reaction time 0.214	interval				12.15		13.02		13.42		# of strides	12.60	12.15	13.02	13.42	24.75	26.44	1.69
	velocity		7.94		8.23		7.68		7.45	7.81	192.0	7.94	8.23	7.68	7.45	8.08	7.56	
Diggs, Talitha (USA) (2002)	time		12.39		24.65		37.75		51.54	51.54	3 / 2							
reaction time 0.133	interval				12.26		13.10		13.79		# of strides	12.39	12.26	13.10	13.79	24.65	26.89	2.24
	velocity		8.07		8.16		7.63		7.25	7.76	194.7	8.07	8.16	7.63	7.25	8.11	7.44	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Gómez, Roxana (CUB) (1999	time		12.94		25.14		38.01		51.85	51.85	6 / 3							
reaction time 0.190	interval				12.20		12.87		13.84		# of strides	12.94	12.20	12.87	13.84	25.14	26.71	1.57
	velocity		7.73		8.20		7.77		7.23	7.71	188.0	7.73	8.20	7.77	7.23	7.96	7.49	
Mangione, Alice (ITA) (1997)	time		13.27		26.06		39.13		52.72	52.72	8 / 4							
reaction time 0.205	interval				12.79		13.07		13.59		# of strides	13.27	12.79	13.07	13.59	26.06	26.66	0.60
	velocity		7.54		7.82		7.65		7.36	7.59		7.54	7.82	7.65	7.36	7.67	7.50	
Lemmens, Silke (SUI) (1999)	time		12.80		25.50		38.74		52.86	52.86	5 / 5							
reaction time 0.160	interval				12.70		13.24		14.12		# of strides	12.80	12.70	13.24	14.12	25.50	27.36	1.86
	velocity		7.81		7.87		7.55		7.08	7.57		7.81	7.87	7.55	7.08	7.84	7.31	
Stiverne, Aiyanna (CAN) (19	time		12.50		25.12		38.62		53.07	53.07	4 / 6							
reaction time 0.115	interval				12.62		13.50		14.45		# of strides	12.50	12.62	13.50	14.45	25.12	27.95	2.83
	velocity		8.00		7.92		7.41		6.92	7.54	203.5	8.00	7.92	7.41	6.92	7.96	7.16	
van Den Broeck, Naomi (BEL	time		12.77		25.57		38.88		53.16	53.16	2 / 7							
reaction time 0.111	interval				12.80		13.31		14.28		# of strides	12.77	12.80	13.31	14.28	25.57	27.59	2.02
	velocity		7.83		7.81		7.51		7.00	7.52		7.83	7.81	7.51	7.00	7.82	7.25	

Heat 4

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time		12.14		23.74		36.39		50.76	50.76	4 / 1							
reaction time 0.173	interval				11.60		12.65		14.37		# of strides	12.14	11.60	12.65	14.37	23.74	27.02	3.28
	velocity		8.24		8.62		7.91		6.96	7.88	173.7	8.24	8.62	7.91	6.96	8.42	7.40	
Adeleke, Rhasidat (IRL) (200	time		12.65		24.68		37.40		51.59	51.59	2 / 2							
reaction time 0.151	interval				12.03		12.72		14.19		# of strides	12.65	12.03	12.72	14.19	24.68	26.91	2.23
	velocity		7.91		8.31		7.86		7.05	7.75	184.0	7.91	8.31	7.86	7.05	8.10	7.43	
Irby, Lynna (USA) (1998)	time		12.32		24.82		37.68		51.78	51.78	6 / 3							
reaction time 0.178	interval				12.50		12.86		14.10		# of strides	12.32	12.50	12.86	14.10	24.82	26.96	2.14
	velocity		8.12		8.00		7.78		7.09	7.72	187.0	8.12	8.00	7.78	7.09	8.06	7.42	
Vaičule, Gunta (LAT) (1995)	time		12.85		25.10		38.18		52.21	52.21	3 / 4							
reaction time 0.176	interval				12.25		13.08		14.03		# of strides	12.85	12.25	13.08	14.03	25.10	27.11	2.01
	velocity		7.78		8.16		7.65		7.13	7.66	192.0	7.78	8.16	7.65	7.13	7.97	7.38	
Gale, Lauren (CAN) (2000)	time		12.30		24.55		37.66		52.46	52.46	5 / 5							
reaction time 0.157	interval				12.25		13.11		14.80		# of strides	12.30	12.25	13.11	14.80	24.55	27.91	3.36
	velocity		8.13		8.16		7.63		6.76	7.62	191.5	8.13	8.16	7.63	6.76	8.15	7.17	
Horvat, Anita (SLO) (1996)	time		12.86		25.31		38.50		52.67	52.67	7 / 6							
reaction time 0.192	interval				12.45		13.19		14.17		# of strides	12.86	12.45	13.19	14.17	25.31	27.36	2.05
	velocity		7.78		8.03		7.58		7.06	7.59	188.0	7.78	8.03	7.58	7.06	7.90	7.31	
Uko, Imaobong Nse (NGR) (	time		12.76		25.22		38.50		52.80	52.80	8 / 7							
reaction time 0.203	interval				12.46		13.28		14.30		# of strides	12.76	12.46	13.28	14.30	25.22	27.58	2.36
	velocity		7.84		8.03		7.53		6.99	7.58	194.0	7.84	8.03	7.53	6.99	7.93	7.25	

Heat 3

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams, Sada (BAR) (1997)	time		12.54		24.46		36.84		51.05	51.05	6 / 1							
reaction time 0.169	interval				11.92		12.38		14.21		# of strides	12.54	11.92	12.38	14.21	24.46	26.59	2.13
	velocity		7.97		8.39		8.08		7.04	7.84	194.7	7.97	8.39	8.08	7.04	8.18	7.52	
Morauskaité, Modesta Justé	time		12.49		24.36		37.07		51.27	51.27	5 / 2							
reaction time 0.136	interval				11.87		12.71		14.20		# of strides	12.49	11.87	12.71	14.20	24.36	26.91	2.55
	velocity		8.01		8.42		7.87		7.04	7.80	192.5	8.01	8.42	7.87	7.04	8.21	7.43	
Pipi, Ama (GBR) (1995)	time		12.43		24.23		37.12		51.32	51.32	7 / 3							
reaction time 0.171	interval				11.80		12.89		14.20		# of strides	12.43	11.80	12.89	14.20	24.23	27.09	2.86
	velocity		8.05		8.47		7.76		7.04	7.79	196.7	8.05	8.47	7.76	7.04	8.25	7.38	
Young, Charokee (JAM) (20(	time		12.70		24.80		37.57		51.84	51.84	4 / 4							
reaction time 0.199	interval				12.10		12.77		14.27		# of strides	12.70	12.10	12.77	14.27	24.80	27.04	2.24
	velocity		7.87		8.26		7.83		7.01	7.72	197.7	7.87	8.26	7.83	7.01	8.06	7.40	
Becker, Sophie (IRL) (1997)	time		12.18		24.20		37.64		52.24	52.24	8 / 5							
reaction time 0.151	interval				12.02		13.44		14.60		# of strides	12.18	12.02	13.44	14.60	24.20	28.04	3.84
	velocity		8.21		8.32		7.44		6.85	7.66		8.21	8.32	7.44	6.85	8.26	7.13	
Laus, Camille (BEL) (1993)	time		12.91		25.46		38.60		52.56	52.56	3 / 6							
reaction time 0.185	interval				12.55		13.14		13.96		# of strides	12.91	12.55	13.14	13.96	25.46	27.10	1.64
	velocity		7.75		7.97		7.61		7.16	7.61		7.75	7.97	7.61	7.16	7.86	7.38	
Saalberg, Eveline (NED) (199	time		12.76		25.00		38.37		52.59	52.59	2 / 7							
reaction time 0.190	interval				12.24		13.37		14.22		# of strides	12.76	12.24	13.37	14.22	25.00	27.59	2.59
	velocity		7.84		8.17		7.48		7.03	7.61		7.84	8.17	7.48	7.03	8.00	7.25	

Heat 2

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McPherson, Stephenie Ann (	time		12.38		24.27		36.73		50.15	50.15	4 / 1							
reaction time 0.123	interval				11.89		12.46		13.42		# of strides	12.38	11.89	12.46	13.42	24.27	25.88	1.61
	velocity		8.08		8.41		8.03		7.45	7.98	186.2	8.08	8.41	8.03	7.45	8.24	7.73	
Kaczmarek, Natalia (POL) (1!	time		12.76		24.41		37.11		50.21	50.21	8 / 2							
reaction time 0.152	interval				11.65		12.70		13.10		# of strides	12.76	11.65	12.70	13.10	24.41	25.80	1.39

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

	velocity	7.84	8.58	7.87	7.63	7.97	197.5	7.84	8.58	7.87	7.63	8.19	7.75			
Klaver, Lieke (NED) (1998)	time	12.29	24.06	36.90	50.24	50.24	2 / 3									
reaction time 0.161	interval		11.77	12.84	13.34	NR PB	# of strides	12.29	11.77	12.84	13.34	24.06	26.18	2.12		
	velocity	8.14	8.50	7.79	7.50	7.96	184.0	8.14	8.50	7.79	7.50	8.31	7.64			
Yeargin, Nicole (GBR) (1997)	time	12.48	24.32	37.22	51.17	51.17	7 / 4									
reaction time 0.150	interval		11.84	12.90	13.95		# of strides	12.48	11.84	12.90	13.95	24.32	26.85	2.53		
	velocity	8.01	8.45	7.75	7.17	7.82	195.7	8.01	8.45	7.75	7.17	8.22	7.45			
Azevedo, Cátia (POR) (1994)	time	12.94	24.77	37.65	51.55	51.55	6 / 5									
reaction time 0.181	interval		11.83	12.88	13.90		# of strides	12.94	11.83	12.88	13.90	24.77	26.78	2.01		
	velocity	7.73	8.45	7.76	7.19	7.76	195.5	7.73	8.45	7.76	7.19	8.07	7.47			
de Carvalho, Tabata (BRA) (	time	12.57	24.52	37.85	52.17	52.17	3 / 6									
reaction time 0.158	interval		11.95	13.33	14.32		# of strides	12.57	11.95	13.33	14.32	24.52	27.65	3.13		
	velocity	7.96	8.37	7.50	6.98	7.67	182.0	7.96	8.37	7.50	6.98	8.16	7.23			
Mingilishi, Niddy (ZAM) (200	time	12.84	25.06	38.38	52.84	52.84	5 / 7									
reaction time 0.163	interval		12.22	13.32	14.46		# of strides	12.84	12.22	13.32	14.46	25.06	27.78	2.72		
	velocity	7.79	8.18	7.51	6.92	7.57	192.0	7.79	8.18	7.51	6.92	7.98	7.20			

Heat 1

date 17-Jul-22

Timing by Seiko (2022) - world athletics championships race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time		12.03		24.13		36.84		51.10	51.10	7 / 1							
reaction time 0.123	interval				12.10		12.71		14.26		# of strides	12.03	12.10	12.71	14.26	24.13	26.97	2.84
	velocity		8.31		8.26		7.87		7.01	7.83	175.0	8.31	8.26	7.87	7.01	8.29	7.42	
Abrams, Aliyah (GUY) (1997)	time		12.51		24.81		37.86		51.98	51.98	6 / 2							
reaction time 0.148	interval				12.30		13.05		14.12		# of strides	12.51	12.30	13.05	14.12	24.81	27.17	2.36
	velocity		7.99		8.13		7.66		7.08	7.70	196.2	7.99	8.13	7.66	7.08	8.06	7.36	
Scott, Gabby (PUR) (1997)	time		12.90		25.22		38.11		52.05	52.05	4 / 3							
reaction time 0.182	interval				12.32		12.89		13.94		# of strides	12.90	12.32	12.89	13.94	25.22	26.83	1.61
	velocity		7.75		8.12		7.76		7.17	7.68	189.0	7.75	8.12	7.76	7.17	7.93	7.45	
Walli, Susanne (AUT) (1996)	time		12.50		24.66		37.82		52.18	52.18	3 / 4							
reaction time 0.170	interval				12.16		13.16		14.36		# of strides	12.50	12.16	13.16	14.36	24.66	27.52	2.86
	velocity		8.00		8.22		7.60		6.96	7.67	197.2	8.00	8.22	7.60	6.96	8.11	7.27	
Morán, Paola (MEX) (1997)	time		12.46		24.87		37.78		52.28	52.28	5 / 5							
reaction time 0.190	interval				12.41		12.91		14.50		# of strides	12.46	12.41	12.91	14.50	24.87	27.41	2.54
	velocity		8.03		8.06		7.75		6.90	7.65	192.7	8.03	8.06	7.75	6.90	8.04	7.30	
Ellis, Kendall (USA) (1996)	time		12.70		25.32		38.31		52.55	52.55	8 / 6							
reaction time 0.187	interval				12.62		12.99		14.24		# of strides	12.70	12.62	12.99	14.24	25.32	27.23	1.91
	velocity		7.87		7.92		7.70		7.02	7.61	189.0	7.87	7.92	7.70	7.02	7.90	7.34	
Coetzee, Miranda (RSA) (19	time		12.43		27.48		38.02		53.30	53.30	2 / 7							
reaction time 0.137	interval				15.05		10.54		15.28		# of strides	12.43	15.05	10.54	15.28	27.48	25.82	-1.66
	velocity		8.05		6.64		9.49		6.54	7.50	197.0	8.05	6.64	9.49	6.54	7.28	7.75	

2022 Bauhaus Galan (Stockholm, SWE)

FINAL

date 30-Jun-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kiełbasinska, Anna (POL) (1	time	6.63	12.25	17.96	23.91	30.15	36.60	43.35	50.60	50.60	6 / 1							
reaction time 0.155	interval		5.62	5.71	5.95	6.24	6.45	6.75	7.25		# of strides	12.25	11.66	12.69	14.00	23.91	26.69	2.78
	velocity	7.54	8.90	8.76	8.40	8.01	7.75	7.41	6.90	7.91		8.16	8.58	7.88	7.14	8.36	7.49	
Klaver, Lieke (NED) (1998)	time	6.75	12.24	17.83	23.74	29.99	36.53	43.39	50.96	50.96	7 / 2							
reaction time 0.165	interval		5.49	5.59	5.91	6.25	6.54	6.86	7.57		# of strides	12.24	11.50	12.79	14.43	23.74	27.22	3.48
	velocity	7.41	9.11	8.94	8.46	8.00	7.65	7.29	6.61	7.85		8.17	8.70	7.82	6.93	8.42	7.35	
Pipi, Ama (GBR) (1995)	time	6.90	12.50	18.26	24.28	30.69	37.40	44.28	51.80	51.80	3 / 3							
reaction time 0.191	interval		5.60	5.76	6.02	6.41	6.71	6.88	7.52		# of strides	12.50	11.78	13.12	14.40	24.28	27.52	3.24
	velocity	7.25	8.93	8.68	8.31	7.80	7.45	7.27	6.65	7.72		8.00	8.49	7.62	6.94	8.24	7.27	
Saalberg, Eveline (NED) (199	time	6.94	12.53	18.20	24.32	30.91	37.81	45.00	52.92	52.92	5 / 4							
reaction time 0.209	interval		5.59	5.67	6.12	6.59	6.90	7.19	7.92		# of strides	12.53	11.79	13.49	15.11	24.32	28.60	4.28
	velocity	7.20	8.94	8.82	8.17	7.59	7.25	6.95	6.31	7.56		7.98	8.48	7.41	6.62	8.22	6.99	
Hjelmer, Moa (SWE) (1990)	time	6.81	12.53	18.39	24.57	31.15	38.08	45.37	53.44	53.44	4 / 5							
reaction time 0.165	interval		5.72	5.86	6.18	6.58	6.93	7.29	8.07		# of strides	12.53	12.04	13.51	15.36	24.57	28.87	4.30
	velocity	7.34	8.74	8.53	8.09	7.60	7.22	6.86	6.20	7.49		7.98	8.31	7.40	6.51	8.14	6.93	
Frobe, Linnéa (SWE) (1998)	time	7.05	12.99	19.15	25.56	32.29	39.21	46.66	54.87	54.87	8 / 6							
reaction time 0.216	interval		5.94	6.16	6.41	6.73	6.92	7.45	8.21		# of strides	12.99	12.57	13.65	15.66	25.56	29.31	3.75
	velocity	7.09	8.42	8.12	7.80	7.43	7.23	6.71	6.09	7.29		7.70	7.96	7.33	6.39	7.82	6.82	
Risberg Thoor, Josephine (S	time	7.27	13.38	19.56	25.96	32.80	39.76	47.19	55.39	55.39	1 / 7							
reaction time 0.213	interval		6.11	6.18	6.40	6.84	6.96	7.43	8.20		# of strides	13.38	12.58	13.80	15.63	25.96	29.43	3.47
	velocity	6.88	8.18	8.09	7.81	7.31	7.18	6.73	6.10	7.22		7.47	7.95	7.25	6.40	7.70	6.80	
Helander, Klara (SWE) (1995	time	7.26	13.47	19.78	26.34	33.18	40.12	47.52	55.45	55.45	2 / 8							
reaction time 0.150	interval		6.21	6.31	6.56	6.84	6.94	7.40	7.93		# of strides	13.47	12.87	13.78	15.33	26.34	29.11	2.77
	velocity	6.89	8.05	7.92	7.62	7.31	7.20	6.76	6.31	7.21		7.42	7.77	7.26	6.52	7.59	6.87	

2022 USATF National Championships (Eugene, OR)

FINAL date 25-Jun-22

Track Newsletter (2022) - USATF championships women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Diggs, Talitha (USA) (2002)	time		12.39		24.38		36.85		50.22	50.22	/ 1							
reaction time	interval				11.99		12.47		13.37		# of strides	12.39	11.99	12.47	13.37	24.38	25.84	1.46
	velocity		8.07		8.34		8.02		7.48	7.96		8.07	8.34	8.02	7.48	8.20	7.74	
Ellis, Kendall (USA) (1996)	time		12.55		24.29		36.73		50.35	50.35	/ 2							
reaction time	interval				11.74		12.44		13.62		# of strides	12.55	11.74	12.44	13.62	24.29	26.06	1.77
	velocity		7.97		8.52		8.04		7.34	7.94		7.97	8.52	8.04	7.34	8.23	7.67	
Irby, Lynna (USA) (1998)	time		12.13		24.09		36.52		50.67	50.67	/ 3							
reaction time	interval				11.96		12.43		14.15		# of strides	12.13	11.96	12.43	14.15	24.09	26.58	2.49
	velocity		8.24		8.36		8.05		7.07	7.89		8.24	8.36	8.05	7.07	8.30	7.52	
Jonathas, Wadeline (USA) (1	time		12.52		24.52		37.13		50.84	50.84	/ 4							
reaction time	interval				12.00		12.61		13.71		# of strides	12.52	12.00	12.61	13.71	24.52	26.32	1.80
	velocity		7.99		8.33		7.93		7.29	7.87		7.99	8.33	7.93	7.29	8.16	7.60	
Simon, Kennedy (USA) (200	time		12.36		24.49		37.01		50.90	50.90	/ 5							
reaction time	interval				12.13		12.52		13.89		# of strides	12.36	12.13	12.52	13.89	24.49	26.41	1.92
	velocity		8.09		8.24		7.99		7.20	7.86		8.09	8.24	7.99	7.20	8.17	7.57	
Felix, Allyson (USA) (1985)	time		12.25		24.77		37.38		51.24	51.24	/ 6							
reaction time	interval				12.52		12.61		13.86		# of strides	12.25	12.52	12.61	13.86	24.77	26.47	1.70
	velocity		8.16		7.99		7.93		7.22	7.81		8.16	7.99	7.93	7.22	8.07	7.56	
Stepter, Jaide (USA) (1994)	time		12.47		24.50		37.39		51.30	51.30	/ 7							
reaction time	interval				12.03		12.89		13.91		# of strides	12.47	12.03	12.89	13.91	24.50	26.80	2.30
	velocity		8.02		8.31		7.76		7.19	7.80		8.02	8.31	7.76	7.19	8.16	7.46	
Whitney, Kaylin (USA) (1998	time		12.59		24.32		37.04		51.31	51.31	/ 8							
reaction time	interval				11.73		12.72		14.27		# of strides	12.59	11.73	12.72	14.27	24.32	26.99	2.67
	velocity		7.94		8.53		7.86		7.01	7.80		7.94	8.53	7.86	7.01	8.22	7.41	

2022 Meeting de Paris (Paris, FRA)

FINAL date 18-Jun-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.53	11.92	17.54	23.44	29.56	35.82	42.44	50.10	50.10	4 / 1							
reaction time 0.142	interval		5.39	5.62	5.90	6.12	6.26	6.62	7.66		# of strides	11.92	11.52	12.38	14.28	23.44	26.66	3.22
	velocity	7.66	9.28	8.90	8.47	8.17	7.99	7.55	6.53	7.98	175.0	8.39	8.68	8.08	7.00	8.53	7.50	
Kaczmarek, Natalia (POL) (19	time	6.79	12.37	18.02	23.99	30.27	36.77	43.39	50.24	50.24	5 / 2							
reaction time 0.162	interval		5.58	5.65	5.97	6.28	6.50	6.62	6.85		# of strides	12.37	11.62	12.78	13.47	23.99	26.25	2.26
	velocity	7.36	8.96	8.85	8.38	7.96	7.69	7.55	7.30	7.96	193.0	8.08	8.61	7.82	7.42	8.34	7.62	
Kiełbasinska, Anna (POL) (19	time	6.54	12.16	17.92	23.86	30.05	36.52	43.18	50.28	50.28	6 / 3							
reaction time 0.165	interval		5.62	5.76	5.94	6.19	6.47	6.66	7.10	PB	# of strides	12.16	11.70	12.66	13.76	23.86	26.42	2.56
	velocity	7.65	8.90	8.68	8.42	8.08	7.73	7.51	7.04	7.96	194.0	8.22	8.55	7.90	7.27	8.38	7.57	
Cofil, Fiordaliza (DOM) (200	time	6.77	12.39	18.19	24.23	30.51	37.01	43.69	50.76	50.76	7 / 4							
reaction time 0.191	interval		5.62	5.80	6.04	6.28	6.50	6.68	7.07		# of strides	12.39	11.84	12.78	13.75	24.23	26.53	2.30
	velocity	7.39	8.90	8.62	8.28	7.96	7.69	7.49	7.07	7.88	193.2	8.07	8.45	7.82	7.27	8.25	7.54	
Klaver, Lieke (NED) (1998)	time	6.55	11.92	17.47	23.34	29.59	36.16	43.12	50.80	50.80	8 / 5							
reaction time 0.157	interval		5.37	5.55	5.87	6.25	6.57	6.96	7.68	PB	# of strides	11.92	11.42	12.82	14.64	23.34	27.46	4.12
	velocity	7.63	9.31	9.01	8.52	8.00	7.61	7.18	6.51	7.87	189.7	8.39	8.76	7.80	6.83	8.57	7.28	
Święty-Ersetic, Justyna (POL	time	7.02	12.70	18.48	24.44	30.67	37.19	43.90	51.05	51.05	2 / 6							
reaction time 0.226	interval		5.68	5.78	5.96	6.23	6.52	6.71	7.15		# of strides	12.70	11.74	12.75	13.86	24.44	26.61	2.17
	velocity	7.12	8.80	8.65	8.39	8.03	7.67	7.45	6.99	7.84	212.0	7.87	8.52	7.84	7.22	8.18	7.52	
Brossier, Amandine (FRA) (	time	6.78	12.52	18.45	24.57	30.85	37.37	44.28	51.78	51.78	3 / 7							
reaction time 0.147	interval		5.74	5.93	6.12	6.28	6.52	6.91	7.50		# of strides	12.52	12.05	12.80	14.41	24.57	27.21	2.64
	velocity	7.37	8.71	8.43	8.17	7.96	7.67	7.24	6.67	7.72	201.5	7.99	8.30	7.81	6.94	8.14	7.35	
Grebo, Shana (FRA) (2000)	time	6.75	12.39	18.33	24.45	30.87	37.60	44.55	51.98	51.98	1 / 8							
reaction time 0.166	interval		5.64	5.94	6.12	6.42	6.73	6.95	7.43		# of strides	12.39	12.06	13.15	14.38	24.45	27.53	3.08
	velocity	7.41	8.87	8.42	8.17	7.79	7.43	7.19	6.73	7.70		8.07	8.29	7.60	6.95	8.18	7.26	

2022 FBK Games (Hengelo, NED)

FINAL date 06-Jun-22

Omega Timing (2022) - continental tour race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Gómez, Roxana (CUB) (1999	time	6.8	12.4	18.3	24.1	30.3	36.8	43.6	51.18	51.18	6 / 1							
reaction time 0.169	interval		5.60	5.90	5.80	6.20	6.50	6.80	7.58		# of strides	12.40	11.70	12.70	14.38	24.10	27.08	2.98
	velocity	7.35	8.93	8.47	8.62	8.06	7.69	7.35	6.60	7.82	187.5	8.06	8.55	7.87	6.95	8.30	7.39	
Klaver, Lieke (NED) (1998)	time	6.5	12.0	17.7	23.7	30.0	36.7	43.7	51.34	51.34	5 / 2							
reaction time 0.186	interval		5.50	5.70	6.00	6.30	6.70	7.00	7.64		# of strides	12.00	11.70	13.00	14.64	23.70	27.64	3.94
	velocity	7.69	9.09	8.77	8.33	7.94	7.46	7.14	6.54	7.79	189.0	8.33	8.55	7.69	6.83	8.44	7.24	
Yeargen, Nicole (GBR) (1997	time	6.8	12.4	18.3	24.4	30.7	37.2	44.1	51.56	51.56	7 / 3							
reaction time 0.183	interval		5.60	5.90	6.10	6.30	6.50	6.90	7.46		# of strides	12.40	12.00	12.80	14.36	24.40	27.16	2.76
	velocity	7.35	8.93	8.47	8.20	7.94	7.69	7.25	6.70	7.76		8.06	8.33	7.81	6.96	8.20	7.36	
Schwab, Corinna (GER) (199	time	6.6	12.1	17.9	23.9	30.1	36.8	43.9	51.76	51.76	3 / 4							
reaction time 0.201	interval		5.50	5.80	6.00	6.20	6.70	7.10	7.86		# of strides	12.10	11.80	12.90	14.96	23.90	27.86	3.96
	velocity	7.58	9.09	8.62	8.33	8.06	7.46	7.04	6.36	7.73		8.26	8.47	7.75	6.68	8.37	7.18	

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

Saalberg, Eveline (NED) (199	time	6.9	12.5	18.3	24.4	30.7	37.6	44.5	51.80	51.80	4 / 5							
reaction time 0.181	interval		5.60	5.80	6.10	6.30	6.90	6.90	7.30		# of strides	12.50	11.90	13.20	14.20	24.40	27.40	3.00
	velocity	7.25	8.93	8.62	8.20	7.94	7.25	7.25	6.85	7.72		8.00	8.40	7.58	7.04	8.20	7.30	
Jonathas, Wadeline (USA) (1	time	6.7	12.4	18.4	24.6	30.9	37.5	44.5	52.17	52.17	2 / 6							
reaction time 0.180	interval		5.70	6.00	6.20	6.30	6.60	7.00	7.67		# of strides	12.40	12.20	12.90	14.67	24.60	27.57	2.97
	velocity	7.46	8.77	8.33	8.06	7.94	7.58	7.14	6.52	7.67		8.06	8.20	7.75	6.82	8.13	7.25	
Marinho, Tiffani (BRA) (199	time	6.9	12.7	18.5	25.0	31.5	38.2	45.3	52.90	52.90	8 / 7							
reaction time 0.234	interval		5.80	5.80	6.50	6.50	6.70	7.10	7.60		# of strides	12.70	12.30	13.20	14.70	25.00	27.90	2.90
	velocity	7.25	8.62	8.62	7.69	7.69	7.46	7.04	6.58	7.56		7.87	8.13	7.58	6.80	8.00	7.17	
Walli, Susanne (AUT) (1996)	time	6.9	12.4	18.2	24.4	30.8	37.7	45.0	53.02	53.02	1 / 8							
reaction time 0.170	interval		5.50	5.80	6.20	6.40	6.90	7.30	8.02		# of strides	12.40	12.00	13.30	15.32	24.40	28.62	4.22
	velocity	7.25	9.09	8.62	8.06	7.81	7.25	6.85	6.23	7.54		8.06	8.33	7.52	6.53	8.20	6.99	

2022 Meeting International Mohammed VI d'Athlétime (Rabat, MAR)

FINAL date 05-Jun-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.64	12.26	18.00	23.89	30.04	36.52	43.05	50.10	50.10	5 / 1							
reaction time 0.171	interval		5.62	5.74	5.89	6.15	6.48	6.53	7.05		# of strides	12.26	11.63	12.63	13.58	23.89	26.21	2.32
	velocity	7.53	8.90	8.71	8.49	8.13	7.72	7.66	7.09	7.98	173.0	8.16	8.60	7.92	7.36	8.37	7.63	
Williams, Sada (BAR) (1997)	time	6.73	12.44	18.26	24.27	30.40	36.89	43.56	50.74	50.74	7 / 2							
reaction time 0.182	interval		5.71	5.82	6.01	6.13	6.49	6.67	7.18		# of strides	12.44	11.83	12.62	13.85	24.27	26.47	2.20
	velocity	7.43	8.76	8.59	8.32	8.16	7.70	7.50	6.96	7.88	193.5	8.04	8.45	7.92	7.22	8.24	7.56	
McPherson, Stephenie Ann (	time	6.57	12.09	17.79	23.76	30.11	36.78	43.53	51.37	51.37	6 / 3							
reaction time 0.134	interval		5.52	5.70	5.97	6.35	6.67	6.75	7.84		# of strides	12.09	11.67	13.02	14.59	23.76	27.61	3.85
	velocity	7.61	9.06	8.77	8.38	7.87	7.50	7.41	6.38	7.79	190.0	8.27	8.57	7.68	6.85	8.42	7.24	
Becker, Sophie (IRL) (1997)	time	6.53	12.29	18.28	24.63	31.23	37.94	44.62	51.84	51.84	4 / 4							
reaction time 0.156	interval		5.76	5.99	6.35	6.60	6.71	6.68	7.22		# of strides	12.29	12.34	13.31	13.90	24.63	27.21	2.58
	velocity	7.66	8.68	8.35	7.87	7.58	7.45	7.49	6.93	7.72		8.14	8.10	7.51	7.19	8.12	7.35	
Vondrová, Lada (CZE) (1999)	time	6.74	12.46	18.49	24.76	31.13	37.84	44.65	52.07	52.07	2 / 5							
reaction time 0.205	interval		5.72	6.03	6.27	6.37	6.71	6.81	7.42		# of strides	12.46	12.30	13.08	14.23	24.76	27.31	2.55
	velocity	7.42	8.74	8.29	7.97	7.85	7.45	7.34	6.74	7.68		8.03	8.13	7.65	7.03	8.08	7.32	
Azevedo, Cátia (POR) (1994)	time	6.97	12.74	18.58	24.76	31.22	38.03	44.86	52.23	52.23	3 / 6							
reaction time 0.194	interval		5.77	5.84	6.18	6.46	6.81	6.83	7.37		# of strides	12.74	12.02	13.27	14.20	24.76	27.47	2.71
	velocity	7.17	8.67	8.56	8.09	7.74	7.34	7.32	6.78	7.66		7.85	8.32	7.54	7.04	8.08	7.28	
Healy, Phil (IRL) (1994)	time	6.80	12.66	18.65	24.87	31.30	37.96	44.72	52.28	52.28	8 / 7							
reaction time 0.140	interval		5.86	5.99	6.22	6.43	6.66	6.76	7.56		# of strides	12.66	12.21	13.09	14.32	24.87	27.41	2.54
	velocity	7.35	8.53	8.35	8.04	7.78	7.51	7.40	6.61	7.65	206.2	7.90	8.19	7.64	6.98	8.04	7.30	
Laus, Camille (BEL) (1993)	time	6.87	12.71	18.74	25.09	31.68	38.64	45.50	52.77	52.77	1 / 8							
reaction time 0.216	interval		5.84	6.03	6.35	6.59	6.96	6.86	7.27		# of strides	12.71	12.38	13.55	14.13	25.09	27.68	2.59
	velocity	7.28	8.56	8.29	7.87	7.59	7.18	7.29	6.88	7.58		7.87	8.08	7.38	7.08	7.97	7.23	

2022 Shimane High School Championships (Izumo, JPN)

FINAL date 26-May-22

Shimizu (2022) - shimane high school championships 2022 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Tsugu, Kaneko (JPN)	time		13.82		27.80		43.09		59.78	59.78	7 / 1							
reaction time	interval				13.98		15.29		16.69		# of strides	13.82	13.98	15.29	16.69	27.80	31.98	4.18
	velocity		7.24		7.15		6.54		5.99	6.69		7.24	7.15	6.54	5.99	7.19	6.25	
Sakakibara, Sora (JPN)	time		13.82		27.87		43.41		60.03	60.03	5 / 2							
reaction time	interval				14.05		15.54		16.62		# of strides	13.82	14.05	15.54	16.62	27.87	32.16	4.29
	velocity		7.24		7.12		6.44		6.02	6.66		7.24	7.12	6.44	6.02	7.18	6.22	
Saito, Yui (JPN)	time		14.57		29.18		44.77		60.71	60.71	4 / 3							
reaction time	interval				14.61		15.59		15.94		# of strides	14.57	14.61	15.59	15.94	29.18	31.53	2.35
	velocity		6.86		6.84		6.41		6.27	6.59		6.86	6.84	6.41	6.27	6.85	6.34	
Yamao, Mizuki (JPN)	time		14.35		28.53		44.00		61.29	61.29	6 / 4							
reaction time	interval				14.18		15.47		17.29		# of strides	14.35	14.18	15.47	17.29	28.53	32.76	4.23
	velocity		6.97		7.05		6.46		5.78	6.53		6.97	7.05	6.46	5.78	7.01	6.11	
Moriyoshi, Hinata (JPN)	time		14.25		28.30		43.97		61.52	61.52	9 / 5							
reaction time	interval				14.05		15.67		17.55		# of strides	14.25	14.05	15.67	17.55	28.30	33.22	4.92
	velocity		7.02		7.12		6.38		5.70	6.50		7.02	7.12	6.38	5.70	7.07	6.02	
Matsumoto, Haruka (JPN)	time		14.43		29.13		44.98		62.20	62.20	2 / 6							
reaction time	interval				14.70		15.85		17.22		# of strides	14.43	14.70	15.85	17.22	29.13	33.07	3.94
	velocity		6.93		6.80		6.31		5.81	6.43		6.93	6.80	6.31	5.81	6.87	6.05	
Matsui, Minata (JPN)	time		14.27		28.77		44.96		62.70	62.70	3 / 7							
reaction time	interval				14.50		16.19		17.74		# of strides	14.27	14.50	16.19	17.74	28.77	33.93	5.16
	velocity		7.01		6.90		6.18		5.64	6.38		7.01	6.90	6.18	5.64	6.95	5.89	
Kanayama, Aoi (JPN)	time		15.05		29.93		45.69		63.50	63.50	8 / 8							
reaction time	interval				14.88		15.76		17.81		# of strides	15.05	14.88	15.76	17.81	29.93	33.57	3.64
	velocity		6.64		6.72		6.35		5.61	6.30		6.64	6.72	6.35	5.61	6.68	5.96	

2022 Müller Birmingham Diamond League (Birmingham, GBR)

FINAL date 21-May-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Clark, Zoey (GBR) (1994)	time	6.6	12.1	18.0	24.1	30.6	37.5	44.4	51.88	51.88	4 / 1							
reaction time 0.159	interval		5.50	5.90	6.10	6.50	6.90	6.90	7.48		# of strides	12.10	12.00	13.40	14.38	24.10	27.78	3.68
	velocity	7.58	9.09	8.47	8.20	7.69	7.25	7.25	6.68	7.71		8.26	8.33	7.46	6.95	8.30	7.20	
Pipi, Ama (GBR) (1995)	time	6.8	12.3	18.3	24.4	30.9	37.6	44.7	52.57	52.57	5 / 2							
reaction time 0.177	interval		5.50	6.00	6.10	6.50	6.70	7.10	7.87		# of strides	12.30	12.10	13.20	14.97	24.40	28.17	3.77
	velocity	7.35	9.09	8.33	8.20	7.69	7.46	7.04	6.35	7.61		8.13	8.26	7.58	6.68	8.20	7.10	
John, Yemi Mary (GBR) (200	time	6.9	12.5	18.5	24.7	31.2	38.1	45.3	53.04	53.04	3 / 3							
reaction time 0.157	interval		5.60	6.00	6.20	6.50	6.90	7.20	7.74	PB	# of strides	12.50	12.20	13.40	14.94	24.70	28.34	3.64
	velocity	7.25	8.93	8.33	8.06	7.69	7.25	6.94	6.46	7.54		8.00	8.20	7.46	6.69	8.10	7.06	
Beckford, Lily (GBR) (1997)	time	6.8	12.4	18.7	25.0	31.6	38.4	45.5	53.46	53.46	7 / 4							
reaction time 0.212	interval		5.60	6.30	6.30	6.60	6.80	7.10	7.96		# of strides	12.40	12.60	13.40	15.06	25.00	28.46	3.46
	velocity	7.35	8.93	7.94	7.94	7.58	7.35	7.04	6.28	7.48		8.06	7.94	7.46	6.64	8.00	7.03	
Williams, Hannah (GBR) (19	time	6.6	12.2	18.3	24.7	31.4	38.4	45.7	53.72	53.72	6 / 5							
reaction time 0.152	interval		5.60	6.10	6.40	6.70	7.00	7.30	8.02	PB	# of strides	12.20	12.50	13.70	15.32	24.70	29.02	4.32
	velocity	7.58	8.93	8.20	7.81	7.46	7.14	6.85	6.23	7.45		8.20	8.00	7.30	6.53	8.10	6.89	
Hillyard, Amy (GBR) (1995)	time	6.9	12.5	18.6	25.0	31.8	38.9	46.4	54.31	54.31	8 / 6							
reaction time 0.158	interval		5.60	6.10	6.40	6.80	7.10	7.50	7.91		# of strides	12.50	12.50	13.90	15.41	25.00	29.31	4.31
	velocity	7.25	8.93	8.20	7.81	7.35	7.04	6.67	6.32	7.37		8.00	8.00	7.19	6.49	8.00	6.82	
McAulay, Carys (GBR) (1998	time	6.9	12.5	18.4	24.6	31.1	38.2	45.8	54.35	54.35	2 / 7							
reaction time 0.160	interval		5.60	5.90	6.20	6.50	7.10	7.60	8.55		# of strides	12.50	12.10	13.60	16.15	24.60	29.75	5.15
	velocity	7.25	8.93	8.47	8.06	7.69	7.04	6.58	5.85	7.36		8.00	8.26	7.35	6.19	8.13	6.72	

2022 Doha Diamond League (Doha, QAT)

Final date 13-May-22

Omega Timing (2022) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.6	12.3	18.4	24.6	30.9	37.3	43.9	51.20	51.20	4 / 1							
reaction time 0.209	interval		5.70	6.10	6.20	6.30	6.40	6.60	7.30		# of strides	12.30	12.30	12.70	13.90	24.60	26.60	2.00
	velocity	7.58	8.77	8.20	8.06	7.94	7.81	7.58	6.85	7.81	179.2	8.13	8.13	7.87	7.19	8.13	7.52	
McPherson, Stephenie Ann (	time	6.6	12.5	18.7	24.9	31.2	37.7	44.4	51.69	51.69	6 / 2							
reaction time 0.128	interval		5.90	6.20	6.20	6.30	6.50	6.70	7.29		# of strides	12.50	12.40	12.80	13.99	24.90	26.79	1.89
	velocity	7.58	8.47	8.06	8.06	7.94	7.69	7.46	6.86	7.74	191.7	8.00	8.06	7.81	7.15	8.03	7.47	
Miller-Uibo, Shaunae (BAH)	time	6.4	10.7	18.1	24.7	31.1	37.5	44.1	51.84	51.84	5 / 3							
reaction time 0.143	interval		4.30	7.40	6.60	6.40	6.40	6.60	7.74		# of strides	10.70	14.00	12.80	14.34	24.70	27.14	2.44
	velocity	7.81	11.63	6.76	7.58	7.81	7.81	7.58	6.46	7.72	180.0	9.35	7.14	7.81	6.97	8.10	7.37	
Williams, Sada (BAR) (1997)	time	6.6	12.6	18.8	25.1	31.5	38.0	44.7	52.09	52.09	7 / 4							
reaction time 0.186	interval		6.00	6.20	6.30	6.40	6.50	6.70	7.39		# of strides	12.60	12.50	12.90	14.09	25.10	26.99	1.89
	velocity	7.58	8.33	8.06	7.94	7.81	7.69	7.46	6.77	7.68	196.2	7.94	8.00	7.75	7.10	7.97	7.41	
McLeod, Candice (JAM) (19	time	6.7	12.4	18.6	25.0	31.4	38.0	44.9	52.37	52.37	3 / 5							
reaction time 0.183	interval		5.70	6.20	6.40	6.40	6.60	6.90	7.47		# of strides	12.40	12.60	13.00	14.37	25.00	27.37	2.37
	velocity	7.46	8.77	8.06	7.81	7.81	7.58	7.25	6.69	7.64	207.5	8.06	7.94	7.69	6.96	8.00	7.31	
Kaczmarek, Natalia (POL) (1	time	6.8	12.6	19.1	25.7	31.7	38.4	45.6	52.54	52.54	1 / 6							
reaction time 0.148	interval		5.80	6.50	6.60	6.00	6.70	7.20	6.94		# of strides	12.60	13.10	12.70	14.14	25.70	26.84	1.14
	velocity	7.35	8.62	7.69	7.58	8.33	7.46	6.94	7.20	7.61		7.94	7.63	7.87	7.07	7.78	7.45	
Ellis, Kendall (USA) (1996)	time	6.7	12.7	19.2	25.8	32.4	39.0	45.5	52.58	52.58	2 / 7							
reaction time 0.223	interval		6.00	6.50	6.60	6.60	6.60	6.50	7.08		# of strides	12.70	13.10	13.20	13.58	25.80	26.78	0.98
	velocity	7.46	8.33	7.69	7.58	7.58	7.58	7.69	7.06	7.61		7.87	7.63	7.58	7.36	7.75	7.47	
Irby, Lynna (USA) (1998)	time	6.6	12.6	18.8	25.2	31.7	38.3	45.2	52.86	52.86	8 / 8							
reaction time 0.222	interval		6.00	6.20	6.40	6.50	6.60	6.90	7.66		# of strides	12.60	12.60	13.10	14.56	25.20	27.66	2.46
	velocity	7.58	8.33	8.06	7.81	7.69	7.58	7.25	6.53	7.57		7.94	7.94	7.63	6.87	7.94	7.23	

2021 Japanese U18 National Championships (Matsuyama, JPN) (300m)

Final date 23-Oct-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takino, Miku (JPN) (2005)	time	7.00	12.87	18.91	25.23	31.81	38.63	38.63	5 / 1							***100-300m***
reaction time 0.204	interval		5.87	6.04	6.32	6.58	6.82	PB	# of strides	12.87	12.36	13.40		25.23		*25.76*
	velocity	7.14	8.52	8.28	7.91	7.60	7.33	7.77	148.7	7.77	8.09	7.46		7.93		*7.76*
Sato, Shihori (JPN) (2005)	time	6.88	12.58	18.54	24.91	31.56	38.69	38.69	9 / 2							***100-300m***
reaction time 0.211	interval		5.70	5.96	6.37	6.65	7.13	PB	# of strides	12.58	12.33	13.78		24.91		*26.11*
	velocity	7.27	8.77	8.39	7.85	7.52	7.01	7.75	149.5	7.95	8.11	7.26		8.03		*7.66*
Nakao, Yuzuki (JPN) (2004)	time	7.03	12.90	18.93	25.30	32.00	39.15	39.15	8 / 3							***100-300m***
reaction time 0.199	interval		5.87	6.03	6.37	6.70	7.15	PB	# of strides	12.90	12.40	13.85		25.30		*26.25*
	velocity	7.11	8.52	8.29	7.85	7.46	6.99	7.66	152.0	7.75	8.06	7.22		7.91		*7.62*
Yamauchi, Soyo (JPN) (2004)	time	7.16	13.05	19.17	25.60	32.28	39.35	39.35	7 / 4							***100-300m***
reaction time 0.225	interval		5.89	6.12	6.43	6.68	7.07		# of strides	13.05	12.55	13.75		25.60		*26.30*
	velocity	6.98	8.49	8.17	7.78	7.49	7.07	7.62	152.7	7.66	7.97	7.27		7.81		*7.60*
Akasaka, Mirei (JPN) (2004)	time	7.08	12.85	18.79	25.13	31.89	39.40	39.40	6 / 5							***100-300m***
reaction time 0.196	interval		5.77	5.94	6.34	6.76	7.51		# of strides	12.85	12.28	14.27		25.13		*26.55*

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

	velocity	7.06	8.67	8.42	7.89	7.40	6.66		7.61	152.2	7.78	8.14	7.01	7.96	*7.53*
Kojima, Yuzuki (JPN) (2004)	time	7.12	13.18	19.39	25.87	32.55	39.70		39.70	4 / 6					***100-300m***
reaction time 0.176	interval		6.06	6.21	6.48	6.68	7.15			# of strides	13.18	12.69	13.83	25.87	*26.52*
	velocity	7.02	8.25	8.05	7.72	7.49	6.99		7.56	153.0	7.59	7.88	7.23	7.73	*7.54*

2021 Weltklasse (Zürich, SUI)

FINAL

date 09-Sep-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hayes, Quanera (USA) (1992	time	6.7	12.4	18.3	24.3	30.3	36.4	42.9	49.88	49.88	7 / 1							
reaction time 0.188	interval		5.70	5.90	6.00	6.00	6.10	6.50	6.98		# of strides	12.40	11.90	12.10	13.48	24.30	25.58	1.28
	velocity	7.46	8.77	8.47	8.33	8.33	8.20	7.69	7.16	8.02		8.06	8.40	8.26	7.42	8.23	7.82	
Paulino, Marileidy (DOM) (19	time	6.8	12.5	18.3	24.3	30.3	36.5	43.0	49.96	49.96	5 / 2							
reaction time 0.179	interval		5.70	5.80	6.00	6.00	6.20	6.50	6.96		# of strides	12.50	11.80	12.20	13.46	24.30	25.66	1.36
	velocity	7.35	8.77	8.62	8.33	8.33	8.06	7.69	7.18	8.01	176.5	8.00	8.47	8.20	7.43	8.23	7.79	
Williams, Sada (BAR) (1997)	time	6.8	12.5	18.4	24.4	30.4	36.7	43.2	50.24	50.24	6 / 3							
reaction time 0.164	interval		5.70	5.90	6.00	6.00	6.30	6.50	7.04		# of strides	12.50	11.90	12.30	13.54	24.40	25.84	1.44
	velocity	7.35	8.77	8.47	8.33	8.33	7.94	7.69	7.10	7.96	188.5	8.00	8.40	8.13	7.39	8.20	7.74	
McPherson, Stephenie (JAM	time	6.8	12.4	18.2	24.1	30.1	36.5	43.2	50.25	50.25	4 / 4							
reaction time 0.130	interval		5.60	5.80	5.90	6.00	6.40	6.70	7.05		# of strides	12.40	11.70	12.40	13.75	24.10	26.15	2.05
	velocity	7.35	8.93	8.62	8.47	8.33	7.81	7.46	7.09	7.96	187.2	8.06	8.55	8.06	7.27	8.30	7.65	
McLeod, Candice (JAM) (19	time	7.0	12.9	19.0	25.1	31.3	37.6	44.1	50.96	50.96	8 / 5							
reaction time 0.152	interval		5.90	6.10	6.10	6.20	6.30	6.50	6.86		# of strides	12.90	12.20	12.50	13.36	25.10	25.86	0.76
	velocity	7.14	8.47	8.20	8.20	8.06	7.94	7.69	7.29	7.85		7.75	8.20	8.00	7.49	7.97	7.73	
Kaczmarek, Natalia (POL) (1	time	7.0	12.8	18.6	24.6	30.7	37.2	44.0	51.00	51.00	3 / 6							
reaction time 0.186	interval		5.80	5.80	6.00	6.10	6.50	6.80	7.00		# of strides	12.80	11.80	12.60	13.80	24.60	26.40	1.80
	velocity	7.14	8.62	8.62	8.33	8.20	7.69	7.35	7.14	7.84		7.81	8.47	7.94	7.25	8.13	7.58	
Klaver, Lieke (NED) (1998)	time	6.7	12.1	17.8	23.7	30.0	36.6	43.6	51.09	51.09	1 / 7							
reaction time 0.199	interval		5.40	5.70	5.90	6.30	6.60	7.00	7.49		# of strides	12.10	11.60	12.90	14.49	23.70	27.39	3.69
	velocity	7.46	9.26	8.77	8.47	7.94	7.58	7.14	6.68	7.83		8.26	8.62	7.75	6.90	8.44	7.30	
Whitney, Kaylin (USA) (1998	time	6.8	12.4	18.2	24.1	30.3	36.9	43.8	51.19	51.19	2 / 8							
reaction time 0.198	interval		5.60	5.80	5.90	6.20	6.60	6.90	7.39		# of strides	12.40	11.70	12.80	14.29	24.10	27.09	2.99
	velocity	7.35	8.93	8.62	8.47	8.06	7.58	7.25	6.77	7.81		8.06	8.55	7.81	7.00	8.30	7.38	

B FINAL

date 09-Sep-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iuel, Amalie (NOR) (1994)	time	7.0	12.8	18.7	24.9	31.3	37.9	44.7	51.64	51.64	6 / 1							
reaction time 0.164	interval		5.80	5.90	6.20	6.40	6.60	6.80	6.94	**NR PB**	# of strides	12.80	12.10	13.00	13.74	24.90	26.74	1.84
	velocity	7.14	8.62	8.47	8.06	7.81	7.58	7.35	7.20	7.75		7.81	8.26	7.69	7.28	8.03	7.48	
Schwab, Corinna (GER) (199	time	6.7	12.2	17.9	24.0	30.4	37.1	44.1	51.69	51.69	3 / 2							
reaction time 0.171	interval		5.50	5.70	6.10	6.40	6.70	7.00	7.59		# of strides	12.20	11.80	13.10	14.59	24.00	27.69	3.69
	velocity	7.46	9.09	8.77	8.20	7.81	7.46	7.14	6.59	7.74		8.20	8.47	7.63	6.85	8.33	7.22	
Azevedo, Cátia (POR) (1994)	time	7.0	12.8	18.6	24.8	31.1	37.7	44.8	52.42	52.42	5 / 3							
reaction time 0.150	interval		5.80	5.80	6.20	6.30	6.60	7.10	7.62		# of strides	12.80	12.00	12.90	14.72	24.80	27.62	2.82
	velocity	7.14	8.62	8.62	8.06	7.94	7.58	7.04	6.56	7.63		7.81	8.33	7.75	6.79	8.06	7.24	
Logvynenko, Alina (UKR) (1	time	7.1	13.0	19.0	25.2	31.6	38.2	45.1	52.94	52.94	1 / 4							
reaction time 0.173	interval		5.90	6.00	6.20	6.40	6.60	6.90	7.84		# of strides	13.00	12.20	13.00	14.74	25.20	27.74	2.54
	velocity	7.04	8.47	8.33	8.06	7.81	7.58	7.25	6.38	7.56		7.69	8.20	7.69	6.78	7.94	7.21	
Lemmens, Silke (SUI) (1999)	time	6.8	12.5	18.4	24.7	31.2	38.1	45.3	52.98	52.98	4 / 5							
reaction time 0.176	interval		5.70	5.90	6.30	6.50	6.90	7.20	7.68		# of strides	12.50	12.20	13.40	14.88	24.70	28.28	3.58
	velocity	7.35	8.77	8.47	7.94	7.69	7.25	6.94	6.51	7.55		8.00	8.20	7.46	6.72	8.10	7.07	
Šerkšniene, Agné (LTU) (198	time	6.8	12.6	18.6	24.9	31.4	38.2	45.3	52.99	52.99	7 / 6							
reaction time 0.193	interval		5.80	6.00	6.30	6.50	6.80	7.10	7.69		# of strides	12.60	12.30	13.30	14.79	24.90	28.09	3.19
	velocity	7.35	8.62	8.33	7.94	7.69	7.35	7.04	6.50	7.55		7.94	8.13	7.52	6.76	8.03	7.12	
Giger, Yasmin (SUI) (1999)	time	7.1	13.1	19.4	25.8	32.3	38.9	45.8	53.03	53.03	2 / 7							
reaction time 0.164	interval		6.00	6.30	6.40	6.50	6.60	6.90	7.23		# of strides	13.10	12.70	13.10	14.13	25.80	27.23	1.43
	velocity	7.04	8.33	7.94	7.81	7.69	7.58	7.25	6.92	7.54		7.63	7.87	7.63	7.08	7.75	7.34	
Werro, Audrey (SUI) (2004)	time	7.2	12.9	18.8	25.2	32.0	39.1	46.4	53.88	53.88	8 / 8							
reaction time 0.160	interval		5.70	5.90	6.40	6.80	7.10	7.30	7.48		# of strides	12.90	12.30	13.90	14.78	25.20	28.68	3.48
	velocity	6.94	8.77	8.47	7.81	7.35	7.04	6.85	6.68	7.42		7.75	8.13	7.19	6.77	7.94	6.97	

2021 Memorial van Damme (Brussels, BEL)

FINAL

date 03-Sep-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Laus, Camille (BEL) (1993)	time	6.9	12.6	18.6	24.8	31.3	38.0	44.9	52.34	52.34	5 / 1							
reaction time 0.221	interval		5.70	6.00	6.20	6.50	6.70	6.90	7.44		# of strides	12.60	12.20	13.20	14.34	24.80	27.54	2.74
	velocity	7.25	8.77	8.33	8.06	7.69	7.46	7.25	6.72	7.64		7.94	8.20	7.58	6.97	8.06	7.26	
Saalberg, Eveline (NED) (199	time	7.0	12.6	18.4	24.5	31.0	37.8	44.9	52.38	52.38	4 / 2							
reaction time 0.225	interval		5.60	5.80	6.10	6.50	6.80	7.10	7.48		# of strides	12.60	11.90	13.30	14.58	24.50	27.88	3.38
	velocity	7.14	8.93	8.62	8.20	7.69	7.35	7.04	6.68	7.64		7.94	8.40	7.52	6.86	8.16	7.17	
Bouma, Andrea (NED) (1999	time	6.9	12.5	18.3	24.4	31.0	37.9	45.4	53.39	53.39	6 / 3							

reaction time 0.219	interval		5.60	5.80	6.10	6.60	6.90	7.50	7.99		# of strides	12.50	11.90	13.50	15.49	24.40	28.99	4.59
	velocity	7.25	8.93	8.62	8.20	7.58	7.25	6.67	6.26	7.49	195.0	8.00	8.40	7.41	6.46	8.20	6.90	
Couckuyt, Paulien (BEL) (19	time	6.8	12.6	18.6	24.9	31.6	38.5	45.8	53.68	53.68	7 / 4							
reaction time 0.175	interval		5.80	6.00	6.30	6.70	6.90	7.30	7.88		# of strides	12.60	12.30	13.60	15.18	24.90	28.78	3.88
	velocity	7.35	8.62	8.33	7.94	7.46	7.25	6.85	6.35	7.45	198.0	7.94	8.13	7.35	6.59	8.03	6.95	
de Witte, Laura (NED) (1995)	time	6.8	12.5	18.4	24.7	31.3	38.4	46.1	54.84	54.84	2 / 5							
reaction time 0.188	interval		5.70	5.90	6.30	6.60	7.10	7.70	8.74		# of strides	12.50	12.20	13.70	16.44	24.70	30.14	5.44
	velocity	7.35	8.77	8.47	7.94	7.58	7.04	6.49	5.72	7.29		8.00	8.20	7.30	6.08	8.10	6.64	
Depuydt, Manon (BEL) (199	time	6.9	12.6	18.7	25.0	31.9	39.2	47.0	55.37	55.37	3 / 6							
reaction time 0.145	interval		5.70	6.10	6.30	6.90	7.30	7.80	8.37		# of strides	12.60	12.40	14.20	16.17	25.00	30.37	5.37
	velocity	7.25	8.77	8.20	7.94	7.25	6.85	6.41	5.97	7.22		7.94	8.06	7.04	6.18	8.00	6.59	
Hanssens, Ilana (BEL) (2002)	time	7.1	12.9	19.1	25.7	32.6	39.9	47.7	56.27	56.27	1 / 7							
reaction time 0.169	interval		5.80	6.20	6.60	6.90	7.30	7.80	8.57		# of strides	12.90	12.80	14.20	16.37	25.70	30.57	4.87
	velocity	7.04	8.62	8.06	7.58	7.25	6.85	6.41	5.83	7.11		7.75	7.81	7.04	6.11	7.78	6.54	
Ellsworth, Maureen (NED) (1	time	7.1	12.9	18.9	25.3	32.0	39.1	46.6			8 / --							
reaction time 0.197	interval		5.80	6.00	6.40	6.70	7.10	7.50		DQ	# of strides	12.90	12.40	13.80		25.30		
	velocity	7.04	8.62	8.33	7.81	7.46	7.04	6.67				7.75	8.06	7.25		7.91		

2021 Meeting de Paris (Paris, FRA)

FINAL date 28-Aug-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.8	12.5	18.4	24.4	30.4	36.6	43.1	50.12	50.12	5 / 1							
reaction time 0.196	interval		5.70	5.90	6.00	6.00	6.20	6.50	7.02		# of strides	12.50	11.90	12.20	13.52	24.40	25.72	1.32
	velocity	7.35	8.77	8.47	8.33	8.33	8.06	7.69	7.12	7.98	176.0	8.00	8.40	8.20	7.40	8.20	7.78	
Williams, Sada (BAR) (1997)	time	6.7	12.4	18.3	24.3	30.3	36.5	43.2	50.30	50.30	8 / 2							
reaction time 0.162	interval		5.70	5.90	6.00	6.00	6.20	6.70	7.10		# of strides	12.40	11.90	12.20	13.80	24.30	26.00	1.70
	velocity	7.46	8.77	8.47	8.33	8.33	8.06	7.46	7.04	7.95	190.2	8.06	8.40	8.20	7.25	8.23	7.69	
Felix, Allyson (USA) (1985)	time	6.5	11.9	17.9	24.0	30.3	36.6	43.2	50.47	50.47	6 / 3							
reaction time 0.171	interval		5.40	6.00	6.10	6.30	6.30	6.60	7.27		# of strides	11.90	12.10	12.60	13.87	24.00	26.47	2.47
	velocity	7.69	9.26	8.33	8.20	7.94	7.94	7.58	6.88	7.93	184.7	8.40	8.26	7.94	7.21	8.33	7.56	
Bol, Femke (NED) (2000)	time	6.9	12.6	18.5	24.6	30.7	37.0	43.6	50.59	50.59	4 / 4							
reaction time 0.205	interval		5.70	5.90	6.10	6.10	6.30	6.60	6.99		# of strides	12.60	12.00	12.40	13.59	24.60	25.99	1.39
	velocity	7.25	8.77	8.47	8.20	8.20	7.94	7.58	7.15	7.91	189.7	7.94	8.33	8.06	7.36	8.13	7.70	
Hayes, Quanera (USA) (1992	time	6.6	12.3	18.5	24.6	30.7	37.0	43.6	50.81	50.81	7 / 5							
reaction time 0.167	interval		5.70	6.20	6.10	6.10	6.30	6.60	7.21		# of strides	12.30	12.30	12.40	13.81	24.60	26.21	1.61
	velocity	7.58	8.77	8.06	8.20	8.20	7.94	7.58	6.93	7.87	178.5	8.13	8.13	8.06	7.24	8.13	7.63	
Kaczmarek, Natalia (POL) (1	time	6.9	12.6	18.6	24.7	31.1	37.6	44.3	51.32	51.32	1 / 6							
reaction time 0.184	interval		5.70	6.00	6.10	6.40	6.50	6.70	7.02		# of strides	12.60	12.10	12.90	13.72	24.70	26.62	1.92
	velocity	7.25	8.77	8.33	8.20	7.81	7.69	7.46	7.12	7.79	196.0	7.94	8.26	7.75	7.29	8.10	7.51	
McLeod, Candice (JAM) (19	time	6.7	12.3	18.2	24.3	30.5	36.9	43.7	51.41	51.41	2 / 7							
reaction time 0.160	interval		5.60	5.90	6.10	6.20	6.40	6.80	7.71		# of strides	12.30	12.00	12.60	14.51	24.30	27.11	2.81
	velocity	7.46	8.93	8.47	8.20	8.06	7.81	7.35	6.49	7.78	206.0	8.13	8.33	7.94	6.89	8.23	7.38	
Brossier, Amandine (FRA) (	time	6.8	12.7	18.9	25.2	31.5	38.1	45.1	52.79	52.79	3 / 8							
reaction time 0.189	interval		5.90	6.20	6.30	6.30	6.60	7.00	7.69		# of strides	12.70	12.50	12.90	14.69	25.20	27.59	2.39
	velocity	7.35	8.47	8.06	7.94	7.94	7.58	7.14	6.50	7.58	204.0	7.87	8.00	7.75	6.81	7.94	7.25	

2021 Athletissima (Lausanne, SUI)

FINAL date 26-Aug-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Paulino, Marileidy (DOM) (19	time	6.9	12.5	18.2	24.2	30.2	36.6	43.3	50.40	50.40	6 / 1							
reaction time 0.189	interval		5.60	5.70	6.00	6.00	6.40	6.70	7.10		# of strides	12.50	11.70	12.40	13.80	24.20	26.20	2.00
	velocity	7.25	8.93	8.77	8.33	8.33	7.81	7.46	7.04	7.94	177.0	8.00	8.55	8.06	7.25	8.26	7.63	
Williams, Sada (BAR) (1997)	time	6.7	12.4	18.2	24.2	30.3	36.8	43.6	50.77	50.77	7 / 2							
reaction time 0.162	interval		5.70	5.80	6.00	6.10	6.50	6.80	7.17		# of strides	12.40	11.80	12.60	13.97	24.20	26.57	2.37
	velocity	7.46	8.77	8.62	8.33	8.20	7.69	7.35	6.97	7.88		8.06	8.47	7.94	7.16	8.26	7.53	
Hayes, Quanera (USA) (1992	time	6.7	12.4	18.3	24.4	30.5	36.9	43.7	51.06	51.06	4 / 3							
reaction time 0.167	interval		5.70	5.90	6.10	6.10	6.40	6.80	7.36		# of strides	12.40	12.00	12.50	14.16	24.40	26.66	2.26
	velocity	7.46	8.77	8.47	8.20	8.20	7.81	7.35	6.79	7.83		8.06	8.33	8.00	7.06	8.20	7.50	
Kaczmarek, Natalia (POL) (1	time	6.9	12.5	18.3	24.5	30.8	37.5	44.2	51.10	51.10	8 / 4							
reaction time 0.167	interval		5.60	5.80	6.20	6.30	6.70	6.70	6.90		# of strides	12.50	12.00	13.00	13.60	24.50	26.60	2.10
	velocity	7.25	8.93	8.62	8.06	7.94	7.46	7.46	7.25	7.83		8.00	8.33	7.69	7.35	8.16	7.52	
McLeod, Candice (JAM) (19	time	6.8	12.4	18.1	24.1	30.4	36.9	43.7	51.26	51.26	5 / 5							
reaction time 0.158	interval		5.60	5.70	6.00	6.30	6.50	6.80	7.56		# of strides	12.40	11.70	12.80	14.36	24.10	27.16	3.06
	velocity	7.35	8.93	8.77	8.33	7.94	7.69	7.35	6.61	7.80	203.0	8.06	8.55	7.81	6.96	8.30	7.36	
Klaver, Lieke (NED) (1998)	time	6.7	12.3	18.2	24.4	30.8	37.5	44.5	51.73	51.73	2 / 6							
reaction time 0.170	interval		5.60	5.90	6.20	6.40	6.70	7.00	7.23		# of strides	12.30	12.10	13.10	14.23	24.40	27.33	2.93
	velocity	7.46	8.93	8.47	8.06	7.81	7.46	7.14	6.92	7.73		8.13	8.26	7.63	7.03	8.20	7.32	
Williams, Jodie (GBR) (1993)	time	6.8	12.5	18.4	24.6	30.9	37.5	44.5	52.12	52.12	3 / 7							
reaction time 0.165	interval		5.70	5.90	6.20	6.30	6.60	7.00	7.62		# of strides	12.50	12.10	12.90	14.62	24.60	27.52	2.92
	velocity	7.35	8.77	8.47	8.06	7.94	7.58	7.14	6.56	7.67		8.00	8.26	7.75	6.84	8.13	7.27	

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

Pellaud, Rachel (SUI) (1995)	time	7.2	13.2	19.4	25.9	32.5	39.3	46.2	53.52	53.52	1 / 8						
reaction time 0.182	interval		6.00	6.20	6.50	6.60	6.80	6.90	7.32		# of strides	13.20	12.70	13.40	14.22	25.90	27.62	1.72
	velocity	6.94	8.33	8.06	7.69	7.58	7.35	7.25	6.83	7.47		7.58	7.87	7.46	7.03	7.72	7.24	

B Race

date 26-Aug-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller, Polina (ANA) (2000)	time	6.7	12.3	18.3	24.4	30.6	37.2	44.3	52.16	52.16	4 / 1							
reaction time 0.139	interval		5.60	6.00	6.10	6.20	6.60	7.10	7.86		# of strides	12.30	12.10	12.80	14.96	24.40	27.76	3.36
	velocity	7.46	8.93	8.33	8.20	8.06	7.58	7.04	6.36	7.67		8.13	8.26	7.81	6.68	8.20	7.20	
Šerkšniene, Agné (LTU) (198	time	6.7	12.5	18.9	25.4	31.7	38.4	45.5	53.22	53.22	6 / 2							
reaction time 0.173	interval		5.80	6.40	6.50	6.30	6.70	7.10	7.72		# of strides	12.50	12.90	13.00	14.82	25.40	27.82	2.42
	velocity	7.46	8.62	7.81	7.69	7.94	7.46	7.04	6.48	7.52		8.00	7.75	7.69	6.75	7.87	7.19	
Giger, Yasmin (SUI) (1999)	time	7.1	13.1	19.5	26.0	32.4	39.1	46.1	53.39	53.39	7 / 3							
reaction time 0.148	interval		6.00	6.40	6.50	6.40	6.70	7.00	7.29		# of strides	13.10	12.90	13.10	14.29	26.00	27.39	1.39
	velocity	7.04	8.33	7.81	7.69	7.81	7.46	7.14	6.86	7.49		7.63	7.75	7.63	7.00	7.69	7.30	
Lemmens, Silke (SUI) (1999)	time	6.8	12.6	18.9	25.3	31.9	38.7	45.8	53.39	53.39	5 / 4							
reaction time 0.175	interval		5.80	6.30	6.40	6.60	6.80	7.10	7.59		# of strides	12.60	12.70	13.40	14.69	25.30	28.09	2.79
	velocity	7.35	8.62	7.94	7.81	7.58	7.35	7.04	6.59	7.49		7.94	7.87	7.46	6.81	7.91	7.12	
King, Sarah (SUI) (1996)	time	6.9	12.9	19.4	26.1	32.8	39.8	46.8	54.01	54.01	3 / 5							
reaction time 0.163	interval		6.00	6.50	6.70	6.70	7.00	7.00	7.21		# of strides	12.90	13.20	13.70	14.21	26.10	27.91	1.81
	velocity	7.25	8.33	7.69	7.46	7.46	7.14	7.14	6.93	7.41		7.75	7.58	7.30	7.04	7.66	7.17	
Senn, Giulia (SUI) (2001)	time	7.2	13.4	20.1	26.7	33.5	40.6	47.6	55.06	55.06	8 / 6							
reaction time 0.154	interval		6.20	6.70	6.60	6.80	7.10	7.00	7.46		# of strides	13.40	13.30	13.90	14.46	26.70	28.36	1.66
	velocity	6.94	8.06	7.46	7.58	7.35	7.04	7.14	6.70	7.26		7.46	7.52	7.19	6.92	7.49	7.05	
Wernli, Lena (SUI) (2001)	time	7.1	13.0	19.6	26.2	32.9	40.1	47.5	55.49	55.49	2 / 7							
reaction time 0.151	interval		5.90	6.60	6.60	6.70	7.20	7.40	7.99		# of strides	13.00	13.20	13.90	15.39	26.20	29.29	3.09
	velocity	7.04	8.47	7.58	7.58	7.46	6.94	6.76	6.26	7.21		7.69	7.58	7.19	6.50	7.63	6.83	
Niederberger, Julia (SUI) (20	time	7.3	13.4	20.1	27.1	34.0	41.2	48.2	55.54	55.54	1 / 8							
reaction time 0.199	interval		6.10	6.70	7.00	6.90	7.20	7.00	7.34		# of strides	13.40	13.70	14.10	14.34	27.10	28.44	1.34
	velocity	6.85	8.20	7.46	7.14	7.25	6.94	7.14	6.81	7.20		7.46	7.30	7.09	6.97	7.38	7.03	

2020 Olympic Games (Tokyo, JPN)

FINAL

date 06-Aug-21

Omega Timing (2022) - Tokyo 2020 - race analysis - women's 400m final

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.67	12.11	17.65	23.40	29.28	35.36	41.63	48.37	48.36	7 / 1							
reaction time 0.162	interval		5.44	5.54	5.75	5.88	6.08	6.27	6.74	AR	# of strides	12.11	11.29	11.96	13.01	23.40	24.97	1.57
	velocity	7.50	9.19	9.03	8.70	8.50	8.22	7.97	7.42	8.27	175.5	8.26	8.86	8.36	7.69	8.55	8.01	
Paulino, Marileidy (DOM) (19	time	6.76	12.24	17.83	23.64	29.67	35.92	42.33	49.21	49.20	5 / 2							
reaction time 0.176	interval		5.48	5.59	5.81	6.03	6.25	6.41	6.88	NR PB	# of strides	12.24	11.40	12.28	13.29	23.64	25.57	1.93
	velocity	7.40	9.12	8.94	8.61	8.29	8.00	7.80	7.27	8.13	174.0	8.17	8.77	8.14	7.52	8.46	7.82	
Felix, Allyson (USA) (1985)	time	6.52	11.85	17.52	23.40	29.44	35.68	42.29	49.47	49.46	9 / 3							
reaction time 0.158	interval		5.33	5.67	5.88	6.04	6.24	6.61	7.18		# of strides	11.85	11.55	12.28	13.79	23.40	26.07	2.67
	velocity	7.67	9.38	8.82	8.50	8.28	8.01	7.56	6.96	8.09	183.2	8.44	8.66	8.14	7.25	8.55	7.67	
McPherson, Stephenie (JAM	time	6.61	11.98	17.49	23.30	29.49	35.90	42.44	49.62	49.61	6 / 4							
reaction time 0.131	interval		5.37	5.51	5.81	6.19	6.41	6.54	7.18		# of strides	11.98	11.32	12.60	13.72	23.30	26.32	3.02
	velocity	7.56	9.31	9.07	8.61	8.08	7.80	7.65	6.96	8.06	185.5	8.35	8.83	7.94	7.29	8.58	7.60	
McLeod, Candice (JAM) (19	time	6.69	12.22	17.86	23.78	29.96	36.39	42.92	49.88	49.87	4 / 5							
reaction time 0.152	interval		5.53	5.64	5.92	6.18	6.43	6.53	6.96		# of strides	12.22	11.56	12.61	13.49	23.78	26.10	2.32
	velocity	7.47	9.04	8.87	8.45	8.09	7.78	7.66	7.18	8.02	198.0	8.18	8.65	7.93	7.41	8.41	7.66	
Williams, Jodie (GBR) (1993)	time	6.53	11.91	17.46	23.29	29.33	35.73	42.49	49.98	49.97	8 / 6							
reaction time 0.127	interval		5.38	5.55	5.83	6.04	6.40	6.76	7.49	=PB	# of strides	11.91	11.38	12.44	14.25	23.29	26.69	3.40
	velocity	7.66	9.29	9.01	8.58	8.28	7.81	7.40	6.68	8.00	185.7	8.40	8.79	8.04	7.02	8.59	7.49	
Hayes, Quanera (USA) (1992	time	6.71	12.54	18.57	24.87	31.09	37.47	43.98	50.89	50.88	2 / 7							
reaction time 0.176	interval		5.83	6.03	6.30	6.22	6.38	6.51	6.91		# of strides	12.54	12.33	12.60	13.42	24.87	26.02	1.15
	velocity	7.45	8.58	8.29	7.94	8.04	7.84	7.68	7.24	7.86		7.97	8.11	7.94	7.45	8.04	7.69	
Gómez, Roxana (CUB) (1999	0.191	no information available								dnf	3 / --						# of strides	

2021 Japanese High School National Championships (Fukui, JPN)

FINAL

date 28-Jul-21

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Taneru, Asuruhan Marino (J	time	7.05	13.23	19.60	26.12	32.95	39.90	46.90	54.42	54.42	3 / 1							
reaction time 0.194	interval		6.18	6.37	6.52	6.83	6.95	7.00	7.52	PB	# of strides	13.23	12.89	13.78	14.52	26.12	28.30	2.18
	velocity	7.09	8.09	7.85	7.67	7.32	7.19	7.14	6.65	7.35		7.56	7.76	7.26	6.89	7.66	7.07	
Kawachi, Sena (JPN) (2003)	time	7.04	13.26	19.70	26.36	33.21	40.08	47.05	54.53	54.53	5 / 2							
reaction time 0.152	interval		6.22	6.44	6.66	6.85	6.87	6.97	7.48	PB	# of strides	13.26	13.10	13.72	14.45	26.36	28.17	1.81
	velocity	7.10	8.04	7.76	7.51	7.30	7.28	7.17	6.68	7.34		7.54	7.63	7.29	6.92	7.59	7.10	
Mori, Kanon (JPN) (2003)	time	7.13	13.40	19.99	26.74	33.84	41.00	48.20	55.54	55.54	6 / 3							
reaction time 0.184	interval		6.27	6.59	6.75	7.10	7.16	7.20	7.34		# of strides	13.40	13.34	14.26	14.54	26.74	28.80	2.06
	velocity	7.01	7.97	7.59	7.41	7.04	6.98	6.94	6.81	7.20		7.46	7.50	7.01	6.88	7.48	6.94	

Kobachi, Hinata (JPN) (2003	time	7.04	13.26	19.72	26.40	33.27	40.38	47.68	55.57	55.57	4 / 4							
reaction time 0.173	interval		6.22	6.46	6.68	6.87	7.11	7.30	7.89		# of strides	13.26	13.14	13.98	15.19	26.40	29.17	2.77
	velocity	7.10	8.04	7.74	7.49	7.28	7.03	6.85	6.34	7.20		7.54	7.61	7.15	6.58	7.58	6.86	
Taniguchi, Rina (JPN) (2004)	time	7.16	13.48	20.09	26.83	33.87	40.96	48.19	55.90	55.90	7 / 5							
reaction time 0.184	interval		6.32	6.61	6.74	7.04	7.09	7.23	7.71		# of strides	13.48	13.35	14.13	14.94	26.83	29.07	2.24
	velocity	6.98	7.91	7.56	7.42	7.10	7.05	6.92	6.49	7.16		7.42	7.49	7.08	6.69	7.45	6.88	
Huroresu, Arie (JPN) (2004)	time	7.36	13.84	20.52	27.36	34.41	41.52	48.70	56.20	56.20	2 / 6							
reaction time 0.164	interval		6.48	6.68	6.84	7.05	7.11	7.18	7.50		# of strides	13.84	13.52	14.16	14.68	27.36	28.84	1.48
	velocity	6.79	7.72	7.49	7.31	7.09	7.03	6.96	6.67	7.12		7.23	7.40	7.06	6.81	7.31	6.93	
Shinden, Nozomi (JPN) (200	time	7.45	13.90	20.44	27.04	33.96	41.08	48.42	56.35	56.35	8 / 7							
reaction time 0.236	interval		6.45	6.54	6.60	6.92	7.12	7.34	7.93		# of strides	13.90	13.14	14.04	15.27	27.04	29.31	2.27
	velocity	6.71	7.75	7.65	7.58	7.23	7.02	6.81	6.31	7.10		7.19	7.61	7.12	6.55	7.40	6.82	
Masano, Siho (JPN) (2004)	time	7.43	13.90	20.64	27.55	34.69	41.86	49.09	56.69	56.69	1 / 8							
reaction time 0.206	interval		6.47	6.74	6.91	7.14	7.17	7.23	7.60		# of strides	13.90	13.65	14.31	14.83	27.55	29.14	1.59
	velocity	6.73	7.73	7.42	7.24	7.00	6.97	6.92	6.58	7.06		7.19	7.33	6.99	6.74	7.26	6.86	

2021 European Athletics U20 Championships (Tallin, EST)

FINAL

date 16-Jul-21

European Athletics (2021) - european athletics U20 championships results book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Lesiewicz, Kornelia (POL) (2(	time		12.59		24.62		37.70		52.46	52.46	5 / 1							
reaction time 0.240	interval				12.03		13.08		14.76		# of strides	12.59	12.03	13.08	14.76	24.62	27.84	3.22
	velocity		7.94		8.31		7.65		6.78	7.62	197.0	7.94	8.31	7.65	6.78	8.12	7.18	
John, Yemi Mary (GBR) (200	time		12.85		25.33		36.67		53.06	53.06	4 / 2							
reaction time 0.191	interval				12.48		11.34		16.39	PB	# of strides	12.85	12.48	11.34	16.39	25.33	27.73	2.40
	velocity		7.78		8.01		8.82		6.10	7.54	201.2	7.78	8.01	8.82	6.10	7.90	7.21	
Arkhipova, Veronika (RUS) (	time		12.69		25.01		38.60		53.41	53.41	6 / 3							
reaction time 0.223	interval				12.32		13.59		14.81		# of strides	12.69	12.32	13.59	14.81	25.01	28.40	3.39
	velocity		7.88		8.12		7.36		6.75	7.49		7.88	8.12	7.36	6.75	8.00	7.04	
Soldatova, Olesya (RUS) (20(	time		12.82		25.29		38.82		53.89	53.89	3 / 4							
reaction time 0.241	interval				12.47		13.53		15.07		# of strides	12.82	12.47	13.53	15.07	25.29	28.60	3.31
	velocity		7.80		8.02		7.39		6.64	7.42		7.80	8.02	7.39	6.64	7.91	6.99	
Steinbrecher, Lara-Noelle (G	time		12.95		25.51		39.06		54.42	54.42	7 / 5							
reaction time 0.201	interval				12.56		13.55		15.36		# of strides	12.95	12.56	13.55	15.36	25.51	28.91	3.40
	velocity		7.72		7.96		7.38		6.51	7.35		7.72	7.96	7.38	6.51	7.84	6.92	
Descoux, Mathilde (FRA) (2(	time		12.92		25.61		39.57		54.60	54.60	2 / 6							
reaction time 0.253	interval				12.69		13.96		15.03		# of strides	12.92	12.69	13.96	15.03	25.61	28.99	3.38
	velocity		7.74		7.88		7.16		6.65	7.33		7.74	7.88	7.16	6.65	7.81	6.90	
Segura, Berta (ESP) (2003)	time		13.37		26.06		39.86		54.93	54.93	8 / 7							
reaction time 0.243	interval				12.69		13.80		15.07		# of strides	13.37	12.69	13.80	15.07	26.06	28.87	2.81
	velocity		7.48		7.88		7.25		6.64	7.28		7.48	7.88	7.25	6.64	7.67	6.93	
Almici, Alexandra (ITA) (200	time		13.04		25.89		39.83		55.06	55.06	1 / 8							
reaction time 0.273	interval				12.85		13.94		15.23		# of strides	13.04	12.85	13.94	15.23	25.89	29.17	3.28
	velocity		7.67		7.78		7.17		6.57	7.26		7.67	7.78	7.17	6.57	7.72	6.86	

Semi-Final 2

date 15-Jul-21

European Athletics (2021) - european athletics U20 championships results book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Lesiewicz, Kornelia (POL) (2(	time		13.02		25.48		38.83		52.64	52.64	4 / 1							
reaction time	interval				12.46		13.35		13.81		# of strides	13.02	12.46	13.35	13.81	25.48	27.16	1.68
	velocity		7.68		8.03		7.49		7.24	7.60		7.68	8.03	7.49	7.24	7.85	7.36	
Soldatova, Olesya (RUS) (20(	time		13.06		25.61		39.21		53.40	53.40	6 / 2							
reaction time	interval				12.55		13.60		14.19		# of strides	13.06	12.55	13.60	14.19	25.61	27.79	2.18
	velocity		7.66		7.97		7.35		7.05	7.49		7.66	7.97	7.35	7.05	7.81	7.20	
Segura, Berta (ESP) (2003)	time		13.60		26.43		40.09		54.44	54.44	8 / 3							
reaction time	interval				12.83		13.66		14.35		# of strides	13.60	12.83	13.66	14.35	26.43	28.01	1.58
	velocity		7.35		7.79		7.32		6.97	7.35		7.35	7.79	7.32	6.97	7.57	7.14	
Almici, Alexandra (ITA) (200	time		13.56		26.51		40.12		54.51	54.51	3 / 4							
reaction time	interval				12.95		13.61		14.39	PB	# of strides	13.56	12.95	13.61	14.39	26.51	28.00	1.49
	velocity		7.37		7.72		7.35		6.95	7.34		7.37	7.72	7.35	6.95	7.54	7.14	
Anokhina, Milena (RUS) (20(	time		13.48		26.11		40.28		54.88	54.88	1 / 5							
reaction time 0.204	interval				12.63		14.17		14.60		# of strides	13.48	12.63	14.17	14.60	26.11	28.77	2.66
	velocity		7.42		7.92		7.06		6.85	7.29		7.42	7.92	7.06	6.85	7.66	6.95	
Avilés, Carmen (ESP) (2002)	time		13.68		26.62		40.40		54.89	54.89	2 / 6							
reaction time 0.151	interval				12.94		13.78		14.49		# of strides	13.68	12.94	13.78	14.49	26.62	28.27	1.65
	velocity		7.31		7.73		7.26		6.90	7.29		7.31	7.73	7.26	6.90	7.51	7.07	
Schoemaker, Liefde (BEL) (2	time		13.64		27.06		41.10		54.92	54.92	7 / 7							
reaction time	interval				13.42		14.04		13.82		# of strides	13.64	13.42	14.04	13.82	27.06	27.86	0.80
	velocity		7.33		7.45		7.12		7.24	7.28		7.33	7.45	7.12	7.24	7.39	7.18	
Ertzgaard, Astri (NOR) (2002	time		13.53		26.66		40.46		54.98	54.98	5 / 8							
reaction time	interval				13.13		13.80		14.52		# of strides	13.53	13.13	13.80	14.52	26.66	28.32	1.66
	velocity		7.39		7.62		7.25		6.89	7.28		7.39	7.62	7.25	6.89	7.50	7.06	

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

Semi-Final 1

date 15-Jul-21

European Athletics (2021) - european athletics U20 championships results book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
John, Yemi Mary (GBR) (200	time		13.32		25.69		39.11		53.17	53.17	5 / 1							
reaction time 0.199	interval				12.37		13.42		14.06	PB	# of strides	13.32	12.37	13.42	14.06	25.69	27.48	1.79
	velocity		7.51		8.08		7.45		7.11	7.52		7.51	8.08	7.45	7.11	7.79	7.28	
Arkhipova, Veronika (RUS) (	time		13.41		25.90		39.43		53.67	53.67	4 / 2							
reaction time 0.264	interval				12.49		13.53		14.24		# of strides	13.41	12.49	13.53	14.24	25.90	27.77	1.87
	velocity		7.46		8.01		7.39		7.02	7.45		7.46	8.01	7.39	7.02	7.72	7.20	
Steinbrecher, Lara-Noelle (G	time		13.19		25.57		39.02		53.85	53.85	3 / 3							
reaction time 0.222	interval				12.38		13.45		14.83		# of strides	13.19	12.38	13.45	14.83	25.57	28.28	2.71
	velocity		7.58		8.08		7.43		6.74	7.43		7.58	8.08	7.43	6.74	7.82	7.07	
Descoux, Mathilde (FRA) (2(	time		13.43		26.18		39.68		53.99	53.99	6 / 4							
reaction time 0.223	interval				12.75		13.50		14.31	PB	# of strides	13.43	12.75	13.50	14.31	26.18	27.81	1.63
	velocity		7.45		7.84		7.41		6.99	7.41		7.45	7.84	7.41	6.99	7.64	7.19	
Pinacchio, Lucia (ESP) (2002	time		13.73		26.56		40.26		54.73	54.73	7 / 5							
reaction time 0.180	interval				12.83		13.70		14.47		# of strides	13.73	12.83	13.70	14.47	26.56	28.17	1.61
	velocity		7.28		7.79		7.30		6.91	7.31		7.28	7.79	7.30	6.91	7.53	7.10	
Kharashchuk, Tetyana (UKR	time		13.22		25.90		39.84		54.78	54.78	1 / 6							
reaction time 0.146	interval				12.68		13.94		14.94		# of strides	13.22	12.68	13.94	14.94	25.90	28.88	2.98
	velocity		7.56		7.89		7.17		6.69	7.30		7.56	7.89	7.17	6.69	7.72	6.93	
Perman, Lova (SWE) (2003)	time		13.66		26.78		40.36		55.31	55.31	8 / 7							
reaction time 0.273	interval				13.12		13.58		14.95		# of strides	13.66	13.12	13.58	14.95	26.78	28.53	1.75
	velocity		7.32		7.62		7.36		6.69	7.23		7.32	7.62	7.36	6.69	7.47	7.01	
Bisová, Nikola (CZE) (2002)	time		13.75		26.96		40.85		55.68	55.68	2 / 8							
reaction time 0.223	interval				13.21		13.89		14.83		# of strides	13.75	13.21	13.89	14.83	26.96	28.72	1.76
	velocity		7.27		7.57		7.20		6.74	7.18		7.27	7.57	7.20	6.74	7.42	6.96	

2021 Müller British Grand Prix (Gateshead, GBR)

FINAL

date 13-Jun-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McPherson, Stephenie (JAM	time	6.8	12.2	17.9	23.7	29.8	36.4	43.1	50.44	50.44	4 / 1							
reaction time 0.136	interval		5.40	5.70	5.80	6.10	6.60	6.70	7.34		# of strides	12.20	11.50	12.70	14.04	23.70	26.74	3.04
	velocity	7.35	9.26	8.77	8.62	8.20	7.58	7.46	6.81	7.93	188.0	8.20	8.70	7.87	7.12	8.44	7.48	
Williams, Jodie (GBR) (1993)	time	6.8	12.4	18.4	24.5	30.7	37.3	44.0	50.94	50.94	7 / 2							
reaction time 0.136	interval		5.60	6.00	6.10	6.20	6.60	6.70	6.94	PB	# of strides	12.40	12.10	12.80	13.64	24.50	26.44	1.94
	velocity	7.35	8.93	8.33	8.20	8.06	7.58	7.46	7.20	7.85	186.7	8.06	8.26	7.81	7.33	8.16	7.56	
Klaver, Lieke (NED) (1998)	time	6.7	12.2	18.0	24.1	30.3	37.0	44.1	51.54	51.54	5 / 3							
reaction time 0.173	interval		5.50	5.80	6.10	6.20	6.70	7.10	7.44		# of strides	12.20	11.90	12.90	14.54	24.10	27.44	3.34
	velocity	7.46	9.09	8.62	8.20	8.06	7.46	7.04	6.72	7.76	192.0	8.20	8.40	7.75	6.88	8.30	7.29	
Kaczmarek, Natalia (POL) (19	time	7.0	12.7	18.6	24.8	31.3	37.9	44.6	51.71	51.71	6 / 4							
reaction time 0.151	interval		5.70	5.90	6.20	6.50	6.60	6.70	7.11		# of strides	12.70	12.10	13.10	13.81	24.80	26.91	2.11
	velocity	7.14	8.77	8.47	8.06	7.69	7.58	7.46	7.03	7.74		7.87	8.26	7.63	7.24	8.06	7.43	
Yeargin, Nicole (GBR) (1997)	time	6.9	12.5	18.3	24.4	30.7	37.4	44.3	51.77	51.77	3 / 5							
reaction time 0.162	interval		5.60	5.80	6.10	6.30	6.70	6.90	7.47		# of strides	12.50	11.90	13.00	14.37	24.40	27.37	2.97
	velocity	7.25	8.93	8.62	8.20	7.94	7.46	7.25	6.69	7.73	198.5	8.00	8.40	7.69	6.96	8.20	7.31	
Williams, Sada (BAR) (1997)	time	6.8	12.5	18.4	24.5	30.8	37.4	44.6	52.34	52.34	2 / 6							
reaction time 0.160	interval		5.70	5.90	6.10	6.30	6.60	7.20	7.74		# of strides	12.50	12.00	12.90	14.94	24.50	27.84	3.34
	velocity	7.35	8.77	8.47	8.20	7.94	7.58	6.94	6.46	7.64	197.2	8.00	8.33	7.75	6.69	8.16	7.18	
Pipi, Ama (GBR) (1995)	time	7.0	12.8	18.8	25.0	31.5	38.1	45.0	52.50	52.50	8 / 7							
reaction time 0.134	interval		5.80	6.00	6.20	6.50	6.60	6.90	7.50		# of strides	12.80	12.20	13.10	14.40	25.00	27.50	2.50
	velocity	7.14	8.62	8.33	8.06	7.69	7.58	7.25	6.67	7.62		7.81	8.20	7.63	6.94	8.00	7.27	
de Witte, Lisanne (NED) (19	time	7.0	12.9	18.9	25.1	31.5	38.2	45.2	52.67	52.67	1 / 8							
reaction time 0.155	interval		5.90	6.00	6.20	6.40	6.70	7.00	7.47		# of strides	12.90	12.20	13.10	14.47	25.10	27.57	2.47
	velocity	7.14	8.47	8.33	8.06	7.81	7.46	7.14	6.69	7.59		7.75	8.20	7.63	6.91	7.97	7.25	

B Race

date 13-Jun-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Diamond, Emily (GBR) (1991	time	7.1	12.9	18.9	25.1	31.4	37.9	44.7	51.89	51.89	5 / 1							
reaction time 0.164	interval		5.80	6.00	6.20	6.30	6.50	6.80	7.19		# of strides	12.90	12.20	12.80	13.99	25.10	26.79	1.69
	velocity	7.04	8.62	8.33	8.06	7.94	7.69	7.35	6.95	7.71		7.75	8.20	7.81	7.15	7.97	7.47	
Clark, Zoey (GBR) (1994)	time	6.8	12.5	18.5	24.8	31.4	38.2	45.0	52.13	52.13	3 / 2							
reaction time 0.145	interval		5.70	6.00	6.30	6.60	6.80	6.80	7.13		# of strides	12.50	12.30	13.40	13.93	24.80	27.33	2.53
	velocity	7.35	8.77	8.33	7.94	7.58	7.35	7.35	7.01	7.67		8.00	8.13	7.46	7.18	8.06	7.32	
Williams, Hannah (GBR) (19	time	6.9	12.7	18.8	25.3	31.8	38.5	45.5	52.98	52.98	4 / 3							
reaction time 0.171	interval		5.80	6.10	6.50	6.50	6.70	7.00	7.48		# of strides	12.70	12.60	13.20	14.48	25.30	27.68	2.38
	velocity	7.25	8.62	8.20	7.69	7.69	7.46	7.14	6.68	7.55		7.87	7.94	7.58	6.91	7.91	7.23	
Hillyard, Amy (GBR) (1995)	time	7.0	12.7	18.7	25.0	31.6	38.7	46.1	53.84	53.84	2 / 6							
reaction time 0.149	interval		5.70	6.00	6.30	6.60	7.10	7.40	7.74		# of strides	12.70	12.30	13.70	15.14	25.00	28.84	3.84
	velocity	7.14	8.77	8.33	7.94	7.58	7.04	6.76	6.46	7.43		7.87	8.13	7.30	6.61	8.00	6.93	

2021 Irena Szewinska Memorial (Bydgoszcz, POL)

FINAL date 30-Jun-21

Vazel (2021) - https://twitter.com/pjvazel/status/1410310278391140362?s=21

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mboma, Christine (NAM) (2(	time		11.9		23.0		35.2		48.54	48.54	4 / 1							
reaction time 0.342	interval				11.10		12.20		13.34	WJR	# of strides	11.90	11.10	12.20	13.34	23.00	25.54	2.54
	velocity		8.40		9.01		8.20		7.50	8.24	191.0	8.40	9.01	8.20	7.50	8.70	7.83	

2021 Japanese National Championships (Osaka, JPN)

Final date 25-Jun-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kobayashi, Mayu (JPN) (199	time	7.17	13.04	19.02	25.21	31.65	38.37	45.43	52.86	52.86	9 / 1							
reaction time 0.201	interval		5.87	5.98	6.19	6.44	6.72	7.06	7.43	PB	# of strides	13.04	12.17	13.16	14.49	25.21	27.65	2.44
	velocity	6.97	8.52	8.36	8.08	7.76	7.44	7.08	6.73	7.57	198.0	7.67	8.22	7.60	6.90	7.93	7.23	
Matsumoto, Nanako (JPN) (	time	6.90	12.60	18.54	24.81	31.40	38.30	45.57	53.35	53.35	6 / 2							
reaction time 0.259	interval		5.70	5.94	6.27	6.59	6.90	7.27	7.78		# of strides	12.60	12.21	13.49	15.05	24.81	28.54	3.73
	velocity	7.25	8.77	8.42	7.97	7.59	7.25	6.88	6.43	7.50		7.94	8.19	7.41	6.64	8.06	7.01	
Aoyama, Seika (JPN) (1996)	time	6.96	12.76	18.64	24.71	31.08	37.86	45.16	53.42	53.42	4 / 3							
reaction time 0.204	interval		5.80	5.88	6.07	6.37	6.78	7.30	8.26		# of strides	12.76	11.95	13.15	15.56	24.71	28.71	4.00
	velocity	7.18	8.62	8.50	8.24	7.85	7.37	6.85	6.05	7.49		7.84	8.37	7.60	6.43	8.09	6.97	
Kuboyama, Haruna (JPN) (1!	time	6.91	12.60	18.55	24.82	31.42	38.33	45.70	53.72	53.72	7 / 4							
reaction time 0.192	interval		5.69	5.95	6.27	6.60	6.91	7.37	8.02	PB	# of strides	12.60	12.22	13.51	15.39	24.82	28.90	4.08
	velocity	7.24	8.79	8.40	7.97	7.58	7.24	6.78	6.23	7.45	205.0	7.94	8.18	7.40	6.50	8.06	6.92	
Iwata, Yuna (JPN) (1997)	time	6.95	12.99	19.14	25.57	32.27	39.28	46.51	54.09	54.09	5 / 5							
reaction time 0.166	interval		6.04	6.15	6.43	6.70	7.01	7.23	7.58		# of strides	12.99	12.58	13.71	14.81	25.57	28.52	2.95
	velocity	7.19	8.28	8.13	7.78	7.46	7.13	6.92	6.60	7.40		7.70	7.95	7.29	6.75	7.82	7.01	

2021 Japanese U20 National Championships (Osaka, JPN)

Final date 25-Jun-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sudo, Mio (JPN) (2002)	time	7.18	13.40	19.69	26.31	33.13	40.10	47.30	54.92	54.92	5 / 1							
reaction time 0.182	interval		6.22	6.29	6.62	6.82	6.97	7.20	7.62		# of strides	13.40	12.91	13.79	14.82	26.31	28.61	2.30
	velocity	6.96	8.04	7.95	7.55	7.33	7.17	6.94	6.56	7.28	203.5	7.46	7.75	7.25	6.75	7.60	6.99	
Taneru, Asuruhan Marino (J	time	7.19	13.50	19.90	26.60	33.45	40.38	47.50	55.08	55.08	6 / 2							
reaction time 0.281	interval		6.31	6.40	6.70	6.85	6.93	7.12	7.58		# of strides	13.50	13.10	13.78	14.70	26.60	28.48	1.88
	velocity	6.95	7.92	7.81	7.46	7.30	7.22	7.02	6.60	7.26	204.5	7.41	7.63	7.26	6.80	7.52	7.02	
Kawachi, Sena (JPN) (2003)	time	7.06	13.22	19.50	26.17	33.01	40.02	47.33	55.13	55.13	7 / 3							
reaction time 0.175	interval		6.16	6.28	6.67	6.84	7.01	7.31	7.80		# of strides	13.22	12.95	13.85	15.11	26.17	28.96	2.79
	velocity	7.08	8.12	7.96	7.50	7.31	7.13	6.84	6.41	7.26	211.2	7.56	7.72	7.22	6.62	7.64	6.91	
Iida, Keiko (JPN) (2002)	time	7.44	13.77	20.17	26.82	33.53	40.36	47.48	55.14	55.14	4 / 4							
reaction time 0.217	interval		6.33	6.40	6.65	6.71	6.83	7.12	7.66	PB	# of strides	13.77	13.05	13.54	14.78	26.82	28.32	1.50
	velocity	6.72	7.90	7.81	7.52	7.45	7.32	7.02	6.53	7.25	208.0	7.26	7.66	7.39	6.77	7.46	7.06	
Kudo, Mei (JPN) (2002)	time	7.19	13.35	19.64	26.24	33.15	40.34	47.75	55.25	55.25	2 / 5							
reaction time 0.214	interval		6.16	6.29	6.60	6.91	7.19	7.41	7.50	PB	# of strides	13.35	12.89	14.10	14.91	26.24	29.01	2.77
	velocity	6.95	8.12	7.95	7.58	7.24	6.95	6.75	6.67	7.24	204.0	7.49	7.76	7.09	6.71	7.62	6.89	

2021 NCAA Championships (Eugene, OR)

FINAL date 06-Jun-21

Vazel (2021) - https://twitter.com/pjvazel/status/1403991035081023493?s=21

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mu, Athing (USA) (2002)	time		12.1		23.7		36.1		49.57	49.57	7 / 1							
reaction time 0.172	interval				11.60		12.40		13.47	NJR PB	# of strides	12.10	11.60	12.40	13.47	23.70	25.87	2.17
	velocity		8.26		8.62		8.06		7.42	8.07	180.5	8.26	8.62	8.06	7.42	8.44	7.73	

2021 Denka Athletics Challenge Cup (Niigata, JPN)

Final date 06-Jun-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	7.01	12.87	18.94	25.24	31.83	38.73	45.91	53.57	53.57	/ 1							
reaction time	interval		5.86	6.07	6.30	6.59	6.90	7.18	7.66		# of strides	12.87	12.37	13.49	14.84	25.24	28.33	3.09
	velocity	7.13	8.53	8.24	7.94	7.59	7.25	6.96	6.53	7.47		7.77	8.08	7.41	6.74	7.92	7.06	
Kobayashi, Mayu (JPN) (199	time	7.14	13.23	19.44	25.87	32.58	39.48	46.49	53.81	53.81	/ 2							
reaction time	interval		6.09	6.21	6.43	6.71	6.90	7.01	7.32		# of strides	13.23	12.64	13.61	14.33	25.87	27.94	2.07
	velocity	7.00	8.21	8.05	7.78	7.45	7.25	7.13	6.83	7.43		7.56	7.91	7.35	6.98	7.73	7.16	
Kuboyama, Haruna (JPN) (1!	time	6.82	12.64	18.77	25.18	31.86	38.85	46.19	53.94	53.94	/ 3							
reaction time	interval		5.82	6.13	6.41	6.68	6.99	7.34	7.75	PB	# of strides	12.64	12.54	13.67	15.09	25.18	28.76	3.58
	velocity	7.33	8.59	8.16	7.80	7.49	7.15	6.81	6.45	7.42		7.91	7.97	7.32	6.63	7.94	6.95	
Matsumoto, Nanako (JPN) (	time	7.10	13.13	19.34	25.91	32.69	39.65	46.80	54.40	54.40	/ 4							
reaction time	interval		6.03	6.21	6.57	6.78	6.96	7.15	7.60		# of strides	13.13	12.78	13.74	14.75	25.91	28.49	2.58
	velocity	7.04	8.29	8.05	7.61	7.37	7.18	6.99	6.58	7.35		7.62	7.82	7.28	6.78	7.72	7.02	
Iwata, Yuna (JPN) (1997)	time	7.11	13.26	19.55	26.19	32.99	39.91	47.03	54.53	54.43	/ 5							
reaction time	interval		6.15	6.29	6.64	6.80	6.92	7.12	7.50		# of strides	13.26	12.93	13.72	14.62	26.19	28.34	2.15
	velocity	7.03	8.13	7.95	7.53	7.35	7.23	7.02	6.67	7.35		7.54	7.73	7.29	6.84	7.64	7.06	
Shintaku, Asami (JPN) (1994	time	7.15	13.39	19.82	26.56	33.37	40.26	47.27	54.79	54.79	/ 6							
reaction time	interval		6.24	6.43	6.74	6.81	6.89	7.01	7.52		# of strides	13.39	13.17	13.70	14.53	26.56	28.23	1.67
	velocity	6.99	8.01	7.78	7.42	7.34	7.26	7.13	6.65	7.30		7.47	7.59	7.30	6.88	7.53	7.08	

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

2021 NCAA Preliminary West Round (College Station, TX)

Quarter-Final 2 date 29-May-21

Vazel (2021) - https://twitter.com/pjvazel/status/1403991035081023493?s=21

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mu, Athing (USA) (2002)	time		12.1		23.5		35.9		49.68	49.68	6 / 1							
reaction time 0.172	interval				11.40		12.40		13.78	NJR PB	# of strides	12.10	11.40	12.40	13.78	23.50	26.18	2.68
	velocity		8.26		8.77		8.06		7.26	8.05	181.0	8.26	8.77	8.06	7.26	8.51	7.64	

2021 Shimane High School Championships (Izumo, JPN)

FINAL date 28-May-21

Shimizu (2021) - shimane high school championships 2021 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mochida, Kanon (JPN) (2003	time		14.07		27.60		42.29		58.36	58.36	5 / 1							
reaction time	interval				13.53		14.69		16.07		# of strides	14.07	13.53	14.69	16.07	27.60	30.76	3.16
	velocity		7.11		7.39		6.81		6.22	6.85		7.11	7.39	6.81	6.22	7.25	6.50	
Miyahara, Hina (JPN)	time		14.53		28.35		43.51		60.59	60.59	3 / 2							
reaction time	interval				13.82		15.16		17.08		# of strides	14.53	13.82	15.16	17.08	28.35	32.24	3.89
	velocity		6.88		7.24		6.60		5.85	6.60		6.88	7.24	6.60	5.85	7.05	6.20	
Shimura, Minami (JPN)	time		14.93		29.08		44.56		61.21	61.21	8 / 3							
reaction time	interval				14.15		15.48		16.65		# of strides	14.93	14.15	15.48	16.65	29.08	32.13	3.05
	velocity		6.70		7.07		6.46		6.01	6.53		6.70	7.07	6.46	6.01	6.88	6.22	
Hihara, Honaka (JPN)	time		15.15		29.98		45.82		62.55	62.55	6 / 4							
reaction time	interval				14.83		15.84		16.73		# of strides	15.15	14.83	15.84	16.73	29.98	32.57	2.59
	velocity		6.60		6.74		6.31		5.98	6.39		6.60	6.74	6.31	5.98	6.67	6.14	
Okada, Eina (JPN)	time		14.22		28.22		44.61		62.90	62.90	4 / 5							
reaction time	interval				14.00		16.39		18.29		# of strides	14.22	14.00	16.39	18.29	28.22	34.68	6.46
	velocity		7.03		7.14		6.10		5.47	6.36		7.03	7.14	6.10	5.47	7.09	5.77	
Saito, Yuna (JPN)	time		14.75		29.00		45.18		63.66	63.66	2 / 6							
reaction time	interval				14.25		16.18		18.48		# of strides	14.75	14.25	16.18	18.48	29.00	34.66	5.66
	velocity		6.78		7.02		6.18		5.41	6.28		6.78	7.02	6.18	5.41	6.90	5.77	
Saito, Yui (JPN)	time		15.27		30.18		46.76		65.50	65.50	1 / 7							
reaction time	interval				14.91		16.58		18.74		# of strides	15.27	14.91	16.58	18.74	30.18	35.32	5.14
	velocity		6.55		6.71		6.03		5.34	6.11		6.55	6.71	6.03	5.34	6.63	5.66	
Kawakami, Koyuki (JPN)	time		15.20		30.00		47.24		66.29	66.29	7 / 8							
reaction time	interval				14.80		17.24		19.05		# of strides	15.20	14.80	17.24	19.05	30.00	36.29	6.29
	velocity		6.58		6.76		5.80		5.25	6.03		6.58	6.76	5.80	5.25	6.67	5.51	

2021 International All Comers Meeting (Lusaka, ZAM)

FINAL date 11-Apr-21

Vazel (2021) - https://twitter.com/pjvazel/status/1382341180789231617?s=21

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mboma, Christine (NAM) (2(	time		13.0		24.3		36.5		49.24	49.24	1 / 1							
reaction time	interval				11.30		12.20		12.74	WJR	# of strides	13.00	11.30	12.20	12.74	24.30	24.94	0.64
	velocity		7.69		8.85		8.20		7.85	8.12	195.0	7.69	8.85	8.20	7.85	8.23	8.02	
Masilingi, Beatrice (NAM) (2(	time		12.1		23.8		36.5		49.53	49.53	5 / 2							
reaction time	interval				11.70		12.70		13.03	PB	# of strides	12.10	11.70	12.70	13.03	23.80	25.73	1.93
	velocity		8.26		8.55		7.87		7.67	8.08	182.0	8.26	8.55	7.87	7.67	8.40	7.77	

2021 Müller Grand Prix (Gateshead, GBR)

FINAL date 23-May-21

Omega Timing (2021) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ellis, Kendall (USA) (1996)	time	7.3	12.9	18.7	24.6	30.7	37.4	44.6	51.86	51.86	5 / 1							
reaction time 0.179	interval		5.60	5.80	5.90	6.10	6.70	7.20	7.26		# of strides	12.90	11.70	12.80	14.46	24.60	27.26	2.66
	velocity	6.85	8.93	8.62	8.47	8.20	7.46	6.94	6.89	7.71	189.5	7.75	8.55	7.81	6.92	8.13	7.34	
McPherson, Stephenie Ann (	time	7.4	13.2	19.0	25.0	31.1	37.8	44.9	51.96	51.96	6 / 2							
reaction time 0.129	interval		5.80	5.80	6.00	6.10	6.70	7.10	7.06		# of strides	13.20	11.80	12.80	14.16	25.00	26.96	1.96
	velocity	6.76	8.62	8.62	8.33	8.20	7.46	7.04	7.08	7.70	194.0	7.58	8.47	7.81	7.06	8.00	7.42	
Klaver, Lieke (NED) (1998)	time	7.3	12.9	18.7	24.6	30.8	37.6	44.8	52.03	52.03	2 / 3							
reaction time 0.167	interval		5.60	5.80	5.90	6.20	6.80	7.20	7.23		# of strides	12.90	11.70	13.00	14.43	24.60	27.43	2.83
	velocity	6.85	8.93	8.62	8.47	8.06	7.35	6.94	6.92	7.69		7.75	8.55	7.69	6.93	8.13	7.29	
Whitney, Kaylin (USA) (1998	time	7.2	12.9	18.7	24.8	31.1	38.0	45.3	52.84	52.84	7 / 4							
reaction time 0.162	interval		5.70	5.80	6.10	6.30	6.90	7.30	7.54		# of strides	12.90	11.90	13.20	14.84	24.80	28.04	3.24
	velocity	6.94	8.77	8.62	8.20	7.94	7.25	6.85	6.63	7.57		7.75	8.40	7.58	6.74	8.06	7.13	
Williams, Hannah (GBR) (19!	time	7.2	12.7	18.5	24.6	31.0	37.9	45.5	53.35	53.35	8 / 5							
reaction time 0.163	interval		5.50	5.80	6.10	6.40	6.90	7.60	7.85		# of strides	12.70	11.90	13.30	15.45	24.60	28.75	4.15
	velocity	6.94	9.09	8.62	8.20	7.81	7.25	6.58	6.37	7.50		7.87	8.40	7.52	6.47	8.13	6.96	
Jackson, Shericka (JAM) (19!	time	7.3	12.9	18.7	24.7	31.2	38.2	45.6	53.40	53.40	4 / 6							
reaction time 0.177	interval		5.60	5.80	6.00	6.50	7.00	7.40	7.80		# of strides	12.90	11.80	13.50	15.20	24.70	28.70	4.00
	velocity	6.85	8.93	8.62	8.33	7.69	7.14	6.76	6.41	7.49		7.75	8.47	7.41	6.58	8.10	6.97	
de Witte, Lisanne (NED) (19!	time	7.6	13.5	19.5	25.6	31.9	38.8	46.0	53.42	53.42	1 / 7							
reaction time 0.155	interval		5.90	6.00	6.10	6.30	6.90	7.20	7.42		# of strides	13.50	12.10	13.20	14.62	25.60	27.82	2.22
	velocity	6.58	8.47	8.33	8.20	7.94	7.25	6.94	6.74	7.49		7.41	8.26	7.58	6.84	7.81	7.19	
Nielsen, Laviai (GBR) (1996)	time	7.2	12.8	18.6	24.6	31.0	37.9	45.7	53.96	53.96	3 / 8							
reaction time 0.140	interval		5.60	5.80	6.00	6.40	6.90	7.80	8.26		# of strides	12.80	11.80	13.30	16.06	24.60	29.36	4.76

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity	6.94	8.93	8.62	8.33	7.81	7.25	6.41	6.05	7.41		7.81	8.47	7.52	6.23	8.13	6.81	

2021 Ready Steady Tokyo (Tokyo, JPN)

FINAL

date 09-May-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kobayashi, Mayu (JPN) (199	time	7.14	13.25	19.45	25.86	32.42	39.17	46.15	53.55	53.55	9 / 1							
reaction time 0.164	interval		6.11	6.20	6.41	6.56	6.75	6.98	7.40	PB	# of strides	13.25	12.61	13.31	14.38	25.86	27.69	1.83
	velocity	7.00	8.18	8.06	7.80	7.62	7.41	7.16	6.76	7.47		7.55	7.93	7.51	6.95	7.73	7.22	
Matsumoto, Nanako (JPN) (	time	6.96	12.88	19.05	25.46	32.17	39.14	46.27	53.74	53.74	4 / 2							
reaction time 0.157	interval		5.92	6.17	6.41	6.71	6.97	7.13	7.47		# of strides	12.88	12.58	13.68	14.60	25.46	28.28	2.82
	velocity	7.18	8.45	8.10	7.80	7.45	7.17	7.01	6.69	7.44		7.76	7.95	7.31	6.85	7.86	7.07	
Oshima, Airi (JPN) (2000)	time	7.20	13.43	19.87	26.60	33.42	40.28	47.19	54.25	54.25	7 / 3							
reaction time 0.146	interval		6.23	6.44	6.73	6.82	6.86	6.91	7.06		# of strides	13.43	13.17	13.68	13.97	26.60	27.65	1.05
	velocity	6.94	8.03	7.76	7.43	7.33	7.29	7.24	7.08	7.37		7.45	7.59	7.31	7.16	7.52	7.23	
Kawada, Ayaka (JPN) (1999)	time	7.05	13.18	19.49	26.05	32.80	39.74	46.92	54.46	54.46	8 / 4							
reaction time 0.170	interval		6.13	6.31	6.56	6.75	6.94	7.18	7.54		# of strides	13.18	12.87	13.69	14.72	26.05	28.41	2.36
	velocity	7.09	8.16	7.92	7.62	7.41	7.20	6.96	6.63	7.34		7.59	7.77	7.30	6.79	7.68	7.04	
Shintaku, Asami (JPN) (1994	time	7.15	13.49	20.00	26.63	33.37	40.18	47.21	54.89	54.89	3 / 5							
reaction time 0.143	interval		6.34	6.51	6.63	6.74	6.81	7.03	7.68		# of strides	13.49	13.14	13.55	14.71	26.63	28.26	1.63
	velocity	6.99	7.89	7.68	7.54	7.42	7.34	7.11	6.51	7.29		7.41	7.61	7.38	6.80	7.51	7.08	
Takeishi, Konomi (JPN) (199	time	7.01	13.12	19.47	26.07	32.97	40.15	47.58	55.36	55.36	5 / 6							
reaction time 0.139	interval		6.11	6.35	6.60	6.90	7.18	7.43	7.78		# of strides	13.12	12.95	14.08	15.21	26.07	29.29	3.22
	velocity	7.13	8.18	7.87	7.58	7.25	6.96	6.73	6.43	7.23		7.62	7.72	7.10	6.57	7.67	6.83	

2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)

FINAL

date 03-May-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kuboyama, Haruna (JPN) (1!	time	6.87	12.73	18.99	25.69	32.58	39.67	47.02	54.90	54.90	4 / 1							
reaction time 0.224	interval		5.86	6.26	6.70	6.89	7.09	7.35	7.88	PB	# of strides	12.73	12.96	13.98	15.23	25.69	29.21	3.52
	velocity	7.28	8.53	7.99	7.46	7.26	7.05	6.80	6.35	7.29	213.0	7.86	7.72	7.15	6.57	7.79	6.85	
Oshima, Airi (JPN) (2000)	time	7.27	13.33	19.75	26.49	33.36	40.39	47.80	56.10	56.10	5 / 3							
reaction time 0.185	interval		6.06	6.42	6.74	6.87	7.03	7.41	8.30		# of strides	13.33	13.16	13.90	15.71	26.49	29.61	3.12
	velocity	6.88	8.25	7.79	7.42	7.28	7.11	6.75	6.02	7.13		7.50	7.60	7.19	6.37	7.55	6.75	
Takeishi, Konomi (JPN) (199	time	7.12	13.35	20.00	27.00	34.18	41.58	49.16	57.13	57.13	6 / 6							
reaction time 0.171	interval		6.23	6.65	7.00	7.18	7.40	7.58	7.97		# of strides	13.35	13.65	14.58	15.55	27.00	30.13	3.13
	velocity	7.02	8.03	7.52	7.14	6.96	6.76	6.60	6.27	7.00		7.49	7.33	6.86	6.43	7.41	6.64	

B FINAL

date 03-May-21

Yamanaka (2021) - race analysis of men's and women's 400m and 300m races in 2021 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time	7.04	13.26	19.69	26.30	33.03	39.94	47.08	54.51	54.51	6 / 1							
reaction time 0.164	interval		6.22	6.43	6.61	6.73	6.91	7.14	7.43		# of strides	13.26	13.04	13.64	14.57	26.30	28.21	1.91
	velocity	7.10	8.04	7.78	7.56	7.43	7.24	7.00	6.73	7.34	209.0	7.54	7.67	7.33	6.86	7.60	7.09	

2020 Japanese U20 National Championships (Hiroshima, JPN)

FINAL

date 23-Oct-20

Kobayashi (2020) - national high school and U20 national championhsips

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Nakano, Nano (JPN) (2001)	time	7.34	13.66	20.14	26.81	33.72	40.90	48.21	55.83	55.83	6 / 1							
reaction time 0.197	interval		6.32	6.48	6.67	6.91	7.18	7.31	7.62		# of strides	13.66	13.15	14.09	14.93	26.81	29.02	2.21
	velocity	6.81	7.91	7.72	7.50	7.24	6.96	6.84	6.56	7.16	213.3	7.32	7.60	7.10	6.70	7.46	6.89	
Yoshinaka, Hinako (JPN) (20	time	7.27	13.44	19.79	26.45	33.31	40.36	47.81	56.08	56.08	3 / 2							
reaction time 0.182	interval		6.17	6.35	6.66	6.86	7.05	7.45	8.27		# of strides	13.44	13.01	13.91	15.72	26.45	29.63	3.18
	velocity	6.88	8.10	7.87	7.51	7.29	7.09	6.71	6.05	7.13	226.6	7.44	7.69	7.19	6.36	7.56	6.75	
Kaneko, Hitomi (JPN) (2002)	time	7.48	13.94	20.54	27.29	34.13	41.11	48.36	56.20	56.20	4 / 3							
reaction time 0.198	interval		6.46	6.60	6.75	6.84	6.98	7.25	7.84		# of strides	13.94	13.35	13.82	15.09	27.29	28.91	1.62
	velocity	6.68	7.74	7.58	7.41	7.31	7.16	6.90	6.38	7.12	211.9	7.17	7.49	7.24	6.63	7.33	6.92	

2020 Japanese High School National Championships (Hiroshima, JPN)

A FINAL

date 23-Oct-20

Kobayashi (2020) - national high school and U20 national championhsips

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ono, Mizuna (JPN) (2002)	time	6.92	13.04	19.40	25.96	32.75	39.73	46.89	54.48	54.48	5 / 1							
reaction time 0.166	interval		6.12	6.36	6.56	6.79	6.98	7.16	7.59		# of strides	13.04	12.92	13.77	14.75	25.96	28.52	2.56
	velocity	7.23	8.17	7.86	7.62	7.36	7.16	6.98	6.59	7.34	196.7	7.67	7.74	7.26	6.78	7.70	7.01	
Adachi, Marin (JPN) (2003)	time	6.94	13.05	19.44	26.04	32.71	39.62	46.84	54.57	54.57	6 / 2							
reaction time 0.165	interval		6.11	6.39	6.60	6.67	6.91	7.22	7.73		# of strides	13.05	12.99	13.58	14.95	26.04	28.53	2.49
	velocity	7.20	8.18	7.82	7.58	7.50	7.24	6.93	6.47	7.33	210.1	7.66	7.70	7.36	6.69	7.68	7.01	
Mutsuki, Ririka (JPN)	time	7.04	13.20	19.69	26.46	33.43	40.62	47.99	55.44	55.44	4 / 3							
reaction time 0.171	interval		6.16	6.49	6.77	6.97	7.19	7.37	7.45		# of strides	13.20	13.26	14.16	14.82	26.46	28.98	2.52
	velocity	7.10	8.12	7.70	7.39	7.17	6.95	6.78	6.71	7.22	210.1	7.58	7.54	7.06	6.75	7.56	6.90	
Matsuoka, Moe (JPN) (2003)	time	7.30	13.66	20.12	26.72	33.53	40.58	47.95	55.68	55.68	3 / 4							
reaction time 0.205	interval		6.36	6.46	6.60	6.81	7.05	7.37	7.73		# of strides	13.66	13.06	13.86	15.10	26.72	28.96	2.24
	velocity	6.85	7.86	7.74	7.58	7.34	7.09	6.78	6.47	7.18	211.6	7.32	7.66	7.22	6.62	7.49	6.91	
Iida, Keiko (JPN) (2002)	time	7.46	13.90	20.45	27.15	34.00	41.05	48.30	55.75	55.75	8 / 5							
reaction time 0.196	interval		6.44	6.55	6.70	6.85	7.05	7.25	7.45		# of strides	13.90	13.25	13.90	14.70	27.15	28.60	1.45
	velocity	6.70	7.76	7.63	7.46	7.30	7.09	6.90	6.71	7.17	210.7	7.19	7.55	7.19	6.80	7.37	6.99	

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

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Nitta, Nozomi (JPN)		time	7.32	13.64	20.09	26.65	33.43	40.55	47.98	55.82	55.82	7 / 6							
reaction time	0.190	interval		6.32	6.45	6.56	6.78	7.12	7.43	7.84		# of strides	13.64	13.01	13.90	15.27	26.65	29.17	2.52
		velocity	6.83	7.91	7.75	7.62	7.37	7.02	6.73	6.38	7.17	204.3	7.33	7.69	7.19	6.55	7.50	6.86	

2020 Japanese National Championships (Niigata, JPN)

FINAL

date 02-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)		time	6.97	12.80	18.82	25.06	31.62	38.50	45.72	53.55	53.55	4 / 1							
reaction time	0.193	interval		5.83	6.02	6.24	6.56	6.88	7.22	7.83		# of strides	12.80	12.26	13.44	15.05	25.06	28.49	3.43
		velocity	7.17	8.58	8.31	8.01	7.62	7.27	6.93	6.39	7.47	210.0	7.81	8.16	7.44	6.64	7.98	7.02	
Matsumoto, Nanako (JPN) (		time	6.89	12.81	18.89	25.21	31.82	38.76	46.00	53.77	53.77	7 / 2							
reaction time	0.176	interval		5.92	6.08	6.32	6.61	6.94	7.24	7.77		# of strides	12.81	12.40	13.55	15.01	25.21	28.56	3.35
		velocity	7.26	8.45	8.22	7.91	7.56	7.20	6.91	6.44	7.44	204.7	7.81	8.06	7.38	6.66	7.93	7.00	
Takashima, Saki (JPN) (2002)		time	7.21	13.37	19.64	26.04	32.62	39.39	46.36	53.81	53.81	8 / 3							
reaction time	0.191	interval		6.16	6.27	6.40	6.58	6.77	6.97	7.45		# of strides	13.37	12.67	13.35	14.42	26.04	27.77	1.73
		velocity	6.93	8.12	7.97	7.81	7.60	7.39	7.17	6.71	7.43	204.0	7.48	7.89	7.49	6.93	7.68	7.20	
Oshima, Airi (JPN) (2000)		time	7.07	13.13	19.52	26.15	32.89	39.77	46.77	54.16	54.16	6 / 4							
reaction time	0.174	interval		6.06	6.39	6.63	6.74	6.88	7.00	7.39		# of strides	13.13	13.02	13.62	14.39	26.15	28.01	1.86
		velocity	7.07	8.25	7.82	7.54	7.42	7.27	7.14	6.77	7.39	225.7	7.62	7.68	7.34	6.95	7.65	7.14	
Takeishi, Konomi (JPN) (199		time	7.01	12.98	19.29	25.98	32.99	40.17	47.44	55.14	55.14	2 / 7							
reaction time	0.162	interval		5.97	6.31	6.69	7.01	7.18	7.27	7.70		# of strides	12.98	13.00	14.19	14.97	25.98	29.16	3.18
		velocity	7.13	8.38	7.92	7.47	7.13	6.96	6.88	6.49	7.25		7.70	7.69	7.05	6.68	7.70	6.86	

Heat 3

date 01-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Matsumoto, Nanako (JPN) (		time	6.91	12.78	18.89	25.38	32.15	39.20	46.49	54.24	54.24	4 / 1							
reaction time	0.180	interval		5.87	6.11	6.49	6.77	7.05	7.29	7.75		# of strides	12.78	12.60	13.82	15.04	25.38	28.86	3.48
		velocity	7.24	8.52	8.18	7.70	7.39	7.09	6.86	6.45	7.37	204.7	7.82	7.94	7.24	6.65	7.88	6.93	
Hirosawa, Mae (JPN) (1997)		time	6.82	12.74	19.05	25.74	32.71	39.92	47.38	55.40	55.40	6 / 3							
reaction time	0.156	interval		5.92	6.31	6.69	6.97	7.21	7.46	8.02		# of strides	12.74	13.00	14.18	15.48	25.74	29.66	3.92
		velocity	7.33	8.45	7.92	7.47	7.17	6.93	6.70	6.23	7.22		7.85	7.69	7.05	6.46	7.77	6.74	

Heat 2

date 01-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takashima, Saki (JPN) (2002)		time	7.25	13.60	20.02	26.53	33.21	40.10	47.13	54.49	54.49	5 / 2							
reaction time	0.217	interval		6.35	6.42	6.51	6.68	6.89	7.03	7.36		# of strides	13.60	12.93	13.57	14.39	26.53	27.96	1.43
		velocity	6.90	7.87	7.79	7.68	7.49	7.26	7.11	6.79	7.34	203.5	7.35	7.73	7.37	6.95	7.54	7.15	
Iwata, Yuna (JPN) (1997)		time	7.00	13.15	19.44	25.99	33.00	40.38	48.06	56.34	56.34	6 / 4							
reaction time	0.152	interval		6.15	6.29	6.55	7.01	7.38	7.68	8.28		# of strides	13.15	12.84	14.39	15.96	25.99	30.35	4.36
		velocity	7.14	8.13	7.95	7.63	7.13	6.78	6.51	6.04	7.10		7.60	7.79	6.95	6.27	7.70	6.59	

Heat 1

date 01-Oct-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)		time	6.86	12.59	18.49	24.66	31.11	38.00	45.28	53.29	53.29	6 / 1							
reaction time	0.185	interval		5.73	5.90	6.17	6.45	6.89	7.28	8.01		# of strides	12.59	12.07	13.34	15.29	24.66	28.63	3.97
		velocity	7.29	8.73	8.47	8.10	7.75	7.26	6.87	6.24	7.51	210.0	7.94	8.29	7.50	6.54	8.11	6.99	
Oshima, Airi (JPN) (2000)		time	7.04	12.93	19.04	25.49	32.21	39.18	46.37	53.96	53.96	4 / 2							
reaction time	0.172	interval		5.89	6.11	6.45	6.72	6.97	7.19	7.59	**PB**	# of strides	12.93	12.56	13.69	14.78	25.49	28.47	2.98
		velocity	7.10	8.49	8.18	7.75	7.44	7.17	6.95	6.59	7.41	220.7	7.73	7.96	7.30	6.77	7.85	7.02	
Takeishi, Konomi (JPN) (199		time	6.89	12.74	18.84	25.23	31.89	38.95	46.31	54.19	54.19	5 / 3							
reaction time	0.157	interval		5.85	6.10	6.39	6.66	7.06	7.36	7.88		# of strides	12.74	12.49	13.72	15.24	25.23	28.96	3.73
		velocity	7.26	8.55	8.20	7.82	7.51	7.08	6.79	6.35	7.38	197.0	7.85	8.01	7.29	6.56	7.93	6.91	

2020 All Japan Corporate Championships (Kumagaya, JPN)

FINAL

date 19-Sep-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)		time	7.05	12.96	19.05	25.37	31.92	38.76	45.96	53.55	53.55	7 / 1							
reaction time	0.234	interval		5.91	6.09	6.32	6.55	6.84	7.20	7.59		# of strides	12.96	12.41	13.39	14.79	25.37	28.18	2.81
		velocity	7.09	8.46	8.21	7.91	7.63	7.31	6.94	6.59	7.47		7.72	8.06	7.47	6.76	7.88	7.10	
Matsumoto, Nanako (JPN) (		time	7.01	12.96	19.09	25.48	32.18	39.32	46.71	54.39	54.39	5 / 2							
reaction time	0.243	interval		5.95	6.13	6.39	6.70	7.14	7.39	7.68		# of strides	12.96	12.52	13.84	15.07	25.48	28.91	3.43
		velocity	7.13	8.40	8.16	7.82	7.46	7.00	6.77	6.51	7.35		7.72	7.99	7.23	6.64	7.85	6.92	
Takeishi, Konomi (JPN) (199		time	6.96	12.95	19.15	25.67	32.48	39.59	46.90	54.43	54.43	4 / 3							
reaction time	0.190	interval		5.99	6.20	6.52	6.81	7.11	7.31	7.53		# of strides	12.95	12.72	13.92	14.84	25.67	28.76	3.09
		velocity	7.18	8.35	8.06	7.67	7.34	7.03	6.84	6.64	7.35		7.72	7.86	7.18	6.74	7.79	6.95	

2020 Golden Gala Pietro Mennea (Rome, ITA)

FINAL

date 17-Sep-20

Omega Timing (2020) - diamond league race analysis

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Klaver, Lieke (NED) (1998)		time	6.7	12.2	17.9	23.9	30.1	36.8	43.7	50.98	50.98	4 / 1							
reaction time	0.200	interval		5.50	5.70	6.00	6.20	6.70	6.90	7.28	**NUR PB**	# of strides	12.20	11.70	12.90	14.18	23.90	27.08	3.18
		velocity	7.46	9.09	8.77	8.33	8.06	7.46	7.25	6.87	7.85	189.5	8.20	8.55	7.75	7.05	8.37	7.39	
Šerkšniene, Agné (LTU) (199		time	6.8	12.5	18.5	24.6	30.8	37.3	44.2	51.80	51.80	7 / 2							
reaction time	0.160	interval		5.70	6.00	6.10	6.20	6.50	6.90	7.60		# of strides	12.50	12.10	12.70	14.50	24.60	27.20	2.60
		velocity	7.35	8.77	8.33	8.20	8.06	7.69	7.25	6.58	7.72		8.00	8.26	7.87	6.90	8.13	7.35	

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

Swiety-Ersetic, Justyna (POL	time	7.1	13.0	19.0	25.0	31.1	37.7	44.6	51.94	51.94	5 / 3							
reaction time 0.209	interval		5.90	6.00	6.00	6.10	6.60	6.90	7.34		# of strides	13.00	12.00	12.70	14.24	25.00	26.94	1.94
	velocity	7.04	8.47	8.33	8.33	8.20	7.58	7.25	6.81	7.70		7.69	8.33	7.87	7.02	8.00	7.42	
Schwab, Corinna (GER) (199	time	6.8	12.6	18.6	24.8	31.0	37.6	44.6	52.12	52.12	8 / 4							
reaction time 0.155	interval		5.80	6.00	6.20	6.20	6.60	7.00	7.52		# of strides	12.60	12.20	12.80	14.52	24.80	27.32	2.52
	velocity	7.35	8.62	8.33	8.06	8.06	7.58	7.14	6.65	7.67		7.94	8.20	7.81	6.89	8.06	7.32	
Malíkova, Barbora (CZE) (20	time	7.2	13.1	19.1	25.2	31.3	37.8	44.7	52.17	52.17	3 / 5							
reaction time 0.133	interval		5.90	6.00	6.10	6.10	6.50	6.90	7.47		# of strides	13.10	12.10	12.60	14.37	25.20	26.97	1.77
	velocity	6.94	8.47	8.33	8.20	8.20	7.69	7.25	6.69	7.67		7.63	8.26	7.94	6.96	7.94	7.42	
da Silva, Tiffani (BRA) (1999	time	7.0	12.8	18.8	25.0	31.1	37.6	44.6	52.44	52.44	2 / 6							
reaction time 0.179	interval		5.80	6.00	6.20	6.10	6.50	7.00	7.84		# of strides	12.80	12.20	12.60	14.84	25.00	27.44	2.44
	velocity	7.14	8.62	8.33	8.06	8.20	7.69	7.14	6.38	7.63		7.81	8.20	7.94	6.74	8.00	7.29	
Nielsen, Laviai (GBR) (1996)	time	6.8	12.5	18.5	24.6	30.9	37.6	44.7	52.45	52.45	6 / 7							
reaction time 0.154	interval		5.70	6.00	6.10	6.30	6.70	7.10	7.75		# of strides	12.50	12.10	13.00	14.85	24.60	27.85	3.25
	velocity	7.35	8.77	8.33	8.20	7.94	7.46	7.04	6.45	7.63		8.00	8.26	7.69	6.73	8.13	7.18	
Mangione, Alice (ITA) (1997)	time	7.3	13.3	19.4	25.6	31.9	38.6	45.5	52.78	52.78	9 / 8							
reaction time 0.192	interval		6.00	6.10	6.20	6.30	6.70	6.90	7.28		# of strides	13.30	12.30	13.00	14.18	25.60	27.18	1.58
	velocity	6.85	8.33	8.20	8.06	7.94	7.46	7.25	6.87	7.58		7.52	8.13	7.69	7.05	7.81	7.36	
Borga, Rebecca (ITA) (1998)	time	7.0	13.1	19.3	25.7	32.1	38.7	45.5	52.88	52.88	1 / 9							
reaction time 0.176	interval		6.10	6.20	6.40	6.40	6.60	6.80	7.38		# of strides	13.10	12.60	13.00	14.18	25.70	27.18	1.48
	velocity	7.14	8.20	8.06	7.81	7.81	7.58	7.35	6.78	7.56		7.63	7.94	7.69	7.05	7.78	7.36	

2020 World Athletics Trials (Fuji, JPN)

FINAL date 06-Sep-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.93	12.83	18.92	25.13	31.55	38.37	45.66	53.41	53.41	5 / 1							
reaction time	interval		5.90	6.09	6.21	6.42	6.82	7.29	7.75		# of strides	12.83	12.30	13.24	15.04	25.13	28.28	3.15
	velocity	7.22	8.47	8.21	8.05	7.79	7.33	6.86	6.45	7.49	208.0	7.79	8.13	7.55	6.65	7.96	7.07	

2020 Memorial Van Damme (Brussels, BEL)

FINAL date 04-Sep-20

Omega Timing (2020) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Baumgart-Witan, Iga (POL) (	time	7.1	12.9	18.9	25.0	31.3	37.9	44.8	52.13	52.13	5 / 1							
reaction time 0.157	interval		5.80	6.00	6.10	6.30	6.60	6.90	7.33		# of strides	12.90	12.10	12.90	14.23	25.00	27.13	2.13
	velocity	7.04	8.62	8.33	8.20	7.94	7.58	7.25	6.82	7.67	183.2	7.75	8.26	7.75	7.03	8.00	7.37	
Horvat, Anita (SLO) (1996)	time	7.2	13.1	19.2	25.5	31.8	38.4	45.3	52.70	52.70	3 / 2							
reaction time 0.188	interval		5.90	6.10	6.30	6.30	6.60	6.90	7.40		# of strides	13.10	12.40	12.90	14.30	25.50	27.20	1.70
	velocity	6.94	8.47	8.20	7.94	7.94	7.58	7.25	6.76	7.59	186.2	7.63	8.06	7.75	6.99	7.84	7.35	
Wycisziewicz, Patrycja (POL)	time	7.1	13.1	19.1	25.3	31.7	38.4	45.3	52.78	52.78	2 / 3							
reaction time 0.161	interval		6.00	6.00	6.20	6.40	6.70	6.90	7.48		# of strides	13.10	12.20	13.10	14.38	25.30	27.48	2.18
	velocity	7.04	8.33	8.33	8.06	7.81	7.46	7.25	6.68	7.58	194.7	7.63	8.20	7.63	6.95	7.91	7.28	
Laus, Camille (BEL) (1993)	time	7.1	13.1	19.3	25.7	32.2	38.9	45.6	52.81	52.81	4 / 4							
reaction time 0.190	interval		6.00	6.20	6.40	6.50	6.70	6.70	7.21		# of strides	13.10	12.60	13.20	13.91	25.70	27.11	1.41
	velocity	7.04	8.33	8.06	7.81	7.69	7.46	7.46	6.93	7.57	196.2	7.63	7.94	7.58	7.19	7.78	7.38	
Mangione, Alice (ITA) (1997)	time	7.2	13.0	19.0	25.3	31.8	38.5	45.4	52.85	52.85	7 / 5							
reaction time 0.195	interval		5.80	6.00	6.30	6.50	6.70	6.90	7.45		# of strides	13.00	12.30	13.20	14.35	25.30	27.55	2.25
	velocity	6.94	8.62	8.33	7.94	7.69	7.46	7.25	6.71	7.57	197.0	7.69	8.13	7.58	6.97	7.91	7.26	
Couckuyt, Paulien (BEL) (19	time	6.8	12.6	18.7	25.1	31.7	38.5	45.6	53.08	53.08	6 / 6							
reaction time 0.149	interval		5.80	6.10	6.40	6.60	6.80	7.10	7.48		# of strides	12.60	12.50	13.40	14.58	25.10	27.98	2.88
	velocity	7.35	8.62	8.20	7.81	7.58	7.35	7.04	6.68	7.54	201.0	7.94	8.00	7.46	6.86	7.97	7.15	
Brossier, Amandine (FRA) (	time	7.0	12.9	19.0	25.3	31.9	38.6	45.8	53.64	53.64	1 / 7							
reaction time 0.177	interval		5.90	6.10	6.30	6.60	6.70	7.20	7.84		# of strides	12.90	12.40	13.30	15.04	25.30	28.34	3.04
	velocity	7.14	8.47	8.20	7.94	7.58	7.46	6.94	6.38	7.46		7.75	8.06	7.52	6.65	7.91	7.06	
van Puyvelde, Margo (BEL) (	time	7.2	13.2	19.4	25.9	32.6	39.5	46.6	54.32	54.32	8 / 8							
reaction time 0.182	interval		6.00	6.20	6.50	6.70	6.90	7.10	7.72		# of strides	13.20	12.70	13.60	14.82	25.90	28.42	2.52
	velocity	6.94	8.33	8.06	7.69	7.46	7.25	7.04	6.48	7.36		7.58	7.87	7.35	6.75	7.72	7.04	

2020 Bauhaus Galan (Stockholm, SWE)

FINAL date 23-Aug-20

Omega Timing (2020) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jonathas, Wadeline (USA) (1	time	6.9	12.6	18.5	24.5	30.7	37.3	44.2	51.94	51.94	6 / 1							
reaction time 0.190	interval		5.70	5.90	6.00	6.20	6.60	6.90	7.74		# of strides	12.60	11.90	12.80	14.64	24.50	27.44	2.94
	velocity	7.25	8.77	8.47	8.33	8.06	7.58	7.25	6.46	7.70	194.0	7.94	8.40	7.81	6.83	8.16	7.29	
Nielsen, Laviai (GBR) (1996)	time	6.7	12.4	18.4	24.6	30.9	37.5	44.4	52.16	52.16	8 / 2							
reaction time 0.140	interval		5.70	6.00	6.20	6.30	6.60	6.90	7.76		# of strides	12.40	12.20	12.90	14.66	24.60	27.56	2.96
	velocity	7.46	8.77	8.33	8.06	7.94	7.58	7.25	6.44	7.67		8.06	8.20	7.75	6.82	8.13	7.26	
Klaver, Lieke (NED) (1998)	time	6.7	12.3	18.2	24.4	30.8	37.5	44.6	52.35	52.35	4 / 3							
reaction time 0.191	interval		5.60	5.90	6.20	6.40	6.70	7.10	7.75		# of strides	12.30	12.10	13.10	14.85	24.40	27.95	3.55
	velocity	7.46	8.93	8.47	8.06	7.81	7.46	7.04	6.45	7.64		8.13	8.26	7.63	6.73	8.20	7.16	
Knight, Jessie (GBR) (1994)	time	6.9	12.7	18.7	24.9	31.4	38.1	45.1	52.42	52.42	2 / 4							

reaction time 0.146	interval		5.80	6.00	6.20	6.50	6.70	7.00	7.32		# of strides	12.70	12.20	13.20	14.32	24.90	27.52	2.62
	velocity	7.25	8.62	8.33	8.06	7.69	7.46	7.14	6.83	7.63		7.87	8.20	7.58	6.98	8.03	7.27	
Vondrová, Lada (CZE) (1999	time	6.9	12.7	18.9	25.2	31.5	38.1	45.0	52.44	52.44	5 / 5							
reaction time 0.251	interval		5.80	6.20	6.30	6.30	6.60	6.90	7.44		# of strides	12.70	12.50	12.90	14.34	25.20	27.24	2.04
	velocity	7.25	8.62	8.06	7.94	7.94	7.58	7.25	6.72	7.63		7.87	8.00	7.75	6.97	7.94	7.34	
Malíkova, Barbora (CZE) (20	time	7.2	13.4	19.5	25.7	32.1	38.7	45.7	53.13	53.13	7 / 6							
reaction time 0.146	interval		6.20	6.10	6.20	6.40	6.60	7.00	7.43		# of strides	13.40	12.30	13.00	14.43	25.70	27.43	1.73
	velocity	6.94	8.06	8.20	8.06	7.81	7.58	7.14	6.73	7.53	208.0	7.46	8.13	7.69	6.93	7.78	7.29	
Hjelmer, Moa (SWE) (1990)	time	6.9	12.7	18.7	25.1	31.7	38.8	46.1	53.79	53.79	3 / 7							
reaction time 0.171	interval		5.80	6.00	6.40	6.60	7.10	7.30	7.69		# of strides	12.70	12.40	13.70	14.99	25.10	28.69	3.59
	velocity	7.25	8.62	8.33	7.81	7.58	7.04	6.85	6.50	7.44		7.87	8.06	7.30	6.67	7.97	6.97	
Knezevic, Sandra (SWE) (19	time	7.0	12.9	19.2	25.8	32.7	40.0	47.5	55.24	55.24	1 / 8							
reaction time 0.158	interval		5.90	6.30	6.60	6.90	7.30	7.50	7.74		# of strides	12.90	12.90	14.20	15.24	25.80	29.44	3.64
	velocity	7.14	8.47	7.94	7.58	7.25	6.85	6.67	6.46	7.24		7.75	7.75	7.04	6.56	7.75	6.79	

2020 Seiko Golden Grand Prix (Tokyo, JPN)

FINAL date 23-Aug-20

Yamanaka (2020) - 400m race analysis of men and women during 2020 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.96	12.72	18.60	24.77	31.27	38.21	45.45	53.35	53.35	7 / 1							
reaction time 0.205	interval		5.76	5.88	6.17	6.50	6.94	7.24	7.90		# of strides	12.72	12.05	13.44	15.14	24.77	28.58	3.81
	velocity	7.18	8.68	8.50	8.10	7.69	7.20	6.91	6.33	7.50		7.86	8.30	7.44	6.61	8.07	7.00	
Matsumoto, Nanako (JPN) (	time	6.97	12.83	18.85	25.19	31.98	39.06	46.25	53.80	53.80	6 / 2							
reaction time 0.183	interval		5.86	6.02	6.34	6.79	7.08	7.19	7.55		# of strides	12.83	12.36	13.87	14.74	25.19	28.61	3.42
	velocity	7.17	8.53	8.31	7.89	7.36	7.06	6.95	6.62	7.43		7.79	8.09	7.21	6.78	7.94	6.99	
Oshima, Airi (JPN) (2000)	time	7.16	13.12	19.20	25.54	32.11	38.93	46.09	53.97	53.97	4 / 3							
reaction time 0.161	interval		5.96	6.08	6.34	6.57	6.82	7.16	7.88	PB	# of strides	13.12	12.42	13.39	15.04	25.54	28.43	2.89
	velocity	6.98	8.39	8.22	7.89	7.61	7.33	6.98	6.35	7.41		7.62	8.05	7.47	6.65	7.83	7.03	
Hirosawa, Mae (JPN) (1997)	time	7.02	13.03	19.25	25.85	32.77	39.86	47.06	54.61	54.61	9 / 4							
reaction time 0.179	interval		6.01	6.22	6.60	6.92	7.09	7.20	7.55		# of strides	13.03	12.82	14.01	14.75	25.85	28.76	2.91
	velocity	7.12	8.32	8.04	7.58	7.23	7.05	6.94	6.62	7.32		7.67	7.80	7.14	6.78	7.74	6.95	
Takeishi, Konomi (JPN) (199	time	7.05	13.03	19.19	25.80	32.64	39.78	47.04	54.63	54.63	8 / 5							
reaction time 0.144	interval		5.98	6.16	6.61	6.84	7.14	7.26	7.59		# of strides	13.03	12.77	13.98	14.85	25.80	28.83	3.03
	velocity	7.09	8.36	8.12	7.56	7.31	7.00	6.89	6.59	7.32		7.67	7.83	7.15	6.73	7.75	6.94	

2020 Shimane High School Championships (Izumo, JPN)

FINAL date 11-Jul-20

Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Watanabe, Suzuka (JPN) (20	time		13.36		27.00		41.91		58.26	58.26	7 / 1							
reaction time	interval				13.64		14.91		16.35		# of strides	13.36	13.64	14.91	16.35	27.00	31.26	4.26
	velocity		7.49		7.33		6.71		6.12	6.87		7.49	7.33	6.71	6.12	7.41	6.40	
Hihara, Honaka (JPN)	time		14.02		28.65		44.01		60.51	60.51	6 / 2							
reaction time	interval				14.63		15.36		16.50		# of strides	14.02	14.63	15.36	16.50	28.65	31.86	3.21
	velocity		7.13		6.84		6.51		6.06	6.61		7.13	6.84	6.51	6.06	6.98	6.28	
Miyahara, Hina (JPN)	time		14.37		28.98		44.62		61.12	61.12	8 / 3							
reaction time	interval				14.61		15.64		16.50		# of strides	14.37	14.61	15.64	16.50	28.98	32.14	3.16
	velocity		6.96		6.84		6.39		6.06	6.54		6.96	6.84	6.39	6.06	6.90	6.22	
Matsumura, Ai (JPN	time		14.04		28.40		44.39		61.78	61.78	4 / 4							
reaction time	interval				14.36		15.99		17.39		# of strides	14.04	14.36	15.99	17.39	28.40	33.38	4.98
	velocity		7.12		6.96		6.25		5.75	6.47		7.12	6.96	6.25	5.75	7.04	5.99	
Yoshimoto, Chika (JPN)	time		14.15		28.98		45.85		65.53	65.53	5 / 5							
reaction time	interval				14.83		16.87		19.68		# of strides	14.15	14.83	16.87	19.68	28.98	36.55	7.57
	velocity		7.07		6.74		5.93		5.08	6.10		7.07	6.74	5.93	5.08	6.90	5.47	

2019 Japanese National U18/U20 Championships (Hiroshima, JPN)

U20 FINAL date 18-Oct-19

Kijima (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Saki, Shima (JPN)	time	7.57	14.10	20.75	27.48	34.24	41.01	47.81	54.63	54.63	4 / 1							
reaction time 0.241	interval		6.53	6.65	6.73	6.76	6.77	6.80	6.82		# of strides	14.10	13.38	13.53	13.62	27.48	27.15	-0.33
	velocity	6.61	7.66	7.52	7.43	7.40	7.39	7.35	7.33	7.32		7.09	7.47	7.39	7.34	7.28	7.37	
Fuji, Mio (JPN)	time	7.16	13.43	19.79	26.46	33.24	40.21	47.34	54.73	54.73	7 / 2							
reaction time 0.172	interval		6.27	6.36	6.67	6.78	6.97	7.13	7.39		# of strides	13.43	13.03	13.75	14.52	26.46	28.27	1.81
	velocity	6.98	7.97	7.86	7.50	7.37	7.17	7.01	6.77	7.31	202.2	7.45	7.67	7.27	6.89	7.56	7.07	
Yoshioka, Nana (JPN)	time	7.41	14.02	20.67	27.43	34.24	41.05	47.94	55.14	55.14	3 / 3							
reaction time 0.197	interval		6.61	6.65	6.76	6.81	6.81	6.89	7.20		# of strides	14.02	13.41	13.62	14.09	27.43	27.71	0.28
	velocity	6.75	7.56	7.52	7.40	7.34	7.34	7.26	6.94	7.25		7.13	7.46	7.34	7.10	7.29	7.22	
Kawasaki, Natsumi (JPN) (20	time	7.27	13.64	20.15	26.89	33.72	40.71	47.97	55.50	55.50	5 / 4							
reaction time 0.215	interval		6.37	6.51	6.74	6.83	6.99	7.26	7.53		# of strides	13.64	13.25	13.82	14.79	26.89	28.61	1.72
	velocity	6.88	7.85	7.68	7.42	7.32	7.15	6.89	6.64	7.21	205.0	7.33	7.55	7.24	6.76	7.44	6.99	
Achy, Shiori (JPN) (2003)	time	7.28	13.53	19.90	26.61	33.51	40.59	47.92	55.60	55.60	6 / 5							
reaction time 0.185	interval		6.25	6.37	6.71	6.90	7.08	7.33	7.68		# of strides	13.53	13.08	13.98	15.01	26.61	28.99	2.38
	velocity	6.87	8.00	7.85	7.45	7.25	7.06	6.82	6.51	7.19	208.2	7.39	7.65	7.15	6.66	7.52	6.90	

U18 FINAL (300m) date 18-Oct-19

Kijima (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	Official Time	Lane / Place	0-100m	100-200m	200-300m	0-200m	Differential
Kudo, Mei (JPN) (2002)	time		12.90		25.48		39.22	39.22	4 / 1					***100-300m***
reaction time 0.193	interval				12.58		13.74		# of strides	12.90	12.58	13.74	25.48	*26.32*
	velocity		7.75		7.95		7.28	7.65	150.2	7.75	7.95	7.28	7.85	*7.60*
Matsuoka, Moe (JPN) (2003)	time		13.20		25.78		39.41	39.41	3 / 2					***100-300m***
reaction time 0.197	interval				12.58		13.63		# of strides	13.20	12.58	13.63	25.78	*26.21*
	velocity		7.58		7.95		7.34	7.61	159.2	7.58	7.95	7.34	7.76	*7.63*
Ono, Mizuna (JPN) (2002)	time		12.69		25.16		39.52	39.52	5 / 3					***100-300m***
reaction time 0.166	interval				12.47		14.36		# of strides	12.69	12.47	14.36	25.16	*26.83*
	velocity		7.88		8.02		6.96	7.59	147.5	7.88	8.02	6.96	7.95	*7.45*
Mizuguchi, Moe (JPN) (2002	time		12.98		25.54		39.53	39.53	6 / 4					***100-300m***
reaction time 0.192	interval				12.56		13.99		# of strides	12.98	12.56	13.99	25.54	*26.55*
	velocity		7.70		7.96		7.15	7.59	149.2	7.70	7.96	7.15	7.83	*7.53*
Iida,Keiko (JPN) (2002)	time		13.50		26.37		40.07	40.07	8 / 5					***100-300m***
reaction time 0.192	interval				12.87		13.70		# of strides	13.50	12.87	13.70	26.37	*26.57*
	velocity		7.41		7.77		7.30	7.49	158.0	7.41	7.77	7.30	7.58	*7.53*
Takeuchi, Kokoro (JPN)	time		13.57		26.46		40.13	40.13	1 / 6					***100-300m***
reaction time 0.194	interval				12.89		13.67		# of strides	13.57	12.89	13.67	26.46	*26.56*
	velocity		7.37		7.76		7.32	7.48		7.37	7.76	7.32	7.56	*7.53*
Hada, Yuka (JPN)	time		13.20		25.98		40.18	40.18	2 / 7					***100-300m***
reaction time 0.176	interval				12.78		14.20		# of strides	13.20	12.78	14.20	25.98	*26.98*
	velocity		7.58		7.82		7.04	7.47	159.7	7.58	7.82	7.04	7.70	*7.41*
Funabiki, Ruka (JPN) (2002)	time		13.50		26.84		40.82	40.82	7 / 8					***100-300m***
reaction time 0.176	interval				13.34		13.98		# of strides	13.50	13.34	13.98	26.84	*27.32*
	velocity		7.41		7.50		7.15	7.35	152.7	7.41	7.50	7.15	7.45	*7.32*

2019 IAAF World Championships (Doha, QAT)

FINAL date 03-Oct-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time	6.71	12.09	17.57	23.20	29.03	35.10	41.43	48.14	48.14	5 / 1							
reaction time 0.186	interval		5.38	5.48	5.63	5.83	6.07	6.33	6.71	**NR PB**	# of strides	12.09	11.11	11.90	13.04	23.20	24.94	1.74
	velocity	7.45	9.29	9.12	8.88	8.58	8.24	7.90	7.45	8.31	181.2	8.27	9.00	8.40	7.67	8.62	8.02	
Miller-Uibo, Shaunae (BAH)	time	6.58	12.06	17.72	23.61	29.63	35.67	41.81	48.37	48.37	7 / 2							
reaction time 0.145	interval		5.48	5.66	5.89	6.02	6.04	6.14	6.56	**NR PB**	# of strides	12.06	11.55	12.06	12.70	23.61	24.76	1.15
	velocity	7.60	9.12	8.83	8.49	8.31	8.28	8.14	7.62	8.27	173.0	8.29	8.66	8.29	7.87	8.47	8.08	
Jackson, Shericka (JAM (199	time	6.64	12.19	17.84	23.70	29.69	35.96	42.47	49.47	49.47	3 / 3							
reaction time 0.184	interval		5.55	5.65	5.86	5.99	6.27	6.51	7.00	**PB**	# of strides	12.19	11.51	12.26	13.51	23.70	25.77	2.07
	velocity	7.53	9.01	8.85	8.53	8.35	7.97	7.68	7.14	8.09	193.5	8.20	8.69	8.16	7.40	8.44	7.76	
Jonathas, Wadeline (USA) (1	0.181	no information available							**PB**	49.60	6 / 4						# of strides	188.0
Francis, Phyllis (USA) (1992)	0.197	no information available							**PB**	49.61	8 / 5						# of strides	177.0
McPherson, Stephenie Ann (	0.124	no information available								50.89	4 / 6						# of strides	189.0
Święty-Ersetic, Justyna (POL	0.228	no information available								50.95	9 / 7						# of strides	201.5
Baumgart-Witan, Iga (POL) (	0.187	no information available								51.29	2 / 8						# of strides	181.0

Semi-Final 3 date 01-Oct-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McPherson, Stephenie Ann (	time	6.71	12.28	17.91	23.81	29.94	36.38	43.16	50.70	50.70	6 / 1							
reaction time 0.134	interval		5.57	5.63	5.90	6.13	6.44	6.78	7.54		# of strides	12.28	11.53	12.57	14.32	23.81	26.89	3.08
	velocity	7.45	8.98	8.88	8.47	8.16	7.76	7.37	6.63	7.89	187.5	8.14	8.67	7.96	6.98	8.40	7.44	
Święty-Ersetic, Justyna (POL	time	6.91	12.65	18.45	24.41	30.58	36.99	43.71	50.96	50.96	5 / 2							
reaction time 0.213	interval		5.74	5.80	5.96	6.17	6.41	6.72	7.25		# of strides	12.65	11.76	12.58	13.97	24.41	26.55	2.14
	velocity	7.24	8.71	8.62	8.39	8.10	7.80	7.44	6.90	7.85	204.0	7.91	8.50	7.95	7.16	8.19	7.53	

Semi-Final 2 date 01-Oct-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.57	12.13	17.85	23.83	29.92	36.06	42.43	49.66	49.66	6 / 1							
reaction time 0.144	interval		5.56	5.72	5.98	6.09	6.14	6.37	7.23		# of strides	12.13	11.70	12.23	13.60	23.83	25.83	2.00
	velocity	7.61	8.99	8.74	8.36	8.21	8.14	7.85	6.92	8.05	173.0	8.24	8.55	8.18	7.35	8.39	7.74	
Jonathas, Wadeline (USA) (1	time	6.54	11.92	17.40	23.23	29.39	36.01	42.87	50.07	50.07	4 / 2							
reaction time 0.202	interval		5.38	5.48	5.83	6.16	6.62	6.86	7.20	**PB**	# of strides	11.92	11.31	12.78	14.06	23.23	26.84	3.61
	velocity	7.65	9.29	9.12	8.58	8.12	7.55	7.29	6.94	7.99	188.0	8.39	8.84	7.82	7.11	8.61	7.45	
Jackson, Shericka (JAM (199	time	6.91	12.60	18.37	24.40	30.61	36.96	43.41	50.10	50.10	7 / 3							
reaction time 0.181	interval		5.69	5.77	6.03	6.21	6.35	6.45	6.69		# of strides	12.60	11.80	12.56	13.14	24.40	25.70	1.30
	velocity	7.24	8.79	8.67	8.29	8.05	7.87	7.75	7.47	7.98	193.0	7.94	8.47	7.96	7.61	8.20	7.78	

Semi-Final 1 date 01-Oct-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time	6.79	12.15	17.58	23.33	29.45	35.93	42.71	49.79	49.79	7 / 1							
reaction time 0.185	interval		5.36	5.43	5.75	6.12	6.48	6.78	7.08		# of strides	12.15	11.18	12.60	13.86	23.33	26.46	3.13
	velocity	7.36	9.33	9.21	8.70	8.17	7.72	7.37	7.06	8.03	183.0	8.23	8.94	7.94	7.22	8.57	7.56	
Francis, Phyllis (USA) (1992)	time	6.82	12.33	17.95	23.93	30.15	36.65	43.26	50.22	50.22	5 / 2							

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 0.218	interval		5.51	5.62	5.98	6.22	6.50	6.61	6.96		# of strides	12.33	11.60	12.72	13.57	23.93	26.29	2.36
	velocity	7.33	9.07	8.90	8.36	8.04	7.69	7.56	7.18	7.96	175.5	8.11	8.62	7.86	7.37	8.36	7.61	
Baumgart-Witan, Iga (POL)	time	6.99	12.70	18.48	24.49	30.71	37.24	43.97	51.02	51.02	6 / 3							
reaction time 0.192	interval		5.71	5.78	6.01	6.22	6.53	6.73	7.05	**PB**	# of strides	12.70	11.79	12.75	13.78	24.49	26.53	2.04
	velocity	7.15	8.76	8.65	8.32	8.04	7.66	7.43	7.09	7.84	178.7	7.87	8.48	7.84	7.26	8.17	7.54	

2019 The Match - Europe v USA (Minsk, BLR)

FINAL date 09-Sep-19

European Athletics (2019) - race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jonathas, Wadeline (USA) (1	time		12.42		24.17		36.87		51.01	51.01	4 / 1							
reaction time 0.173	interval				11.75		12.70		14.14		# of strides	12.42	11.75	12.70	14.14	24.17	26.84	2.67
	velocity		8.05		8.51		7.87		7.07	7.84	193.5	8.05	8.51	7.87	7.07	8.27	7.45	
Felix, Allyson (USA) (1985)	time		12.49		25.31		37.70		51.36	51.36	8 / 2							
reaction time 0.187	interval				12.82		12.39		13.66		# of strides	12.49	12.82	12.39	13.66	25.31	26.05	0.74
	velocity		8.01		7.80		8.07		7.32	7.79	186.0	8.01	7.80	8.07	7.32	7.90	7.68	
Baumgart-Witan, Iga (POL)	time		12.97		24.93		37.65		51.52	51.52	7 / 3							
reaction time 0.265	interval				11.96		12.72		13.87		# of strides	12.97	11.96	12.72	13.87	24.93	26.59	1.66
	velocity		7.71		8.36		7.86		7.21	7.76	182.0	7.71	8.36	7.86	7.21	8.02	7.52	
Williams, Jodie (GBR) (1993)	time		12.31		24.28		37.36		51.83	51.83	9 / 4							
reaction time 0.174	interval				11.97		13.08		14.47		# of strides	12.31	11.97	13.08	14.47	24.28	27.55	3.27
	velocity		8.12		8.35		7.65		6.91	7.72	188.0	8.12	8.35	7.65	6.91	8.24	7.26	
Okolo, Courtney (USA) (199	time		12.40		24.33		37.02		52.20	52.20	6 / 5							
reaction time 0.228	interval				11.93		12.69		15.18		# of strides	12.40	11.93	12.69	15.18	24.33	27.87	3.54
	velocity		8.06		8.38		7.88		6.59	7.66	202.7	8.06	8.38	7.88	6.59	8.22	7.18	
Święty-Ersetic, Justyna (POL	time		12.82		24.68		37.58		52.35	52.35	5 / 6							
reaction time 0.301	interval				11.86		12.90		14.77		# of strides	12.82	11.86	12.90	14.77	24.68	27.67	2.99
	velocity		7.80		8.43		7.75		6.77	7.64	205.0	7.80	8.43	7.75	6.77	8.10	7.23	
Miller, Polina (RUS) (2000)	time		12.48		24.13		37.06		52.79	52.79	3 / 7							
reaction time 0.192	interval				11.65		12.93		15.73		# of strides	12.48	11.65	12.93	15.73	24.13	28.66	4.53
	velocity		8.01		8.58		7.73		6.36	7.58	202.0	8.01	8.58	7.73	6.36	8.29	6.98	
Mu, Athing (USA) (2002)	time		12.97		25.66		39.29		54.34	54.34	2 / 8							
reaction time 0.182	interval				12.69		13.63		15.05		# of strides	12.97	12.69	13.63	15.05	25.66	28.68	3.02
	velocity		7.71		7.88		7.34		6.64	7.36		7.71	7.88	7.34	6.64	7.79	6.97	

2019 Memorial van Damme (Brussels, BEL)

National FINAL date 06-Sep-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Okolo, Courtney (USA) (199	time	7.0	12.7	18.6	24.7	31.1	37.7	44.6	52.13	52.13	6 / 1							
reaction time 0.213	interval		5.7	5.9	6.1	6.4	6.6	6.9	7.5		# of strides	12.70	12.00	13.00	14.43	24.70	27.43	2.73
	velocity	7.14	8.77	8.47	8.20	7.81	7.58	7.25	6.64	7.67		7.87	8.33	7.69	6.93	8.10	7.29	
Vervaet, Imke (BEL) (1993)	time	6.8	12.6	18.6	24.9	31.5	38.5	45.7	53.22	53.22	7 / 2							
reaction time 0.143	interval		5.8	6.0	6.3	6.6	7.0	7.2	7.5	**PB**	# of strides	12.60	12.30	13.60	14.72	24.90	28.32	3.42
	velocity	7.35	8.62	8.33	7.94	7.58	7.14	6.94	6.65	7.52		7.94	8.13	7.35	6.79	8.03	7.06	
Laus, Camille (BEL) (1993)	time	6.8	12.4	18.3	24.5	30.9	37.8	45.2	53.23	53.23	5 / 3							
reaction time 0.173	interval		5.6	5.9	6.2	6.4	6.9	7.4	8.0		# of strides	12.40	12.10	13.30	15.43	24.50	28.73	4.23
	velocity	7.35	8.93	8.47	8.06	7.81	7.25	6.76	6.23	7.51		8.06	8.26	7.52	6.48	8.16	6.96	
Depuydt, Manon (BEL) (199	time	6.8	12.4	18.2	24.5	31.2	38.5	45.8	53.59	53.59	3 / 4							
reaction time 0.129	interval		5.6	5.8	6.3	6.7	7.3	7.3	7.8		# of strides	12.40	12.10	14.00	15.09	24.50	29.09	4.59
	velocity	7.35	8.93	8.62	7.94	7.46	6.85	6.85	6.42	7.46		8.06	8.26	7.14	6.63	8.16	6.88	
Spelmeyer, Ruth Sophia (GE	time	7.0	13.0	19.0	25.3	31.9	38.6	45.8	53.62	53.62	8 / 5							
reaction time 0.170	interval		6.0	6.0	6.3	6.6	6.7	7.2	7.8		# of strides	13.00	12.30	13.30	15.02	25.30	28.32	3.02
	velocity	7.14	8.33	8.33	7.94	7.58	7.46	6.94	6.39	7.46		7.69	8.13	7.52	6.66	7.91	7.06	
Vandi, Elisabetta (ITA) (2000	time	7.0	12.8	18.9	25.4	32.2	39.1	46.4	54.20	54.20	2 / 6							
reaction time 0.214	interval		5.8	6.1	6.5	6.8	6.9	7.3	7.8		# of strides	12.80	12.60	13.70	15.10	25.40	28.80	3.40
	velocity	7.14	8.62	8.20	7.69	7.35	7.25	6.85	6.41	7.38		7.81	7.94	7.30	6.62	7.87	6.94	
Wimbley, Shakima (USA) (19	time	6.6	12.2	18.0	24.1					dnf	4 / --							
reaction time 0.152	interval		5.6	5.8	6.1						# of strides	12.20	11.90			24.10		
	velocity	7.58	8.93	8.62	8.20							8.20	8.40			8.30		

2019 Weltklasse (Zürich, SUI)

FINAL date 29-Aug-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time	6.9	12.3	18.0	23.9	30.1	36.5	43.3	50.24	50.24	4 / 1							
reaction time 0.145	interval		5.4	5.7	5.9	6.2	6.4	6.8	6.9		# of strides	12.30	11.60	12.60	13.74	23.90	26.34	2.44
	velocity	7.25	9.26	8.77	8.47	8.06	7.81	7.35	7.20	7.96	184.0	8.13	8.62	7.94	7.28	8.37	7.59	
Wimbley, Shakima (USA) (19	time	6.7	12.3	18.1	24.2	30.6	37.2	44.0	51.21	51.21	3 / 2							
reaction time 0.145	interval		5.6	5.8	6.1	6.4	6.6	6.8	7.2		# of strides	12.30	11.90	13.00	14.01	24.20	27.01	2.81
	velocity	7.46	8.93	8.62	8.20	7.81	7.58	7.35	6.93	7.81	182.0	8.13	8.40	7.69	7.14	8.26	7.40	
de Witte, Lisanne (NED) (19	time	7.0	12.8	18.6	24.6	30.8	37.4	44.1	51.30	51.30	1 / 3							
reaction time 0.167	interval		5.8	5.8	6.0	6.2	6.6	6.7	7.2		# of strides	12.80	11.80	12.80	13.90	24.60	26.70	2.10
	velocity	7.14	8.62	8.62	8.33	8.06	7.58	7.46	6.94	7.80		7.81	8.47	7.81	7.19	8.13	7.49	

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

Święty-Ersetic, Justyna (POL	time	7.1	12.8	18.7	24.8	31.1	37.5	44.3	51.54	51.54	6 / 4							
reaction time 0.217	interval		5.7	5.9	6.1	6.3	6.4	6.8	7.2		# of strides	12.80	12.00	12.70	14.04	24.80	26.74	1.94
	velocity	7.04	8.77	8.47	8.20	7.94	7.81	7.35	6.91	7.76	207.7	7.81	8.33	7.87	7.12	8.06	7.48	
Nielsen, Laviai (GBR) (1988)	time	6.8	12.4	18.4	24.6	31.0	37.5	44.3	51.70	51.70	7 / 5							
reaction time 0.157	interval		5.6	6.0	6.2	6.4	6.5	6.8	7.4		# of strides	12.40	12.20	12.90	14.20	24.60	27.10	2.50
	velocity	7.35	8.93	8.33	8.06	7.81	7.69	7.35	6.76	7.74	194.5	8.06	8.20	7.75	7.04	8.13	7.38	
McPherson, Stephenie Ann (	time	6.9	12.5	18.4	24.4	30.7	37.3	44.3	51.90	51.90	5 / 6							
reaction time 0.126	interval		5.6	5.9	6.0	6.3	6.6	7.0	7.6		# of strides	12.50	11.90	12.90	14.60	24.40	27.50	3.10
	velocity	7.25	8.93	8.47	8.33	7.94	7.58	7.14	6.58	7.71	190.0	8.00	8.40	7.75	6.85	8.20	7.27	
Ellis, Kendall (USA) (1996)	time	6.8	12.5	18.3	24.4	30.9	37.7	44.7	51.92	51.92	2 / 7							
reaction time 0.202	interval		5.7	5.8	6.1	6.5	6.8	7.0	7.2		# of strides	12.50	11.90	13.30	14.22	24.40	27.52	3.12
	velocity	7.35	8.77	8.62	8.20	7.69	7.35	7.14	6.93	7.70		8.00	8.40	7.52	7.03	8.20	7.27	
Beard, Jessica (USA) (1989)	time	7.1	12.8	18.9	25.4	31.9	38.6	45.4	52.60	52.60	8 / 8							
reaction time 0.244	interval		5.7	6.1	6.5	6.5	6.7	6.8	7.2		# of strides	12.80	12.60	13.20	14.00	25.40	27.20	1.80
	velocity	7.04	8.77	8.20	7.69	7.69	7.46	7.35	6.94	7.60		7.81	7.94	7.58	7.14	7.87	7.35	

2019 Meeting de Paris (Paris, FRA)

FINAL date 24-Aug-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McPherson, Stephenie Ann (	time		12.6		24.5		37.4		51.11	51.11	7 / 1							
reaction time 0.136	interval				11.9		12.9		13.7		# of strides	12.60	11.90	12.90	13.71	24.50	26.61	2.11
	velocity		7.94		8.40		7.75		7.29	7.83	188.5	7.94	8.40	7.75	7.29	8.16	7.52	
Ellis, Kendall (USA) (1996)	time		12.3		24.5		37.2		51.21	51.21	6 / 2							
reaction time 0.205	interval				12.2		12.7		14.0		# of strides	12.30	12.20	12.70	14.01	24.50	26.71	2.21
	velocity		8.13		8.20		7.87		7.14	7.81	186.2	8.13	8.20	7.87	7.14	8.16	7.49	
Wimbley, Shakima (USA) (19	time		12.3		24.2		37.0		51.50	51.50	5 / 3							
reaction time 0.164	interval				11.9		12.8		14.5		# of strides	12.30	11.90	12.80	14.50	24.20	27.30	3.10
	velocity		8.13		8.40		7.81		6.90	7.77	180.2	8.13	8.40	7.81	6.90	8.26	7.33	
Francis Phyllis (USA) (1992)	time		12.1		23.7		36.8		51.56	51.56	4 / 4							
reaction time 0.237	interval				11.6		13.1		14.8		# of strides	12.10	11.60	13.10	14.76	23.70	27.86	4.16
	velocity		8.26		8.62		7.63		6.78	7.76	179.2	8.26	8.62	7.63	6.78	8.44	7.18	
de Witte, Lisanne (NED) (19	time		12.8		25.0		37.9		51.83	51.83	8 / 5							
reaction time 0.196	interval				12.2		12.9		13.9		# of strides	12.80	12.20	12.90	13.93	25.00	26.83	1.83
	velocity		7.81		8.20		7.75		7.18	7.72	194.0	7.81	8.20	7.75	7.18	8.00	7.45	
Botlogetswe, Christine (BO	time		12.7		24.9		37.8		52.02	52.02	2 / 6							
reaction time 0.199	interval				12.2		12.9		14.2		# of strides	12.70	12.20	12.90	14.22	24.90	27.12	2.22
	velocity		7.87		8.20		7.75		7.03	7.69	185.0	7.87	8.20	7.75	7.03	8.03	7.37	
Sananes, Déborah (FRA) (19	time		12.5		24.5		37.6		52.04	52.04	3 / 7							
reaction time 0.227	interval				12.0		13.1		14.4		# of strides	12.50	12.00	13.10	14.44	24.50	27.54	3.04
	velocity		8.00		8.33		7.63		6.93	7.69	195.2	8.00	8.33	7.63	6.93	8.16	7.26	
Brossier, Amandine (FRA) (	time		12.6		24.5		37.6		53.29	53.29	1 / 8							
reaction time 0.172	interval				11.9		13.1		15.7		# of strides	12.60	11.90	13.10	15.69	24.50	28.79	4.29
	velocity		7.94		8.40		7.63		6.37	7.51	204.7	7.94	8.40	7.63	6.37	8.16	6.95	

2019 Japanese National High School Championships (Okinawa, JPN)

FINAL date 04-Aug-19

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takashima, Saki (JPN) (2002)	time	7.29	13.53	19.75	26.03	32.51	39.30	46.20	53.44	53.44	5 / 1							
reaction time	interval		6.24	6.22	6.28	6.48	6.79	6.90	7.24		# of strides	13.53	12.50	13.27	14.14	26.03	27.41	1.38
	velocity	6.86	8.01	8.04	7.96	7.72	7.36	7.25	6.91	7.49		7.39	8.00	7.54	7.07	7.68	7.30	
Yoshioka, Rina (JPN) (2001)	time	7.39	13.82	20.23	26.73	33.31	40.04	47.02	54.41	54.41	7 / 2							
reaction time	interval		6.43	6.41	6.50	6.58	6.73	6.98	7.39	PB	# of strides	13.82	12.91	13.31	14.37	26.73	27.68	0.95
	velocity	6.77	7.78	7.80	7.69	7.60	7.43	7.16	6.77	7.35		7.24	7.75	7.51	6.96	7.48	7.23	
Sudo, Mio (JPN) (2002)	time	7.29	13.57	19.98	26.56	33.26	40.21	47.20	54.65	54.65	3 / 3							
reaction time	interval		6.28	6.41	6.58	6.70	6.95	6.99	7.45	PB	# of strides	13.57	12.99	13.65	14.44	26.56	28.09	1.53
	velocity	6.86	7.96	7.80	7.60	7.46	7.19	7.15	6.71	7.32		7.37	7.70	7.33	6.93	7.53	7.12	
Takashima, Natsumi (JPN) (2	time	7.36	13.74	20.13	26.71	33.41	40.26	47.38	54.94	54.94	8 / 4							
reaction time	interval		6.38	6.39	6.58	6.70	6.85	7.12	7.56		# of strides	13.74	12.97	13.55	14.68	26.71	28.23	1.52
	velocity	6.79	7.84	7.82	7.60	7.46	7.30	7.02	6.61	7.28		7.28	7.71	7.38	6.81	7.49	7.08	
Nakano, Nano (JPN) (2001)	time	7.36	13.72	20.13	26.70	33.47	40.46	47.55	55.07	55.07	4 / 5							
reaction time	interval		6.36	6.41	6.57	6.77	6.99	7.09	7.52	PB	# of strides	13.72	12.98	13.76	14.61	26.70	28.37	1.67
	velocity	6.79	7.86	7.80	7.61	7.39	7.15	7.05	6.65	7.26		7.29	7.70	7.27	6.84	7.49	7.05	
Achy, Shiori (JPN) (2003)	time	7.32	13.46	19.80	26.33	33.13	40.13	47.40	55.11	55.11	6 / 6							
reaction time	interval		6.14	6.34	6.53	6.80	7.00	7.27	7.71	PB	# of strides	13.46	12.87	13.80	14.98	26.33	28.78	2.45
	velocity	6.83	8.14	7.89	7.66	7.35	7.14	6.88	6.49	7.26		7.43	7.77	7.25	6.68	7.60	6.95	
Tsugawa, Rui (JPN) (2001)	time	7.47	13.90	20.42	26.97	33.65	40.63	47.91	55.73	55.73	2 / 7							
reaction time	interval		6.43	6.52	6.55	6.68	6.98	7.28	7.82		# of strides	13.90	13.07	13.66	15.10	26.97	28.76	1.79
	velocity	6.69	7.78	7.67	7.63	7.49	7.16	6.87	6.39	7.18		7.19	7.65	7.32	6.62	7.42	6.95	
Irie, Akiho (JPN) (2001)	time	7.34	13.57	20.07	26.75	33.60	40.89	48.51	56.58	56.58	1 / 8							

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	interval		6.23	6.50	6.68	6.85	7.29	7.62	8.07		# of strides	13.57	13.18	14.14	15.69	26.75	29.83	3.08
	velocity	6.81	8.03	7.69	7.49	7.30	6.86	6.56	6.20	7.07		7.37	7.59	7.07	6.37	7.48	6.70	

2019 USATF National Championships (Des Moines, IA)

FINAL date 27-Jul-19

Track Newsletter (2019) - USATF championships women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Wimbley, Shakima (USA) (19	time				23.7		36.4		50.2	50.21	/ 1							
reaction time	interval						12.70		13.80		# of strides			12.70	13.80	23.70	26.50	2.80
	velocity				8.44		7.87		7.25	7.97				7.87	7.25	8.44	7.55	
Ellis, Kendall (USA) (1996)	time				24.0		36.8		50.5	50.38	/ 2							
reaction time	interval						12.80		13.70		# of strides			12.80	13.70	24.00	26.50	2.50
	velocity				8.33		7.81		7.30	7.94				7.81	7.30	8.33	7.55	
Jonathas, Wadeline (USA) (1	time				24.1		36.8		50.4	50.44	/ 3							
reaction time	interval						12.70		13.60	**PB**	# of strides			12.70	13.60	24.10	26.30	2.20
	velocity				8.30		7.87		7.35	7.93				7.87	7.35	8.30	7.60	
Okolo, Courtney (USA) (199	time				24.2		36.8		50.9	50.86	/ 4							
reaction time	interval						12.60		14.10		# of strides			12.60	14.10	24.20	26.70	2.50
	velocity				8.26		7.94		7.09	7.86				7.94	7.09	8.26	7.49	
Beard, Jessica (USA) (1989)	no information available									51.28	/ 5							
Felix, Allyson (USA) (1985)	time				24.9		38.0		51.9	51.94	/ 6							
reaction time	interval						13.10		13.90		# of strides			13.10	13.90	24.90	27.00	2.10
	velocity				8.03		7.63		7.19	7.70				7.63	7.19	8.03	7.41	

2019 Athletissima (Lausanne, SUI)

FINAL date 05-Jul-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.3		23.9		36.1		49.17	49.17	5 / 1							
reaction time 0.168	interval				11.6		12.2		13.1		# of strides	12.30	11.60	12.20	13.07	23.90	25.27	1.37
	velocity		8.13		8.62		8.20		7.65	8.14	184.2	8.13	8.62	8.20	7.65	8.37	7.91	
Seyni, Aminatou (NIG) (1996	time		12.6		24.4		36.6		49.19	49.19	4 / 2							
reaction time 0.223	interval				11.8		12.2		12.6	**NR**	# of strides	12.60	11.80	12.20	12.59	24.40	24.79	0.39
	velocity		7.94		8.47		8.20		7.94	8.13		7.94	8.47	8.20	7.94	8.20	8.07	
McPherson, Stephenie Ann (	time		12.6		24.3		36.8		50.88	50.88	7 / 3							
reaction time 0.140	interval				11.7		12.5		14.1		# of strides	12.60	11.70	12.50	14.08	24.30	26.58	2.28
	velocity		7.94		8.55		8.00		7.10	7.86		7.94	8.55	8.00	7.10	8.23	7.52	
Nielsen, Laviai (GBR) (1996)	time		12.5		24.6		37.4		51.31	51.31	1 / 4							
reaction time 0.160	interval				12.1		12.8		13.9		# of strides	12.50	12.10	12.80	13.91	24.60	26.71	2.11
	velocity		8.00		8.26		7.81		7.19	7.80		8.00	8.26	7.81	7.19	8.13	7.49	
Botlogetswe, Christine (BO	time		12.5		24.4		37.5		51.50	51.50	3 / 5							
reaction time 0.187	interval				11.9		13.1		14.0		# of strides	12.50	11.90	13.10	14.00	24.40	27.10	2.70
	velocity		8.00		8.40		7.63		7.14	7.77		8.00	8.40	7.63	7.14	8.20	7.38	
Święty-Ersetic, Justyna (POL	time		12.8		24.9		37.7		51.73	51.73	2 / 6							
reaction time 0.204	interval				12.1		12.8		14.0		# of strides	12.80	12.10	12.80	14.03	24.90	26.83	1.93
	velocity		7.81		8.26		7.81		7.13	7.73		7.81	8.26	7.81	7.13	8.03	7.45	
Okolo, Courtney (USA) (199	time		12.5		24.1		36.7		51.85	51.85	8 / 7							
reaction time 0.217	interval				11.6		12.6		15.2		# of strides	12.50	11.60	12.60	15.15	24.10	27.75	3.65
	velocity		8.00		8.62		7.94		6.60	7.71		8.00	8.62	7.94	6.60	8.30	7.21	
Jackson, Shericka (JAM) (19	time		12.6		24.5		37.3		52.35	52.35	6 / 8							
reaction time 0.168	interval				11.9		12.8		15.1		# of strides	12.60	11.90	12.80	15.05	24.50	27.85	3.35
	velocity		7.94		8.40		7.81		6.64	7.64		7.94	8.40	7.81	6.64	8.16	7.18	

2019 Japanese National Championships (Fukuoka, JPN)

FINAL date 28-Jun-19

Yamanaka (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	7.08	13.01	19.15	25.46	31.98	38.85	46.02	53.68	53.68	4 / 1							
reaction time 0.228	interval		5.93	6.14	6.31	6.52	6.87	7.17	7.66		# of strides	13.01	12.45	13.39	14.83	25.46	28.22	2.76
	velocity	7.06	8.43	8.14	7.92	7.67	7.28	6.97	6.53	7.45	209.5	7.69	8.03	7.47	6.74	7.86	7.09	
Takashima, Saki (JPN) (2002)	time	7.10	13.03	19.10	25.38	31.82	38.60	45.75	53.68	53.68	6 / 2							
reaction time 0.195	interval		5.93	6.07	6.28	6.44	6.78	7.15	7.93		# of strides	13.03	12.35	13.22	15.08	25.38	28.30	2.92
	velocity	7.04	8.43	8.24	7.96	7.76	7.37	6.99	6.31	7.45	207.7	7.67	8.10	7.56	6.63	7.88	7.07	
Matsumoto, Nanako (JPN) (	time	6.93	12.70	18.67	24.94	31.52	38.56	45.95	53.70	53.70	5 / 3							
reaction time 0.193	interval		5.77	5.97	6.27	6.58	7.04	7.39	7.75		# of strides	12.70	12.24	13.62	15.14	24.94	28.76	3.82
	velocity	7.22	8.67	8.38	7.97	7.60	7.10	6.77	6.45	7.45	205.7	7.87	8.17	7.34	6.61	8.02	6.95	
Takeishi, Konomi (JPN) (199	time	6.85	12.71	18.92	25.48	32.22	39.28	46.56	54.19	54.19	8 / 4							
reaction time 0.160	interval		5.86	6.21	6.56	6.74	7.06	7.28	7.63		# of strides	12.71	12.77	13.80	14.91	25.48	28.71	3.23
	velocity	7.30	8.53	8.05	7.62	7.42	7.08	6.87	6.55	7.38		7.87	7.83	7.25	6.71	7.85	6.97	
Iwata, Yuna (JPN) (1997)	time	6.98	13.10	19.39	25.93	32.63	39.60	46.79	54.31	54.31	3 / 5							
reaction time 0.151	interval		6.12	6.29	6.54	6.70	6.97	7.19	7.52		# of strides	13.10	12.83	13.67	14.71	25.93	28.38	2.45
	velocity	7.16	8.17	7.95	7.65	7.46	7.17	6.95	6.65	7.37		7.63	7.79	7.32	6.80	7.71	7.05	

Heat 3 date 27-Jun-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.98	12.79	18.89	25.16	31.63	38.53	45.82	53.71	53.71	5 / 1							
reaction time 0.235	interval		5.81	6.10	6.27	6.47	6.90	7.29	7.89		# of strides	12.79	12.37	13.37	15.18	25.16	28.55	3.39
	velocity	7.16	8.61	8.20	7.97	7.73	7.25	6.86	6.34	7.45		7.82	8.08	7.48	6.59	7.95	7.01	
Iwata, Yuna (JPN) (1997)	time	6.84	12.83	19.05	25.56	32.23	39.17	46.41	53.97	53.97	7 / 3							
reaction time 0.135	interval		5.99	6.22	6.51	6.67	6.94	7.24	7.56		# of strides	12.83	12.73	13.61	14.80	25.56	28.41	2.85
	velocity	7.31	8.35	8.04	7.68	7.50	7.20	6.91	6.61	7.41		7.79	7.86	7.35	6.76	7.82	7.04	
Kobayashi, Mayu (JPN) (199	time	7.07	13.11	19.39	25.86	32.52	39.60	47.03	55.10	55.10	4 / 5							
reaction time 0.143	interval		6.04	6.28	6.47	6.66	7.08	7.43	8.07		# of strides	13.11	12.75	13.74	15.50	25.86	29.24	3.38
	velocity	7.07	8.28	7.96	7.73	7.51	7.06	6.73	6.20	7.26		7.63	7.84	7.28	6.45	7.73	6.84	

Heat 2

date 27-Jun-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takashima, Saki (JPN) (2002)	time	7.11	13.07	19.29	25.72	32.32	39.18	46.38	54.19	54.19	4 / 1							
reaction time 0.239	interval		5.96	6.22	6.43	6.60	6.86	7.20	7.81		# of strides	13.07	12.65	13.46	15.01	25.72	28.47	2.75
	velocity	7.03	8.39	8.04	7.78	7.58	7.29	6.94	6.40	7.38		7.65	7.91	7.43	6.66	7.78	7.02	
Inaoka, Mayu (JPN) (1996)	time	6.95	12.85	19.04	25.68	32.66	39.98	47.65	56.01	56.01	6 / 7							
reaction time 0.211	interval		5.90	6.19	6.64	6.98	7.32	7.67	8.36		# of strides	12.85	12.83	14.30	16.03	25.68	30.33	4.65
	velocity	7.19	8.47	8.08	7.53	7.16	6.83	6.52	5.98	7.14		7.78	7.79	6.99	6.24	7.79	6.59	

Heat 1

date 27-Jun-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Matsumoto, Nanako (JPN) (	time	6.88	12.69	18.80	25.21	31.82	38.81	46.13	53.68	53.68	5 / 1							
reaction time 0.178	interval		5.81	6.11	6.41	6.61	6.99	7.32	7.55		# of strides	12.69	12.52	13.60	14.87	25.21	28.47	3.26
	velocity	7.27	8.61	8.18	7.80	7.56	7.15	6.83	6.62	7.45		7.88	7.99	7.35	6.72	7.93	7.02	
Takeishi, Konomi (JPN) (199	time	6.81	12.75	19.09	25.58	32.20	39.07	46.30	53.97	53.97	6 / 2							
reaction time 0.158	interval		5.94	6.34	6.49	6.62	6.87	7.23	7.67		# of strides	12.75	12.83	13.49	14.90	25.58	28.39	2.81
	velocity	7.34	8.42	7.89	7.70	7.55	7.28	6.92	6.52	7.41		7.84	7.79	7.41	6.71	7.82	7.04	
Hirosawa, Mae (JPN) (1997)	time	7.10	13.27	19.69	26.30	33.03	40.04	47.19	54.80	54.80	4 / 3							
reaction time 0.191	interval		6.17	6.42	6.61	6.73	7.01	7.15	7.61		# of strides	13.27	13.03	13.74	14.76	26.30	28.50	2.20
	velocity	7.04	8.10	7.79	7.56	7.43	7.13	6.99	6.57	7.30		7.54	7.67	7.28	6.78	7.60	7.02	

2019 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)

FINAL

date 16-Jun-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.2		23.7		36.3		50.13	50.13	4 / 1							
reaction time 0.165	interval				11.5		12.6		13.8		# of strides	12.20	11.50	12.60	13.83	23.70	26.43	2.73
	velocity		8.20		8.70		7.94		7.23	7.98	193.2	8.20	8.70	7.94	7.23	8.44	7.57	
Seyni, Aminatou (NIG) (1996	time		12.8		24.5		37.1		50.24	50.24	3 / 2							
reaction time 0.219	interval				11.7		12.6		13.1	NR	# of strides	12.80	11.70	12.60	13.14	24.50	25.74	1.24
	velocity		7.81		8.55		7.94		7.61	7.96	195.0	7.81	8.55	7.94	7.61	8.16	7.77	
Botlogetswe, Christine (BO	time		12.3		23.9		36.5		50.48	50.48	6 / 3							
reaction time 0.184	interval				11.6		12.6		14.0	PB	# of strides	12.30	11.60	12.60	13.98	23.90	26.58	2.68
	velocity		8.13		8.62		7.94		7.15	7.92	182.0	8.13	8.62	7.94	7.15	8.37	7.52	
Francis Phyllis (USA) (1992)	time		12.3		24.1		36.8		50.76	50.76	5 / 4							
reaction time 0.203	interval				11.8		12.7		14.0		# of strides	12.30	11.80	12.70	13.96	24.10	26.66	2.56
	velocity		8.13		8.47		7.87		7.16	7.88	177.0	8.13	8.47	7.87	7.16	8.30	7.50	
Stepter, Jaide (USA) (1994)	time		12.1		23.8		36.6		51.44	51.44	8 / 5							
reaction time 0.158	interval				11.7		12.8		14.8		# of strides	12.10	11.70	12.80	14.84	23.80	27.64	3.84
	velocity		8.26		8.55		7.81		6.74	7.78	191.0	8.26	8.55	7.81	6.74	8.40	7.24	
de Witte, Lisanne (NED) (19	time		12.7		24.6		37.5		51.53	51.53	7 / 6							
reaction time 0.174	interval				11.9		12.9		14.0		# of strides	12.70	11.90	12.90	14.03	24.60	26.93	2.33
	velocity		7.87		8.40		7.75		7.13	7.76	194.0	7.87	8.40	7.75	7.13	8.13	7.43	
Ghafoor, Madiea (NED) (199	time		12.3		24.2		37.6		52.92	52.92	1 / 8							
reaction time 0.205	interval				11.9		13.4		15.3		# of strides	12.30	11.90	13.40	15.32	24.20	28.72	4.52
	velocity		8.13		8.40		7.46		6.53	7.56	199.5	8.13	8.40	7.46	6.53	8.26	6.96	

2019 Orlen Janusz Kosuciński Memorial (Chorzów, POL)

FINAL

date 16-Jun-19

Vazel (2019) - statistical analysis and historical context of the new 400H world record

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Muhammad, Dalilah (USA) (	time				24.3				50.60	50.60	/ 1							
reaction time	interval								26.3	PB	# of strides		24.30			24.30	26.30	2.00
	velocity				8.23				7.60	7.91			8.23			8.23	7.60	

2019 Bislett Games (Olso, NOR)

National FINAL

date 13-Jun-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
van den Broeck, Naomi (BEL	time		12.7		25.3		39.4		54.48	54.48	5 / 1							
reaction time 0.134	interval				12.6		14.1		15.1	PB	# of strides	12.70	12.60	14.10	15.08	25.30	29.18	3.88
	velocity		7.87		7.94		7.09		6.63	7.34		7.87	7.94	7.09	6.63	7.91	6.85	
Jensen, Sara Dorthea (NOR)	time		13.6		26.1		39.4		54.83	54.83	7 / 2							
reaction time 0.194	interval				12.5		13.3		15.4		# of strides	13.60	12.50	13.30	15.43	26.10	28.73	2.63
	velocity		7.35		8.00		7.52		6.48	7.30		7.35	8.00	7.52	6.48	7.66	6.96	
Ertzgaard, Kaitesi (NOR) (20	time		13.2		25.7		39.7		55.60	55.60	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 0.178	interval		12.5	14.0	15.9	PB	# of strides	13.20	12.50	14.00	15.90	25.70	29.90	4.20
	velocity	7.58	8.00	7.14	6.29	7.19		7.58	8.00	7.14	6.29	7.78	6.69	
Jensen, Christine Bjelland (N	time	13.3	26.1	40.3	55.70	55.70	4 / 4							
reaction time 0.161	interval		12.8	14.2	15.4		# of strides	13.30	12.80	14.20	15.40	26.10	29.60	3.50
	velocity	7.52	7.81	7.04	6.49	7.18		7.52	7.81	7.04	6.49	7.66	6.76	
Tærun, Frida Røe (NOR) (20	time	13.2	26.0	40.6	56.23	56.23	3 / 5							
reaction time 0.182	interval		12.8	14.6	15.6		# of strides	13.20	12.80	14.60	15.63	26.00	30.23	4.23
	velocity	7.58	7.81	6.85	6.40	7.11		7.58	7.81	6.85	6.40	7.69	6.62	
Tveit, June Sæbøe (NOR) (1!	time	13.5	26.9	41.1	56.56	56.56	2 / 6							
reaction time 0.182	interval		13.4	14.2	15.5	=PB	# of strides	13.50	13.40	14.20	15.46	26.90	29.66	2.76
	velocity	7.41	7.46	7.04	6.47	7.07		7.41	7.46	7.04	6.47	7.43	6.74	
Amlie, Sigrid Kongssund (N	time	13.5	26.4	41.0	56.98	56.98	1 / 7							
reaction time 0.174	interval		12.9	14.6	16.0	PB	# of strides	13.50	12.90	14.60	15.98	26.40	30.58	4.18
	velocity	7.41	7.75	6.85	6.26	7.02		7.41	7.75	6.85	6.26	7.58	6.54	
Nyhus, Mille Eide (NOR) (20(	time	13.2	26.5	41.2	57.22	57.22	8 / 8							
reaction time 0.208	interval		13.3	14.7	16.0	PB	# of strides	13.20	13.30	14.70	16.02	26.50	30.72	4.22
	velocity	7.58	7.52	6.80	6.24	6.99		7.58	7.52	6.80	6.24	7.55	6.51	

2019 NCAA Championships (Austin, TX)

FINAL date 07-Jun-19

Track Newsletter (2019) - NCAA women's championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jonathas, Wadeline (USA) (1	time					37.0		50.6	50.60	/ 1							
reaction time 0.232	interval							13.60	PB	# of strides				13.60			
	velocity					5.41		7.35	7.91					7.35			
Abbott, Chloe (USA) (1998)	time					37.1		51.0	50.98	/ 2							
reaction time 0.234	interval							13.90	PB	# of strides				13.90			
	velocity					5.39		7.19	7.85					7.19			
Barnett, Sharrika (JAM) (199	time					36.6		51.0	51.00	/ 3							
reaction time 0.220	interval							14.40		# of strides				14.40			
	velocity					5.46		6.94	7.84					6.94			
Campbell, Kethlin (USA) (19	time					37.2		51.1	51.09	/ 4							
reaction time 0.236	interval							13.90		# of strides				13.90			
	velocity					5.38		7.19	7.83					7.19			
Abrams, Aliyah (GUY) (1997)	time					37.0		51.1	51.13	/ 5							
reaction time 0.220	interval							14.10	PB	# of strides				14.10			
	velocity					5.41		7.09	7.82					7.09			
Constantine, Kyra (CAN) (1!	time					37.6		51.5	51.47	/ 6							
reaction time 0.211	interval							13.90		# of strides				13.90			
	velocity					5.32		7.19	7.77					7.19			
Richardson, Syaira (USA) (1!	time					37.6		52.0	51.98	/ 7							
reaction time 0.273	interval							14.40		# of strides				14.40			
	velocity					5.32		6.94	7.70					6.94			
Waller, Hannah (USA) (1998)	time					37.1		52.5	52.47	/ 8							
reaction time 0.268	interval							15.40		# of strides				15.40			
	velocity					5.39		6.49	7.62					6.49			

2019 Golden Gala Pietro Mennea (Rome, ITA)

FINAL date 06-Jun-19

Omega Timing (2019) - diamond league race analysis

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199!	time	12.6		24.4		36.7		50.26	50.26	5 / 1							
reaction time 0.178	interval			11.8		12.3		13.6		# of strides	12.60	11.80	12.30	13.56	24.40	25.86	1.46
	velocity	7.94		8.47		8.13		7.37	7.96	188.0	7.94	8.47	8.13	7.37	8.20	7.73	
Jackson, Shericka (JAM) (19!	time	12.5		24.4		37.2		51.05	51.05	6 / 2							
reaction time 0.198	interval			11.9		12.8		13.9		# of strides	12.50	11.90	12.80	13.85	24.40	26.65	2.25
	velocity	8.00		8.40		7.81		7.22	7.84	197.0	8.00	8.40	7.81	7.22	8.20	7.50	
McPherson, Stephenie Ann (	time	12.5		24.2		37.1		51.39	51.39	4 / 3							
reaction time 0.152	interval			11.7		12.9		14.3		# of strides	12.50	11.70	12.90	14.29	24.20	27.19	2.99
	velocity	8.00		8.55		7.75		7.00	7.78	190.0	8.00	8.55	7.75	7.00	8.26	7.36	
Beard, Jessica (USA) (1989)	time	12.4		24.3		37.3		51.55	51.55	8 / 4							
reaction time 0.237	interval			11.9		13.0		14.3		# of strides	12.40	11.90	13.00	14.25	24.30	27.25	2.95
	velocity	8.06		8.40		7.69		7.02	7.76	192.7	8.06	8.40	7.69	7.02	8.23	7.34	
Święty-Ersetic, Justyna (POL	time	12.8		24.9		37.8		52.04	52.04	7 / 5							
reaction time 0.184	interval			12.1		12.9		14.2		# of strides	12.80	12.10	12.90	14.24	24.90	27.14	2.24
	velocity	7.81		8.26		7.75		7.02	7.69	211.0	7.81	8.26	7.75	7.02	8.03	7.37	
Ellis, Kendall (USA) (1996)	time	12.2		24.3		37.1		52.09	52.09	9 / 6							
reaction time 0.217	interval			12.1		12.8		15.0		# of strides	12.20	12.10	12.80	14.99	24.30	27.79	3.49
	velocity	8.20		8.26		7.81		6.67	7.68	189.2	8.20	8.26	7.81	6.67	8.23	7.20	
de Witte, Lisanne (NED) (19!	time	13.0		25.3		38.4		52.17	52.17	3 / 7							
reaction time 0.190	interval			12.3		13.1		13.8		# of strides	13.00	12.30	13.10	13.77	25.30	26.87	1.57
	velocity	7.69		8.13		7.63		7.26	7.67	194.0	7.69	8.13	7.63	7.26	7.91	7.44	

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Okolo, Courtney (USA) (199	time		12.6		24.7		37.6		52.17	52.17	2 / 8							
reaction time 0.222	interval				12.1		12.9		14.6		# of strides	12.60	12.10	12.90	14.57	24.70	27.47	2.77
	velocity		7.94		8.26		7.75		6.86	7.67	198.7	7.94	8.26	7.75	6.86	8.10	7.28	
Lukudo, Raphaela Boaheng	time		12.9		25.1		38.3		52.98	52.98	1 / 9							
reaction time 0.204	interval				12.2		13.2		14.7		# of strides	12.90	12.20	13.20	14.68	25.10	27.88	2.78
	velocity		7.75		8.20		7.58		6.81	7.55	198.0	7.75	8.20	7.58	6.81	7.97	7.17	

2019 Shimane High School Championships (Izumo, JPN)

FINAL date 24-May-19

Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Oshita, Airi (JPN)	time		13.30		26.68		42.15		58.96	58.96	5 / 1							
reaction time	interval				13.38		15.47		16.81		# of strides	13.30	13.38	15.47	16.81	26.68	32.28	5.60
	velocity		7.52		7.47		6.46		5.95	6.78		7.52	7.47	6.46	5.95	7.50	6.20	
Watanabe, Suzuka (JPN) (20	time		13.80		27.61		43.43		59.35	59.35	7 / 2							
reaction time	interval				13.81		15.82		15.92		# of strides	13.80	13.81	15.82	15.92	27.61	31.74	4.13
	velocity		7.25		7.24		6.32		6.28	6.74		7.25	7.24	6.32	6.28	7.24	6.30	
Nagase, Nozomi (JPN)	time		13.90		27.94		44.09		61.23	61.23	2 / 3							
reaction time	interval				14.04		16.15		17.14		# of strides	13.90	14.04	16.15	17.14	27.94	33.29	5.35
	velocity		7.19		7.12		6.19		5.83	6.53		7.19	7.12	6.19	5.83	7.16	6.01	
Hirayabu, Mei (JPN)	time		14.44		28.85		44.77		61.24	61.24	4 / 4							
reaction time	interval				14.41		15.92		16.47		# of strides	14.44	14.41	15.92	16.47	28.85	32.39	3.54
	velocity		6.93		6.94		6.28		6.07	6.53		6.93	6.94	6.28	6.07	6.93	6.17	
Hihara, Honaka (JPN)	time		14.87		30.08		45.98		61.84	61.84	6 / 5							
reaction time	interval				15.21		15.90		15.86		# of strides	14.87	15.21	15.90	15.86	30.08	31.76	1.68
	velocity		6.72		6.57		6.29		6.31	6.47		6.72	6.57	6.29	6.31	6.65	6.30	
Ichise, Honaka (JPN)	time		14.68		29.45		45.20		62.09	62.09	8 / 6							
reaction time	interval				14.77		15.75		16.89		# of strides	14.68	14.77	15.75	16.89	29.45	32.64	3.19
	velocity		6.81		6.77		6.35		5.92	6.44		6.81	6.77	6.35	5.92	6.79	6.13	
Ishitobi, Miyu (JPN)	time		15.58		30.50		46.14		63.10	63.10	9 / 7							
reaction time	interval				14.92		15.64		16.96		# of strides	15.58	14.92	15.64	16.96	30.50	32.60	2.10
	velocity		6.42		6.70		6.39		5.90	6.34		6.42	6.70	6.39	5.90	6.56	6.13	
Natsuki, Okuni (JPN)	time		15.16		30.28		47.19		64.96	64.96	3 / 8							
reaction time	interval				15.12		16.91		17.77		# of strides	15.16	15.12	16.91	17.77	30.28	34.68	4.40
	velocity		6.60		6.61		5.91		5.63	6.16		6.60	6.61	5.91	5.63	6.61	5.77	

2019 Shanghai (Shanghai, CHN)

FINAL date 18-May-19

Omega Timing (2019) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.3		24.1		36.9		50.65	50.65	4 / 1							
reaction time 0.182	interval				11.8		12.8		13.8		# of strides	12.30	11.80	12.80	13.75	24.10	26.55	2.45
	velocity		8.13		8.47		7.81		7.27	7.90	187.5	8.13	8.47	7.81	7.27	8.30	7.53	
McLaughlin, Sydney (USA) (	time		12.7		24.9		37.2		50.78	50.78	6 / 2							
reaction time 0.147	interval				12.2		12.3		13.6		# of strides	12.70	12.20	12.30	13.58	24.90	25.88	0.98
	velocity		7.87		8.20		8.13		7.36	7.88	184.5	7.87	8.20	8.13	7.36	8.03	7.73	
Botlogetswe, Christine (BO	time		12.7		24.6		37.6		51.29	51.29	9 / 3							
reaction time 0.222	interval				11.9		13.0		13.7		# of strides	12.70	11.90	13.00	13.69	24.60	26.69	2.09
	velocity		7.87		8.40		7.69		7.30	7.80		7.87	8.40	7.69	7.30	8.13	7.49	
McPherson, Stephenie Ann (	time		12.5		24.5		37.3		51.39	51.39	7 / 4							
reaction time 0.142	interval				12.0		12.8		14.1		# of strides	12.50	12.00	12.80	14.09	24.50	26.89	2.39
	velocity		8.00		8.33		7.81		7.10	7.78	190.0	8.00	8.33	7.81	7.10	8.16	7.44	
Beard, Jessica (USA) (1989)	time		12.3		24.0		37.0		51.40	51.40	3 / 5							
reaction time 0.236	interval				11.7		13.0		14.4		# of strides	12.30	11.70	13.00	14.40	24.00	27.40	3.40
	velocity		8.13		8.55		7.69		6.94	7.78	193.2	8.13	8.55	7.69	6.94	8.33	7.30	
de Witte, Lisanne (NED) (19	time		12.9		24.9		37.8		51.80	51.80	2 / 6							
reaction time 0.180	interval				12.0		12.9		14.0		# of strides	12.90	12.00	12.90	14.00	24.90	26.90	2.00
	velocity		7.75		8.33		7.75		7.14	7.72	193.2	7.75	8.33	7.75	7.14	8.03	7.43	
Święty-Ersetic, Justyna (POL	time		12.9		25.0		37.8		51.85	51.85	8 / 7							
reaction time 0.172	interval				12.1		12.8		14.1		# of strides	12.90	12.10	12.80	14.05	25.00	26.85	1.85
	velocity		7.75		8.26		7.81		7.12	7.71		7.75	8.26	7.81	7.12	8.00	7.45	
Wimbley, Shakima (USA) (19	time		12.5		24.6		37.9		52.69	52.69	5 / 8							
reaction time 0.130	interval				12.1		13.3		14.8		# of strides	12.50	12.10	13.30	14.79	24.60	28.09	3.49
	velocity		8.00		8.26		7.52		6.76	7.59		8.00	8.26	7.52	6.76	8.13	7.12	
Huang Guifen (CHN) (1997)	time		12.8		25.5		39.3		54.17	54.17	1 / 9							
reaction time 0.168	interval				12.7		13.8		14.9		# of strides	12.80	12.70	13.80	14.87	25.50	28.67	3.17
	velocity		7.81		7.87		7.25		6.72	7.38		7.81	7.87	7.25	6.72	7.84	6.98	

2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)

A FINAL date 03-May-19

Kobayashi (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	7.03	13.09	19.25	25.50	32.01	38.86	46.09	53.86	53.86	/ 2							

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	interval		6.06	6.16	6.25	6.51	6.85	7.23	7.77		# of strides	13.09	12.41	13.36	15.00	25.50	28.36	2.86
	velocity	7.11	8.25	8.12	8.00	7.68	7.30	6.92	6.44	7.43		7.64	8.06	7.49	6.67	7.84	7.05	
Hirosawa, Mae (JPN) (1997)	time	6.99	12.99	19.10	25.46	32.18	39.26	46.56	54.25	54.25	/ 3							
reaction time	interval		6.00	6.11	6.36	6.72	7.08	7.30	7.69		# of strides	12.99	12.47	13.80	14.99	25.46	28.79	3.33
	velocity	7.15	8.33	8.18	7.86	7.44	7.06	6.85	6.50	7.37		7.70	8.02	7.25	6.67	7.86	6.95	
Matsumoto, Nanako (JPN) (	time	7.03	13.00	19.12	25.45	32.20	39.28	46.68	54.45	54.45	/ 4							
reaction time	interval		5.97	6.12	6.33	6.75	7.08	7.40	7.77		# of strides	13.00	12.45	13.83	15.17	25.45	29.00	3.55
	velocity	7.11	8.38	8.17	7.90	7.41	7.06	6.76	6.44	7.35		7.69	8.03	7.23	6.59	7.86	6.90	
Iwata, Yuna (JPN) (1997)	time	7.10	13.16	19.34	25.79	32.57	39.59	46.89	54.48	54.48	/ 5							
reaction time	interval		6.06	6.18	6.45	6.78	7.02	7.30	7.59		# of strides	13.16	12.63	13.80	14.89	25.79	28.69	2.90
	velocity	7.04	8.25	8.09	7.75	7.37	7.12	6.85	6.59	7.34		7.60	7.92	7.25	6.72	7.75	6.97	
Takeishi, Konomi (JPN) (199	time	6.94	12.84	18.88	25.39	32.30	39.45	46.86	54.77	54.77	/ 7							
reaction time	interval		5.90	6.04	6.51	6.91	7.15	7.41	7.91		# of strides	12.84	12.55	14.06	15.32	25.39	29.38	3.99
	velocity	7.20	8.47	8.28	7.68	7.24	6.99	6.75	6.32	7.30		7.79	7.97	7.11	6.53	7.88	6.81	
Inaoka, Mayu (JPN) (1996)	time	7.02	12.88	18.92	25.31	32.06	39.24	46.84	55.01	55.01	/ 8							
reaction time	interval		5.86	6.04	6.39	6.75	7.18	7.60	8.17		# of strides	12.88	12.43	13.93	15.77	25.31	29.70	4.39
	velocity	7.12	8.53	8.28	7.82	7.41	6.96	6.58	6.12	7.27		7.76	8.05	7.18	6.34	7.90	6.73	

B FINAL

date 03-May-19

Kobayashi (2019) - research on athlete performance and technique- 2019 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kobayashi, Mayu (JPN) (199	time	7.06	13.16	19.31	25.72	32.48	39.53	47.04	55.00	55.00	/ 1							
reaction time	interval		6.10	6.15	6.41	6.76	7.05	7.51	7.96		# of strides	13.16	12.56	13.81	15.47	25.72	29.28	3.56
	velocity	7.08	8.20	8.13	7.80	7.40	7.09	6.66	6.28	7.27		7.60	7.96	7.24	6.46	7.78	6.83	
Idoabigeiru, Fuka (JPN) (200	time	6.83	12.80	19.22	26.43	34.19	42.16	50.51	59.19	59.19	/ 6							
reaction time	interval		5.97	6.42	7.21	7.76	7.97	8.35	8.68		# of strides	12.80	13.63	15.73	17.03	26.43	32.76	6.33
	velocity	7.32	8.38	7.79	6.93	6.44	6.27	5.99	5.76	6.76		7.81	7.34	6.36	5.87	7.57	6.11	

2019 Asian Athletics Championships (Doha, QAT)

FINAL

date 21-Apr-19

Yamanaka (2019) - race analysis of men and women 400m competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time	6.64	12.15	18.00	24.26	30.67	37.24	44.08	51.34	51.34	4 / 1							
reaction time 0.187	interval		5.51	5.85	6.26	6.41	6.57	6.84	7.26		# of strides	12.15	12.11	12.98	14.10	24.26	27.08	2.82
	velocity	7.53	9.07	8.55	7.99	7.80	7.61	7.31	6.89	7.79	187.0	8.23	8.26	7.70	7.09	8.24	7.39	
Mikhina, Elina (KAZ) (1994)	time	7.05	12.83	18.85	25.33	32.04	38.93	45.99	53.19	53.19	3 / 2							
reaction time 0.244	interval		5.78	6.02	6.48	6.71	6.89	7.06	7.20		# of strides	12.83	12.50	13.60	14.26	25.33	27.86	2.53
	velocity	7.09	8.65	8.31	7.72	7.45	7.26	7.08	6.94	7.52		7.79	8.00	7.35	7.01	7.90	7.18	
Poovamma, Machettira Raju	time	6.94	12.69	18.79	25.20	31.77	38.56	45.60	53.21	53.21	5 / 3							
reaction time 0.202	interval		5.75	6.10	6.41	6.57	6.79	7.04	7.61		# of strides	12.69	12.51	13.36	14.65	25.20	28.01	2.81
	velocity	7.20	8.70	8.20	7.80	7.61	7.36	7.10	6.57	7.52	187.7	7.88	7.99	7.49	6.83	7.94	7.14	
Hirosawa, Mae (JPN) (1997)	time	6.85	12.72	18.82	25.23	31.87	38.75	45.89	53.54	53.54	8 / 4							
reaction time 0.163	interval		5.87	6.10	6.41	6.64	6.88	7.14	7.65		# of strides	12.72	12.51	13.52	14.79	25.23	28.31	3.08
	velocity	7.30	8.52	8.20	7.80	7.53	7.27	7.00	6.54	7.47	199.5	7.86	7.99	7.40	6.76	7.93	7.06	

2018 Japanese National Junior (U20) Championships (Nagano, JPN)

FINAL

date 19-Oct-18

Ryutaro (2018) - research on athlete performance and technique- 2018 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Shiomi, Ayano (JPN) (1999)	time	7.19	13.24	19.40	25.81	32.49	39.45	46.61	54.32	54.32	3 / 1							
reaction time	interval		6.05	6.16	6.41	6.68	6.96	7.16	7.71	PB	# of strides	13.24	12.57	13.64	14.87	25.81	28.51	2.70
	velocity	6.95	8.26	8.12	7.80	7.49	7.18	6.98	6.49	7.36		7.55	7.96	7.33	6.72	7.75	7.02	
Onishi, Manae (JPN) (2000)	time	7.32	13.30	19.45	25.93	32.70	39.74	47.10	55.14	55.14	5 / 2							
reaction time 0.272	interval		5.98	6.15	6.48	6.77	7.04	7.36	8.04		# of strides	13.30	12.63	13.81	15.40	25.93	29.21	3.28
	velocity	6.83	8.36	8.13	7.72	7.39	7.10	6.79	6.22	7.25		7.52	7.92	7.24	6.49	7.71	6.85	
Oshima, Airi (JPN) (2000)	time	7.31	13.35	19.67	26.31	33.12	40.12	47.39	55.33	55.33	2 / 3							
reaction time 0.178	interval		6.04	6.32	6.64	6.81	7.00	7.27	7.94		# of strides	13.35	12.96	13.81	15.21	26.31	29.02	2.71
	velocity	6.84	8.28	7.91	7.53	7.34	7.14	6.88	6.30	7.23		7.49	7.72	7.24	6.57	7.60	6.89	
Kuwahara, Ayako (JPN) (200	time	7.13	13.06	19.14	25.57	32.42	39.62	47.19	55.60	55.60	4 / 4							
reaction time 0.199	interval		5.93	6.08	6.43	6.85	7.20	7.57	8.41		# of strides	13.06	12.51	14.05	15.98	25.57	30.03	4.46
	velocity	7.01	8.43	8.22	7.78	7.30	6.94	6.61	5.95	7.19		7.66	7.99	7.12	6.26	7.82	6.66	
Yoshida, Kasumi (JPN) (199	time	7.08	13.09	19.44	26.10	33.06	40.35	47.87	55.94	55.94	6 / 5							
reaction time 0.437	interval		6.01	6.35	6.66	6.96	7.29	7.52	8.07		# of strides	13.09	13.01	14.25	15.59	26.10	29.84	3.74
	velocity	7.06	8.32	7.87	7.51	7.18	6.86	6.65	6.20	7.15		7.64	7.69	7.02	6.41	7.66	6.70	
Takashima, Natsumi (JPN) (2	time	7.40	13.58	20.07	26.87	33.98	41.22	48.58	56.28	56.28	8 / 6							
reaction time 0.239	interval		6.18	6.49	6.80	7.11	7.24	7.36	7.70		# of strides	13.58	13.29	14.35	15.06	26.87	29.41	2.54
	velocity	6.76	8.09	7.70	7.35	7.03	6.91	6.79	6.49	7.11		7.36	7.52	6.97	6.64	7.44	6.80	
Gono, Shiina (JPN) (1999)	time	7.28	13.60	20.10	26.88	33.87	41.14	48.60	56.59	56.59	1 / 7							
reaction time 0.198	interval		6.32	6.50	6.78	6.99	7.27	7.46	7.99		# of strides	13.60	13.28	14.26	15.45	26.88	29.71	2.83
	velocity	6.87	7.91	7.69	7.37	7.15	6.88	6.70	6.26	7.07		7.35	7.53	7.01	6.47	7.44	6.73	
Okumura, Yuri (JPN) (2000)	time	7.20	13.08	19.39	26.18	33.24	40.66	48.35	56.59	56.59	7 / 8							
reaction time 0.185	interval		5.88	6.31	6.79	7.06	7.42	7.69	8.24		# of strides	13.08	13.10	14.48	15.93	26.18	30.41	4.23
	velocity	6.94	8.50	7.92	7.36	7.08	6.74	6.50	6.07	7.07		7.65	7.63	6.91	6.28	7.64	6.58	

2018 Japanese National Youth (U18) Championships (Nagano, JPN)

FINAL

date 19-Oct-18

Ryutaro (2018) - research on athlete performance and technique- 2018 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sudo, Mio (JPN) (2002)	time	7.42	13.86	20.31	26.89	33.67	40.56	47.63	55.00	55.00	4 / 1							
reaction time 0.189	interval		6.44	6.45	6.58	6.78	6.89	7.07	7.37		# of strides	13.86	13.03	13.67	14.44	26.89	28.11	1.22
	velocity	6.74	7.76	7.75	7.60	7.37	7.26	7.07	6.78	7.27		7.22	7.67	7.32	6.93	7.44	7.11	
Yoshioka, Rina (JPN) (2001)	time	7.09	13.41	19.91	26.56	33.26	40.22	47.55	55.42	55.42	6 / 2							
reaction time 0.177	interval		6.32	6.50	6.65	6.70	6.96	7.33	7.87		# of strides	13.41	13.15	13.66	15.20	26.56	28.86	2.30
	velocity	7.05	7.91	7.69	7.52	7.46	7.18	6.82	6.35	7.22		7.46	7.60	7.32	6.58	7.53	6.93	
Nakano, Nano (JPN) (2001)	time	7.27	13.63	20.14	26.87	33.67	40.72	48.04	55.74	55.74	7 / 3							
reaction time 0.157	interval		6.36	6.51	6.73	6.80	7.05	7.32	7.70		# of strides	13.63	13.24	13.85	15.02	26.87	28.87	2.00
	velocity	6.88	7.86	7.68	7.43	7.35	7.09	6.83	6.49	7.18		7.34	7.55	7.22	6.66	7.44	6.93	
Murakami, Hikaru (JPN) (200	time	7.18	13.56	19.99	26.62	33.42	40.53	47.90	55.75	55.75	3 / 4							
reaction time 0.244	interval		6.38	6.43	6.63	6.80	7.11	7.37	7.85		# of strides	13.56	13.06	13.91	15.22	26.62	29.13	2.51
	velocity	6.96	7.84	7.78	7.54	7.35	7.03	6.78	6.37	7.17		7.37	7.66	7.19	6.57	7.51	6.87	
Yoshinaka, Hinako (JPN) (20	time	7.46	13.69	20.04	26.57	33.31	40.50	48.09	56.16	56.16	5 / 5							
reaction time 0.201	interval		6.23	6.35	6.53	6.74	7.19	7.59	8.07		# of strides	13.69	12.88	13.93	15.66	26.57	29.59	3.02
	velocity	6.70	8.03	7.87	7.66	7.42	6.95	6.59	6.20	7.12		7.30	7.76	7.18	6.39	7.53	6.76	
Funabiki, Ruka (JPN) (2002)	time	7.34	13.65	20.26	27.07	34.02	41.23	48.78	56.64	56.64	1 / 6							
reaction time 0.202	interval		6.31	6.61	6.81	6.95	7.21	7.55	7.86		# of strides	13.65	13.42	14.16	15.41	27.07	29.57	2.50
	velocity	6.81	7.92	7.56	7.34	7.19	6.93	6.62	6.36	7.06		7.33	7.45	7.06	6.49	7.39	6.76	
Oikawa, Maaya (JPN) (2001)	time	7.49	13.95	20.57	27.41	34.34	41.55	48.92	56.65	56.65	8 / 7							
reaction time	interval		6.46	6.62	6.84	6.93	7.21	7.37	7.73		# of strides	13.95	13.46	14.14	15.10	27.41	29.24	1.83
	velocity	6.68	7.74	7.55	7.31	7.22	6.93	6.78	6.47	7.06		7.17	7.43	7.07	6.62	7.30	6.84	
Kawakubo, Moeka (JPN) (20	time	7.34	13.94	20.70	27.51	34.35	41.57	49.03	56.69	56.69	2 / 8							
reaction time 0.200	interval		6.60	6.76	6.81	6.84	7.22	7.46	7.66		# of strides	13.94	13.57	14.06	15.12	27.51	29.18	1.67
	velocity	6.81	7.58	7.40	7.34	7.31	6.93	6.70	6.53	7.06		7.17	7.37	7.11	6.61	7.27	6.85	

2018 National Sports Festival (Fukui, JPN)

U20 FINAL

date 08-Oct-18

Joshi (2018) - research on athlete performance and technique- 2018 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takashima, Saki (JPN) (2002)	time	7.35	13.78	20.39	27.07	33.78	40.50	47.30	54.61	54.61	6 / 1							
reaction time 0.240	interval		6.43	6.61	6.68	6.71	6.72	6.80	7.31		# of strides	13.78	13.29	13.43	14.11	27.07	27.54	0.47
	velocity	6.80	7.78	7.56	7.49	7.45	7.44	7.35	6.84	7.32		7.26	7.52	7.45	7.09	7.39	7.26	
Yoshioka, Rina (JPN) (2001)	time	6.96	13.32	19.95	26.71	33.49	40.32	47.27	54.70	54.70	4 / 2							
reaction time 0.183	interval		6.36	6.63	6.76	6.78	6.83	6.95	7.43		# of strides	13.32	13.39	13.61	14.38	26.71	27.99	1.28
	velocity	7.18	7.86	7.54	7.40	7.37	7.32	7.19	6.73	7.31		7.51	7.47	7.35	6.95	7.49	7.15	
Sudo, Mio (JPN) (2002)	time	7.25	13.56	20.04	26.67	33.51	40.47	47.59	55.28	55.28	3 / 3							
reaction time 0.167	interval		6.31	6.48	6.63	6.84	6.96	7.12	7.69		# of strides	13.56	13.11	13.80	14.81	26.67	28.61	1.94
	velocity	6.90	7.92	7.72	7.54	7.31	7.18	7.02	6.50	7.24		7.37	7.63	7.25	6.75	7.50	6.99	

FINAL

date 07-Oct-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time	6.87	12.91	19.27	25.92	32.76	39.66	46.65	53.97	53.97	6 / 1							
reaction time 0.183	interval		6.04	6.36	6.65	6.84	6.90	6.99	7.32		# of strides	12.91	13.01	13.74	14.31	25.92	28.05	2.13
	velocity	7.28	8.28	7.86	7.52	7.31	7.25	7.15	6.83	7.41		7.75	7.69	7.28	6.99	7.72	7.13	
Iwata, Yuna (JPN) (1997)	time	6.91	12.96	19.32	25.96	32.84	39.78	46.75	54.00	54.00	5 / 2							
reaction time 0.162	interval		6.05	6.36	6.64	6.88	6.94	6.97	7.25		# of strides	12.96	13.00	13.82	14.22	25.96	28.04	2.08
	velocity	7.24	8.26	7.86	7.53	7.27	7.20	7.17	6.90	7.41		7.72	7.69	7.24	7.03	7.70	7.13	
Takeishi, Konomi (JPN) (199	time	6.82	12.76	19.04	25.80	32.74	39.76	46.85	54.28	54.28	4 / 3							
reaction time 0.153	interval		5.94	6.28	6.76	6.94	7.02	7.09	7.43		# of strides	12.76	13.04	13.96	14.52	25.80	28.48	2.68
	velocity	7.33	8.42	7.96	7.40	7.20	7.12	7.05	6.73	7.37		7.84	7.67	7.16	6.89	7.75	7.02	
Matsumoto, Nanako (JPN) (	time	7.10	13.06	19.29	25.87	32.66	39.66	46.91	54.70	54.70	3 / 4							
reaction time 0.208	interval		5.96	6.23	6.58	6.79	7.00	7.25	7.79		# of strides	13.06	12.81	13.79	15.04	25.87	28.83	2.96
	velocity	7.04	8.39	8.03	7.60	7.36	7.14	6.90	6.42	7.31		7.66	7.81	7.25	6.65	7.73	6.94	
Shintaku, Asami (JPN) (1994	time	7.27	13.55	20.20	27.07	33.98	40.91	47.94	55.28	55.28	8 / 5							
reaction time 0.144	interval		6.28	6.65	6.87	6.91	6.93	7.03	7.34		# of strides	13.55	13.52	13.84	14.37	27.07	28.21	1.14
	velocity	6.88	7.96	7.52	7.28	7.24	7.22	7.11	6.81	7.24		7.38	7.40	7.23	6.96	7.39	7.09	
Aoki, Rin (JPN) (1998)	time	6.97	13.01	19.44	26.36	33.50	40.76	48.05	55.46	55.46	1 / 6							
reaction time 0.161	interval		6.04	6.43	6.92	7.14	7.26	7.29	7.41		# of strides	13.01	13.35	14.40	14.70	26.36	29.10	2.74
	velocity	7.17	8.28	7.78	7.23	7.00	6.89	6.86	6.75	7.21		7.69	7.49	6.94	6.80	7.59	6.87	
Matsumoto, Chika (JPN) (19	time	7.14	13.54	20.29	27.21	34.19	41.22	48.30	55.63	55.63	7 / 7							
reaction time 0.166	interval		6.40	6.75	6.92	6.98	7.03	7.08	7.33		# of strides	13.54	13.67	14.01	14.41	27.21	28.42	1.21
	velocity	7.00	7.81	7.41	7.23	7.16	7.11	7.06	6.82	7.19		7.39	7.32	7.14	6.94	7.35	7.04	

2018 Japanese Corporate Championships (Osaka, JPN)

FINAL

date 23-Sep-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takeishi, Konomi (JPN) (199	time	7.00	12.99	19.10	25.63	32.52	39.58	46.80	54.24	54.24	4 / 1							
reaction time 0.145	interval		5.99	6.11	6.53	6.89	7.06	7.22	7.44		# of strides	12.99	12.64	13.95	14.66	25.63	28.61	2.98
	velocity	7.14	8.35	8.18	7.66	7.26	7.08	6.93	6.72	7.37		7.70	7.91	7.17	6.82	7.80	6.99	

Aoki, Sayaka (JPN) (1986)	time	7.03	13.13	19.45	26.18	33.16	40.36	47.67	55.06	55.06	7 / 2							
reaction time 0.158	interval		6.10	6.32	6.73	6.98	7.20	7.31	7.39		# of strides	13.13	13.05	14.18	14.70	26.18	28.88	2.70
	velocity	7.11	8.20	7.91	7.43	7.16	6.94	6.84	6.77	7.26		7.62	7.66	7.05	6.80	7.64	6.93	
Shintaku, Asami (JPN) (1994	time	7.24	13.36	19.55	26.15	32.94	39.93	47.30	55.15	55.15	5 / 3							
reaction time 0.153	interval		6.12	6.19	6.60	6.79	6.99	7.37	7.85		# of strides	13.36	12.79	13.78	15.22	26.15	29.00	2.85
	velocity	6.91	8.17	8.08	7.58	7.36	7.15	6.78	6.37	7.25		7.49	7.82	7.26	6.57	7.65	6.90	
Kashiyama, Kaede (JPN) (19	time	7.08	13.05	19.15	25.66	32.45	39.56	47.01	55.19	55.19	6 / 4							
reaction time	interval		5.97	6.10	6.51	6.79	7.11	7.45	8.18		# of strides	13.05	12.61	13.90	15.63	25.66	29.53	3.87
	velocity	7.06	8.38	8.20	7.68	7.36	7.03	6.71	6.11	7.25		7.66	7.93	7.19	6.40	7.79	6.77	
Fujinuma, Akane (JPN) (199	time	7.23	13.32	19.59	26.29	33.24	40.41	47.78	55.63	55.63	8 / 5							
reaction time 0.132	interval		6.09	6.27	6.70	6.95	7.17	7.37	7.85	PB	# of strides	13.32	12.97	14.12	15.22	26.29	29.34	3.05
	velocity	6.92	8.21	7.97	7.46	7.19	6.97	6.78	6.37	7.19		7.51	7.71	7.08	6.57	7.61	6.82	

2018 Asian Games (Jakarta, INA)

FINAL date 26-Aug-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time	6.69	12.30	18.10	24.14	30.40	36.77	43.29	50.09	50.09	5 / 1							
reaction time 0.156	interval		5.61	5.80	6.04	6.26	6.37	6.52	6.80	CR	# of strides	12.30	11.84	12.63	13.32	24.14	25.95	1.81
	velocity	7.47	8.91	8.62	8.28	7.99	7.85	7.67	7.35	7.99	187.5	8.13	8.45	7.92	7.51	8.29	7.71	
Das, Hima (IND) (2000)	time	6.82	12.58	18.49	24.52	30.84	37.39	43.99	50.79	50.79	3 / 2							
reaction time 0.161	interval		5.76	5.91	6.03	6.32	6.55	6.60	6.80	NJR PB	# of strides	12.58	11.94	12.87	13.40	24.52	26.27	1.75
	velocity	7.33	8.68	8.46	8.29	7.91	7.63	7.58	7.35	7.88	197.0	7.95	8.38	7.77	7.46	8.16	7.61	
Mikhina, Elina (KAZ) (1994)	time	7.07	12.94	19.09	25.48	32.03	38.70	45.51	52.63	52.63	1 / 3							
reaction time 0.206	interval		5.87	6.15	6.39	6.55	6.67	6.81	7.12		# of strides	12.94	12.54	13.22	13.93	25.48	27.15	1.67
	velocity	7.07	8.52	8.13	7.82	7.63	7.50	7.34	7.02	7.60	189.0	7.73	7.97	7.56	7.18	7.85	7.37	
Sheoran, Nirmala (IND) (199	time	7.06	12.93	18.95	25.15	31.60	38.33	45.37	52.96	52.96	4 / 4							
reaction time 0.277	interval		5.87	6.02	6.20	6.45	6.73	7.04	7.59		# of strides	12.93	12.22	13.18	14.63	25.15	27.81	2.66
	velocity	7.08	8.52	8.31	8.06	7.75	7.43	7.10	6.59	7.55	183.0	7.73	8.18	7.59	6.84	7.95	7.19	
Huang Guifen (CHN) (1997)	time	6.77	12.75	18.86	25.36	32.03	38.98	46.26	53.89	53.89	8 / 5							
reaction time 0.201	interval		5.98	6.11	6.50	6.67	6.95	7.28	7.63		# of strides	12.75	12.61	13.62	14.91	25.36	28.53	3.17
	velocity	7.39	8.36	8.18	7.69	7.50	7.19	6.87	6.55	7.42		7.84	7.93	7.34	6.71	7.89	7.01	
Tong Zenghuan (CHN) (199	time	7.26	13.37	19.61	26.04	32.66	39.44	46.44	53.95	53.95	7 / 6							
reaction time 0.296	interval		6.11	6.24	6.43	6.62	6.78	7.00	7.51		# of strides	13.37	12.67	13.40	14.51	26.04	27.91	1.87
	velocity	6.89	8.18	8.01	7.78	7.55	7.37	7.14	6.66	7.41		7.48	7.89	7.46	6.89	7.68	7.17	
Jassim, Iman Isa (BRN) (199	time	6.77	12.73	18.85	25.35	32.00	38.89	46.22	54.19	54.19	6 / 7							
reaction time 0.158	interval		5.96	6.12	6.50	6.65	6.89	7.33	7.97		# of strides	12.73	12.62	13.54	15.30	25.35	28.84	3.49
	velocity	7.39	8.39	8.17	7.69	7.52	7.26	6.82	6.27	7.38		7.86	7.92	7.39	6.54	7.89	6.93	
Nguyen Thi Hang (VIE) (199	time	6.89	12.77	18.94	25.33	32.06	39.09	46.47	54.30	54.30	2 / 8							
reaction time 0.175	interval		5.88	6.17	6.39	6.73	7.03	7.38	7.83	PB	# of strides	12.77	12.56	13.76	15.21	25.33	28.97	3.64
	velocity	7.26	8.50	8.10	7.82	7.43	7.11	6.78	6.39	7.37		7.83	7.96	7.27	6.57	7.90	6.90	

2018 African Championships (Asaba Asaba, NGR)

FINAL date 03-Aug-18

Vazel (2018.08.03) - https://twitter.com/pjvazel

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Semenya, Caster (RSA) (199	time				24.3		36.7		49.96	49.96	4 / 1							
reaction time	interval						12.40		13.26	NR	# of strides			12.40	13.26	24.30	25.66	1.36
	velocity				8.23		8.06		7.54	8.01	194.0			8.06	7.54	8.23	7.79	

2018 Japanese National High School Championships (Nagoya, JPN)

FINAL date 02-Aug-18

Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takashima, Saki (JPN) (2002)	time	7.09	13.26	19.52	25.91	32.44	39.18	46.18	53.78	53.78	8 / 1							
reaction time	interval		6.17	6.26	6.39	6.53	6.74	7.00	7.60		# of strides	13.26	12.65	13.27	14.60	25.91	27.87	1.96
	velocity	7.05	8.10	7.99	7.82	7.66	7.42	7.14	6.58	7.44		7.54	7.91	7.54	6.85	7.72	7.18	
Yoshioka, Rina (JPN) (2001)	time	7.11	13.30	19.84	26.35	32.93	39.83	47.09	54.99	54.99	4 / 2							
reaction time	interval		6.19	6.54	6.51	6.58	6.90	7.26	7.90		# of strides	13.30	13.05	13.48	15.16	26.35	28.64	2.29
	velocity	7.03	8.08	7.65	7.68	7.60	7.25	6.89	6.33	7.27		7.52	7.66	7.42	6.60	7.59	6.98	
Irie, Akiho (JPN) (2001)	time	7.16	13.31	19.69	26.24	33.02	40.08	47.45	55.23	55.23	7 / 3							
reaction time	interval		6.15	6.38	6.55	6.78	7.06	7.37	7.78		# of strides	13.31	12.93	13.84	15.15	26.24	28.99	2.75
	velocity	6.98	8.13	7.84	7.63	7.37	7.08	6.78	6.43	7.24		7.51	7.73	7.23	6.60	7.62	6.90	
Onishi, Aonori (JPN)	time	7.09	13.02	19.20	25.59	32.15	39.17	46.74	55.24	55.24	6 / 4							
reaction time	interval		5.93	6.18	6.39	6.56	7.02	7.57	8.50		# of strides	13.02	12.57	13.58	16.07	25.59	29.65	4.06
	velocity	7.05	8.43	8.09	7.82	7.62	7.12	6.61	5.88	7.24		7.68	7.96	7.36	6.22	7.82	6.75	
Takashima, Natsumi (JPN) (2	time	7.29	13.54	19.90	26.54	33.49	40.75	48.18	55.95	55.95	9 / 5							
reaction time	interval		6.25	6.36	6.64	6.95	7.26	7.43	7.77		# of strides	13.54	13.00	14.21	15.20	26.54	29.41	2.87
	velocity	6.86	8.00	7.86	7.53	7.19	6.89	6.73	6.44	7.15		7.39	7.69	7.04	6.58	7.54	6.80	
Sudo, Mio (JPN) (2002)	time	7.21	13.40	19.87	26.49	33.39	40.65	48.18	55.98	55.98	5 / 6							
reaction time	interval		6.19	6.47	6.62	6.90	7.26	7.53	7.80		# of strides	13.40	13.09	14.16	15.33	26.49	29.49	3.00
	velocity	6.93	8.08	7.73	7.55	7.25	6.89	6.64	6.41	7.15		7.46	7.64	7.06	6.52	7.55	6.78	
Oshima, Airi (JPN) (2000)	time	7.55	13.91	20.55	27.37	34.35	41.45	48.64	56.08	56.08	2 / 7							
reaction time	interval		6.36	6.64	6.82	6.98	7.10	7.19	7.44		# of strides	13.91	13.46	14.08	14.63	27.37	28.71	1.34

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

	velocity	6.62	7.86	7.53	7.33	7.16	7.04	6.95	6.72	7.13		7.19	7.43	7.10	6.84	7.31	6.97	
Tsugawa, Rui (JPN) (2001)	time	7.35	13.60	20.19	27.02	33.93	41.17	48.64	56.75	56.75	3 / 8							
reaction time	interval		6.25	6.59	6.83	6.91	7.24	7.47	8.11		# of strides	13.60	13.42	14.15	15.58	27.02	29.73	2.71
	velocity	6.80	8.00	7.59	7.32	7.24	6.91	6.69	6.17	7.05		7.35	7.45	7.07	6.42	7.40	6.73	

2018 Müller Anniversary Games (London, GBR)

FINAL date 22-Jul-18

Omega Timing (2018) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McPherson, Stephenie Ann (	time		12.3		24.0		36.7		50.31	50.31	5 / 1							
reaction time 0.133	interval				11.7		12.7		13.6		# of strides	12.30	11.70	12.70	13.61	24.00	26.31	2.31
	velocity		8.13		8.55		7.87		7.35	7.95	184.5	8.13	8.55	7.87	7.35	8.33	7.60	
Le-Roy, Anastasia (JAM) (19	time		12.3		24.0		36.8		50.85	50.85	4 / 2							
reaction time 0.154	interval				11.7		12.8		14.1		# of strides	12.30	11.70	12.80	14.05	24.00	26.85	2.85
	velocity		8.13		8.55		7.81		7.12	7.87	197.0	8.13	8.55	7.81	7.12	8.33	7.45	
Okolo, Courtney (USA) (199	time		12.7		24.8		37.4		50.93	50.93	6 / 3							
reaction time 0.223	interval				12.1		12.6		13.5		# of strides	12.70	12.10	12.60	13.53	24.80	26.13	1.33
	velocity		7.87		8.26		7.94		7.39	7.85	192.0	7.87	8.26	7.94	7.39	8.06	7.65	
de Witte, Lisanne (NED) (19	time		13.0		24.9		37.5		51.08	51.08	2 / 4							
reaction time 0.157	interval				11.9		12.6		13.6		# of strides	13.00	11.90	12.60	13.58	24.90	26.18	1.28
	velocity		7.69		8.40		7.94		7.36	7.83		7.69	8.40	7.94	7.36	8.03	7.64	
Onuora, Anyika (GBR) (1984	time		13.0		25.2		37.4		51.13	51.13	7 / 5							
reaction time 0.167	interval				12.2		12.2		13.7		# of strides	13.00	12.20	12.20	13.73	25.20	25.93	0.73
	velocity		7.69		8.20		8.20		7.28	7.82	193.5	7.69	8.20	8.20	7.28	7.94	7.71	
Allcock, Amy (GBR) (1993)	time		12.8		24.9		37.6		51.36	51.36	8 / 6							
reaction time 0.157	interval				12.1		12.7		13.8	PB	# of strides	12.80	12.10	12.70	13.76	24.90	26.46	1.56
	velocity		7.81		8.26		7.87		7.27	7.79	194.7	7.81	8.26	7.87	7.27	8.03	7.56	
Clark, Zoey (GBR) (1994)	time		12.7		24.8		37.6		51.36	51.36	9 / 7							
reaction time 0.142	interval				12.1		12.8		13.8	PB	# of strides	12.70	12.10	12.80	13.76	24.80	26.56	1.76
	velocity		7.87		8.26		7.81		7.27	7.79		7.87	8.26	7.81	7.27	8.06	7.53	
Nielsen, Laviai (GBR) (1996)	time		12.6		24.6		37.2		51.70	51.70	3 / 8							
reaction time 0.154	interval				12.0		12.6		14.5	PB	# of strides	12.60	12.00	12.60	14.50	24.60	27.10	2.50
	velocity		7.94		8.33		7.94		6.90	7.74		7.94	8.33	7.94	6.90	8.13	7.38	
Iuel, Amalie (NOR) (1994)	time		13.2		25.5		38.3		51.99	51.99	1 / 9							
reaction time 0.183	interval				12.3		12.8		13.7		# of strides	13.20	12.30	12.80	13.69	25.50	26.49	0.99
	velocity		7.58		8.13		7.81		7.30	7.69		7.58	8.13	7.81	7.30	7.84	7.55	

2018 Herculis Meeting International d'Athlétisme (Monaco, MON)

FINAL date 20-Jul-18

Vazel (2018.07.20) - https://twitter.com/pjvazel

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time				23.5		36.1		48.97	48.97	6 / 1							
reaction time	interval						12.60		12.87	NR	# of strides			12.60	12.87	23.50	25.47	1.97
	velocity				8.51		7.94		7.77	8.17	177.0			7.94	7.77	8.51	7.85	
Naser, Salwa Eid (BRN) (199	time				23.7		36.2		49.08	49.08	5 / 2							
reaction time	interval						12.50		12.88	NR	# of strides			12.50	12.88	23.70	25.38	1.68
	velocity				8.44		8.00		7.76	8.15	184.0			8.00	7.76	8.44	7.88	

2018 IAAF World Junior Championships (Tampere, FIN)

FINAL date 12-Jul-18

Koyama (2018) - research on athlete performance and technique- 2018 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Das, Hima (IND) (2000)	time	6.84	12.69	18.69	25.00	31.51	38.03	44.59	51.47	51.47	4 / 1							
reaction time 0.180	interval		5.85	6.00	6.31	6.51	6.52	6.56	6.88		# of strides	12.69	12.31	13.03	13.44	25.00	26.47	1.47
	velocity	7.31	8.55	8.33	7.92	7.68	7.67	7.62	7.27	7.77	197.5	7.88	8.12	7.67	7.44	8.00	7.56	
Miklos, Andrea (ROU) (1999)	time	6.93	12.70	18.65	24.86	31.31	37.99	44.81	52.07	52.07	3 / 2							
reaction time 0.198	interval		5.77	5.95	6.21	6.45	6.68	6.82	7.26	PB	# of strides	12.70	12.16	13.13	14.08	24.86	27.21	2.35
	velocity	7.22	8.67	8.40	8.05	7.75	7.49	7.33	6.89	7.68	195.0	7.87	8.22	7.62	7.10	8.05	7.35	
Manson, Taylor (USA) (1999)	time	6.78	12.41	18.28	24.57	31.02	37.63	44.63	52.28	52.28	6 / 3							
reaction time 0.150	interval		5.63	5.87	6.29	6.45	6.61	7.00	7.65		# of strides	12.41	12.16	13.06	14.65	24.57	27.71	3.14
	velocity	7.37	8.88	8.52	7.95	7.75	7.56	7.14	6.54	7.65	190.0	8.06	8.22	7.66	6.83	8.14	7.22	
Connolly, Ella (AUS) (2000)	time	6.63	12.37	18.33	24.62	31.15	37.89	45.01	52.82	52.82	5 / 4							
reaction time 0.186	interval		5.74	5.96	6.29	6.53	6.74	7.12	7.81		# of strides	12.37	12.25	13.27	14.93	24.62	28.20	3.58
	velocity	7.54	8.71	8.39	7.95	7.66	7.42	7.02	6.40	7.57	192.0	8.08	8.16	7.54	6.70	8.12	7.09	
Moraa, Mary (KEN) (2000)	time	7.05	12.85	18.89	25.29	31.84	38.53	45.46	52.94	52.94	7 / 5							
reaction time 0.286	interval		5.80	6.04	6.40	6.55	6.69	6.93	7.48		# of strides	12.85	12.44	13.24	14.41	25.29	27.65	2.36
	velocity	7.09	8.62	8.28	7.81	7.63	7.47	7.22	6.68	7.56	202.0	7.78	8.04	7.55	6.94	7.91	7.23	
Williams, Stacey-Ann (JAM)	time	6.94	12.76	18.90	25.31	31.86	38.53	45.47	53.23	53.23	1 / 6							
reaction time 0.163	interval		5.82	6.14	6.41	6.55	6.67	6.94	7.76		# of strides	12.76	12.55	13.22	14.70	25.31	27.92	2.61
	velocity	7.20	8.59	8.14	7.80	7.63	7.50	7.20	6.44	7.51	196.2	7.84	7.97	7.56	6.80	7.90	7.16	
Vandi, Elisabetta (ITA) (2000)	time	6.93	13.00	19.23	25.73	32.32	39.07	45.96	53.40	53.40	2 / 7							
reaction time 0.181	interval		6.07	6.23	6.50	6.59	6.75	6.89	7.44		# of strides	13.00	12.73	13.34	14.33	25.73	27.67	1.94
	velocity	7.22	8.24	8.03	7.69	7.59	7.41	7.26	6.72	7.49	190.2	7.69	7.86	7.50	6.98	7.77	7.23	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Best, Ashlan (CAN) (1999)	time	6.82	12.66	18.60	24.94	31.61	38.61	45.94	53.59	53.59	8 / 8							
reaction time 0.148	interval		5.84	5.94	6.34	6.67	7.00	7.33	7.65		# of strides	12.66	12.28	13.67	14.98	24.94	28.65	3.71
	velocity	7.33	8.56	8.42	7.89	7.50	7.14	6.82	6.54	7.46	197.5	7.90	8.14	7.32	6.68	8.02	6.98	

2018 Meeting de Paris (Paris, FRA)

FINAL date 30-Jun-18

Omega Timing (2018) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.5		24.3		36.7		49.55	49.55	5 / 1							
reaction time 0.159	interval				11.8		12.4		12.9	AR	# of strides	12.50	11.80	12.40	12.85	24.30	25.25	0.95
	velocity		8.00		8.47		8.06		7.78	8.07	183.7	8.00	8.47	8.06	7.78	8.23	7.92	
Beard, Jessica (USA) (1989)	time		12.3		24.0		36.9		50.39	50.39	3 / 2							
reaction time 0.216	interval				11.7		12.9		13.5		# of strides	12.30	11.70	12.90	13.49	24.00	26.39	2.39
	velocity		8.13		8.55		7.75		7.41	7.94	186.7	8.13	8.55	7.75	7.41	8.33	7.58	
Francis Phyllis (USA) (1992)	time		12.3		24.2		36.9		50.50	50.50	6 / 3							
reaction time 0.198	interval				11.9		12.7		13.6		# of strides	12.30	11.90	12.70	13.60	24.20	26.30	2.10
	velocity		8.13		8.40		7.87		7.35	7.92	178.2	8.13	8.40	7.87	7.35	8.26	7.60	
Wimbley, Shakima (USA) (19	time		12.3		24.1		36.9		50.81	50.81	4 / 4							
reaction time 0.142	interval				11.8		12.8		13.9		# of strides	12.30	11.80	12.80	13.91	24.10	26.71	2.61
	velocity		8.13		8.47		7.81		7.19	7.87	183.7	8.13	8.47	7.81	7.19	8.30	7.49	
McPherson, Stephenie Ann (	time		12.4		24.4		37.1		50.85	50.85	2 / 5							
reaction time 0.139	interval				12.0		12.7		13.8		# of strides	12.40	12.00	12.70	13.75	24.40	26.45	2.05
	velocity		8.06		8.33		7.87		7.27	7.87	186.7	8.06	8.33	7.87	7.27	8.20	7.56	
Okolo, Courtney (USA) (199	time		12.7		24.7		37.4		51.15	51.15	8 / 6							
reaction time 0.246	interval				12.0		12.7		13.8		# of strides	12.70	12.00	12.70	13.75	24.70	26.45	1.75
	velocity		7.87		8.33		7.87		7.27	7.82	193.0	7.87	8.33	7.87	7.27	8.10	7.56	
Guei, Floria (FRA) (1990)	time		12.5		24.4		37.2		51.71	51.71	7 / 7							
reaction time 0.184	interval				11.9		12.8		14.5		# of strides	12.50	11.90	12.80	14.51	24.40	27.31	2.91
	velocity		8.00		8.40		7.81		6.89	7.74	195.0	8.00	8.40	7.81	6.89	8.20	7.32	
Le-Roy, Anastasia (JAM) (19	time		12.7		25.1		38.2		52.44	52.44	1 / 8							
reaction time 0.173	interval				12.4		13.1		14.2		# of strides	12.70	12.40	13.10	14.24	25.10	27.34	2.24
	velocity		7.87		8.06		7.63		7.02	7.63	200.0	7.87	8.06	7.63	7.02	7.97	7.32	

2018 USATF National Championships (Des Moines, IA)

FINAL date 23-Jun-18

Track Newsletter (2018) - USATF championships women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Wimbley, Shakima (USA) (19	time				23.6		36.0		49.6	49.52	/ 1							
reaction time	interval						12.40		13.60	PB	# of strides			12.40	13.60	23.60	26.00	2.40
	velocity				8.47		8.06		7.35	8.08				8.06	7.35	8.47	7.69	
Beard, Jessica (USA) (1989)	time				23.7		36.6		50.1	50.08	/ 2							
reaction time	interval						12.90		13.50	PB	# of strides			12.90	13.50	23.70	26.40	2.70
	velocity				8.44		7.75		7.41	7.99				7.75	7.41	8.44	7.58	
Ellis, Kendall (USA) (1996)	time				24.5		36.9		50.4	50.37	/ 3							
reaction time	interval						12.40		13.50		# of strides			12.40	13.50	24.50	25.90	1.40
	velocity				8.16		8.06		7.41	7.94				8.06	7.41	8.16	7.72	

2018 Japanese National Championships (Yamaguchi, JPN)

FINAL date 23-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time	6.91	12.91	19.12	25.67	32.39	39.32	46.35	53.75	53.75	5 / 1							
reaction time 0.176	interval		6.00	6.21	6.55	6.72	6.93	7.03	7.40		# of strides	12.91	12.76	13.65	14.43	25.67	28.08	2.41
	velocity	7.24	8.33	8.05	7.63	7.44	7.22	7.11	6.76	7.44	211.5	7.75	7.84	7.33	6.93	7.79	7.12	
Hirosawa, Mae (JPN) (1997)	time	6.80	12.83	19.09	25.56	32.32	39.27	46.37	53.95	53.95	8 / 2							
reaction time 0.149	interval		6.03	6.26	6.47	6.76	6.95	7.10	7.58	PB	# of strides	12.83	12.73	13.71	14.68	25.56	28.39	2.83
	velocity	7.35	8.29	7.99	7.73	7.40	7.19	7.04	6.60	7.41	199.0	7.79	7.86	7.29	6.81	7.82	7.04	
Iwata, Yuna (JPN) (1997)	time	7.06	13.12	19.52	26.12	32.92	39.85	46.87	54.08	54.08	3 / 3							
reaction time 0.153	interval		6.06	6.40	6.60	6.80	6.93	7.02	7.21		# of strides	13.12	13.00	13.73	14.23	26.12	27.96	1.84
	velocity	7.08	8.25	7.81	7.58	7.35	7.22	7.12	6.93	7.40	211.0	7.62	7.69	7.28	7.03	7.66	7.15	
Takeishi, Konomi (JPN) (199	time	6.88	12.88	19.17	25.72	32.52	39.49	46.65	54.32	54.32	6 / 4							
reaction time 0.161	interval		6.00	6.29	6.55	6.80	6.97	7.16	7.67		# of strides	12.88	12.84	13.77	14.83	25.72	28.60	2.88
	velocity	7.27	8.33	7.95	7.63	7.35	7.17	6.98	6.52	7.36	199.2	7.76	7.79	7.26	6.74	7.78	6.99	
Takashima, Saki (JPN) (2002)	time	7.11	13.37	19.86	26.49	33.20	39.98	47.01	54.58	54.58	7 / 5							
reaction time 0.194	interval		6.26	6.49	6.63	6.71	6.78	7.03	7.57		# of strides	13.37	13.12	13.49	14.60	26.49	28.09	1.60
	velocity	7.03	7.99	7.70	7.54	7.45	7.37	7.11	6.61	7.33	209.2	7.48	7.62	7.41	6.85	7.55	7.12	
Kobayashi, Mayu (JPN) (199	time	7.15	13.24	19.57	26.16	32.92	39.86	46.96	54.62	54.62	4 / 6							
reaction time 0.161	interval		6.09	6.33	6.59	6.76	6.94	7.10	7.66	PB	# of strides	13.24	12.92	13.70	14.76	26.16	28.46	2.30
	velocity	6.99	8.21	7.90	7.59	7.40	7.20	7.04	6.53	7.32	203.7	7.55	7.74	7.30	6.78	7.65	7.03	
Shintaku, Asami (JPN) (1994	time	7.12	13.34	19.84	26.49	33.25	40.17	47.38	55.25	55.25	9 / 7							
reaction time 0.161	interval		6.22	6.50	6.65	6.76	6.92	7.21	7.87		# of strides	13.34	13.15	13.68	15.08	26.49	28.76	2.27
	velocity	7.02	8.04	7.69	7.52	7.40	7.23	6.93	6.35	7.24		7.50	7.60	7.31	6.63	7.55	6.95	
Matsumoto, Chika (JPN) (19	time	7.15	13.19	19.68	26.37	33.18	40.20	47.52	55.67	55.67	2 / 8							
reaction time 0.149	interval		6.04	6.49	6.69	6.81	7.02	7.32	8.15		# of strides	13.19	13.18	13.83	15.47	26.37	29.30	2.93

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity	6.99	8.28	7.70	7.47	7.34	7.12	6.83	6.13	7.19		7.58	7.59	7.23	6.46	7.58	6.83	

Heat 3

date 22-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time	6.94	12.87	19.07	25.72	32.53	39.56	46.89	54.71	54.71	4 / 3							
reaction time 0.160	interval		5.93	6.20	6.65	6.81	7.03	7.33	7.82		# of strides	12.87	12.85	13.84	15.15	25.72	28.99	3.27
	velocity	7.20	8.43	8.06	7.52	7.34	7.11	6.82	6.39	7.31		7.77	7.78	7.23	6.60	7.78	6.90	

Heat 2

date 22-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takeishi, Konomi (JPN) (199	time	6.87	12.73	18.84	25.27	32.00	39.07	46.33	54.04	54.04	4 / 1							
reaction time 0.149	interval		5.86	6.11	6.43	6.73	7.07	7.26	7.71		# of strides	12.73	12.54	13.80	14.97	25.27	28.77	3.50
	velocity	7.28	8.53	8.18	7.78	7.43	7.07	6.89	6.49	7.40	200.7	7.86	7.97	7.25	6.68	7.91	6.95	
Kawada, Ayaka (JPN) (1999)	time	6.90	12.78	18.90	25.35	32.09	39.09	46.35	54.05	54.05	5 / 2							
reaction time 0.174	interval		5.88	6.12	6.45	6.74	7.00	7.26	7.70		# of strides	12.78	12.57	13.74	14.96	25.35	28.70	3.35
	velocity	7.25	8.50	8.17	7.75	7.42	7.14	6.89	6.49	7.40	210.7	7.82	7.96	7.28	6.68	7.89	6.97	

Heat 1

date 22-Jun-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	7.26	13.37	19.70	26.39	33.30	40.63	48.11	55.92	55.92	4 / 5							
reaction time 0.190	interval		6.11	6.33	6.69	6.91	7.33	7.48	7.81		# of strides	13.37	13.02	14.24	15.29	26.39	29.53	3.14
	velocity	6.89	8.18	7.90	7.47	7.24	6.82	6.68	6.40	7.15	214.7	7.48	7.68	7.02	6.54	7.58	6.77	

2018 Bauhaus Galan (Stockholm, SWE)

FINAL

date 10-Jun-18

Omega Timing (2018) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.4		24.2		36.7		49.84	49.84	6 / 1							
reaction time 0.165	interval				11.8		12.5		13.1	NR	# of strides	12.40	11.80	12.50	13.14	24.20	25.64	1.44
	velocity		8.06		8.47		8.00		7.61	8.03	184.7	8.06	8.47	8.00	7.61	8.26	7.80	
Francis Phyllis (USA) (1992)	time		12.3		24.0		36.7		50.07	50.07	5 / 2							
reaction time 0.190	interval				11.7		12.7		13.4		# of strides	12.30	11.70	12.70	13.37	24.00	26.07	2.07
	velocity		8.13		8.55		7.87		7.48	7.99	179.0	8.13	8.55	7.87	7.48	8.33	7.67	
Beard, Jessica (USA) (1989)	time		12.4		24.1		36.9		50.55	50.55	4 / 3							
reaction time 0.182	interval				11.7		12.8		13.7		# of strides	12.40	11.70	12.80	13.65	24.10	26.45	2.35
	velocity		8.06		8.55		7.81		7.33	7.91	192.2	8.06	8.55	7.81	7.33	8.30	7.56	
Little, Shamier (USA) (1995)	time		12.5		24.5		37.3		50.82	50.82	7 / 4							
reaction time 0.203	interval				12.0		12.8		13.5		# of strides	12.50	12.00	12.80	13.52	24.50	26.32	1.82
	velocity		8.00		8.33		7.81		7.40	7.87	185.0	8.00	8.33	7.81	7.40	8.16	7.60	
Stepter, Jaide (USA) (1994)	time		12.4		24.2		36.9		50.99	50.99	3 / 5							
reaction time 0.149	interval				11.8		12.7		14.1		# of strides	12.40	11.80	12.70	14.09	24.20	26.79	2.59
	velocity		8.06		8.47		7.87		7.10	7.84	190.2	8.06	8.47	7.87	7.10	8.26	7.47	
Okolo, Courtney (USA) (199	time		12.5		24.5		37.0		51.28	51.28	8 / 6							
reaction time 0.234	interval				12.0		12.5		14.3		# of strides	12.50	12.00	12.50	14.28	24.50	26.78	2.28
	velocity		8.00		8.33		8.00		7.00	7.80	194.0	8.00	8.33	8.00	7.00	8.16	7.47	
Święty-Ersetic, Justyna (POL	time		12.8		24.8		37.6		51.34	51.34	2 / 7							
reaction time 0.208	interval				12.0		12.8		13.7		# of strides	12.80	12.00	12.80	13.74	24.80	26.54	1.74
	velocity		7.81		8.33		7.81		7.28	7.79	211.7	7.81	8.33	7.81	7.28	8.06	7.54	
Hjelmer, Moa (SWE) (1990)	time		12.6		24.8		38.4		53.47	53.47	1 / 8							
reaction time 0.160	interval				12.2		13.6		15.1		# of strides	12.60	12.20	13.60	15.07	24.80	28.67	3.87
	velocity		7.94		8.20		7.35		6.64	7.48	198.0	7.94	8.20	7.35	6.64	8.06	6.98	

2018 NCAA Championships (Eugene, OR)

FINAL

date 09-Jun-18

Track Newsletter (2018) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Irby, Lynna (USA) (1998)	time				23.2		35.6		49.8	49.80	/ 1							
reaction time	interval						12.40		14.20	PB	# of strides			12.40	14.20	23.20	26.60	3.40
	velocity				8.62		8.06		7.04	8.03				8.06	7.04	8.62	7.52	
Ellis, Kendall (USA) (1996)	time				23.7		36.5		50.2	50.19	/ 2							
reaction time	interval						12.80		13.70		# of strides			12.80	13.70	23.70	26.50	2.80
	velocity				8.44		7.81		7.30	7.97				7.81	7.30	8.44	7.55	
Thomas, Brionna (USA) (19	time						37.2		50.8	50.78	/ 3							
reaction time	interval								13.60	PB	# of strides				13.60			
	velocity						5.38		7.35	7.88					7.35			
Barnett, Sharrika (JAM) (199	time						36.7		51.2	51.16	/ 4							
reaction time	interval								14.50		# of strides				14.50			
	velocity						5.45		6.90	7.82					6.90			
Abbott, Chloe (USA) (1998)	time						37.9		51.9	51.87	/ 5							
reaction time	interval								14.00		# of strides				14.00			
	velocity						5.28		7.14	7.71					7.14			
Desrosiers, Briyahna (USA) (	time						37.8		52.1	52.10	/ 6							
reaction time	interval								14.30		# of strides				14.30			
	velocity						5.29		6.99	7.68					6.99			
Misher, Rachel (USA) (1997)	time						37.8		52.2	52.23	/ 7							

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	interval					14.40		# of strides				14.40					
	velocity				5.29	6.94	7.66					6.94					

2018 Bislett Games (Oslo, NOR)

FINAL date 07-Jun-18

Omega Timing (2018) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		12.4		24.0		36.5		49.98	49.98	5 / 1							
reaction time 0.161	interval				11.6		12.5		13.5		# of strides	12.40	11.60	12.50	13.48	24.00	25.98	1.98
	velocity		8.06		8.62		8.00		7.42	8.00	186.0	8.06	8.62	8.00	7.42	8.33	7.70	
Francis Phyllis (USA) (1992)	time		12.3		23.8		36.4		50.47	50.47	4 / 2							
reaction time 0.205	interval				11.5		12.6		14.1		# of strides	12.30	11.50	12.60	14.07	23.80	26.67	2.87
	velocity		8.13		8.70		7.94		7.11	7.93	177.0	8.13	8.70	7.94	7.11	8.40	7.50	
Wimbley, Shakima (USA) (19	time		12.2		23.8		36.6		50.53	50.53	6 / 3							
reaction time 0.219	interval				11.6		12.8		13.9		# of strides	12.20	11.60	12.80	13.93	23.80	26.73	2.93
	velocity		8.20		8.62		7.81		7.18	7.92	180.2	8.20	8.62	7.81	7.18	8.40	7.48	
Beard, Jessica (USA) (1989)	time		12.7		24.3		37.5		50.57	50.57	3 / 4							
reaction time 0.287	interval				11.6		13.2		13.1		# of strides	12.70	11.60	13.20	13.07	24.30	26.27	1.97
	velocity		7.87		8.62		7.58		7.65	7.91	187.7	7.87	8.62	7.58	7.65	8.23	7.61	
Stepter, Jaide (USA) (1994)	time		12.3		23.9		36.9		50.78	50.78	2 / 5							
reaction time 0.166	interval				11.6		13.0		13.9		# of strides	12.30	11.60	13.00	13.88	23.90	26.88	2.98
	velocity		8.13		8.62		7.69		7.20	7.88	188.5	8.13	8.62	7.69	7.20	8.37	7.44	
Okolo, Courtney (USA) (199	time		12.3		24.1		36.7		51.22	51.22	7 / 6							
reaction time 0.236	interval				11.8		12.6		14.5		# of strides	12.30	11.80	12.60	14.52	24.10	27.12	3.02
	velocity		8.13		8.47		7.94		6.89	7.81	194.7	8.13	8.47	7.94	6.89	8.30	7.37	
Onuora, Anyika (GBR) (1984	time		12.9		25.1		38.4		51.60	51.60	8 / 7							
reaction time 0.156	interval				12.2		13.3		13.2		# of strides	12.90	12.20	13.30	13.20	25.10	26.50	1.40
	velocity		7.75		8.20		7.52		7.58	7.75	200.0	7.75	8.20	7.52	7.58	7.97	7.55	
Guei, Floria (FRA) (1990)	time		12.4		24.5		37.7		51.84	51.84	1 / 8							
reaction time 0.194	interval				12.1		13.2		14.1		# of strides	12.40	12.10	13.20	14.14	24.50	27.34	2.84
	velocity		8.06		8.26		7.58		7.07	7.72	197.0	8.06	8.26	7.58	7.07	8.16	7.32	

2018 Shimane High School Championships (Izumo, JPN)

FINAL date 25-May-18

Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Toya, Moenan (JPN)	time		13.59		27.33		42.33		58.16	58.16	4 / 1							
reaction time	interval				13.74		15.00		15.83		# of strides	13.59	13.74	15.00	15.83	27.33	30.83	3.50
	velocity		7.36		7.28		6.67		6.32	6.88		7.36	7.28	6.67	6.32	7.32	6.49	
Watanabe, Suzuka (JPN) (20	time		14.00		28.32		43.65		60.17	60.17	5 / 2							
reaction time	interval				14.32		15.33		16.52		# of strides	14.00	14.32	15.33	16.52	28.32	31.85	3.53
	velocity		7.14		6.98		6.52		6.05	6.65		7.14	6.98	6.52	6.05	7.06	6.28	
Nakabayashi, Aya (JPN)	time		14.26		28.53		44.14		60.62	60.62	3 / 3							
reaction time	interval				14.27		15.61		16.48		# of strides	14.26	14.27	15.61	16.48	28.53	32.09	3.56
	velocity		7.01		7.01		6.41		6.07	6.60		7.01	7.01	6.41	6.07	7.01	6.23	
Shibuya, Rika (JPN)	time		14.18		28.60		43.98		60.63	60.63	7 / 4							
reaction time	interval				14.42		15.38		16.65		# of strides	14.18	14.42	15.38	16.65	28.60	32.03	3.43
	velocity		7.05		6.93		6.50		6.01	6.60		7.05	6.93	6.50	6.01	6.99	6.24	
Takahara, Nanami (JPN)	time		14.41		28.78		44.10		61.04	61.04	2 / 5							
reaction time	interval				14.37		15.32		16.94		# of strides	14.41	14.37	15.32	16.94	28.78	32.26	3.48
	velocity		6.94		6.96		6.53		5.90	6.55		6.94	6.96	6.53	5.90	6.95	6.20	
Amano, Iori (JPN)	time		14.61		28.97		44.26		61.20	61.21	8 / 6							
reaction time	interval				14.36		15.29		16.94		# of strides	14.61	14.36	15.29	16.94	28.97	32.23	3.26
	velocity		6.84		6.96		6.54		5.90	6.53		6.84	6.96	6.54	5.90	6.90	6.21	
Hiwa, Hiyori (JPN)	time		14.45		28.98		44.33		61.85	61.85	6 / 7							
reaction time	interval				14.53		15.35		17.52		# of strides	14.45	14.53	15.35	17.52	28.98	32.87	3.89
	velocity		6.92		6.88		6.51		5.71	6.47		6.92	6.88	6.51	5.71	6.90	6.08	
Natsuki, Okuni (JPN)	time		14.56		29.12		45.16		62.47	62.47	1 / 8							
reaction time	interval				14.56		16.04		17.31		# of strides	14.56	14.56	16.04	17.31	29.12	33.35	4.23
	velocity		6.87		6.87		6.23		5.78	6.40		6.87	6.87	6.23	5.78	6.87	6.00	

2018 Seiko Golden Grand Prix (Osaka, JPN)

FINAL date 20-May-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Święty-Ersetic, Justyna (POL	time	7.01	12.72	18.55	24.67	30.92	37.44	44.12	51.05	51.05	6 / 1							
reaction time 0.216	interval		5.71	5.83	6.12	6.25	6.52	6.68	6.93	PB	# of strides	12.72	11.95	12.77	13.61	24.67	26.38	1.71
	velocity	7.13	8.76	8.58	8.17	8.00	7.67	7.49	7.22	7.84	211.5	7.86	8.37	7.83	7.35	8.11	7.58	
Harper, Daina (USA) (1995)	time	6.73	12.36	18.18	24.25	30.49	37.03	43.85	51.29	51.29	5 / 2							
reaction time 0.205	interval		5.63	5.82	6.07	6.24	6.54	6.82	7.44		# of strides	12.36	11.89	12.78	14.26	24.25	27.04	2.79
	velocity	7.43	8.88	8.59	8.24	8.01	7.65	7.33	6.72	7.80	185.7	8.09	8.41	7.82	7.01	8.25	7.40	
Rubie, Anneliese (AUS) (199	time	6.76	12.62	18.75	25.02	31.49	38.11	44.81	51.82	51.82	3 / 3							
reaction time 0.184	interval		5.86	6.13	6.27	6.47	6.62	6.70	7.01		# of strides	12.62	12.40	13.09	13.71	25.02	26.80	1.78
	velocity	7.40	8.53	8.16	7.97	7.73	7.55	7.46	7.13	7.72		7.92	8.06	7.64	7.29	7.99	7.46	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Latiševa-Čudane, Gunta (LA	time	6.75	12.55	18.45	24.60	30.96	37.65	44.49	51.83	51.83	4 / 4							
reaction time 0.203	interval		5.80	5.90	6.15	6.36	6.69	6.84	7.34		# of strides	12.55	12.05	13.05	14.18	24.60	27.23	2.63
	velocity	7.41	8.62	8.47	8.13	7.86	7.47	7.31	6.81	7.72		7.97	8.30	7.66	7.05	8.13	7.34	
Wyciszkiewicz, Patrycja (POL	time	6.96	12.74	18.67	24.81	31.14	37.80	44.73	52.06	52.06	7 / 5							
reaction time 0.190	interval		5.78	5.93	6.14	6.33	6.66	6.93	7.33		# of strides	12.74	12.07	12.99	14.26	24.81	27.25	2.44
	velocity	7.18	8.65	8.43	8.14	7.90	7.51	7.22	6.82	7.68	197.0	7.85	8.29	7.70	7.01	8.06	7.34	
Takeishi, Konomi (JPN) (199	time	6.76	12.63	18.72	25.23	32.09	39.23	46.45	53.89	53.89	2 / 6							
reaction time 0.148	interval		5.87	6.09	6.51	6.86	7.14	7.22	7.44		# of strides	12.63	12.60	14.00	14.66	25.23	28.66	3.43
	velocity	7.40	8.52	8.21	7.68	7.29	7.00	6.93	6.72	7.42		7.92	7.94	7.14	6.82	7.93	6.98	
Kashiyama, Kaede (JPN) (19	time	7.09	13.12	19.44	26.03	32.82	39.94	47.21	54.92	54.92	9 / 7							
reaction time 0.203	interval		6.03	6.32	6.59	6.79	7.12	7.27	7.71		# of strides	13.12	12.91	13.91	14.98	26.03	28.89	2.86
	velocity	7.05	8.29	7.91	7.59	7.36	7.02	6.88	6.49	7.28		7.62	7.75	7.19	6.68	7.68	6.92	
Aoyama, Seika (JPN) (1996)	time	7.12	13.06	19.34	25.94	32.91	40.39	48.31	56.95	56.95	8 / 8							
reaction time 0.200	interval		5.94	6.28	6.60	6.97	7.48	7.92	8.64		# of strides	13.06	12.88	14.45	16.56	25.94	31.01	5.07
	velocity	7.02	8.42	7.96	7.58	7.17	6.68	6.31	5.79	7.02		7.66	7.76	6.92	6.04	7.71	6.45	

2018 Shizuoka International Meeting (Fukuroi, JPN)

A FINAL

date 03-May-18

Yamanaka (2018) - Race analysis of men and women 400m at 2018 competition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time	7.06	13.12	19.37	25.84	32.55	39.40	46.36	53.58	53.58	4 / 1							
reaction time 0.184	interval		6.06	6.25	6.47	6.71	6.85	6.96	7.22		# of strides	13.12	12.72	13.56	14.18	25.84	27.74	1.90
	velocity	7.08	8.25	8.00	7.73	7.45	7.30	7.18	6.93	7.47	210.2	7.62	7.86	7.37	7.05	7.74	7.21	
Takeishi, Konomi (JPN) (199	time	6.97	13.01	19.22	25.65	32.34	39.31	46.51	54.15	54.15	5 / 3							
reaction time 0.169	interval		6.04	6.21	6.43	6.69	6.97	7.20	7.64		# of strides	13.01	12.64	13.66	14.84	25.65	28.50	2.85
	velocity	7.17	8.28	8.05	7.78	7.47	7.17	6.94	6.54	7.39	199.5	7.69	7.91	7.32	6.74	7.80	7.02	
Iwata, Yuna (JPN) (1997)	time	6.96	13.04	19.29	25.74	32.44	39.35	46.56	54.16	54.16	8 / 4							
reaction time 0.163	interval		6.08	6.25	6.45	6.70	6.91	7.21	7.60		# of strides	13.04	12.70	13.61	14.81	25.74	28.42	2.68
	velocity	7.18	8.22	8.00	7.75	7.46	7.24	6.93	6.58	7.39	215.0	7.67	7.87	7.35	6.75	7.77	7.04	
Aoyama, Seika (JPN) (1996)	time	7.15	13.20	19.49	25.89	32.58	39.59	47.19	55.86	55.86	6 / 7							
reaction time 0.229	interval		6.05	6.29	6.40	6.69	7.01	7.60	8.67		# of strides	13.20	12.69	13.70	16.27	25.89	29.97	4.08
	velocity	6.99	8.26	7.95	7.81	7.47	7.13	6.58	5.77	7.16	211.7	7.58	7.88	7.30	6.15	7.72	6.67	

2017 National Sports Festival (Matsuyama, JPN)

U19 FINAL

date 08-Oct-17

(2017) - tfdata-store.com/2017/10/12/post-1100/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time		12.96		25.41		39.11		53.56	53.56	5 / 1							
reaction time 0.220	interval				12.45		13.70		14.45		# of strides	12.96	12.45	13.70	14.45	25.41	28.15	2.74
	velocity		7.72		8.03		7.30		6.92	7.47	209.5	7.72	8.03	7.30	6.92	7.87	7.10	
Okumura, Yuri (JPN) (2000)	time		12.86		25.43		39.21		54.11	54.11	7 / 2							
reaction time 0.171	interval				12.57		13.78		14.90		# of strides	12.86	12.57	13.78	14.90	25.43	28.68	3.25
	velocity		7.78		7.96		7.26		6.71	7.39	210.0	7.78	7.96	7.26	6.71	7.86	6.97	
Shiomi, Ayano (JPN) (1999)	time				26.05		40.03		54.62	54.62	9 / 3							
reaction time 0.192	interval						13.98		14.59		# of strides			13.98	14.59	26.05	28.57	2.52
	velocity				7.68		7.15		6.85	7.32	223.5			7.15	6.85	7.68	7.00	
Katayama, Shiori (JPN) (199	time		13.19		26.01		40.16		55.18	55.18	2 / 4							
reaction time 0.211	interval				12.82		14.15		15.02		# of strides	13.19	12.82	14.15	15.02	26.01	29.17	3.16
	velocity		7.58		7.80		7.07		6.66	7.25	195.7	7.58	7.80	7.07	6.66	7.69	6.86	
Yamada, Miki (JPN) (1999)	time		13.54		26.19		40.32		55.46	55.46	6 / 5							
reaction time 0.274	interval				12.65		14.13		15.14		# of strides	13.54	12.65	14.13	15.14	26.19	29.27	3.08
	velocity		7.39		7.91		7.08		6.61	7.21	204.2	7.39	7.91	7.08	6.61	7.64	6.83	
Takashima, Natsumi (JPN) (2	time		13.60		26.48		40.75		55.57	55.57	3 / 6							
reaction time 0.226	interval				12.88		14.27		14.82		# of strides	13.60	12.88	14.27	14.82	26.48	29.09	2.61
	velocity		7.35		7.76		7.01		6.75	7.20	213.7	7.35	7.76	7.01	6.75	7.55	6.88	
Nakamichi, Ayane (JPN) (199	time		13.37		26.40		40.63		55.60	55.60	8 / 7							
reaction time 0.208	interval				13.03		14.23		14.97		# of strides	13.37	13.03	14.23	14.97	26.40	29.20	2.80
	velocity		7.48		7.67		7.03		6.68	7.19	203.0	7.48	7.67	7.03	6.68	7.58	6.85	
Aono, Akari (JPN) (2000)	time		13.59		26.74		40.80		56.13	56.13	4 / 8							
reaction time	interval				13.15		14.06		15.33		# of strides	13.59	13.15	14.06	15.33	26.74	29.39	2.65
	velocity		7.36		7.60		7.11		6.52	7.13	211.0	7.36	7.60	7.11	6.52	7.48	6.81	

FINAL

date 08-Oct-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kitamura, Yume (JPN) (1995)	time	7.12	13.01	19.20	25.71	32.37	39.22	46.30	53.71	53.71	6 / 1							
reaction time 0.168	interval		5.89	6.19	6.51	6.66	6.85	7.08	7.41	PB	# of strides	13.01	12.70	13.51	14.49	25.71	28.00	2.29
	velocity	7.02	8.49	8.08	7.68	7.51	7.30	7.06	6.75	7.45	211.0	7.69	7.87	7.40	6.90	7.78	7.14	
Iwata, Yuna (JPN) (1997)	time	6.79	12.51	18.54	24.94	31.71	38.84	46.30	54.16	54.16	5 / 2							
reaction time 0.157	interval		5.72	6.03	6.40	6.77	7.13	7.46	7.86		# of strides	12.51	12.43	13.90	15.32	24.94	29.22	4.28
	velocity	7.36	8.74	8.29	7.81	7.39	7.01	6.70	6.36	7.39	216.0	7.99	8.05	7.19	6.53	8.02	6.84	
Takeishi, Konomi (JPN) (199	time	6.83	12.67	18.79	25.31	32.14	39.27	46.62	54.46	54.46	4 / 3							
reaction time 0.168	interval		5.84	6.12	6.52	6.83	7.13	7.35	7.84		# of strides	12.67	12.64	13.96	15.19	25.31	29.15	3.84

	velocity	7.32	8.56	8.17	7.67	7.32	7.01	6.80	6.38	7.34	196.7	7.89	7.91	7.16	6.58	7.90	6.86	
Aoki, Sayaka (JPN) (1986)	time	6.74	12.77	19.10	25.74	32.58	39.67	47.13	55.19	55.19	7 / 4							
reaction time 0.202	interval		6.03	6.33	6.64	6.84	7.09	7.46	8.06		# of strides	12.77	12.97	13.93	15.52	25.74	29.45	3.71
	velocity	7.42	8.29	7.90	7.53	7.31	7.05	6.70	6.20	7.25	202.2	7.83	7.71	7.18	6.44	7.77	6.79	
Matsumoto, Chika (JPN) (19	time	7.23	13.51	20.05	26.81	33.66	40.73	48.01	55.63	55.63	8 / 5							
reaction time 0.214	interval		6.28	6.54	6.76	6.85	7.07	7.28	7.62		# of strides	13.51	13.30	13.92	14.90	26.81	28.82	2.01
	velocity	6.92	7.96	7.65	7.40	7.30	7.07	6.87	6.56	7.19	202.2	7.40	7.52	7.18	6.71	7.46	6.94	
Aoki, Rin (JPN) (1998)	time	7.12	13.04	19.30	26.00	33.05	40.38	47.91	55.80	55.80	2 / 6							
reaction time 0.159	interval		5.92	6.26	6.70	7.05	7.33	7.53	7.89		# of strides	13.04	12.96	14.38	15.42	26.00	29.80	3.80
	velocity	7.02	8.45	7.99	7.46	7.09	6.82	6.64	6.34	7.17	218.0	7.67	7.72	6.95	6.49	7.69	6.71	
Kashiyama, Kaede (JPN) (19	time	7.11	13.06	19.35	26.10	33.08	40.31	47.86	55.96	55.96	3 / 7							
reaction time 0.277	interval		5.95	6.29	6.75	6.98	7.23	7.55	8.10		# of strides	13.06	13.04	14.21	15.65	26.10	29.86	3.76
	velocity	7.03	8.40	7.95	7.41	7.16	6.92	6.62	6.17	7.15	209.0	7.66	7.67	7.04	6.39	7.66	6.70	
Hirota, Yuki (JPN) (1995)	time	7.62	13.97	20.42	27.12	33.96	41.00	48.30	55.98	55.98	9 / 8							
reaction time 0.230	interval		6.35	6.45	6.70	6.84	7.04	7.30	7.68		# of strides	13.97	13.15	13.88	14.98	27.12	28.86	1.74
	velocity	6.56	7.87	7.75	7.46	7.31	7.10	6.85	6.51	7.15	197.7	7.16	7.60	7.20	6.68	7.37	6.93	

U19 Semi-Final 2

date 08-Oct-17

(2017) - tfdata-store.com/2017/10/12/post-1100/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time		12.90		25.77		39.55		54.61	54.61	7 / 1							
reaction time 0.225	interval				12.87		13.78		15.06		# of strides	12.90	12.87	13.78	15.06	25.77	28.84	3.07
	velocity		7.75		7.77		7.26		6.64	7.32	211.0	7.75	7.77	7.26	6.64	7.76	6.93	
Yamada, Miki (JPN) (1999)	time		13.02		25.53		39.30		55.00	55.00	6 / 2							
reaction time 0.210	interval				12.51		13.77		15.70		# of strides	13.02	12.51	13.77	15.70	25.53	29.47	3.94
	velocity		7.68		7.99		7.26		6.37	7.27	211.5	7.68	7.99	7.26	6.37	7.83	6.79	
Nakamichi, Ayane (JPN) (199	time		13.22		26.18		40.40		55.64	55.64	4 / 3							
reaction time 0.238	interval				12.96		14.22		15.24		# of strides	13.22	12.96	14.22	15.24	26.18	29.46	3.28
	velocity		7.56		7.72		7.03		6.56	7.19	205.5	7.56	7.72	7.03	6.56	7.64	6.79	
Takashima, Natsumi (JPN) (2	time		13.38		26.41		40.50		55.73	55.73	8 / 4							
reaction time 0.226	interval				13.03		14.09		15.23		# of strides	13.38	13.03	14.09	15.23	26.41	29.32	2.91
	velocity		7.47		7.67		7.10		6.57	7.18	217.7	7.47	7.67	7.10	6.57	7.57	6.82	
Daichi, Saori (JPN) (2000)	time		13.62		26.72		40.83		56.63	56.63	3 / 5							
reaction time 0.254	interval				13.10		14.11		15.80		# of strides	13.62	13.10	14.11	15.80	26.72	29.91	3.19
	velocity		7.34		7.63		7.09		6.33	7.06	205.0	7.34	7.63	7.09	6.33	7.49	6.69	
Kato, Shiho (JPN) (2000)	time		13.27		26.37		40.71		56.64	56.64	9 / 6							
reaction time 0.204	interval				13.10		14.34		15.93		# of strides	13.27	13.10	14.34	15.93	26.37	30.27	3.90
	velocity		7.54		7.63		6.97		6.28	7.06	212.0	7.54	7.63	6.97	6.28	7.58	6.61	
Igoshi, Akari (JPN) (2000)	time		13.15		26.24		40.55		56.66	56.66	5 / 7							
reaction time 0.193	interval				13.09		14.31		16.11		# of strides	13.15	13.09	14.31	16.11	26.24	30.42	4.18
	velocity		7.60		7.64		6.99		6.21	7.06	206.2	7.60	7.64	6.99	6.21	7.62	6.57	
Takagi, Rina (JPN) (1999)	time		13.57		26.85		41.00		60.91	60.91	2 / 8							
reaction time	interval				13.28		14.15		19.91		# of strides	13.57	13.28	14.15	19.91	26.85	34.06	7.21
	velocity		7.37		7.53		7.07		5.02	6.57	213.0	7.37	7.53	7.07	5.02	7.45	5.87	

U19 Semi-Final 1

date 08-Oct-17

(2017) - tfdata-store.com/2017/10/12/post-1100/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Okumura, Yuri (JPN) (2000)	time		12.93		25.83		39.84		54.75	54.75	6 / 1							
reaction time 0.177	interval				12.90		14.01		14.91		# of strides	12.93	12.90	14.01	14.91	25.83	28.92	3.09
	velocity		7.73		7.75		7.14		6.71	7.31	211.5	7.73	7.75	7.14	6.71	7.74	6.92	
Aono, Akari (JPN) (2000)	time		13.55		26.70		40.31		54.87	54.87	8 / 2							
reaction time 0.209	interval				13.15		13.61		14.56		# of strides	13.55	13.15	13.61	14.56	26.70	28.17	1.47
	velocity		7.38		7.60		7.35		6.87	7.29	209.5	7.38	7.60	7.35	6.87	7.49	7.10	
Shiomi, Ayano (JPN) (1999)	time		13.43		26.32		40.21		55.01	55.01	5 / 3							
reaction time 0.193	interval				12.89		13.89		14.80		# of strides	13.43	12.89	13.89	14.80	26.32	28.69	2.37
	velocity		7.45		7.76		7.20		6.76	7.27	222.5	7.45	7.76	7.20	6.76	7.60	6.97	
Katayama, Shiori (JPN) (199	time		13.36		26.63		40.88		55.74	55.74	4 / 4							
reaction time 0.182	interval				13.27		14.25		14.86		# of strides	13.36	13.27	14.25	14.86	26.63	29.11	2.48
	velocity		7.49		7.54		7.02		6.73	7.18	194.2	7.49	7.54	7.02	6.73	7.51	6.87	
Nakajima, Sayaka (JPN) (199	time		12.88		25.95		40.29		56.14	56.14	3 / 5							
reaction time 0.155	interval				13.07		14.34		15.85		# of strides	12.88	13.07	14.34	15.85	25.95	30.19	4.24
	velocity		7.76		7.65		6.97		6.31	7.13	220.0	7.76	7.65	6.97	6.31	7.71	6.62	
Kawakami, Ichigo (JPN) (199	time		13.22		26.34		40.54		56.35	56.35	7 / 6							
reaction time 0.232	interval				13.12		14.20		15.81		# of strides	13.22	13.12	14.20	15.81	26.34	30.01	3.67
	velocity		7.56		7.62		7.04		6.33	7.10	212.2	7.56	7.62	7.04	6.33	7.59	6.66	
Kuroiwa, Sesami (JPN) (2000	time		13.35		26.83		41.62		57.47	57.47	2 / 7							
reaction time	interval				13.48		14.79		15.85		# of strides	13.35	13.48	14.79	15.85	26.83	30.64	3.81
	velocity		7.49		7.42		6.76		6.31	6.96	210.5	7.49	7.42	6.76	6.31	7.45	6.53	
Iwata, Mebuki (JPN) (1999)	time		13.33		26.80		41.73		58.01	58.01	9 / 8							
reaction time 0.254	interval				13.47		14.93		16.28		# of strides	13.33	13.47	14.93	16.28	26.80	31.21	4.41

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity		7.50		7.42		6.70		6.14	6.90	220.5	7.50	7.42	6.70	6.14	7.46	6.41	

Heat 2

date 08-Oct-17

(2017) - tfdata-store.com/2017/10/12/post-1100/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time		12.95		25.67		39.75		55.07	55.07	4 / 1							
reaction time 0.178	interval				12.72		14.08		15.32		# of strides	12.95	12.72	14.08	15.32	25.67	29.40	3.73
	velocity		7.72		7.86		7.10		6.53	7.26	213.0	7.72	7.86	7.10	6.53	7.79	6.80	
Matsumoto, Chika (JPN) (19	time				26.70		40.56		55.57	55.57	8 / 2							
reaction time 0.309	interval						13.86		15.01		# of strides			13.86	15.01	26.70	28.87	2.17
	velocity				7.49		7.22		6.66	7.20				7.22	6.66	7.49	6.93	
Kashiyama, Kaede (JPN) (19	time		13.49		26.62		40.65		56.04	56.04	6 / 3							
reaction time 0.189	interval				13.13		14.03		15.39		# of strides	13.49	13.13	14.03	15.39	26.62	29.42	2.80
	velocity		7.41		7.62		7.13		6.50	7.14	208.5	7.41	7.62	7.13	6.50	7.51	6.80	
Matsumoto, Nanako (JPN) (	time		13.21		26.07		40.15		56.32	56.32	5 / 4							
reaction time 0.234	interval				12.86		14.08		16.17		# of strides	13.21	12.86	14.08	16.17	26.07	30.25	4.18
	velocity		7.57		7.78		7.10		6.18	7.10	205.2	7.57	7.78	7.10	6.18	7.67	6.61	
Ikezaki, Airi (JPN) (1998)	time		13.72		27.01		41.41		57.06	57.06	7 / 5							
reaction time 0.287	interval				13.29		14.40		15.65		# of strides	13.72	13.29	14.40	15.65	27.01	30.05	3.04
	velocity		7.29		7.52		6.94		6.39	7.01		7.29	7.52	6.94	6.39	7.40	6.66	
Kameoka, Mitsuru (JPN) (19	time		13.12		26.49		41.61		58.52	58.52	3 / 6							
reaction time	interval				13.37		15.12		16.91		# of strides	13.12	13.37	15.12	16.91	26.49	32.03	5.54
	velocity		7.62		7.48		6.61		5.91	6.84		7.62	7.48	6.61	5.91	7.55	6.24	

Heat 1

date 08-Oct-17

(2017) - tfdata-store.com/2017/10/12/post-1100/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kitamura, Yume (JPN) (1995	time		13.10		25.80		39.80		54.56	54.56	4 / 1							
reaction time 0.178	interval				12.70		14.00		14.76	PB	# of strides	13.10	12.70	14.00	14.76	25.80	28.76	2.96
	velocity		7.63		7.87		7.14		6.78	7.33	212.0	7.63	7.87	7.14	6.78	7.75	6.95	
Aoki, Sayaka (JPN) (1986)	time		12.91		26.06		39.97		54.75	54.75	8 / 2							
reaction time 0.232	interval				13.15		13.91		14.78		# of strides	12.91	13.15	13.91	14.78	26.06	28.69	2.63
	velocity		7.75		7.60		7.19		6.77	7.31	200.5	7.75	7.60	7.19	6.77	7.67	6.97	
Aoki, Rin (JPN) (1998)	time		13.04		25.85		39.97		55.84	55.84	3 / 3							
reaction time 0.153	interval				12.81		14.12		15.87		# of strides	13.04	12.81	14.12	15.87	25.85	29.99	4.14
	velocity		7.67		7.81		7.08		6.30	7.16	218.0	7.67	7.81	7.08	6.30	7.74	6.67	
Shibata, Chiharu (JPN) (199	time		13.36		26.57		40.66		56.16	56.16	6 / 4							
reaction time 0.235	interval				13.21		14.09		15.50		# of strides	13.36	13.21	14.09	15.50	26.57	29.59	3.02
	velocity		7.49		7.57		7.10		6.45	7.12	209.7	7.49	7.57	7.10	6.45	7.53	6.76	
Saito, Mayu (JPN) (1995)	time		13.26		26.56		40.79		56.67	56.67	7 / 5							
reaction time 0.180	interval				13.30		14.23		15.88	PB	# of strides	13.26	13.30	14.23	15.88	26.56	30.11	3.55
	velocity		7.54		7.52		7.03		6.30	7.06	212.7	7.54	7.52	7.03	6.30	7.53	6.64	

2017 All Japan Corporate Championships (Osaka, JPN)

FINAL

date 24-Sep-17

(2017) - tfdata-store.com/2017/10/05/post-1097/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoki, Sayaka (JPN) (1986)	time		12.94		25.79		39.31		54.13	54.13	6 / 1							
reaction time 0.213	interval				12.85		13.52		14.82		# of strides	12.94	12.85	13.52	14.82	25.79	28.34	2.55
	velocity		7.73		7.78		7.40		6.75	7.39	203.5	7.73	7.78	7.40	6.75	7.75	7.06	
Takeishi, Konomi (JPN) (199	time		12.80		25.65		39.57		54.54	54.54	5 / 2							
reaction time 0.165	interval				12.85		13.92		14.97		# of strides	12.80	12.85	13.92	14.97	25.65	28.89	3.24
	velocity		7.81		7.78		7.18		6.68	7.33	193.0	7.81	7.78	7.18	6.68	7.80	6.92	
Kashiyama, Kaede (JPN) (19	time		13.22		26.00		39.55		54.91	54.91	7 / 3							
reaction time 0.243	interval				12.78		13.55		15.36		# of strides	13.22	12.78	13.55	15.36	26.00	28.91	2.91
	velocity		7.56		7.82		7.38		6.51	7.28	205.2	7.56	7.82	7.38	6.51	7.69	6.92	
Shingu, Miho (JPN) (1991)	time		13.34		26.45		40.42		55.40	55.40	4 / 4							
reaction time 0.161	interval				13.11		13.97		14.98		# of strides	13.34	13.11	13.97	14.98	26.45	28.95	2.50
	velocity		7.50		7.63		7.16		6.68	7.22	199.7	7.50	7.63	7.16	6.68	7.56	6.91	
Otsuki, Naoko (JPN) (1991)	time		13.37		26.46		40.63		56.59	56.59	8 / 5							
reaction time 0.318	interval				13.09		14.17		15.96		# of strides	13.37	13.09	14.17	15.96	26.46	30.13	3.67
	velocity		7.48		7.64		7.06		6.27	7.07	206.0	7.48	7.64	7.06	6.27	7.56	6.64	
Shintaku, Asami (JPN) (1994	time		13.65		26.95		41.04		56.81	56.81	9 / 6							
reaction time 0.152	interval				13.30		14.09		15.77		# of strides	13.65	13.30	14.09	15.77	26.95	29.86	2.91
	velocity		7.33		7.52		7.10		6.34	7.04	227.7	7.33	7.52	7.10	6.34	7.42	6.70	
Yamada, Hana (JPN) (1994)	time						41.85		57.29	57.29	2 / 7							
reaction time 0.194	interval								15.44		# of strides				15.44			
	velocity						7.17		6.48	6.98					6.48			
Ito, Aimi (JPN) (1997)	time		13.67		27.48		41.90		57.94	57.94	3 / 8							
reaction time 0.176	interval				13.81		14.42		16.04	PB	# of strides	13.67	13.81	14.42	16.04	27.48	30.46	2.98
	velocity		7.32		7.24		6.93		6.23	6.90	213.0	7.32	7.24	6.93	6.23	7.28	6.57	

2017 Chinese National Games (Tianjin, CHN)

FINAL

date 03-Sep-17

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yang Huizhen (CHN) (1992)	time		12.80		24.86		37.76		51.80	51.80	/ 1							
reaction time	interval				12.06		12.90		14.04	PB	# of strides	12.80	12.06	12.90	14.04	24.86	26.94	2.08
	velocity		7.81		8.29		7.75		7.12	7.72	196.0	7.81	8.29	7.75	7.12	8.05	7.42	
Cheng Chong (CHN) (1992)	time		13.16		25.09		38.09		52.45	52.45	/ 2							
reaction time	interval				11.93		13.00		14.36	PB	# of strides	13.16	11.93	13.00	14.36	25.09	27.36	2.27
	velocity		7.60		8.38		7.69		6.96	7.63	200.0	7.60	8.38	7.69	6.96	7.97	7.31	
Tong Zenghuan (CHN) (199	time		13.13		25.46		38.39		52.76	52.76	/ 3							
reaction time	interval				12.33		12.93		14.37		# of strides	13.13	12.33	12.93	14.37	25.46	27.30	1.84
	velocity		7.62		8.11		7.73		6.96	7.58	199.0	7.62	8.11	7.73	6.96	7.86	7.33	
Fu Na (CHN) (1997)	time		13.13		25.36		38.59		53.25	53.25	/ 4							
reaction time	interval				12.23		13.23		14.66	PB	# of strides	13.13	12.23	13.23	14.66	25.36	27.89	2.53
	velocity		7.62		8.18		7.56		6.82	7.51	198.0	7.62	8.18	7.56	6.82	7.89	7.17	
Liang Nuo (CHN) (1999)	time		12.56		24.89		38.49		53.99	53.99	/ 5							
reaction time	interval				12.33		13.60		15.50		# of strides	12.56	12.33	13.60	15.50	24.89	29.10	4.21
	velocity		7.96		8.11		7.35		6.45	7.41	202	7.96	8.11	7.35	6.45	8.04	6.87	
Chen Jingwen (CHN) (1990)	time		13.13		25.69		39.32		54.17	54.17	/ 6							
reaction time	interval				12.56		13.63		14.85		# of strides	13.13	12.56	13.63	14.85	25.69	28.48	2.79
	velocity		7.62		7.96		7.34		6.73	7.38	207.0	7.62	7.96	7.34	6.73	7.79	7.02	
Pan Gaoqin (CHN) (1991)	time		13.56		26.60		39.92		54.35	54.35	/ 7							
reaction time	interval				13.04		13.32		14.43		# of strides	13.56	13.04	13.32	14.43	26.60	27.75	1.15
	velocity		7.37		7.67		7.51		6.93	7.36	206.0	7.37	7.67	7.51	6.93	7.52	7.21	
He Ke (CHN) (1993)	time		13.30		26.00		39.43		54.43	54.43	/ 8							
reaction time	interval				12.70		13.43		15.00		# of strides	13.30	12.70	13.43	15.00	26.00	28.43	2.43
	velocity		7.52		7.87		7.45		6.67	7.35	211.0	7.52	7.87	7.45	6.67	7.69	7.03	

2017 Memorial van Damme (Brussels, BEL)

FINAL date 01-Sep-17

Omega Timing (2017) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time		12.0	17.8	23.8	30.1	36.4	42.8	49.46	49.46	7 / 1							
reaction time 0.147	interval			5.80	6.00	6.30	6.30	6.40	6.66		# of strides	12.00	11.80	12.60	13.06	23.80	25.66	1.86
	velocity		8.33	8.62	8.33	7.94	7.94	7.81	7.51	8.09	179.0	8.33	8.47	7.94	7.66	8.40	7.79	
Naser, Salwa Eid (BRN) (199	time		12.2	17.9	23.9	30.0	36.4	42.9	49.88	49.88	6 / 2							
reaction time 0.158	interval			5.70	6.00	6.10	6.40	6.50	6.98	NR AJR PB	# of strides	12.20	11.70	12.50	13.48	23.90	25.98	2.08
	velocity		8.20	8.77	8.33	8.20	7.81	7.69	7.16	8.02	186.0	8.20	8.55	8.00	7.42	8.37	7.70	
Okolo, Courtney (USA) (199	time		12.5	18.4	24.4	30.7	37.2	43.9	50.91	50.91	4 / 3							
reaction time 0.259	interval			5.90	6.00	6.30	6.50	6.70	7.01		# of strides	12.50	11.90	12.80	13.71	24.40	26.51	2.11
	velocity		8.00	8.47	8.33	7.94	7.69	7.46	7.13	7.86	192.7	8.00	8.40	7.81	7.29	8.20	7.54	
Hastings, Natasha (USA) (19	time		12.2	18.2	24.6	31.0	37.3	43.9	50.98	50.98	9 / 4							
reaction time 0.197	interval			6.00	6.40	6.40	6.30	6.60	7.08		# of strides	12.20	12.40	12.70	13.68	24.60	26.38	1.78
	velocity		8.20	8.33	7.81	7.81	7.94	7.58	7.06	7.85	194.0	8.20	8.06	7.87	7.31	8.13	7.58	
Jackson, Shericka (JAM) (19	time		12.5	18.4	24.6	31.0	37.6	44.3	51.16	51.16	3 / 5							
reaction time 0.193	interval			5.90	6.20	6.40	6.60	6.70	6.86		# of strides	12.50	12.10	13.00	13.56	24.60	26.56	1.96
	velocity		8.00	8.47	8.06	7.81	7.58	7.46	7.29	7.82	197.5	8.00	8.26	7.69	7.37	8.13	7.53	
Williams-Mills, Novlene (JAM	time		12.4	18.2	24.2	30.5	37.1	44.0	51.27	51.27	8 / 6							
reaction time 0.238	interval			5.80	6.00	6.30	6.60	6.90	7.27		# of strides	12.40	11.80	12.90	14.17	24.20	27.07	2.87
	velocity		8.06	8.62	8.33	7.94	7.58	7.25	6.88	7.80	202.0	8.06	8.47	7.75	7.06	8.26	7.39	
McPherson, Stephenie Ann (	time		12.4	18.2	24.2	30.6	37.3	44.3	51.72	51.72	5 / 7							
reaction time 0.140	interval			5.80	6.00	6.40	6.70	7.00	7.42		# of strides	12.40	11.80	13.10	14.42	24.20	27.52	3.32
	velocity		8.06	8.62	8.33	7.81	7.46	7.14	6.74	7.73	186.0	8.06	8.47	7.63	6.93	8.26	7.27	
Jele, Lydia (BOT) (1990)	time		12.6	18.4	24.6	31.1	37.9	45.1	53.11	53.11	2 / 8							
reaction time 0.193	interval			5.80	6.20	6.50	6.80	7.20	8.01		# of strides	12.60	12.00	13.30	15.21	24.60	28.51	3.91
	velocity		7.94	8.62	8.06	7.69	7.35	6.94	6.24	7.53		7.94	8.33	7.52	6.57	8.13	7.02	

2017 IAAF World Championships (London, GBR)

FINAL date 09-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Francis, Phyllis (USA) (1992)	time		11.70		23.11		35.66	42.40	49.72	49.92	6 / 1							
reaction time 0.196	interval				11.41		12.55	6.74	7.32	PB	# of strides	11.70	11.41	12.55	14.06	23.11	26.61	3.50
	velocity		8.55		8.76		7.97	7.42	6.83	8.01	178.3	8.55	8.76	7.97	7.11	8.65	7.52	
Naser, Salwa Eid (BRN) (199	time		12.01		23.50		35.93	42.60	49.86	50.06	4 / 2							
reaction time 0.203	interval				11.49		12.43	6.67	7.26	NR / NJR	# of strides	12.01	11.49	12.43	13.93	23.50	26.36	2.86
	velocity		8.33		8.70		8.05	7.50	6.89	7.99	189.6	8.33	8.70	8.05	7.18	8.51	7.59	
Felix, Allyson (USA) (1985)	time		11.46		22.70		35.46	42.31	49.90	50.08	5 / 3							
reaction time 0.184	interval				11.24		12.76	6.85	7.59		# of strides	11.46	11.24	12.76	14.44	22.70	27.20	4.50
	velocity		8.73		8.90		7.84	7.30	6.59	7.99	181.6	8.73	8.90	7.84	6.93	8.81	7.35	
Miller-Uibo, Shaunae (BAH)	time		11.46		22.74		35.20	41.93	50.33	50.49	7 / 4							
reaction time 0.160	interval				11.28		12.46	6.73	8.40		# of strides	11.46	11.28	12.46	15.13	22.74	27.59	4.85
	velocity		8.73		8.87		8.03	7.43	5.95	7.92	182.2	8.73	8.87	8.03	6.61	8.80	7.25	
Jackson, Shericka (JAM) (19	time		11.91		23.43		36.28	43.10	50.57	50.76	2 / 5							

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 0.194	interval		11.52	12.85	6.82	7.47		# of strides	11.91	11.52	12.85	14.29	23.43	27.14	3.71
	velocity	8.40	8.68	7.78	7.33	6.69	7.88	198.6	8.40	8.68	7.78	7.00	8.54	7.37	
McPherson, Stephenie Ann (	time	12.05	23.54	36.33	43.20	50.70	50.86	8 / 6							
reaction time 0.162	interval		11.49	12.79	6.87	7.50		# of strides	12.05	11.49	12.79	14.37	23.54	27.16	3.62
	velocity	8.30	8.70	7.82	7.28	6.67	7.86	188.0	8.30	8.70	7.82	6.96	8.50	7.36	
Mupopo, Kabange (ZAM) (1	time	11.66	23.40	36.26	43.16	50.97	51.15	9 / ~~7~~							
reaction time 0.184	interval		11.74	12.86	6.90	7.81	DV	# of strides	11.66	11.74	12.86	14.71	23.40	27.57	4.17
	velocity	8.58	8.52	7.78	7.25	6.40	7.82	195.6	8.58	8.52	7.78	6.80	8.55	7.25	
Williams-Mills, Novlene (JAN	time	12.16	23.75	36.54	43.51	51.21	51.48	3 / ~~8~~ 7							
reaction time 0.272	interval		11.59	12.79	6.97	7.70		# of strides	12.16	11.59	12.79	14.67	23.75	27.46	3.71
	velocity	8.22	8.63	7.82	7.17	6.49	7.77	202.2	8.22	8.63	7.82	6.82	8.42	7.28	

Semi-Final 3

date 07-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Francis, Phyllis (USA) (1992)	time		11.91		23.19		35.96	42.94	50.18	50.37	5 / 1							
reaction time 0.187	interval				11.28		12.77	6.98	7.24		# of strides	11.91	11.28	12.77	14.22	23.19	26.99	3.80
	velocity		8.40		8.87		7.83	7.16	6.91	7.94	179.2	8.40	8.87	7.83	7.03	8.62	7.41	
Mupopo, Kabange (ZAM) (1	time		12.09		23.74		36.32	43.04	50.40	50.60	4 / ~~2~~							
reaction time 0.204	interval				11.65		12.58	6.72	7.36	DV	# of strides	12.09	11.65	12.58	14.08	23.74	26.66	2.92
	velocity		8.27		8.58		7.95	7.44	6.79	7.91	194.2	8.27	8.58	7.95	7.10	8.42	7.50	
Gordon, Chrisann (JAM) (19	time		12.24		23.83		36.44	43.32	50.70	50.87	7 / ~~3~~ 2							
reaction time 0.172	interval				11.59		12.61	6.88	7.38		# of strides	12.24	11.59	12.61	14.26	23.83	26.87	3.04
	velocity		8.17		8.63		7.93	7.27	6.78	7.86	201.7	8.17	8.63	7.93	7.01	8.39	7.44	
Montsho, Amantle (BOT) (1	time		12.09		23.70		36.58	43.55	51.08	51.28	6 / ~~4~~ 3							
reaction time 0.203	interval				11.61		12.88	6.97	7.53		# of strides	12.09	11.61	12.88	14.50	23.70	27.38	3.68
	velocity		8.27		8.61		7.76	7.17	6.64	7.80	187.0	8.27	8.61	7.76	6.90	8.44	7.30	
Spelmeyer, Ruth Sophia (GE	time		12.74		24.76		37.59	44.34	51.61	51.77	3 / ~~5~~ 4							
reaction time 0.164	interval				12.02		12.83	6.75	7.27		# of strides	12.74	12.02	12.83	14.02	24.76	26.85	2.09
	velocity		7.85		8.32		7.79	7.41	6.88	7.73	189.7	7.85	8.32	7.79	7.13	8.08	7.45	
Baumgart, Iga (POL) (1989)	time		12.71		24.79		37.62	44.35	51.59	51.81	2 / ~~6~~ 5							
reaction time 0.213	interval				12.08		12.83	6.73	7.24		# of strides	12.71	12.08	12.83	13.97	24.79	26.80	2.01
	velocity		7.87		8.28		7.79	7.43	6.91	7.72	183.9	7.87	8.28	7.79	7.16	8.07	7.46	
Clark, Zoey (GBR) (1994)	time		12.41		24.38		37.38	44.23	51.61	51.81	8 / ~~7~~ 6							
reaction time 0.188	interval				11.97		13.00	6.85	7.38	PB	# of strides	12.41	11.97	13.00	14.23	24.38	27.23	2.85
	velocity		8.06		8.35		7.69	7.30	6.78	7.72	206.5	8.06	8.35	7.69	7.03	8.20	7.34	
Bamgbose, Margaret (NGR)	time		12.24		23.97		37.10	44.31	51.97	52.23	9 / ~~8~~							
reaction time 0.262	interval				11.73		13.13	7.21	7.66	DV	# of strides	12.24	11.73	13.13	14.87	23.97	28.00	4.03
	velocity		8.17		8.53		7.62	6.93	6.53	7.66	188.2	8.17	8.53	7.62	6.72	8.34	7.14	

Semi-Final 2

date 07-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Naser, Salwa Eid (BRN) (199	time		11.70		23.97		36.37	42.98	49.88	50.08	7 / 1							
reaction time 0.200	interval				12.27		12.40	6.61	6.90	NR / NJR	# of strides	11.70	12.27	12.40	13.51	23.97	25.91	1.94
	velocity		8.55		8.15		8.06	7.56	7.25	7.99	189.2	8.55	8.15	8.06	7.40	8.34	7.72	
Felix, Allyson (USA) (1985)	time		11.65		23.22		36.01	42.98	49.94	50.12	4 / 2							
reaction time 0.178	interval				11.57		12.79	6.97	6.96		# of strides	11.65	11.57	12.79	13.93	23.22	26.72	3.50
	velocity		8.58		8.64		7.82	7.17	7.18	7.98	181.0	8.58	8.64	7.82	7.18	8.61	7.49	
Williams-Mills, Novlene (JAN	time		12.12		23.75		36.43	43.11	50.40	50.67	9 / 3							
reaction time 0.266	interval				11.63		12.68	6.68	7.29		# of strides	12.12	11.63	12.68	13.97	23.75	26.65	2.90
	velocity		8.25		8.60		7.89	7.49	6.86	7.89	201.0	8.25	8.60	7.89	7.16	8.42	7.50	
Jackson, Shericka (JAM) (19	time		12.09		23.59		36.40	43.21	50.51	50.70	5 / 4							
reaction time 0.191	interval				11.50		12.81	6.81	7.30		# of strides	12.09	11.50	12.81	14.11	23.59	26.92	3.33
	velocity		8.27		8.70		7.81	7.34	6.85	7.89	198.5	8.27	8.70	7.81	7.09	8.48	7.43	
Jele, Lydia (BOT) (1990)	time		12.20		24.02		37.07	44.01	51.37	51.57	2 / 5							
reaction time 0.200	interval				11.82		13.05	6.94	7.36		# of strides	12.20	11.82	13.05	14.30	24.02	27.35	3.33
	velocity		8.20		8.46		7.66	7.20	6.79	7.76	195.5	8.20	8.46	7.66	6.99	8.33	7.31	
Ajayi, Yinka (NGR) (1997)	time		12.56		24.74		37.71	44.55	51.85	52.10	8 / 6							
reaction time 0.247	interval				12.18		12.97	6.84	7.30		# of strides	12.56	12.18	12.97	14.14	24.74	27.11	2.37
	velocity		7.96		8.21		7.71	7.31	6.85	7.68	198.2	7.96	8.21	7.71	7.07	8.08	7.38	
Sheoran, Nirmala (IND) (199	time		12.62		24.53		38.16	45.26	52.78	53.07	3 / ~~7~~							
reaction time 0.285	interval				11.91		13.63	7.10	7.52	DV	# of strides	12.62	11.91	13.63	14.62	24.53	28.25	3.72
	velocity		7.92		8.40		7.34	7.04	6.65	7.54	182.6	7.92	8.40	7.34	6.84	8.15	7.08	
Vasilíou, Iríni (GRE) (1990)	time		12.43		24.51		37.56	44.91	53.08	53.27	6 / ~~8~~ 7							
reaction time 0.190	interval				12.08		13.05	7.35	8.17		# of strides	12.43	12.08	13.05	15.52	24.51	28.57	4.06
	velocity		8.05		8.28		7.66	6.80	6.12	7.51	190.4	8.05	8.28	7.66	6.44	8.16	7.00	

Semi-Final 1

date 07-Aug-17

Pollitt (2018) - biomechanical report for the IAAF World Champs - London 2017 - Women's 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time		11.93		23.58		36.12	42.85	50.20	50.36	5 / 1							
reaction time 0.161	interval				11.65		12.54	6.73	7.35		# of strides	11.93	11.65	12.54	14.08	23.58	26.62	3.04
	velocity		8.38		8.58		7.97	7.43	6.80	7.94	180.2	8.38	8.58	7.97	7.10	8.48	7.51	

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

McPherson, Stephenie Ann (	time	12.18	23.73	36.47	43.16	50.40	50.56	7 / 2								
reaction time 0.159	interval		11.55	12.74	6.69	7.24		# of strides	12.18	11.55	12.74	13.93	23.73	26.67	2.94	
	velocity	8.21	8.66	7.85	7.47	6.91	7.91	188.3	8.21	8.66	7.85	7.18	8.43	7.50		
Hayes, Quanera (USA) (1992	time	12.37	24.67	37.02	43.61	50.52	50.71	6 / 3								
reaction time 0.191	interval		12.30	12.35	6.59	6.91		# of strides	12.37	12.30	12.35	13.50	24.67	25.85	1.18	
	velocity	8.08	8.13	8.10	7.59	7.24	7.89	175.6	8.08	8.13	8.10	7.41	8.11	7.74		
Latiševa-Čudare, Gunta (LA	time	12.56	24.50	37.36	44.23	51.35	51.57	8 / 4								
reaction time 0.216	interval		11.94	12.86	6.87	7.12		# of strides	12.56	11.94	12.86	13.99	24.50	26.85	2.35	
	velocity	7.96	8.38	7.78	7.28	7.02	7.76	195.4	7.96	8.38	7.78	7.15	8.16	7.45		
Gómez, Roxana (CUB) (1999	time	12.60	24.59	37.38	44.28	51.76	52.01	3 / 5								
reaction time 0.251	interval		11.99	12.79	6.90	7.48		# of strides	12.60	11.99	12.79	14.38	24.59	27.17	2.58	
	velocity	7.94	8.34	7.82	7.25	6.68	7.69	190.3	7.94	8.34	7.82	6.95	8.13	7.36		
Razor, Bianca (ROU) (1994)	time	12.58	24.58	37.63	44.55	51.91	52.09	2 / 6								
reaction time 0.180	interval		12.00	13.05	6.92	7.36		# of strides	12.58	12.00	13.05	14.28	24.58	27.33	2.75	
	velocity	7.95	8.33	7.66	7.23	6.79	7.68	202.4	7.95	8.33	7.66	7.00	8.14	7.32		
George, Patience (NGR) (199	time	12.09	23.79	37.44	44.41	52.41	52.60	4 / 7								
reaction time 0.189	interval		11.70	13.65	6.97	8.00		# of strides	12.09	11.70	13.65	14.97	23.79	28.62	4.83	
	velocity	8.27	8.55	7.33	7.17	6.25	7.60	199.0	8.27	8.55	7.33	6.68	8.41	6.99		
Kelly, Ashley (IVB) (1991)	time	11.89	23.83	37.75	44.67	54.32	54.50	9 / 8								
reaction time 0.184	interval		11.94	13.92	6.92	9.65		# of strides	11.89	11.94	13.92	16.57	23.83	30.49	6.66	
	velocity	8.41	8.38	7.18	7.23	5.18	7.34	205.7	8.41	8.38	7.18	6.04	8.39	6.56		

2017 Japanese National High School Championships (Yamagata, JPN)

FINAL date 29-Jul-17

Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time	6.98	12.86	19.02	25.46	32.16	39.20	46.40	53.92	53.92	5 / 1							
reaction time 0.205	interval		5.88	6.16	6.44	6.70	7.04	7.20	7.52		# of strides	12.86	12.60	13.74	14.72	25.46	28.46	3.00
	velocity	7.16	8.50	8.12	7.76	7.46	7.10	6.94	6.65	7.42		7.78	7.94	7.28	6.79	7.86	7.03	
Okumura, Yuri (JPN) (2000)	time	6.95	12.87	19.12	25.68	32.54	39.68	47.00	54.75	54.75	7 / 2							
reaction time 0.187	interval		5.92	6.25	6.56	6.86	7.14	7.32	7.75		# of strides	12.87	12.81	14.00	15.07	25.68	29.07	3.39
	velocity	7.19	8.45	8.00	7.62	7.29	7.00	6.83	6.45	7.31		7.77	7.81	7.14	6.64	7.79	6.88	
Kuwabara, Ayako (JPN) (200	time	7.13	13.18	19.52	26.23	33.12	40.20	47.44	55.25	55.25	6 / 3							
reaction time 0.170	interval		6.05	6.34	6.71	6.89	7.08	7.24	7.81		# of strides	13.18	13.05	13.97	15.05	26.23	29.02	2.79
	velocity	7.01	8.26	7.89	7.45	7.26	7.06	6.91	6.40	7.24		7.59	7.66	7.16	6.64	7.62	6.89	
Katayama, Shiori (JPN) (199	time	7.10	13.06	19.47	26.17	33.15	40.44	47.81	55.47	55.47	4 / 4							
reaction time 0.347	interval		5.96	6.41	6.70	6.98	7.29	7.37	7.66		# of strides	13.06	13.11	14.27	15.03	26.17	29.30	3.13
	velocity	7.04	8.39	7.80	7.46	7.16	6.86	6.78	6.53	7.21		7.66	7.63	7.01	6.65	7.64	6.83	
Kawakami, Ichigo (JPN) (199	time	7.00	13.00	19.27	25.85	32.81	40.14	47.66	55.72	55.72	8 / 5							
reaction time 0.209	interval		6.00	6.27	6.58	6.96	7.33	7.52	8.06		# of strides	13.00	12.85	14.29	15.58	25.85	29.87	4.02
	velocity	7.14	8.33	7.97	7.60	7.18	6.82	6.65	6.20	7.18		7.69	7.78	7.00	6.42	7.74	6.70	
Shiomi, Ayano (JPN) (1999)	time	7.28	13.43	19.80	26.59	33.61	40.74	48.06	55.73	55.73	9 / 6							
reaction time 0.252	interval		6.15	6.37	6.79	7.02	7.13	7.32	7.67		# of strides	13.43	13.16	14.15	14.99	26.59	29.14	2.55
	velocity	6.87	8.13	7.85	7.36	7.12	7.01	6.83	6.52	7.18		7.45	7.60	7.07	6.67	7.52	6.86	
Nakajima, Sayaka (JPN) (199	time	7.03	12.75	18.94	25.62	32.65	40.14	47.98	56.41	56.41	2 / 7							
reaction time 0.170	interval		5.72	6.19	6.68	7.03	7.49	7.84	8.43		# of strides	12.75	12.87	14.52	16.27	25.62	30.79	5.17
	velocity	7.11	8.74	8.08	7.49	7.11	6.68	6.38	5.93	7.09		7.84	7.77	6.89	6.15	7.81	6.50	
Minami, Chihiro (JPN) (2000	time	7.24	13.17	19.40	25.98	32.91	40.36	48.20	56.63	56.63	3 / 8							
reaction time 0.229	interval		5.93	6.23	6.58	6.93	7.45	7.84	8.43		# of strides	13.17	12.81	14.38	16.27	25.98	30.65	4.67
	velocity	6.91	8.43	8.03	7.60	7.22	6.71	6.38	5.93	7.06		7.59	7.81	6.95	6.15	7.70	6.53	

2017 Meeting de Paris (Paris, FRA)

FINAL date 01-Jul-17

Omega Timing (2017) - diamond league race analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams-Mills, Novlene (JAN	time		12.6	18.4	24.4	30.7	37.3	44.0	51.03	51.03	4 / 1							
reaction time 0.236	interval			5.8	6.0	6.3	6.6	6.7	7.0		# of strides	12.60	11.80	12.90	13.73	24.40	26.63	2.23
	velocity		7.94	8.62	8.33	7.94	7.58	7.46	7.11	7.84		200.2	7.94	8.47	7.75	7.28	8.20	7.51
Okolo, Courtney (USA) (199	time		12.6	18.4	24.7	31.1	37.5	44.2	51.19	51.19	7 / 2							
reaction time 0.242	interval			5.8	6.3	6.4	6.4	6.7	7.0		# of strides	12.60	12.10	12.80	13.69	24.70	26.49	1.79
	velocity		7.94	8.62	7.94	7.81	7.81	7.46	7.15	7.81		191.7	7.94	8.26	7.81	7.30	8.10	7.55
Jackson, Shericka (JAM) (19	time		12.5	18.3	24.4	30.9	37.6	44.6	51.91	51.91	5 / 3							
reaction time 0.182	interval			5.8	6.1	6.5	6.7	7.0	7.3		# of strides	12.50	11.90	13.20	14.31	24.40	27.51	3.11
	velocity		8.00	8.62	8.20	7.69	7.46	7.14	6.84	7.71		197.0	8.00	8.40	7.58	6.99	8.20	7.27
Jele, Lydia (BOT) (1990)	time		12.7	18.7	24.9	31.2	37.7	44.5	51.96	51.96	8 / 4							
reaction time 0.161	interval			6.0	6.2	6.3	6.5	6.8	7.5		# of strides	12.70	12.20	12.80	14.26	24.90	27.06	2.16
	velocity		7.87	8.33	8.06	7.94	7.69	7.35	6.70	7.70		194.5	7.87	8.20	7.81	7.01	8.03	7.39
Guei, Floria (FRA) (1990)	time		12.6	18.6	24.7	31.1	37.9	45.0	52.33	52.33	3 / 5							
reaction time 0.192	interval			6.0	6.1	6.4	6.8	7.1	7.3		# of strides	12.60	12.10	13.20	14.43	24.70	27.63	2.93
	velocity		7.94	8.33	8.20	7.81	7.35	7.04	6.82	7.64		192.5	7.94	8.26	7.58	6.93	8.10	7.24
Zemlyak, Olha (UKR) (1990)	time		12.5	18.2	24.2	30.7	37.6	44.9	52.93	52.93	2 / ~~6~~							

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 0.196	interval		5.7	6.0	6.5	6.9	7.3	8.0	DV	# of strides	12.50	11.70	13.40	15.33	24.20	28.73	4.53
	velocity	8.00	8.77	8.33	7.69	7.25	6.85	6.23	7.56	200.0	8.00	8.55	7.46	6.52	8.26	6.96	
Sananes, Deborah (FRA) (19	time	12.8	18.8	25.1	31.6	38.5	45.8	53.41	53.41	1 / ~~7~~ 6							
reaction time 0.207	interval		6.0	6.3	6.5	6.9	7.3	7.6		# of strides	12.80	12.30	13.40	14.91	25.10	28.31	3.21
	velocity	7.81	8.33	7.94	7.69	7.25	6.85	6.57	7.49	198.7	7.81	8.13	7.46	6.71	7.97	7.06	

2017 USATF National Championships (Sacramento, CA)

FINAL date 24-Jun-17

Lee (& Ferrara) (2017) - speedendurance.com/2017/07/13/400m-splits-from-usa-national-championships/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hayes, Quanera (USA) (1992	time		12.20		23.89		36.14		49.72	49.72	7 / 1							
reaction time	interval				11.69		12.25		13.58	PB	# of strides	12.20	11.69	12.25	13.58	23.89	25.83	1.94
	velocity		8.24		8.73		8.12		7.24	8.05		8.20	8.55	8.16	7.36	8.37	7.74	
Francis, Phyllis (USA) (1992)	time		12.23		23.44		36.13		49.96	49.96	4 / 2							
reaction time	interval				11.21		12.69		13.83		# of strides	12.23	11.21	12.69	13.83	23.44	26.52	3.08
	velocity		8.24		8.73		8.12		7.24	8.01		8.18	8.92	7.88	7.23	8.53	7.54	
Ellis, Kendall (USA) (1996)	time		12.39		23.92		36.37		50.00	50.00	6 / 3							
reaction time	interval				11.53		12.45		13.63	PB	# of strides	12.39	11.53	12.45	13.63	23.92	26.08	2.16
	velocity		8.24		8.73		8.12		7.24	8.00		8.07	8.67	8.03	7.34	8.36	7.67	
Hastings, Natasha (USA) (19	time		11.83		23.19		35.92		50.14	50.14	3 / 4							
reaction time	interval				11.36		12.73		14.22		# of strides	11.83	11.36	12.73	14.22	23.19	26.95	3.76
	velocity		8.24		8.73		8.12		7.24	7.98		8.45	8.80	7.86	7.03	8.62	7.42	
Wimbley, Shakima (USA) (19	time		12.36		23.82		36.64		50.36	50.36	5 / 5							
reaction time	interval				11.46		12.82		13.72	PB	# of strides	12.36	11.46	12.82	13.72	23.82	26.54	2.72
	velocity		8.24		8.73		8.12		7.24	7.94		8.09	8.73	7.80	7.29	8.40	7.54	
Harper, Daina (USA) (1995)	time		12.26		23.77		36.38		50.64	50.64	8 / 6							
reaction time	interval				11.51		12.61		14.26	PB	# of strides	12.26	11.51	12.61	14.26	23.77	26.87	3.10
	velocity		8.24		8.73		8.12		7.24	7.90		8.16	8.69	7.93	7.01	8.41	7.44	
Beard, Jessica (USA) (1989)	time		12.43		23.99		36.88		50.85	50.85	2 / 7							
reaction time	interval				11.56		12.89		13.97		# of strides	12.43	11.56	12.89	13.97	23.99	26.86	2.87
	velocity		8.24		8.73		8.12		7.24	7.87		8.05	8.65	7.76	7.16	8.34	7.45	
Okolo, Courtney (USA) (199	time		12.67		24.29		36.92		51.23	51.23	1 / 8							
reaction time	interval				11.62		12.63		14.31		# of strides	12.67	11.62	12.63	14.31	24.29	26.94	2.65
	velocity		8.24		8.73		8.12		7.24	7.81		7.89	8.61	7.92	6.99	8.23	7.42	

2017 Japanese National Championships (Osaka, JPN)

FINAL date 24-Jun-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time	6.90	12.89	19.02	25.33	31.87	38.70	45.98	53.65	53.65	6 / 1							
reaction time 0.163	interval		5.99	6.13	6.31	6.54	6.83	7.28	7.67	PB	# of strides	12.89	12.44	13.37	14.95	25.33	28.32	2.99
	velocity	7.25	8.35	8.16	7.92	7.65	7.32	6.87	6.52	7.46	213.5	7.76	8.04	7.48	6.69	7.90	7.06	
Takeishi, Konomi (JPN) (199	time	6.90	12.86	18.94	25.33	31.98	38.97	46.21	53.83	53.83	5 / 2							
reaction time 0.163	interval		5.96	6.08	6.39	6.65	6.99	7.24	7.62		# of strides	12.86	12.47	13.64	14.86	25.33	28.50	3.17
	velocity	7.25	8.39	8.22	7.82	7.52	7.15	6.91	6.56	7.43	194.7	7.78	8.02	7.33	6.73	7.90	7.02	
Kawada, Ayaka (JPN) (1999)	time	6.96	12.90	19.04	25.51	32.28	39.31	46.57	54.18	54.18	7 / 3							
reaction time 0.171	interval		5.94	6.14	6.47	6.77	7.03	7.26	7.61		# of strides	12.90	12.61	13.80	14.87	25.51	28.67	3.16
	velocity	7.18	8.42	8.14	7.73	7.39	7.11	6.89	6.57	7.38	214.0	7.75	7.93	7.25	6.72	7.84	6.98	
Matsumoto, Nanako (JPN) (	time	7.08	13.15	19.37	25.85	32.55	39.65	46.92	54.72	54.72	8 / 4							
reaction time 0.180	interval		6.07	6.22	6.48	6.70	7.10	7.27	7.80		# of strides	13.15	12.70	13.80	15.07	25.85	28.87	3.02
	velocity	7.06	8.24	8.04	7.72	7.46	7.04	6.88	6.41	7.31	207.0	7.60	7.87	7.25	6.64	7.74	6.93	
Aoki, Rin (JPN) (1998)	time	7.11	13.36	19.65	26.11	32.75	39.82	47.16	54.85	54.85	3 / 5							
reaction time 0.180	interval		6.25	6.29	6.46	6.64	7.07	7.34	7.69		# of strides	13.36	12.75	13.71	15.03	26.11	28.74	2.63
	velocity	7.03	8.00	7.95	7.74	7.53	7.07	6.81	6.50	7.29	218.2	7.49	7.84	7.29	6.65	7.66	6.96	
Aoyama, Seika (JPN) (1996)	time	6.98	12.95	19.00	25.26	31.77	38.73	46.31	54.98	54.98	4 / 6							
reaction time 0.188	interval		5.97	6.05	6.26	6.51	6.96	7.58	8.67		# of strides	12.95	12.31	13.47	16.25	25.26	29.72	4.46
	velocity	7.16	8.38	8.26	7.99	7.68	7.18	6.60	5.77	7.28	210.2	7.72	8.12	7.42	6.15	7.92	6.73	
Shintaku, Asami (JPN) (1994	time	7.25	13.56	20.07	26.70	33.41	40.35	47.66	55.59	55.59	9 / 7							
reaction time 0.146	interval		6.31	6.51	6.63	6.71	6.94	7.31	7.93		# of strides	13.56	13.14	13.65	15.24	26.70	28.89	2.19
	velocity	6.90	7.92	7.68	7.54	7.45	7.20	6.84	6.31	7.20	221.0	7.37	7.61	7.33	6.56	7.49	6.92	
Shiiya, Kanako (JPN) (1997)	time	7.19	13.39	19.74	26.33	33.15	40.37	48.02	56.20	56.20	2 / 8							
reaction time 0.229	interval		6.20	6.35	6.59	6.82	7.22	7.65	8.18		# of strides	13.39	12.94	14.04	15.83	26.33	29.87	3.54
	velocity	6.95	8.06	7.87	7.59	7.33	6.93	6.54	6.11	7.12	203.2	7.47	7.73	7.12	6.32	7.60	6.70	

Heat 2 date 23-Jun-17

(2017) - tfdata-store.com/2017/07/10/post-978/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takeishi, Konomi (JPN) (199	time		12.74		25.00		38.65		53.47	53.47	5 / 1							
reaction time 0.165	interval				12.26		13.65		14.82	PB	# of strides	12.74	12.26	13.65	14.82	25.00	28.47	3.47
	velocity		7.85		8.16		7.33		6.75	7.48	194.2	7.85	8.16	7.33	6.75	8.00	7.02	
Aoyama, Seika (JPN) (1996)	time		13.11		25.43		38.68		53.61	53.61	8 / 2							
reaction time 0.186	interval				12.32		13.25		14.93		# of strides	13.11	12.32	13.25	14.93	25.43	28.18	2.75
	velocity		7.63		8.12		7.55		6.70	7.46	205.0	7.63	8.12	7.55	6.70	7.86	7.10	

Matsumoto, Nanako (JPN) (	time	13.10	25.47	38.98	54.23	54.23	3 / 3								
reaction time 0.187	interval		12.37	13.51	15.25		# of strides	13.10	12.37	13.51	15.25	25.47	28.76	3.29	
	velocity	7.63	8.08	7.40	6.56	7.38	206.0	7.63	8.08	7.40	6.56	7.85	6.95		
Shiiya, Kanako (JPN) (1997)	time	13.58	26.41	39.95	54.69	54.69	6 / 4								
reaction time	interval		12.83	13.54	14.74		# of strides	13.58	12.83	13.54	14.74	26.41	28.28	1.87	
	velocity	7.36	7.79	7.39	6.78	7.31	198.5	7.36	7.79	7.39	6.78	7.57	7.07		
Hatano, Minami (JPN) (1998)	time	13.05	25.33	39.17	55.04	55.04	4 / 5								
reaction time 0.146	interval		12.28	13.84	15.87		# of strides	13.05	12.28	13.84	15.87	25.33	29.71	4.38	
	velocity	7.66	8.14	7.23	6.30	7.27	206.0	7.66	8.14	7.23	6.30	7.90	6.73		
Uesugi, Haruna (JPN) (1998)	time	13.01	25.52	39.85	56.07	56.07	2 / 6								
reaction time 0.175	interval		12.51	14.33	16.22		# of strides	13.01	12.51	14.33	16.22	25.52	30.55	5.03	
	velocity	7.69	7.99	6.98	6.17	7.13	208.7	7.69	7.99	6.98	6.17	7.84	6.55		

Heat 1

date 23-Jun-17 *(2017) - tfdata-store.com/2017/07/10/post-978/*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time		12.94		25.45		39.11		53.82	53.82	5 / 1							
reaction time 0.173	interval				12.51		13.66		14.71		# of strides	12.94	12.51	13.66	14.71	25.45	28.37	2.92
	velocity		7.73		7.99		7.32		6.80	7.43	212.2	7.73	7.99	7.32	6.80	7.86	7.05	
Kawada, Ayaka (JPN) (1999)	time		12.85		25.40		39.20		54.37	54.37	6 / 2							
reaction time 0.174	interval				12.55		13.80		15.17		# of strides	12.85	12.55	13.80	15.17	25.40	28.97	3.57
	velocity		7.78		7.97		7.25		6.59	7.36	213.2	7.78	7.97	7.25	6.59	7.87	6.90	
Shintaku, Asami (JPN) (1994	time		13.47		26.32		39.70		54.40	54.40	7 / 3							
reaction time 0.170	interval				12.85		13.38		14.70		# of strides	13.47	12.85	13.38	14.70	26.32	28.08	1.76
	velocity		7.42		7.78		7.47		6.80	7.35	218.7	7.42	7.78	7.47	6.80	7.60	7.12	
Aoki, Rin (JPN) (1998)	time		12.95		25.42		39.23		54.49	54.49	3 / 4							
reaction time 0.156	interval				12.47		13.81		15.26		# of strides	12.95	12.47	13.81	15.26	25.42	29.07	3.65
	velocity		7.72		8.02		7.24		6.55	7.34	216.5	7.72	8.02	7.24	6.55	7.87	6.88	
Inaoka, Mayu (JPN) (1996)	time		13.09		26.12		40.24		55.10	55.10	8 / 5							
reaction time 0.163	interval				13.03		14.12		14.86		# of strides	13.09	13.03	14.12	14.86	26.12	28.98	2.86
	velocity		7.64		7.67		7.08		6.73	7.26	219.5	7.64	7.67	7.08	6.73	7.66	6.90	

2017 NCAA Championships (Eugene, OR)

FINAL

date 10-Jun-17 *Track Newsletter (2017) - NCAA women's championships*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Gordon, Chrisann (JAM) (19	time				23.6		36.6		50.5	50.51	4 / 1							
reaction time	interval						13.00		13.90		# of strides			13.00	13.90	23.60	26.90	3.30
	velocity				8.47		7.69		7.19	7.92	197.5			7.69	7.19	8.47	7.43	
Wimbley, Shakima (USA) (19	time				24.0		36.7		50.7	50.68	5 / 2							
reaction time	interval						12.70		14.00		# of strides			12.70	14.00	24.00	26.70	2.70
	velocity				8.33		7.87		7.14	7.89	179.2			7.87	7.14	8.33	7.49	
Ellis, Kendall (USA) (1996)	time				24.3		37.2		51.1	51.06	6 / 3							
reaction time	interval						12.90		13.90		# of strides			12.90	13.90	24.30	26.80	2.50
	velocity				8.23		7.75		7.19	7.83	188.7			7.75	7.19	8.23	7.46	
Harper, Daina (USA) (1995)	time				23.9		36.9		51.4	51.42	/ 4							
reaction time	interval						13.00		14.50		# of strides			13.00	14.50	23.90	27.50	3.60
	velocity				8.37		7.69		6.90	7.78				7.69	6.90	8.37	7.27	
Barnett, Sharrika (JAM) (199	time				24.3		37.5		51.8	51.84	/ 5							
reaction time	interval						13.20		14.30		# of strides			13.20	14.30	24.30	27.50	3.20
	velocity				8.23		7.58		6.99	7.72				7.58	6.99	8.23	7.27	
Guster, Elexis (USA) (1994)	time				24.8		37.9		52.3	52.25	/ 6							
reaction time	interval						13.10		14.40		# of strides			13.10	14.40	24.80	27.50	2.70
	velocity				8.06		7.63		6.94	7.66				7.63	6.94	8.06	7.27	
Pettigrew, Cameron (USA) (	time				24.2		37.7		52.5	52.52	/ 7							
reaction time	interval						13.50		14.80		# of strides			13.50	14.80	24.20	28.30	4.10
	velocity				8.26		7.41		6.76	7.62				7.41	6.76	8.26	7.07	
Reed, Jaevin (USA) (1998)	time				24.4		37.9		52.6	52.61	/ 8							
reaction time	interval						13.50		14.70		# of strides			13.50	14.70	24.40	28.20	3.80
	velocity				8.20		7.41		6.80	7.60				7.41	6.80	8.20	7.09	

2017 Luca Coscioni Memorial (Orvieto, ITA)

FINAL

date 28-May-17 *Tozzi (2017) - FIDAL - analisi gloria hooper, 25 maggio Orvieto*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hooper, Gloria (ITA) (1992)	time		12.73		24.63		38.17		53.40	53.67	/ 5							
reaction time	interval				11.90		13.54		15.23		# of strides	12.73	11.90	13.54	15.23	24.63	28.77	4.14
	velocity		7.86		8.40		7.39		6.57	7.45	199	7.86	8.40	7.39	6.57	8.12	6.95	

2017 Shimane High School Championships (Izumo, JPN)

FINAL

date 26-May-17 *Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yuki Ishikawa (JPN)	time		13.57		27.23		42.40		58.12	58.12	4 / 1							
reaction time	interval				13.66		15.17		15.72		# of strides	13.57	13.66	15.17	15.72	27.23	30.89	3.66
	velocity		7.37		7.32		6.59		6.36	6.88		7.37	7.32	6.59	6.36	7.34	6.47	

Toya, Moenan (JPN)	time	13.90	27.77	43.10	59.21	59.21	7 / 2							
reaction time	interval		13.87	15.33	16.11		# of strides	13.90	13.87	15.33	16.11	27.77	31.44	3.67
	velocity	7.19	7.21	6.52	6.21	6.76		7.19	7.21	6.52	6.21	7.20	6.36	
Yoneda, Ryoha (JPN)	time	14.15	28.00	43.35	60.10	60.10	5 / 3							
reaction time	interval		13.85	15.35	16.75		# of strides	14.15	13.85	15.35	16.75	28.00	32.10	4.10
	velocity	7.07	7.22	6.51	5.97	6.66		7.07	7.22	6.51	5.97	7.14	6.23	
Ishikawa, Mahiro (JPN)	time	14.22	28.67	44.77	61.48	61.48	6 / 4							
reaction time	interval		14.45	16.10	16.71		# of strides	14.22	14.45	16.10	16.71	28.67	32.81	4.14
	velocity	7.03	6.92	6.21	5.98	6.51		7.03	6.92	6.21	5.98	6.98	6.10	
Inoue, Mai (JPN)	time	14.77	29.13	45.55	62.03	62.03	8 / 5							
reaction time	interval		14.36	16.42	16.48		# of strides	14.77	14.36	16.42	16.48	29.13	32.90	3.77
	velocity	6.77	6.96	6.09	6.07	6.45		6.77	6.96	6.09	6.07	6.87	6.08	

2017 Kanto Collegiate Championships (Yokohama, JPN)

Division 1 FINAL

date 26-May-17

(2017) - tfdata-store.com/2017/06/01/post-786/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time		13.14		25.90		39.75		54.36	54.36	7 / 1							
reaction time	interval				12.76		13.85		14.61		# of strides	13.14	12.76	13.85	14.61	25.90	28.46	2.56
	velocity		7.61		7.84		7.22		6.84	7.36	214.2	7.61	7.84	7.22	6.84	7.72	7.03	
Koyama, Kana (JPN) (1998)	time		13.57		26.58		40.41		54.82	54.82	4 / 2							
reaction time	interval				13.01		13.83		14.41	PB	# of strides	13.57	13.01	13.83	14.41	26.58	28.24	1.66
	velocity		7.37		7.69		7.23		6.94	7.30	199.2	7.37	7.69	7.23	6.94	7.52	7.08	
Sato, Hinako (JPN) (1996)	time		13.50		26.55		40.73		55.54	55.54	2 / 3							
reaction time	interval				13.05		14.18		14.81		# of strides	13.50	13.05	14.18	14.81	26.55	28.99	2.44
	velocity		7.41		7.66		7.05		6.75	7.20	214.7	7.41	7.66	7.05	6.75	7.53	6.90	
Hirosawa, Mae (JPN) (1997)	time		13.75		26.88		41.05		55.54	55.54	3 / 3							
reaction time	interval				13.13		14.17		14.49	PB	# of strides	13.75	13.13	14.17	14.49	26.88	28.66	1.78
	velocity		7.27		7.62		7.06		6.90	7.20	199.5	7.27	7.62	7.06	6.90	7.44	6.98	
Hosono, Maika (JPN) (1997)	time		13.89		26.92		40.93		55.59	55.59	5 / 5							
reaction time	interval				13.03		14.01		14.66	PB	# of strides	13.89	13.03	14.01	14.66	26.92	28.67	1.75
	velocity		7.20		7.67		7.14		6.82	7.20	204.5	7.20	7.67	7.14	6.82	7.43	6.98	
Hatano, Minami (JPN) (1998)	time		13.62		26.82		40.88		55.71	55.71	8 / 6							
reaction time	interval				13.20		14.06		14.83		# of strides	13.62	13.20	14.06	14.83	26.82	28.89	2.07
	velocity		7.34		7.58		7.11		6.74	7.18	218.0	7.34	7.58	7.11	6.74	7.46	6.92	
Matsumoto, Nanako (JPN) (	time		13.79		26.88		41.06		55.97	55.97	9 / 7							
reaction time	interval				13.09		14.18		14.91		# of strides	13.79	13.09	14.18	14.91	26.88	29.09	2.21
	velocity		7.25		7.64		7.05		6.71	7.15	208.5	7.25	7.64	7.05	6.71	7.44	6.88	
Matsumoto, Chika (JPN) (19	time		13.84		27.38		41.75		56.49	56.49	6 / 8							
reaction time	interval				13.54		14.37		14.74		# of strides	13.84	13.54	14.37	14.74	27.38	29.11	1.73
	velocity		7.23		7.39		6.96		6.78	7.08	103.7	7.23	7.39	6.96	6.78	7.30	6.87	

Division 1 Semi-Fi

date 26-May-17

(2017) - tfdata-store.com/2017/06/02/post-835/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time		13.09		26.02		40.23		55.42	55.42	4 / 1							
reaction time	interval				12.93		14.21		15.19		# of strides	13.09	12.93	14.21	15.19	26.02	29.40	3.38
	velocity		7.64		7.73		7.04		6.58	7.22	212.5	7.64	7.73	7.04	6.58	7.69	6.80	
Hosono, Maika (JPN) (1997)	time		13.70		26.60		40.53		55.68	55.68	7 / 2							
reaction time	interval				12.90		13.93		15.15	PB	# of strides	13.70	12.90	13.93	15.15	26.60	29.08	2.48
	velocity		7.30		7.75		7.18		6.60	7.18	205.0	7.30	7.75	7.18	6.60	7.52	6.88	
Hatano, Minami (JPN) (1998)	time		13.51		26.57		40.76		55.93	55.93	6 / 3							
reaction time	interval				13.06		14.19		15.17		# of strides	13.51	13.06	14.19	15.17	26.57	29.36	2.79
	velocity		7.40		7.66		7.05		6.59	7.15	207.5	7.40	7.66	7.05	6.59	7.53	6.81	
Sato, Hinako (JPN) (1996)	time		13.62		26.82		40.88		56.11	56.11	5 / 4							
reaction time	interval				13.20		14.06		15.23		# of strides	13.62	13.20	14.06	15.23	26.82	29.29	2.47
	velocity		7.34		7.58		7.11		6.57	7.13	214.0	7.34	7.58	7.11	6.57	7.46	6.83	
Yakushiji, Mana (JPN) (1995)	time		13.16		26.31		40.91		56.50	56.50	8 / 5							
reaction time	interval				13.15		14.60		15.59		# of strides	13.16	13.15	14.60	15.59	26.31	30.19	3.88
	velocity		7.60		7.60		6.85		6.41	7.08	209.5	7.60	7.60	6.85	6.41	7.60	6.62	
Fujii, Ayano (JPN) (1998)	time		13.22		26.24		40.78		56.60	56.60	3 / 6							
reaction time	interval				13.02		14.54		15.82		# of strides	13.22	13.02	14.54	15.82	26.24	30.36	4.12
	velocity		7.56		7.68		6.88		6.32	7.07	207.5	7.56	7.68	6.88	6.32	7.62	6.59	
Ikezaki, Airi (JPN) (1998)	time		13.36		26.58		41.48		57.67	57.67	2 / 7							
reaction time	interval				13.22		14.90		16.19		# of strides	13.36	13.22	14.90	16.19	26.58	31.09	4.51
	velocity		7.49		7.56		6.71		6.18	6.94	221.2	7.49	7.56	6.71	6.18	7.52	6.43	
Yoshida, Kasumi (JPN) (199	time		13.41		26.70		41.73		58.39	58.39	9 / 8							
reaction time	interval				13.29		15.03		16.66		# of strides	13.41	13.29	15.03	16.66	26.70	31.69	4.99
	velocity		7.46		7.52		6.65		6.00	6.85	223.7	7.46	7.52	6.65	6.00	7.49	6.31	

Division 1 Semi-Fi

date 26-May-17

(2017) - tfdata-store.com/2017/06/02/post-835/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koyama, Kana (JPN) (1998)	time		13.57		26.61		40.75		55.55	55.55	7 / 1							

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	interval		13.04	14.14	14.80		# of strides	13.57	13.04	14.14	14.80	26.61	28.94	2.33
	velocity	7.37	7.67	7.07	6.76	7.20	197.0	7.37	7.67	7.07	6.76	7.52	6.91	
Matsumoto, Chika (JPN) (19	time	13.77	27.32	41.68	56.13	56.13	6 / 2							
reaction time	interval		13.55	14.36	14.45		# of strides	13.77	13.55	14.36	14.45	27.32	28.81	1.49
	velocity	7.26	7.38	6.96	6.92	7.13	205.7	7.26	7.38	6.96	6.92	7.32	6.94	
Matsumoto, Nanako (JPN) (	time	13.59	26.49	40.64	56.22	56.22	9 / 3							
reaction time	interval		12.90	14.15	15.58		# of strides	13.59	12.90	14.15	15.58	26.49	29.73	3.24
	velocity	7.36	7.75	7.07	6.42	7.11	210.0	7.36	7.75	7.07	6.42	7.55	6.73	
Hirosawa, Mae (JPN) (1997)	time	13.47	26.78	41.33	56.35	56.35	4 / 4							
reaction time	interval		13.31	14.55	15.02		# of strides	13.47	13.31	14.55	15.02	26.78	29.57	2.79
	velocity	7.42	7.51	6.87	6.66	7.10	199.5	7.42	7.51	6.87	6.66	7.47	6.76	
Sugiura, Haruka (JPN) (1995	time	13.13	26.10	40.75	56.41	56.41	3 / 5							
reaction time	interval		12.97	14.65	15.66		# of strides	13.13	12.97	14.65	15.66	26.10	30.31	4.21
	velocity	7.62	7.71	6.83	6.39	7.09	212.0	7.62	7.71	6.83	6.39	7.66	6.60	
Mito, Yuriko (JPN) (1995)	time	13.80	27.11	41.31	56.69	56.69	8 / 6							
reaction time	interval		13.31	14.20	15.38		# of strides	13.80	13.31	14.20	15.38	27.11	29.58	2.47
	velocity	7.25	7.51	7.04	6.50	7.06	201.2	7.25	7.51	7.04	6.50	7.38	6.76	
Fukushima, Miyuki (JPN) (19	time	13.39	26.68	41.21	56.71	56.71	2 / 7							
reaction time	interval		13.29	14.53	15.50	PB	# of strides	13.39	13.29	14.53	15.50	26.68	30.03	3.35
	velocity	7.47	7.52	6.88	6.45	7.05	210.0	7.47	7.52	6.88	6.45	7.50	6.66	
Itani, Kanna (JPN) (1997)	time	13.79	27.28	41.85	57.75	57.75	5 / 8							
reaction time	interval		13.49	14.57	15.90		# of strides	13.79	13.49	14.57	15.90	27.28	30.47	3.19
	velocity	7.25	7.41	6.86	6.29	6.93	219.0	7.25	7.41	6.86	6.29	7.33	6.56	

2017 Kansai Regional University Championships (Osaka, JPN)

FINAL date 11-May-17

(2017) - tfdata-store.com/2017/05/13/post-441/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time		12.79		24.79		37.89		53.03	53.03	7 / 1							
reaction time	interval				12.00		13.10		15.14		# of strides	12.79	12.00	13.10	15.14	24.79	28.24	3.45
	velocity		7.82		8.33		7.63		6.61	7.54		7.82	8.33	7.63	6.61	8.07	7.08	
Inaoka, Maya (JPN) (1996)	time		13.04		25.49		39.23		54.65	54.65	5 / 2							
reaction time	interval				12.45		13.74		15.42	PB	# of strides	13.04	12.45	13.74	15.42	25.49	29.16	3.67
	velocity		7.67		8.03		7.28		6.49	7.32		7.67	8.03	7.28	6.49	7.85	6.86	
Shibata, Chiharu (JPN) (199	time		13.69		26.65		40.11		55.26	55.26	6 / 3							
reaction time	interval				12.96		13.46		15.15		# of strides	13.69	12.96	13.46	15.15	26.65	28.61	1.96
	velocity		7.30		7.72		7.43		6.60	7.24		7.30	7.72	7.43	6.60	7.50	6.99	
Kimoto, Ayana (JPN) (1996)	time		13.59						55.43	55.43	8 / 4							
reaction time	interval								41.84		# of strides	13.59						
	velocity		7.36						7.17	7.22		7.36						
Uesugi, Haruna (JPN) (1998)	time		13.03		25.55		39.66		55.52	55.52	4 / 5							
reaction time	interval				12.52		14.11		15.86		# of strides	13.03	12.52	14.11	15.86	25.55	29.97	4.42
	velocity		7.67		7.99		7.09		6.31	7.20		7.67	7.99	7.09	6.31	7.83	6.67	
Hosyuyama, Shiori (JPN)	time		13.05		25.78		39.78		55.64	55.64	2 / 6							
reaction time	interval				12.73		14.00		15.86		# of strides	13.05	12.73	14.00	15.86	25.78	29.86	4.08
	velocity		7.66		7.86		7.14		6.31	7.19		7.66	7.86	7.14	6.31	7.76	6.70	
Tsumagari, Ako (JPN) (1995)	time		14.15						55.79	55.79	9 / 7							
reaction time	interval								41.64		# of strides	14.15						
	velocity		7.07						7.20	7.17		7.07						
Nishida, Mina (JPN) (1998)	time		13.29		25.76		39.86		56.14	56.14	3 / 8							
reaction time	interval				12.47		14.10		16.28		# of strides	13.29	12.47	14.10	16.28	25.76	30.38	4.62
	velocity		7.52		8.02		7.09		6.14	7.13		7.52	8.02	7.09	6.14	7.76	6.58	

2017 Shizuoka International Meeting (Fukuroi, JPN)

FINAL date 03-May-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.84	12.62	18.67	24.96	31.66	38.80	46.37	54.50	54.50	/ 1							
reaction time	interval		5.78	6.05	6.29	6.70	7.14	7.57	8.13		# of strides	12.62	12.34	13.84	15.70	24.96	29.54	4.58
	velocity	7.31	8.65	8.26	7.95	7.46	7.00	6.61	6.15	7.34		7.92	8.10	7.23	6.37	8.01	6.77	
Iwata, Yuna (JPN) (1997)	time	7.14	13.21	19.44	25.84	32.63	39.69	47.00	54.53	54.53	/ 2							
reaction time	interval		6.07	6.23	6.40	6.79	7.06	7.31	7.53		# of strides	13.21	12.63	13.85	14.84	25.84	28.69	2.85
	velocity	7.00	8.24	8.03	7.81	7.36	7.08	6.84	6.64	7.34		7.57	7.92	7.22	6.74	7.74	6.97	
Aoki, Rin (JPN) (1998)	time	7.02	12.91	19.04	25.50	32.40	39.48	46.89	54.83	54.83	/ 3							
reaction time	interval		5.89	6.13	6.46	6.90	7.08	7.41	7.94		# of strides	12.91	12.59	13.98	15.35	25.50	29.33	3.83
	velocity	7.12	8.49	8.16	7.74	7.25	7.06	6.75	6.30	7.30		7.75	7.94	7.15	6.51	7.84	6.82	
Matsumoto, Nanako (JPN) (	time	7.18	13.17	19.39	25.87	32.74	39.89	47.30	55.31	55.31	/ 4							
reaction time	interval		5.99	6.22	6.48	6.87	7.15	7.41	8.01		# of strides	13.17	12.70	14.02	15.42	25.87	29.44	3.57
	velocity	6.96	8.35	8.04	7.72	7.28	6.99	6.75	6.24	7.23		7.59	7.87	7.13	6.49	7.73	6.79	
Takeishi, Konomi (JPN) (199	time	6.90	12.85	19.17	25.85	32.86	40.04	47.43	55.34	55.34	/ 5							
reaction time	interval		5.95	6.32	6.68	7.01	7.18	7.39	7.91		# of strides	12.85	13.00	14.19	15.30	25.85	29.49	3.64
	velocity	7.25	8.40	7.91	7.49	7.13	6.96	6.77	6.32	7.23		7.78	7.69	7.05	6.54	7.74	6.78	

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kashiyama, Kaede (JPN) (19	time	7.05	13.02	19.27	25.77	32.71	40.05	47.92	56.57	56.57	/ 6							
reaction time	interval		5.97	6.25	6.50	6.94	7.34	7.87	8.65		# of strides	13.02	12.75	14.28	16.52	25.77	30.80	5.03
	velocity	7.09	8.38	8.00	7.69	7.20	6.81	6.35	5.78	7.07		7.68	7.84	7.00	6.05	7.76	6.49	

B FINAL date 03-May-17

Yamanaka (2017) - male and female 400m analysis in the 2017 season

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time	7.05	13.08	19.34	25.95	32.71	39.76	47.15	54.67	54.67	/ 1							
reaction time	interval		6.03	6.26	6.61	6.76	7.05	7.39	7.52	PB	# of strides	13.08	12.87	13.81	14.91	25.95	28.72	2.77
	velocity	7.09	8.29	7.99	7.56	7.40	7.09	6.77	6.65	7.32		7.65	7.77	7.24	6.71	7.71	6.96	
Shintaku, Asami (JPN) (1994	time	7.02	13.06	19.27	25.77	32.36	39.27	46.81	55.07	55.07	/ 2							
reaction time	interval		6.04	6.21	6.50	6.59	6.91	7.54	8.26		# of strides	13.06	12.71	13.50	15.80	25.77	29.30	3.53
	velocity	7.12	8.28	8.05	7.69	7.59	7.24	6.63	6.05	7.26		7.66	7.87	7.41	6.33	7.76	6.83	

2017 Izumo Athletics Games (Izumo, JPN) (300m)

FINAL date 23-Apr-17

(2017) - tfdata-store.com/2017/05/17/post-537/

		50m	100m	150m	200m	250m	300m	Official Time	Lane / Place	0-100m	100-200m	200-300m	0-200m	Differential
Aoyama, Seika (JPN) (1996)	time		12.39		24.32		37.76	37.76	6 / 1					***100-300m***
reaction time	interval				11.93		13.44	PB	# of strides	12.39	11.93	13.44	24.32	*25.37*
	velocity		8.07		8.38		7.44	7.94	153.0	8.07	8.38	7.44	8.22	*7.88*
Fujisawa, Sayaka (JPN) (1991	time		12.29		24.25		38.09	38.09	4 / 2					***100-300m***
reaction time	interval				11.96		13.84	PB	# of strides	12.29	11.96	13.84	24.25	*25.80*
	velocity		8.14		8.36		7.23	7.88	151.7	8.14	8.36	7.23	8.25	*7.75*
Aoki, Rin (JPN) (1998)	time		12.69		24.82		38.47	38.47	5 / 3					***100-300m***
reaction time	interval				12.13		13.65	PB	# of strides	12.69	12.13	13.65	24.82	*25.78*
	velocity		7.88		8.24		7.33	7.80	162.2	7.88	8.24	7.33	8.06	*7.76*
Takeishi, Konomi (JPN) (199	time		12.42		24.87		38.96	38.96	3 / 4					***100-300m***
reaction time	interval				12.45		14.09		# of strides	12.42	12.45	14.09	24.87	*26.54*
	velocity		8.05		8.03		7.10	7.70	149.5	8.05	8.03	7.10	8.04	*7.54*
Fujii, Ayano (JPN) (1998)	time		12.89		25.47		39.54	39.54	8 / 5					***100-300m***
reaction time	interval				12.58		14.07	PB	# of strides	12.89	12.58	14.07	25.47	*26.65*
	velocity		7.76		7.95		7.11	7.59	152.0	7.76	7.95	7.11	7.85	*7.50*
Uesugi, Haruna (JPN) (1998)	time		12.99		25.77		39.98	39.98	7 / 6					***100-300m***
reaction time	interval				12.78		14.21	PB	# of strides	12.99	12.78	14.21	25.77	*26.99*
	velocity		7.70		7.82		7.04	7.50	156.5	7.70	7.82	7.04	7.76	*7.41*
Ishikawa, Kimishia (JPN)	time		12.93		25.72		40.03	40.03	2 / 7					***100-300m***
reaction time	interval				12.79		14.31		# of strides	12.93	12.79	14.31	25.72	*27.10*
	velocity		7.73		7.82		6.99	7.49	163.0	7.73	7.82	6.99	7.78	*7.38*
Shibayama, Sayaka (JPN) (19	time		12.56		25.11		40.10	40.10	9 / 8					***100-300m***
reaction time	interval				12.55		14.99		# of strides	12.56	12.55	14.99	25.11	*27.54*
	velocity		7.96		7.97		6.67	7.48	154.7	7.96	7.97	6.67	7.96	*7.26*
Umehara, Satsuki (JPN) (199	time		13.35		26.28		40.52	40.52	1 / 9					***100-300m***
reaction time	interval				12.93		14.24		# of strides	13.35	12.93	14.24	26.28	*27.17*
	velocity		7.49		7.73		7.02	7.40	157.0	7.49	7.73	7.02	7.61	*7.36*

2017 Osaka University Athletics Championships (Osaka, JPN)

FINAL date 06-Apr-17

(2017) - tfdata-store.com/2017/04/07/post-249/

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Uesugi, Haruna (JPN) (1998)	time		13.15		25.86		40.24		56.78	56.78	7 / 1							
reaction time	interval				12.71		14.38		16.54		# of strides	13.15	12.71	14.38	16.54	25.86	30.92	5.06
	velocity		7.60		7.87		6.95		6.05	7.04	212.5	7.60	7.87	6.95	6.05	7.73	6.47	
Shimaoka, Masami (JPN)	time		13.40		26.43		40.91		57.17	57.17	4 / 2							
reaction time	interval				13.03		14.48		16.26		# of strides	13.40	13.03	14.48	16.26	26.43	30.74	4.31
	velocity		7.46		7.67		6.91		6.15	7.00	206.5	7.46	7.67	6.91	6.15	7.57	6.51	
Nakajima, Aiharu (JPN)	time		12.90		25.41		39.97		57.20	57.20	5 / 3							
reaction time	interval				12.51		14.56		17.23		# of strides	12.90	12.51	14.56	17.23	25.41	31.79	6.38
	velocity		7.75		7.99		6.87		5.80	6.99	210.7	7.75	7.99	6.87	5.80	7.87	6.29	
Nakamura, Mayumi (JPN)	time		13.91		27.58		42.34		58.70	58.70	6 / 4							
reaction time	interval				13.67		14.76		16.36		# of strides	13.91	13.67	14.76	16.36	27.58	31.12	3.54
	velocity		7.19		7.32		6.78		6.11	6.81		7.19	7.32	6.78	6.11	7.25	6.43	
Iyo, Maeda (JPN)	time		14.10		27.83		42.74		58.83	58.83	3 / 5							
reaction time	interval				13.73		14.91		16.09		# of strides	14.10	13.73	14.91	16.09	27.83	31.00	3.17
	velocity		7.09		7.28		6.71		6.22	6.80		7.09	7.28	6.71	6.22	7.19	6.45	
Mori, Ayano (JPN) (1995)	time		13.93		27.73				59.14	59.14	9 / 6							
reaction time	interval				13.80				31.41		# of strides	13.93	13.80			27.73	31.41	3.68
	velocity		7.18		7.25				6.37	6.76		7.18	7.25			7.21	6.37	
Tsuji, Mio (JPN) (2000)	time		14.63		29.01				61.26	61.26	8 / 8							
reaction time	interval				14.38				32.25		# of strides	14.63	14.38			29.01	32.25	3.24
	velocity		6.84		6.95				6.20	6.53		6.84	6.95			6.89	6.20	

2016 Japanese National Junior Championships (Mizuho, JPN)

FINAL date 21-Oct-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hatano, Minami (JPN) (1998)	time	7.07	13.08	19.25	25.59	32.21	39.43	46.85	54.72	54.72	3 / 1							
reaction time	interval		6.01	6.17	6.34	6.62	7.22	7.42	7.87		# of strides	13.08	12.51	13.84	15.29	25.59	29.13	3.54
	velocity	7.07	8.32	8.10	7.89	7.55	6.93	6.74	6.35	7.31		7.65	7.99	7.23	6.54	7.82	6.87	
Shiiya, Kanako (JPN) (1997)	time	7.29	13.52	19.95	26.61	33.43	40.39	47.53	54.99	54.99	4 / 2							
reaction time	interval		6.23	6.43	6.66	6.82	6.96	7.14	7.46		# of strides	13.52	13.09	13.78	14.60	26.61	28.38	1.77
	velocity	6.86	8.03	7.78	7.51	7.33	7.18	7.00	6.70	7.27		7.40	7.64	7.26	6.85	7.52	7.05	
Ishizuka, Haruko (JPN) (1997	time	7.02	13.00	19.15	25.71	32.60	39.73	47.19	55.01	55.01	6 / 3							
reaction time	interval		5.98	6.15	6.56	6.89	7.13	7.46	7.82		# of strides	13.00	12.71	14.02	15.28	25.71	29.30	3.59
	velocity	7.12	8.36	8.13	7.62	7.26	7.01	6.70	6.39	7.27		7.69	7.87	7.13	6.54	7.78	6.83	
Shibata, Mie (JPN) (1998)	time	7.14	13.25	19.60	26.25	33.14	40.31	47.83	55.52	55.52	8 / 4							
reaction time	interval		6.11	6.35	6.65	6.89	7.17	7.52	7.69		# of strides	13.25	13.00	14.06	15.21	26.25	29.27	3.02
	velocity	7.00	8.18	7.87	7.52	7.26	6.97	6.65	6.50	7.20		7.55	7.69	7.11	6.57	7.62	6.83	
Shiomi, Ayano (JPN) (1999)	time	7.32	13.50	19.89	26.58	33.55	40.80	48.30	56.04	56.04	2 / 5							
reaction time	interval		6.18	6.39	6.69	6.97	7.25	7.50	7.74		# of strides	13.50	13.08	14.22	15.24	26.58	29.46	2.88
	velocity	6.83	8.09	7.82	7.47	7.17	6.90	6.67	6.46	7.14		7.41	7.65	7.03	6.56	7.52	6.79	
Nakamura, Miku (JPN) (1998)	time	7.33	13.74	20.29	27.05	34.07	41.21	48.55	56.06	56.06	5 / 6							
reaction time	interval		6.41	6.55	6.76	7.02	7.14	7.34	7.51		# of strides	13.74	13.31	14.16	14.85	27.05	29.01	1.96
	velocity	6.82	7.80	7.63	7.40	7.12	7.00	6.81	6.66	7.14		7.28	7.51	7.06	6.73	7.39	6.89	
Matsumoto, Fuya (JPN) (199	time	7.33	13.54	20.00	26.82	33.96	41.33	48.82	56.64	56.64	1 / 7							
reaction time	interval		6.21	6.46	6.82	7.14	7.37	7.49	7.82		# of strides	13.54	13.28	14.51	15.31	26.82	29.82	3.00
	velocity	6.82	8.05	7.74	7.33	7.00	6.78	6.68	6.39	7.06		7.39	7.53	6.89	6.53	7.46	6.71	
Nakajima, Airi (JPN) (1997)	time	7.27	13.30	19.54	26.10	33.08	40.48	48.56	57.33	57.33	7 / 8							
reaction time	interval		6.03	6.24	6.56	6.98	7.40	8.08	8.77		# of strides	13.30	12.80	14.38	16.85	26.10	31.23	5.13
	velocity	6.88	8.29	8.01	7.62	7.16	6.76	6.19	5.70	6.98		7.52	7.81	6.95	5.93	7.66	6.40	

2016 Japanese National Youth Championships (Mizuho, JPN)

FINAL date 21-Oct-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kawada, Ayaka (JPN) (1999)	time	7.11	13.09	19.42	26.04	32.85	39.89	47.24	54.93	54.93	4 / 1							
reaction time	interval		5.98	6.33	6.62	6.81	7.04	7.35	7.69		# of strides	13.09	12.95	13.85	15.04	26.04	28.89	2.85
	velocity	7.03	8.36	7.90	7.55	7.34	7.10	6.80	6.50	7.28		7.64	7.72	7.22	6.65	7.68	6.92	
Kawakami, Ichigo (JPN) (199	time	7.01	13.13	19.42	26.11	33.22	40.42	47.86	55.77	55.77	2 / 2							
reaction time	interval		6.12	6.29	6.69	7.11	7.20	7.44	7.91		# of strides	13.13	12.98	14.31	15.35	26.11	29.66	3.55
	velocity	7.13	8.17	7.95	7.47	7.03	6.94	6.72	6.32	7.17		7.62	7.70	6.99	6.51	7.66	6.74	
Matsuo, Kina (JPN) (2000)	time	7.35	13.56	19.94	26.71	33.71	40.90	48.13	55.86	55.86	3 / 3							
reaction time	interval		6.21	6.38	6.77	7.00	7.19	7.23	7.73		# of strides	13.56	13.15	14.19	14.96	26.71	29.15	2.44
	velocity	6.80	8.05	7.84	7.39	7.14	6.95	6.92	6.47	7.16		7.37	7.60	7.05	6.68	7.49	6.86	
Isobe, Mami (JPN) (1999)	time	7.38	13.66	20.12	26.79	33.71	40.86	48.21	55.96	55.96	5 / 4							
reaction time	interval		6.28	6.46	6.67	6.92	7.15	7.35	7.75		# of strides	13.66	13.13	14.07	15.10	26.79	29.17	2.38
	velocity	6.78	7.96	7.74	7.50	7.23	6.99	6.80	6.45	7.15		7.32	7.62	7.11	6.62	7.47	6.86	
Onoue, Rika (JPN) (1999)	time	7.32	13.64	20.15	26.88	33.77	40.83	48.21	56.17	56.17	8 / 5							
reaction time	interval		6.32	6.51	6.73	6.89	7.06	7.38	7.96		# of strides	13.64	13.24	13.95	15.34	26.88	29.29	2.41
	velocity	6.83	7.91	7.68	7.43	7.26	7.08	6.78	6.28	7.12		7.33	7.55	7.17	6.52	7.44	6.83	
Iwata, Mebuki (JPN) (1999)	time	7.11	13.31	19.85	26.73	33.81	40.92	48.32	56.34	56.34	6 / 6							
reaction time	interval		6.20	6.54	6.88	7.08	7.11	7.40	8.02		# of strides	13.31	13.42	14.19	15.42	26.73	29.61	2.88
	velocity	7.03	8.06	7.65	7.27	7.06	7.03	6.76	6.23	7.10		7.51	7.45	7.05	6.49	7.48	6.75	
Kato, Shiho (JPN) (2000)	time	7.07	13.19	19.64	26.51	33.68	40.98	48.46	56.37	56.37	7 / 7							
reaction time	interval		6.12	6.45	6.87	7.17	7.30	7.48	7.91		# of strides	13.19	13.32	14.47	15.39	26.51	29.86	3.35
	velocity	7.07	8.17	7.75	7.28	6.97	6.85	6.68	6.32	7.10		7.58	7.51	6.91	6.50	7.54	6.70	
Karuyama, Yakari (JPN)	time	7.19	13.40	19.99	26.96	34.32	42.13	50.52	59.55	59.55	1 / 8							
reaction time	interval		6.21	6.59	6.97	7.36	7.81	8.39	9.03		# of strides	13.40	13.56	15.17	17.42	26.96	32.59	5.63
	velocity	6.95	8.05	7.59	7.17	6.79	6.40	5.96	5.54	6.72		7.46	7.37	6.59	5.74	7.42	6.14	

2016 National Sports Festival (Kitakami, JPN)

U19 FINAL date 10-Oct-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoki, Rin (JPN) (1998)	time	6.97	12.93	19.09	25.78	32.72	39.73	46.97	54.67	54.67	7 / 1							
reaction time 0.175	interval		5.96	6.16	6.69	6.94	7.01	7.24	7.70		# of strides	12.93	12.85	13.95	14.94	25.78	28.89	3.11
	velocity	7.17	8.39	8.12	7.47	7.20	7.13	6.91	6.49	7.32		7.73	7.78	7.17	6.69	7.76	6.92	
Shimada, Yukina (JPN) (1998	time	6.83	12.72	18.85	25.39	32.28	39.48	47.04	54.82	54.82	4 / 2							
reaction time 0.215	interval		5.89	6.13	6.54	6.89	7.20	7.56	7.78		# of strides	12.72	12.67	14.09	15.34	25.39	29.43	4.04
	velocity	7.32	8.49	8.16	7.65	7.26	6.94	6.61	6.43	7.30		7.86	7.89	7.10	6.52	7.88	6.80	
Hatano, Minami (JPN) (1998)	time	7.08	13.04	19.19	25.67	32.48	39.61	47.06	55.10	55.10	6 / 3							
reaction time 0.204	interval		5.96	6.15	6.48	6.81	7.13	7.45	8.04		# of strides	13.04	12.63	13.94	15.49	25.67	29.43	3.76
	velocity	7.06	8.39	8.13	7.72	7.34	7.01	6.71	6.22	7.26		7.67	7.92	7.17	6.46	7.79	6.80	
Saito, Ami (JPN) (1999)	time	6.97	13.03	19.34	26.10	33.01	40.17	47.57	55.55	55.55	9 / 4							
reaction time 0.198	interval		6.06	6.31	6.76	6.91	7.16	7.40	7.98		# of strides	13.03	13.07	14.07	15.38	26.10	29.45	3.35
	velocity	7.17	8.25	7.92	7.40	7.24	6.98	6.76	6.27	7.20		7.67	7.65	7.11	6.50	7.66	6.79	
Uesugi, Haruna (JPN) (1998)	time	6.98	12.93	19.24	26.00	33.13	40.48	48.04	56.00	56.00	5 / 5							

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		5.95	6.31	6.76	7.13	7.35	7.56	7.96		# of strides	12.93	13.07	14.48	15.52	26.00	30.00	4.00
0.167	velocity	7.16	8.40	7.92	7.40	7.01	6.80	6.61	6.28	7.14		7.73	7.65	6.91	6.44	7.69	6.67	
Ikezaki, Airi (JPN) (1998)	time	7.27	13.30	19.54	26.26	33.14	40.47	48.06	56.22	56.22	2 / 6							
reaction time 0.236	interval		6.03	6.24	6.72	6.88	7.33	7.59	8.16		# of strides	13.30	12.96	14.21	15.75	26.26	29.96	3.70
	velocity	6.88	8.29	8.01	7.44	7.27	6.82	6.59	6.13	7.11		7.52	7.72	7.04	6.35	7.62	6.68	
Kato, Shiho (JPN) (2000)	time	7.13	13.11	19.47	26.30	33.40	40.70	48.40	56.76	56.76	3 / 7							
reaction time 0.194	interval		5.98	6.36	6.83	7.10	7.30	7.70	8.36		# of strides	13.11	13.19	14.40	16.06	26.30	30.46	4.16
	velocity	7.01	8.36	7.86	7.32	7.04	6.85	6.49	5.98	7.05		7.63	7.58	6.94	6.23	7.60	6.57	
Shibata, Mie (JPN) (1998)	time	7.13	13.27	19.65	26.49	33.60	40.97	48.72	56.95	56.95	8 / 8							
reaction time 0.189	interval		6.14	6.38	6.84	7.11	7.37	7.75	8.23		# of strides	13.27	13.22	14.48	15.98	26.49	30.46	3.97
	velocity	7.01	8.14	7.84	7.31	7.03	6.78	6.45	6.08	7.02		7.54	7.56	6.91	6.26	7.55	6.57	

FINAL date 09-Oct-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.90	12.76	18.79	25.11	31.73	38.75	46.17	54.35	54.35	5 / 1							
reaction time 0.247	interval		5.86	6.03	6.32	6.62	7.02	7.42	8.18		# of strides	12.76	12.35	13.64	15.60	25.11	29.24	4.13
	velocity	7.25	8.53	8.29	7.91	7.55	7.12	6.74	6.11	7.36		7.84	8.10	7.33	6.41	7.96	6.84	
Takeishi, Konomi (JPN) (199	time	6.95	13.05	19.37	26.01	32.95	40.05	47.34	54.93	54.93	4 / 2							
reaction time 0.200	interval		6.10	6.32	6.64	6.94	7.10	7.29	7.59		# of strides	13.05	12.96	14.04	14.88	26.01	28.92	2.91
	velocity	7.19	8.20	7.91	7.53	7.20	7.04	6.86	6.59	7.28		7.66	7.72	7.12	6.72	7.69	6.92	
Matsumoto, Nanako (JPN) (	time	7.20	13.24	19.50	26.13	32.88	39.89	47.18	55.09	55.09	7 / 3							
reaction time 0.210	interval		6.04	6.26	6.63	6.75	7.01	7.29	7.91		# of strides	13.24	12.89	13.76	15.20	26.13	28.96	2.83
	velocity	6.94	8.28	7.99	7.54	7.41	7.13	6.86	6.32	7.26		7.55	7.76	7.27	6.58	7.65	6.91	
Sato, Shizuka (JPN) (1994)	time	7.41	13.54	19.95	26.52	33.42	40.52	47.91	55.78	55.78	2 / 4							
reaction time 0.208	interval		6.13	6.41	6.57	6.90	7.10	7.39	7.87		# of strides	13.54	12.98	14.00	15.26	26.52	29.26	2.74
	velocity	6.75	8.16	7.80	7.61	7.25	7.04	6.77	6.35	7.17		7.39	7.70	7.14	6.55	7.54	6.84	
Kondo, Kana (JPN) (1994)	time	7.08	13.37	19.79	26.48	33.37	40.49	47.87	55.78	55.78	8 / 4							
reaction time 0.251	interval		6.29	6.42	6.69	6.89	7.12	7.38	7.91		# of strides	13.37	13.11	14.01	15.29	26.48	29.30	2.82
	velocity	7.06	7.95	7.79	7.47	7.26	7.02	6.78	6.32	7.17		7.48	7.63	7.14	6.54	7.55	6.83	
Ishizuka, Haruko (JPN) (1997	time	7.01	13.10	19.40	26.04	33.03	40.31	47.86	55.79	55.79	3 / 6							
reaction time 0.243	interval		6.09	6.30	6.64	6.99	7.28	7.55	7.93		# of strides	13.10	12.94	14.27	15.48	26.04	29.75	3.71
	velocity	7.13	8.21	7.94	7.53	7.15	6.87	6.62	6.31	7.17		7.63	7.73	7.01	6.46	7.68	6.72	
Iwata, Yuna (JPN) (1997)	time	7.40	13.94	20.52	27.26	34.16	41.24	48.46	56.00	56.00	9 / 7							
reaction time 0.209	interval		6.54	6.58	6.74	6.90	7.08	7.22	7.54		# of strides	13.94	13.32	13.98	14.76	27.26	28.74	1.48
	velocity	6.76	7.65	7.60	7.42	7.25	7.06	6.93	6.63	7.14		7.17	7.51	7.15	6.78	7.34	6.96	
Fujisawa, Sayaka (JPN) (1991	time	6.96	12.91	19.12	25.73	32.65	39.89	47.60	56.01	56.01	6 / 8							
reaction time 0.230	interval		5.95	6.21	6.61	6.92	7.24	7.71	8.41		# of strides	12.91	12.82	14.16	16.12	25.73	30.28	4.55
	velocity	7.18	8.40	8.05	7.56	7.23	6.91	6.49	5.95	7.14		7.75	7.80	7.06	6.20	7.77	6.61	

2016 Chinese National Championships (Tianjin, CHN)

FINAL date 15-Sep-16

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yang Huizhen (CHN) (1992)	time				25.36		38.52		52.57	52.57	/ 1							
reaction time	interval						13.16		14.05		# of strides			13.16	14.05	25.36	27.21	1.85
	velocity				7.89		7.60		7.12	7.61	189.0			7.60	7.12	7.89	7.35	

2016 Olympic Games (Rio de Janeiro, BRA)

FINAL date 15-Aug-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.49	11.80	17.23	22.98	29.03	35.34	42.10	49.44	49.44	7 / 1							
reaction time 0.155	interval		5.31	5.43	5.75	6.05	6.31	6.76	7.34	PB	# of strides	11.80	11.18	12.36	14.10	22.98	26.46	3.48
	velocity	7.70	9.42	9.21	8.70	8.26	7.92	7.40	6.81	8.09	182.0	8.47	8.94	8.09	7.09	8.70	7.56	
Felix, Allyson (USA) (1985)	time	6.54	11.88	17.42	23.23	29.42	35.80	42.41	49.51	49.51	4 / 2							
reaction time 0.177	interval		5.34	5.54	5.81	6.19	6.38	6.61	7.10		# of strides	11.88	11.35	12.57	13.71	23.23	26.28	3.05
	velocity	7.65	9.36	9.03	8.61	8.08	7.84	7.56	7.04	8.08	181.0	8.42	8.81	7.96	7.29	8.61	7.61	
Jackson, Shericka (JAM) (19	time	6.67	12.04	17.60	23.39	29.52	35.92	42.61	49.85	49.85	5 / 3							
reaction time 0.176	interval		5.37	5.56	5.79	6.13	6.40	6.69	7.24		# of strides	12.04	11.35	12.53	13.93	23.39	26.46	3.07
	velocity	7.50	9.31	8.99	8.64	8.16	7.81	7.47	6.91	8.02	183.0	8.31	8.81	7.98	7.18	8.55	7.56	
Hastings, Natasha (USA) (19	time	6.37	11.57	17.05	22.99	29.25	35.71	42.67	50.34	50.34	6 / 4							
reaction time 0.161	interval		5.20	5.48	5.94	6.26	6.46	6.96	7.67		# of strides	11.57	11.42	12.72	14.63	22.99	27.35	4.36
	velocity	7.85	9.62	9.12	8.42	7.99	7.74	7.18	6.52	7.95	194.2	8.64	8.76	7.86	6.84	8.70	7.31	
Francis, Phyllis (USA) (1992)	time	6.74	12.24	17.93	23.78	29.94	36.40	43.14	50.41	50.41	3 / 5							
reaction time 0.219	interval		5.50	5.69	5.85	6.16	6.46	6.74	7.27		# of strides	12.24	11.54	12.62	14.01	23.78	26.63	2.85
	velocity	7.42	9.09	8.79	8.55	8.12	7.74	7.42	6.88	7.93	176.2	8.17	8.67	7.92	7.14	8.41	7.51	
McPherson, Stephenie Ann (	time	6.79	12.36	18.03	23.85	29.94	36.36	43.26	50.97	50.97	8 / 6							
reaction time 0.133	interval		5.57	5.67	5.82	6.09	6.42	6.90	7.71		# of strides	12.36	11.49	12.51	14.61	23.85	27.12	3.27
	velocity	7.36	8.98	8.82	8.59	8.21	7.79	7.25	6.49	7.85	187.2	8.09	8.70	7.99	6.84	8.39	7.37	
Zemlyak, Olha (UKR) (1990)	time	6.89	12.67	18.44	24.51	30.87	37.42	44.13	51.24	51.24	1 / 7							
reaction time 0.183	interval		5.78	5.77	6.07	6.36	6.55	6.71	7.11		# of strides	12.67	11.84	12.91	13.82	24.51	26.73	2.22
	velocity	7.26	8.65	8.67	8.24	7.86	7.63	7.45	7.03	7.81	192.0	7.89	8.45	7.75	7.24	8.16	7.48	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Grenot, Libania (ITA) (1983)	time	6.77	12.24	17.97	23.85	30.13	36.66	43.69	51.25	51.25	2 / 8							
reaction time 0.149	interval		5.47	5.73	5.88	6.28	6.53	7.03	7.56		# of strides	12.24	11.61	12.81	14.59	23.85	27.40	3.55
	velocity	7.39	9.14	8.73	8.50	7.96	7.66	7.11	6.61	7.80	187.5	8.17	8.61	7.81	6.85	8.39	7.30	

2016 Japanese National High School Championships (Okayama, JPN)

FINAL

date 29-Jul-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoki, Rin (JPN) (1998)	time	6.99	12.65	18.55	24.96	31.80	39.07	46.51	54.14	54.14	7 / 1							
reaction time 0.177	interval		5.66	5.90	6.41	6.84	7.27	7.44	7.63		# of strides	12.65	12.31	14.11	15.07	24.96	29.18	4.22
	velocity	7.15	8.83	8.47	7.80	7.31	6.88	6.72	6.55	7.39		7.91	8.12	7.09	6.64	8.01	6.85	
Hatano, Minami (JPN) (1998)	time	7.01	12.94	19.05	25.47	32.28	39.34	46.57	54.21	54.21	9 / 2							
reaction time 0.161	interval		5.93	6.11	6.42	6.81	7.06	7.23	7.64	PB	# of strides	12.94	12.53	13.87	14.87	25.47	28.74	3.27
	velocity	7.13	8.43	8.18	7.79	7.34	7.08	6.92	6.54	7.38		7.73	7.98	7.21	6.72	7.85	6.96	
Ikezaki, Airi (JPN) (1998)	time	7.31	13.21	19.27	25.79	32.61	39.68	47.00	54.64	54.64	5 / 3							
reaction time 0.221	interval		5.90	6.06	6.52	6.82	7.07	7.32	7.64	PB	# of strides	13.21	12.58	13.89	14.96	25.79	28.85	3.06
	velocity	6.84	8.47	8.25	7.67	7.33	7.07	6.83	6.54	7.32		7.57	7.95	7.20	6.68	7.75	6.93	
Kawada, Ayaka (JPN) (1999)	time	7.11	13.04	19.24	25.69	32.59	39.75	47.17	54.91	54.91	4 / 4							
reaction time 0.189	interval		5.93	6.20	6.45	6.90	7.16	7.42	7.74	PB	# of strides	13.04	12.65	14.06	15.16	25.69	29.22	3.53
	velocity	7.03	8.43	8.06	7.75	7.25	6.98	6.74	6.46	7.28		7.67	7.91	7.11	6.60	7.79	6.84	
Fukuda, Shoko (JPN) (1998)	time	7.49	13.74	20.09	26.67	33.40	40.27	47.57	55.30	55.30	3 / 5							
reaction time 0.287	interval		6.25	6.35	6.58	6.73	6.87	7.30	7.73		# of strides	13.74	12.93	13.60	15.03	26.67	28.63	1.96
	velocity	6.68	8.00	7.87	7.60	7.43	7.28	6.85	6.47	7.23		7.28	7.73	7.35	6.65	7.50	6.99	
Shimada, Yukina (JPN) (1998	time	7.09	13.17	19.37	25.79	32.57	39.77	47.52	55.65	55.65	2 / 6							
reaction time 0.204	interval		6.08	6.20	6.42	6.78	7.20	7.75	8.13		# of strides	13.17	12.62	13.98	15.88	25.79	29.86	4.07
	velocity	7.05	8.22	8.06	7.79	7.37	6.94	6.45	6.15	7.19		7.59	7.92	7.15	6.30	7.75	6.70	
Shibata, Mie (JPN) (1998)	time	7.04	12.95	19.17	25.81	32.81	40.16	47.86	55.88	55.88	6 / 7							
reaction time 0.181	interval		5.91	6.22	6.64	7.00	7.35	7.70	8.02		# of strides	12.95	12.86	14.35	15.72	25.81	30.07	4.26
	velocity	7.10	8.46	8.04	7.53	7.14	6.80	6.49	6.23	7.16		7.72	7.78	6.97	6.36	7.75	6.65	
Kawazu, Mayu (JPN) (1999)	time	6.94	12.78	18.84	25.52	32.80	40.43	48.20	56.19	56.19	8 / 8							
reaction time 0.238	interval		5.84	6.06	6.68	7.28	7.63	7.77	7.99		# of strides	12.78	12.74	14.91	15.76	25.52	30.67	5.15
	velocity	7.20	8.56	8.25	7.49	6.87	6.55	6.44	6.26	7.12		7.82	7.85	6.71	6.35	7.84	6.52	

2016 IAAF World Junior Championships (Bydgoszcz, POL)

FINAL

date 21-Jul-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
James, Tiffany (JAM) (1997)	time	6.85	12.52	18.30	24.29	30.59	37.13	43.94	51.32	51.32	5 / 1							
reaction time 0.153	interval		5.67	5.78	5.99	6.30	6.54	6.81	7.38	PB	# of strides	12.52	11.77	12.84	14.19	24.29	27.03	2.74
	velocity	7.30	8.82	8.65	8.35	7.94	7.65	7.34	6.78	7.79		7.99	8.50	7.79	7.05	8.23	7.40	
Irby, Lynna (USA) (1998)	time	6.62	12.06	17.93	24.15	30.53	37.10	43.95	51.39	51.39	7 / 2							
reaction time 0.192	interval		5.44	5.87	6.22	6.38	6.57	6.85	7.44	PB	# of strides	12.06	12.09	12.95	14.29	24.15	27.24	3.09
	velocity	7.55	9.19	8.52	8.04	7.84	7.61	7.30	6.72	7.78		8.29	8.27	7.72	7.00	8.28	7.34	
Bromfield, Junelle (JAM) (19	time	6.96	12.55	18.40	24.51	30.90	37.44	44.43	52.05	52.05	4 / 3							
reaction time 0.324	interval		5.59	5.85	6.11	6.39	6.54	6.99	7.62		# of strides	12.55	11.96	12.93	14.61	24.51	27.54	3.03
	velocity	7.18	8.94	8.55	8.18	7.82	7.65	7.15	6.56	7.68		7.97	8.36	7.73	6.84	8.16	7.26	
Thornton, Jessica (AUS) (19	time	6.69	12.21	18.15	24.43	30.87	37.57	44.54	52.05	52.05	6 / 4							
reaction time 0.159	interval		5.52	5.94	6.28	6.44	6.70	6.97	7.51	PB	# of strides	12.21	12.22	13.14	14.48	24.43	27.62	3.19
	velocity	7.47	9.06	8.42	7.96	7.76	7.46	7.17	6.66	7.68		8.19	8.18	7.61	6.91	8.19	7.24	
Thomas, Maureen (KEN) (19	time	6.97	12.67	18.59	24.86	31.27	37.91	44.79	52.09	52.09	2 / 5							
reaction time 0.164	interval		5.70	5.92	6.27	6.41	6.64	6.88	7.30	PB	# of strides	12.67	12.19	13.05	14.18	24.86	27.23	2.37
	velocity	7.17	8.77	8.45	7.97	7.80	7.53	7.27	6.85	7.68		7.89	8.20	7.66	7.05	8.05	7.34	
Gómez, Roxana (CUB) (1999	time	7.19	12.86	18.79	24.89	31.13	37.67	44.53	52.24	52.24	9 / 6							
reaction time 0.227	interval		5.67	5.93	6.10	6.24	6.54	6.86	7.71	PB	# of strides	12.86	12.03	12.78	14.57	24.89	27.35	2.46
	velocity	6.95	8.82	8.43	8.20	8.01	7.65	7.29	6.49	7.66		7.78	8.31	7.82	6.86	8.04	7.31	
McDonald, Natassha (CAN)	time	7.13	12.90	18.89	25.12	31.61	38.37	45.53	53.35	53.35	8 / 7							
reaction time 0.181	interval		5.77	5.99	6.23	6.49	6.76	7.16	7.82		# of strides	12.90	12.22	13.25	14.98	25.12	28.23	3.11
	velocity	7.01	8.67	8.35	8.03	7.70	7.40	6.98	6.39	7.50		7.75	8.18	7.55	6.68	7.96	7.08	
Koba, Dzhoys (UKR) (1998)	time	7.27	13.21	19.29	25.50	32.08	38.92	46.06	53.74	53.74	3 / 8							
reaction time 0.224	interval		5.94	6.08	6.21	6.58	6.84	7.14	7.68		# of strides	13.21	12.29	13.42	14.82	25.50	28.24	2.74
	velocity	6.88	8.42	8.22	8.05	7.60	7.31	7.00	6.51	7.44		7.57	8.14	7.45	6.75	7.84	7.08	

Heat 4

date 19-Jul-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ishizuka, Haruko (JPN) (1997	time	6.96	12.94	19.15	25.63	32.37	39.61	47.16	55.20	55.20	3 / 4							
reaction time 0.166	interval		5.98	6.21	6.48	6.74	7.24	7.55	8.04		# of strides	12.94	12.69	13.98	15.59	25.63	29.57	3.94
	velocity	7.18	8.36	8.05	7.72	7.42	6.91	6.62	6.22	7.25		7.73	7.88	7.15	6.41	7.80	6.76	

2016 USA Olympic Trials (Eugene, OR)

FINAL

date 03-Jul-16

Track Newsletter (2016) - US olympic trials women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Felix, Allyson (USA) (1985)	time		12.00		24.2		36.5		49.7	49.68	6 / 1							
reaction time 0.206	interval				12.20		12.30		13.20		# of strides	12.00	12.20	12.30	13.20	24.20	25.50	1.30
	velocity		8.33		8.20		8.13		7.58	8.05		8.33	8.20	8.13	7.58	8.26	7.84	

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

Francis, Phyllis (USA) (1992)	time	12.20	24.1	36.6	49.9	49.94	2 / 2									
reaction time 0.190	interval		11.90	12.50	13.30	PB	# of strides	12.20	11.90	12.50	13.30	24.10	25.80	1.70		
	velocity	8.20	8.40	8.00	7.52	8.01		8.20	8.40	8.00	7.52	8.30	7.75			
Hastings, Natasha (USA) (19	time	11.8	23.7	36.0	50.2	50.17	7 / 3									
reaction time 0.225	interval		11.90	12.30	14.20		# of strides	11.80	11.90	12.30	14.20	23.70	26.50	2.80		
	velocity	8.47	8.40	8.13	7.04	7.97		8.47	8.40	8.13	7.04	8.44	7.55			
Ellis-Watson, Taylor (USA) (	time	12.10	24.1	36.6	50.3	50.25	3 / 4									
reaction time 0.602	interval		12.00	12.50	13.70	PB	# of strides	12.10	12.00	12.50	13.70	24.10	26.20	2.10		
	velocity	8.26	8.33	8.00	7.30	7.96		8.26	8.33	8.00	7.30	8.30	7.63			
McCorory, Francena (USA) (	time	12.30	23.9	36.1	50.4	50.37	5 / 5									
reaction time 0.368	interval		11.60	12.20	14.30		# of strides	12.30	11.60	12.20	14.30	23.90	26.50	2.60		
	velocity	8.13	8.62	8.20	6.99	7.94		8.13	8.62	8.20	6.99	8.37	7.55			
Okolo, Courtney (USA) (199	time	12.10	24.3	36.6	50.4	50.39	4 / 6									
reaction time 0.271	interval		12.20	12.30	13.80		# of strides	12.10	12.20	12.30	13.80	24.30	26.10	1.80		
	velocity	8.26	8.20	8.13	7.25	7.94		8.26	8.20	8.13	7.25	8.23	7.66			
Spencer, Ashley (USA) (1993	time	12.20	24.1	36.7	51.1	51.09	8 / 7									
reaction time 0.614	interval		11.90	12.60	14.40		# of strides	12.20	11.90	12.60	14.40	24.10	27.00	2.90		
	velocity	8.20	8.40	7.94	6.94	7.83		8.20	8.40	7.94	6.94	8.30	7.41			
Hayes, Quanera (USA) (1992	time	12.40	24.6	37.5	51.8	51.80	1 / 8									
reaction time 0.357	interval		12.20	12.90	14.30		# of strides	12.40	12.20	12.90	14.30	24.60	27.20	2.60		
	velocity	8.06	8.20	7.75	6.99	7.72		8.06	8.20	7.75	6.99	8.13	7.35			

2016 Japanese National Championships (Nagoya, JPN)

FINAL

date 25-Jun-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.73	12.46	18.40	24.54	31.01	37.89	45.12	53.04	53.04	5 / 1							
reaction time 0.221	interval		5.73	5.94	6.14	6.47	6.88	7.23	7.92		# of strides	12.46	12.08	13.35	15.15	24.54	28.50	3.96
	velocity	7.43	8.73	8.42	8.14	7.73	7.27	6.92	6.31	7.54		8.03	8.28	7.49	6.60	8.15	7.02	
Aoki, Rin (JPN) (1998)	time	6.96	12.74	18.64	24.90	31.51	38.48	45.75	53.66	53.66	4 / 2							
reaction time 0.213	interval		5.78	5.90	6.26	6.61	6.97	7.27	7.91		# of strides	12.74	12.16	13.58	15.18	24.90	28.76	3.86
	velocity	7.18	8.65	8.47	7.99	7.56	7.17	6.88	6.32	7.45		7.85	8.22	7.36	6.59	8.03	6.95	
Kashiyama, Kaede (JPN) (19	time	6.92	13.01	19.30	25.66	32.13	38.97	46.11	53.76	53.76	1 / 3							
reaction time 0.192	interval		6.09	6.29	6.36	6.47	6.84	7.14	7.65	PB	# of strides	13.01	12.65	13.31	14.79	25.66	28.10	2.44
	velocity	7.23	8.21	7.95	7.86	7.73	7.31	7.00	6.54	7.44		7.69	7.91	7.51	6.76	7.79	7.12	
Matsumoto, Nanako (JPN) (	time	7.16	13.25	19.47	25.96	32.69	39.69	46.96	54.67	54.67	2 / 4							
reaction time 0.210	interval		6.09	6.22	6.49	6.73	7.00	7.27	7.71		# of strides	13.25	12.71	13.73	14.98	25.96	28.71	2.75
	velocity	6.98	8.21	8.04	7.70	7.43	7.14	6.88	6.49	7.32		7.55	7.87	7.28	6.68	7.70	6.97	
Ishizuka, Haruko (JPN) (1997	time	6.99	12.84	18.82	25.14	31.75	38.84	46.41	54.67	54.67	3 / 4							
reaction time 0.257	interval		5.85	5.98	6.32	6.61	7.09	7.57	8.26		# of strides	12.84	12.30	13.70	15.83	25.14	29.53	4.39
	velocity	7.15	8.55	8.36	7.91	7.56	7.05	6.61	6.05	7.32		7.79	8.13	7.30	6.32	7.96	6.77	
Kira, Manami (JPN) (1991)	time	7.08	13.02	19.19	25.64	32.38	39.35	46.76	54.80	54.80	6 / 6							
reaction time 0.221	interval		5.94	6.17	6.45	6.74	6.97	7.41	8.04		# of strides	13.02	12.62	13.71	15.45	25.64	29.16	3.52
	velocity	7.06	8.42	8.10	7.75	7.42	7.17	6.75	6.22	7.30		7.68	7.92	7.29	6.47	7.80	6.86	
Odagaki, Aki (JPN) (1993)	time	7.18	13.53	19.95	26.56	33.23	40.13	47.35	55.01	55.01	7 / 7							
reaction time 0.223	interval		6.35	6.42	6.61	6.67	6.90	7.22	7.66		# of strides	13.53	13.03	13.57	14.88	26.56	28.45	1.89
	velocity	6.96	7.87	7.79	7.56	7.50	7.25	6.93	6.53	7.27		7.39	7.67	7.37	6.72	7.53	7.03	
Shimada, Yukina (JPN) (1998	time	7.09	13.12	19.35	25.86	32.62	39.69	47.20	55.02	55.02	8 / 8							
reaction time 0.214	interval		6.03	6.23	6.51	6.76	7.07	7.51	7.82		# of strides	13.12	12.74	13.83	15.33	25.86	29.16	3.30
	velocity	7.05	8.29	8.03	7.68	7.40	7.07	6.66	6.39	7.27		7.62	7.85	7.23	6.52	7.73	6.86	

Heat 3

date 24-Jun-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.82	12.50	18.37	24.50	31.00	37.92	45.42	53.28	53.28	6 / 1							
reaction time 0.215	interval		5.68	5.87	6.13	6.50	6.92	7.50	7.86		# of strides	12.50	12.00	13.42	15.36	24.50	28.78	4.28
	velocity	7.33	8.80	8.52	8.16	7.69	7.23	6.67	6.36	7.51		8.00	8.33	7.45	6.51	8.16	6.95	
Shimada, Yukina (JPN) (1998	time	6.98	12.91	18.95	25.24	31.79	38.94	46.63	54.59	54.59	8 / 2							
reaction time 0.208	interval		5.93	6.04	6.29	6.55	7.15	7.69	7.96	PB	# of strides	12.91	12.33	13.70	15.65	25.24	29.35	4.11
	velocity	7.16	8.43	8.28	7.95	7.63	6.99	6.50	6.28	7.33		7.75	8.11	7.30	6.39	7.92	6.81	
Matsumoto, Nanako (JPN) (	time	7.29	13.47	19.70	26.11	32.77	39.77	47.09	54.68	54.68	3 / 3							
reaction time 0.214	interval		6.18	6.23	6.41	6.66	7.00	7.32	7.59		# of strides	13.47	12.64	13.66	14.91	26.11	28.57	2.46
	velocity	6.86	8.09	8.03	7.80	7.51	7.14	6.83	6.59	7.32		7.42	7.91	7.32	6.71	7.66	7.00	

Heat 2

date 24-Jun-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kira, Manami (JPN) (1991)	time	7.05	12.93	18.95	25.29	31.88	38.80	46.08	53.83	53.83	6 / 1							
reaction time 0.199	interval		5.88	6.02	6.34	6.59	6.92	7.28	7.75	PB	# of strides	12.93	12.36	13.51	15.03	25.29	28.54	3.25
	velocity	7.09	8.50	8.31	7.89	7.59	7.23	6.87	6.45	7.43		7.73	8.09	7.40	6.65	7.91	7.01	
Aoki, Sayaka (JPN) (1986)	time	6.89	12.83	18.95	25.31	31.96	39.01	46.60	54.87	54.87	3 / 4							
reaction time 0.264	interval		5.94	6.12	6.36	6.65	7.05	7.59	8.27		# of strides	12.83	12.48	13.70	15.86	25.31	29.56	4.25
	velocity	7.26	8.42	8.17	7.86	7.52	7.09	6.59	6.05	7.29		7.79	8.01	7.30	6.31	7.90	6.77	
Chiba, Asami (JPN) (1995)	time	6.96	12.96	19.11	25.53	32.31	39.48	47.18	55.80	55.80	4 / 7							

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	0.228	interval		6.00	6.15	6.42	6.78	7.17	7.70	8.62		# of strides	12.96	12.57	13.95	16.32	25.53	30.27	4.74
		velocity	7.18	8.33	8.13	7.79	7.37	6.97	6.49	5.80	7.17		7.72	7.96	7.17	6.13	7.83	6.61	

Heat 1

date 24-Jun-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

			50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoki, Rin (JPN) (1998)		time	7.09	12.93	18.99	25.36	31.95	38.80	45.89	53.44	53.44	8 / 1							
reaction time	0.215	interval		5.84	6.06	6.37	6.59	6.85	7.09	7.55	PB	# of strides	12.93	12.43	13.44	14.64	25.36	28.08	2.72
		velocity	7.05	8.56	8.25	7.85	7.59	7.30	7.05	6.62	7.49		7.73	8.05	7.44	6.83	7.89	7.12	
Ishizuka, Haruko (JPN) (1997		time	7.00	12.85	18.85	25.09	31.68	38.73	46.25	54.23	54.23	7 / 2							
reaction time	0.250	interval		5.85	6.00	6.24	6.59	7.05	7.52	7.98		# of strides	12.85	12.24	13.64	15.50	25.09	29.14	4.05
		velocity	7.14	8.55	8.33	8.01	7.59	7.09	6.65	6.27	7.38		7.78	8.17	7.33	6.45	7.97	6.86	
Fujisawa, Sayaka (JPN) (1991		time	7.11	13.05	19.19	25.58	32.18	39.22	46.83	55.07	55.07	6 / 4							
reaction time	0.182	interval		5.94	6.14	6.39	6.60	7.04	7.61	8.24		# of strides	13.05	12.53	13.64	15.85	25.58	29.49	3.91
		velocity	7.03	8.42	8.14	7.82	7.58	7.10	6.57	6.07	7.26		7.66	7.98	7.33	6.31	7.82	6.78	

2016 Chinese National Grand Prix Final (Chongqing, CHN)

FINAL

date 19-Jun-16

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yang Huizhen (CHN) (1992)	time				25.24		38.64		52.90	52.90	/ 1							
reaction time	interval						13.40		14.26		# of strides			13.40	14.26	25.24	27.66	2.42
	velocity				7.92		7.46		7.01	7.56	195.0			7.46	7.01	7.92	7.23	

2016 China Perfecture High School Championships (Okayama, JPN)

FINAL

date 17-Jun-16

(2016.06.20) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Fukuda, Shoko (JPN) (1998)	time		13.65		26.55		40.13		54.93	54.93	7 / 1							
reaction time	interval				12.90		13.58		14.80		# of strides	13.65	12.90	13.58	14.80	26.55	28.38	1.83
	velocity		7.33		7.75		7.36		6.76	7.28		7.33	7.75	7.36	6.76	7.53	7.05	
Ikasaki, Ai (JPN)	time		13.38		26.05		40.03		55.85	55.85	6 / 2							
reaction time	interval				12.67		13.98		15.82		# of strides	13.38	12.67	13.98	15.82	26.05	29.80	3.75
	velocity		7.47		7.89		7.15		6.32	7.16		7.47	7.89	7.15	6.32	7.68	6.71	
Yada, Shizuka (JPN)	time		13.63		26.65		40.60		55.91	55.91	5 / 3							
reaction time	interval				13.02		13.95		15.31		# of strides	13.63	13.02	13.95	15.31	26.65	29.26	2.61
	velocity		7.34		7.68		7.17		6.53	7.15		7.34	7.68	7.17	6.53	7.50	6.84	
Ota, Yuki (JPN) (1998)	time		13.61		26.87		40.65		56.26	56.26	8 / 4							
reaction time	interval				13.26		13.78		15.61		# of strides	13.61	13.26	13.78	15.61	26.87	29.39	2.52
	velocity		7.35		7.54		7.26		6.41	7.11		7.35	7.54	7.26	6.41	7.44	6.81	
Takagi, Rina (JPN) (1999)	time		13.70		27.05		40.98		56.62	56.62	4 / 5							
reaction time	interval				13.35		13.93		15.64		# of strides	13.70	13.35	13.93	15.64	27.05	29.57	2.52
	velocity		7.30		7.49		7.18		6.39	7.06		7.30	7.49	7.18	6.39	7.39	6.76	
Izu, Eri (JPN)	time		13.85		27.32		41.62		57.33	57.33	3 / 6							
reaction time	interval				13.47		14.30		15.71		# of strides	13.85	13.47	14.30	15.71	27.32	30.01	2.69
	velocity		7.22		7.42		6.99		6.37	6.98		7.22	7.42	6.99	6.37	7.32	6.66	

2016 NCAA Championships (Eugene, OR)

FINAL

date 11-Jun-16

Track Newsletter (2016) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Okolo, Courtney (USA) (199	time				24.3		36.8		50.4	50.36	4 / 1							
reaction time	interval						12.50		13.60		# of strides			12.50	13.60	24.30	26.10	1.80
	velocity				8.23		8.00		7.35	7.94				8.00	7.35	8.23	7.66	
Ellis-Watson, Taylor (USA) (	time				24.3		37.3		50.9	50.86	5 / 2							
reaction time	interval						13.00		13.60		# of strides			13.00	13.60	24.30	26.60	2.30
	velocity				8.23		7.69		7.35	7.86				7.69	7.35	8.23	7.52	
Wimbley, Shakima (USA) (19	time				24.8		37.8		51.4	51.43	6 / 3							
reaction time	interval						13.00		13.60		# of strides			13.00	13.60	24.80	26.60	1.80
	velocity				8.06		7.69		7.35	7.78				7.69	7.35	8.06	7.52	
Bamgbose, Margaret (NGR)	time				24.8		37.9		51.6	51.57	/ 4							
reaction time	interval						13.10		13.70		# of strides			13.10	13.70	24.80	26.80	2.00
	velocity				8.06		7.63		7.30	7.76				7.63	7.30	8.06	7.46	
Gordon, Chrisann (JAM) (19	time				25.0		37.8		51.7	51.72	/ 5							
reaction time	interval						12.80		13.90		# of strides			12.80	13.90	25.00	26.70	1.70
	velocity				8.00		7.81		7.19	7.73				7.81	7.19	8.00	7.49	
Reynolds, Robin (USA) (199	time				24.9		37.7		51.8	51.84	/ 6							
reaction time	interval						12.80		14.10		# of strides			12.80	14.10	24.90	26.90	2.00
	velocity				8.03		7.81		7.09	7.72				7.81	7.09	8.03	7.43	
Blocker, Jasmine (USA) (1992)		no information available								53.14	/ 7							
Majors, Felecia (USA) (1995)	time				25.2		37.8		59.7	59.68	/ 8							
reaction time	interval						12.60		21.90		# of strides			12.60	21.90	25.20	34.50	9.30
	velocity				7.94		7.94		4.57	6.70				7.94	4.57	7.94	5.80	

2016 Shizuoka International Meeting (Fukuroi, JPN)

FINAL

date 03-May-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

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

Gulli-Nance, Jess (AUS) (198	time	7.10	13.06	19.29	25.77	32.43	39.50	46.72	54.20	54.20	/ 1							
reaction time	interval		5.96	6.23	6.48	6.66	7.07	7.22	7.48		# of strides	13.06	12.71	13.73	14.70	25.77	28.43	2.66
	velocity	7.04	8.39	8.03	7.72	7.51	7.07	6.93	6.68	7.38		7.66	7.87	7.28	6.80	7.76	7.03	
Ishizuka, Haruko (JPN) (1997	time	6.99	12.88	19.00	25.44	32.17	39.34	46.85	54.79	54.79	/ 2							
reaction time	interval		5.89	6.12	6.44	6.73	7.17	7.51	7.94		# of strides	12.88	12.56	13.90	15.45	25.44	29.35	3.91
	velocity	7.15	8.49	8.17	7.76	7.43	6.97	6.66	6.30	7.30		7.76	7.96	7.19	6.47	7.86	6.81	
Kashiyama, Kaede (JPN) (19	time	7.03	13.16	19.65	26.09	32.68	39.68	47.01	54.91	54.91	/ 3							
reaction time	interval		6.13	6.49	6.44	6.59	7.00	7.33	7.90		# of strides	13.16	12.93	13.59	15.23	26.09	28.82	2.73
	velocity	7.11	8.16	7.70	7.76	7.59	7.14	6.82	6.33	7.28		7.60	7.73	7.36	6.57	7.67	6.94	
Matsumoto, Nanako (JPN) (	time	7.16	13.27	19.55	26.02	32.75	39.94	47.39	55.34	55.34	/ 4							
reaction time	interval		6.11	6.28	6.47	6.73	7.19	7.45	7.95		# of strides	13.27	12.75	13.92	15.40	26.02	29.32	3.30
	velocity	6.98	8.18	7.96	7.73	7.43	6.95	6.71	6.29	7.23		7.54	7.84	7.18	6.49	7.69	6.82	
Iwata, Yuna (JPN) (1997)	time	7.12	13.21	19.44	25.96	32.79	40.02	47.53	55.37	55.37	/ 5							
reaction time	interval		6.09	6.23	6.52	6.83	7.23	7.51	7.84		# of strides	13.21	12.75	14.06	15.35	25.96	29.41	3.45
	velocity	7.02	8.21	8.03	7.67	7.32	6.92	6.66	6.38	7.22		7.57	7.84	7.11	6.51	7.70	6.80	
Takeishi, Konomi (JPN) (199	time	6.87	12.79	19.00	25.68	32.81	40.21	47.89	56.11	56.11	/ 6							
reaction time	interval		5.92	6.21	6.68	7.13	7.40	7.68	8.22		# of strides	12.79	12.89	14.53	15.90	25.68	30.43	4.75
	velocity	7.28	8.45	8.05	7.49	7.01	6.76	6.51	6.08	7.13		7.82	7.76	6.88	6.29	7.79	6.57	
Shintaku, Asami (JPN) (1994	time	7.14	13.16	19.39	25.93	32.70	40.01	47.86	56.51	56.51	/ 7							
reaction time	interval		6.02	6.23	6.54	6.77	7.31	7.85	8.65		# of strides	13.16	12.77	14.08	16.50	25.93	30.58	4.65
	velocity	7.00	8.31	8.03	7.65	7.39	6.84	6.37	5.78	7.08		7.60	7.83	7.10	6.06	7.71	6.54	
Kimoto, Ayana (JPN) (1996)	time	7.54	13.94	20.52	27.37	34.51	41.96	49.64	57.96	57.96	/ 8							
reaction time	interval		6.40	6.58	6.85	7.14	7.45	7.68	8.32		# of strides	13.94	13.43	14.59	16.00	27.37	30.59	3.22
	velocity	6.63	7.81	7.60	7.30	7.00	6.71	6.51	6.01	6.90		7.17	7.45	6.85	6.25	7.31	6.54	

Race B

date 03-May-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yoshimi, Misaki (JPN) (1994)	time	7.14	13.25	19.65	26.26	33.12	40.26	47.72	55.77	55.77	/ 1							
reaction time	interval		6.11	6.40	6.61	6.86	7.14	7.46	8.05		# of strides	13.25	13.01	14.00	15.51	26.26	29.51	3.25
	velocity	7.00	8.18	7.81	7.56	7.29	7.00	6.70	6.21	7.17		7.55	7.69	7.14	6.45	7.62	6.78	
Odagaki, Aki (JPN) (1993)	time	7.41	13.88	20.55	27.25	33.90	40.76	48.07	55.80	55.80	/ 2							
reaction time	interval		6.47	6.67	6.70	6.65	6.86	7.31	7.73		# of strides	13.88	13.37	13.51	15.04	27.25	28.55	1.30
	velocity	6.75	7.73	7.50	7.46	7.52	7.29	6.84	6.47	7.17		7.20	7.48	7.40	6.65	7.34	7.01	
Nakajima, Airi (JPN) (1997)	time	6.91	12.76	18.94	25.46	32.30	39.78	47.78	56.49	56.49	/ 3							
reaction time	interval		5.85	6.18	6.52	6.84	7.48	8.00	8.71		# of strides	12.76	12.70	14.32	16.71	25.46	31.03	5.57
	velocity	7.24	8.55	8.09	7.67	7.31	6.68	6.25	5.74	7.08		7.84	7.87	6.98	5.98	7.86	6.45	

Race C

03-May-16

Yamamoto (2016) - race analysis of male & female 400m runners at major competitions in 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Tanaka, Chisato (JPN) (1988	time	7.13	13.29	19.65	26.19	33.01	40.11	47.67	55.97	55.97	/ 1							
reaction time	interval		6.16	6.36	6.54	6.82	7.10	7.56	8.30		# of strides	13.29	12.90	13.92	15.86	26.19	29.78	3.59
	velocity	7.01	8.12	7.86	7.65	7.33	7.04	6.61	6.02	7.15		7.52	7.75	7.18	6.31	7.64	6.72	

2016 Chinese National Grand Prix (Shaoxing, CHN)

FINAL

date 16-Apr-16

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yang Huizhen (CHN) (1992)	time				25.52		38.72		52.77	52.77	/ 1							
reaction time	interval						13.20		14.05		# of strides			13.20	14.05	25.52	27.25	1.73
	velocity				7.84		7.58		7.12	7.58	197.0			7.58	7.12	7.84	7.34	

2016 East Java National Championships (Surabaya, INA)

FINAL

date 15-Apr-16

Saputri (2016) - analisis kecepatan lari 400m putri final kejuaraan nasional athletik jawa timur terbuka

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sulastri (INA) (1992)	time	7.04	13.58	19.50	26.08	33.89	41.48	47.98	57.51	57.51	/ 1							
reaction time	interval		6.54	5.92	6.58	7.81	7.59	6.50	9.53		# of strides	13.58	12.50	15.40	16.03	26.08	31.43	5.35
	velocity	7.10	7.65	8.45	7.60	6.40	6.59	7.69	5.25	6.96		7.36	8.00	6.49	6.24	7.67	6.36	
Kurniawati, Dewi Ayu Agung	time	7.01	13.52	19.54	26.60	34.46	42.12	48.69	58.48	58.48	/ 2							
reaction time	interval		6.51	6.02	7.06	7.86	7.66	6.57	9.79		# of strides	13.52	13.08	15.52	16.36	26.60	31.88	5.28
	velocity	7.13	7.68	8.31	7.08	6.36	6.53	7.61	5.11	6.84		7.40	7.65	6.44	6.11	7.52	6.27	
Nafiah, Nikmatul (INA)	time	7.04	13.73	20.06	26.96	34.92	42.84	49.74	59.64	59.64	/ 3							
reaction time	interval		6.69	6.33	6.90	7.96	7.92	6.90	9.90		# of strides	13.73	13.23	15.88	16.80	26.96	32.68	5.72
	velocity	7.10	7.47	7.90	7.25	6.28	6.31	7.25	5.05	6.71		7.28	7.56	6.30	5.95	7.42	6.12	
Christianti, Emma Anita (INA	time	7.11	14.27	20.46	27.56	35.66	43.44	50.03	59.81	59.81	/ 4							
reaction time	interval		7.16	6.19	7.10	8.10	7.78	6.59	9.78		# of strides	14.27	13.29	15.88	16.37	27.56	32.25	4.69
	velocity	7.03	6.98	8.08	7.04	6.17	6.43	7.59	5.11	6.69		7.01	7.52	6.30	6.11	7.26	6.20	
Candra, Kadek Dian (INA) (1	time	7.84	15.24	20.98	28.76	37.29	45.48	52.36	62.08	62.08	/ 5							
reaction time	interval		7.40	5.74	7.78	8.53	8.19	6.88	9.72		# of strides	15.24	13.52	16.72	16.60	28.76	33.32	4.56
	velocity	6.38	6.76	8.71	6.43	5.86	6.11	7.27	5.14	6.44		6.56	7.40	5.98	6.02	6.95	6.00	
Ivolam, Revina (INA) (2001)	time	7.14	14.64	20.82	28.20	36.79	45.24	52.61	64.03	64.03	/ 6							
reaction time	interval		7.50	6.18	7.38	8.59	8.45	7.37	11.42		# of strides	14.64	13.56	17.04	18.79	28.20	35.83	7.63
	velocity	7.00	6.67	8.09	6.78	5.82	5.92	6.78	4.38	6.25		6.83	7.37	5.87	5.32	7.09	5.58	
Angelia, Niken (INA) (1997)	time	7.51	15.24	22.02	29.68	38.19	46.96	54.28	64.38	64.38	/ 7							

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	interval		7.73	6.78	7.66	8.51	8.77	7.32	10.10		# of strides	15.24	14.44	17.28	17.42	29.68	34.70	5.02
	velocity	6.66	6.47	7.37	6.53	5.88	5.70	6.83	4.95	6.21		6.56	6.93	5.79	5.74	6.74	5.76	

2015 Japanese National Junior Championships (Nagoya, JPN)

FINAL date 16-Oct-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time	7.05	13.01	19.10	25.54	32.17	39.06	46.26	53.79	53.79	/ 1							
reaction time	interval		5.96	6.09	6.44	6.63	6.89	7.20	7.53		# of strides	13.01	12.53	13.52	14.73	25.54	28.25	2.71
	velocity	7.09	8.39	8.21	7.76	7.54	7.26	6.94	6.64	7.44		7.69	7.98	7.40	6.79	7.83	7.08	
Ishizuka, Haruko (JPN) (1997	time	7.04	12.97	19.10	25.51	32.17	39.14	46.44	54.21	54.21	/ 2							
reaction time	interval		5.93	6.13	6.41	6.66	6.97	7.30	7.77		# of strides	12.97	12.54	13.63	15.07	25.51	28.70	3.19
	velocity	7.10	8.43	8.16	7.80	7.51	7.17	6.85	6.44	7.38		7.71	7.97	7.34	6.64	7.84	6.97	
Matsumoto, Fuya (JPN) (199	time	7.07	13.11	19.39	26.02	32.86	39.96	47.27	54.93	54.93	/ 3							
reaction time	interval		6.04	6.28	6.63	6.84	7.10	7.31	7.66		# of strides	13.11	12.91	13.94	14.97	26.02	28.91	2.89
	velocity	7.07	8.28	7.96	7.54	7.31	7.04	6.84	6.53	7.28		7.63	7.75	7.17	6.68	7.69	6.92	
Nakajima, Airi (JPN) (1997)	time	7.10	13.01	19.44	26.18	33.05	40.13	47.45	55.10	55.10	/ 4							
reaction time	interval		5.91	6.43	6.74	6.87	7.08	7.32	7.65		# of strides	13.01	13.17	13.95	14.97	26.18	28.92	2.74
	velocity	7.04	8.46	7.78	7.42	7.28	7.06	6.83	6.54	7.26		7.69	7.59	7.17	6.68	7.64	6.92	
Shibata, Chiharu (JPN) (199	time	7.25	13.41	19.84	26.52	33.21	40.15	47.38	55.18	55.18	/ 5							
reaction time	interval		6.16	6.43	6.68	6.69	6.94	7.23	7.80		# of strides	13.41	13.11	13.63	15.03	26.52	28.66	2.14
	velocity	6.90	8.12	7.78	7.49	7.47	7.20	6.92	6.41	7.25		7.46	7.63	7.34	6.65	7.54	6.98	
Shiiya, Kanako (JPN) (1997)	time	7.31	13.43	19.89	26.67	33.62	40.82	48.21	55.91	55.91	/ 6							
reaction time	interval		6.12	6.46	6.78	6.95	7.20	7.39	7.70		# of strides	13.43	13.24	14.15	15.09	26.67	29.24	2.57
	velocity	6.84	8.17	7.74	7.37	7.19	6.94	6.77	6.49	7.15		7.45	7.55	7.07	6.63	7.50	6.84	
Arai, Arashima (JPN)	time	7.40	13.60	20.07	26.95	33.87	40.96	48.29	56.16	56.16	/ 7							
reaction time	interval		6.20	6.47	6.88	6.92	7.09	7.33	7.87		# of strides	13.60	13.35	14.01	15.20	26.95	29.21	2.26
	velocity	6.76	8.06	7.73	7.27	7.23	7.05	6.82	6.35	7.12		7.35	7.49	7.14	6.58	7.42	6.85	
Okabe, Yuika (JPN) (1996)	time	7.13	13.12	19.40	26.06	33.01	40.34	48.09	56.40	56.40	/ 8							
reaction time	interval		5.99	6.28	6.66	6.95	7.33	7.75	8.31		# of strides	13.12	12.94	14.28	16.06	26.06	30.34	4.28
	velocity	7.01	8.35	7.96	7.51	7.19	6.82	6.45	6.02	7.09		7.62	7.73	7.00	6.23	7.67	6.59	

2015 Japanese National Youth Championships (Nagoya, JPN)

FINAL date 16-Oct-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Shimada, Yukina (JPN) (1998	time	7.22	13.42	19.87	26.47	33.29	40.38	47.66	54.85	54.85	/ 1							
reaction time	interval		6.20	6.45	6.60	6.82	7.09	7.28	7.19		# of strides	13.42	13.05	13.91	14.47	26.47	28.38	1.91
	velocity	6.93	8.06	7.75	7.58	7.33	7.05	6.87	6.95	7.29		7.45	7.66	7.19	6.91	7.56	7.05	
Aoki, Rin (JPN) (1998)	time	7.04	12.98	19.24	25.78	32.64	39.79	47.14	54.87	54.87	/ 2							
reaction time	interval		5.94	6.26	6.54	6.86	7.15	7.35	7.73		# of strides	12.98	12.80	14.01	15.08	25.78	29.09	3.31
	velocity	7.10	8.42	7.99	7.65	7.29	6.99	6.80	6.47	7.29		7.70	7.81	7.14	6.63	7.76	6.88	
Koyoma, Kana (JPN) (1998)	time	7.27	13.52	20.00	26.74	33.56	40.54	47.76	55.59	55.59	/ 3							
reaction time	interval		6.25	6.48	6.74	6.82	6.98	7.22	7.83		# of strides	13.52	13.22	13.80	15.05	26.74	28.85	2.11
	velocity	6.88	8.00	7.72	7.42	7.33	7.16	6.93	6.39	7.20		7.40	7.56	7.25	6.64	7.48	6.93	
Shibata, Mie (JPN) (1998)	time	7.09	13.05	19.44	26.20	33.15	40.47	48.06	55.88	55.88	/ 4							
reaction time	interval		5.96	6.39	6.76	6.95	7.32	7.59	7.82		# of strides	13.05	13.15	14.27	15.41	26.20	29.68	3.48
	velocity	7.05	8.39	7.82	7.40	7.19	6.83	6.59	6.39	7.16		7.66	7.60	7.01	6.49	7.63	6.74	
Totani, Nukumi (JPN) (1998)	time	7.23	13.23	19.47	26.06	32.95	40.25	47.87	55.94	55.94	/ 5							
reaction time	interval		6.00	6.24	6.59	6.89	7.30	7.62	8.07		# of strides	13.23	12.83	14.19	15.69	26.06	29.88	3.82
	velocity	6.92	8.33	8.01	7.59	7.26	6.85	6.56	6.20	7.15		7.56	7.79	7.05	6.37	7.67	6.69	
Hatano, Minami (JPN) (1998)	time	7.39	13.80	20.35	27.14	34.16	41.34	48.61	56.07	56.07	/ 6							
reaction time	interval		6.41	6.55	6.79	7.02	7.18	7.27	7.46		# of strides	13.80	13.34	14.20	14.73	27.14	28.93	1.79
	velocity	6.77	7.80	7.63	7.36	7.12	6.96	6.88	6.70	7.13		7.25	7.50	7.04	6.79	7.37	6.91	
Shiomi, Ayano (JPN) (1999)	time	7.50	13.96	20.55	27.35	34.36	41.48	48.68	56.13	56.13	/ 7							
reaction time	interval		6.46	6.59	6.80	7.01	7.12	7.20	7.45		# of strides	13.96	13.39	14.13	14.65	27.35	28.78	1.43
	velocity	6.67	7.74	7.59	7.35	7.13	7.02	6.94	6.71	7.13		7.16	7.47	7.08	6.83	7.31	6.95	
Minami, Enari (JPN) (1999)	time	7.15	13.23	19.60	26.41	33.45	40.92	48.64	56.78	56.78	/ 8							
reaction time	interval		6.08	6.37	6.81	7.04	7.47	7.72	8.14		# of strides	13.23	13.18	14.51	15.86	26.41	30.37	3.96
	velocity	6.99	8.22	7.85	7.34	7.10	6.69	6.48	6.14	7.04		7.56	7.59	6.89	6.31	7.57	6.59	

2015 National Sports Festival (Wakayama, JPN)

U19 FINAL date 05-Oct-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Iwata, Yuna (JPN) (1997)	time	7.19	13.44	19.84	26.41	33.19	40.10	47.08	54.28	54.28	/ 1							
reaction time	interval		6.25	6.40	6.57	6.78	6.91	6.98	7.20		# of strides	13.44	12.97	13.69	14.18	26.41	27.87	1.46
	velocity	6.95	8.00	7.81	7.61	7.37	7.24	7.16	6.94	7.37		7.44	7.71	7.30	7.05	7.57	7.18	
Ishizuka, Haruko (JPN) (1997	time	6.99	12.97	19.29	25.77	32.44	39.43	46.76	54.44	54.44	/ 2							
reaction time	interval		5.98	6.32	6.48	6.67	6.99	7.33	7.68		# of strides	12.97	12.80	13.66	15.01	25.77	28.67	2.90
	velocity	7.15	8.36	7.91	7.72	7.50	7.15	6.82	6.51	7.35		7.71	7.81	7.32	6.66	7.76	6.98	
Aoki, Rin (JPN) (1998)	time	7.20	13.34	19.70	26.42	33.43	40.60	47.73	55.41	55.41	/ 3							
reaction time	interval		6.14	6.36	6.72	7.01	7.17	7.13	7.68		# of strides	13.34	13.08	14.18	14.81	26.42	28.99	2.57
	velocity	6.94	8.14	7.86	7.44	7.13	6.97	7.01	6.51	7.22		7.50	7.65	7.05	6.75	7.57	6.90	

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

Matsumoto, Fuya (JPN) (199	time	7.19	13.48	20.07	26.88	33.76	40.86	48.14	55.79	55.79	/ 4						
reaction time	interval		6.29	6.59	6.81	6.88	7.10	7.28	7.65		# of strides	13.48	13.40	13.98	14.93	26.88	28.91	2.03
	velocity	6.95	7.95	7.59	7.34	7.27	7.04	6.87	6.54	7.17		7.42	7.46	7.15	6.70	7.44	6.92	
Nakajima, Airi (JPN) (1997)	time	7.11	13.32	19.72	26.49	33.37	40.55	47.99	55.85	55.85	/ 5						
reaction time	interval		6.21	6.40	6.77	6.88	7.18	7.44	7.86		# of strides	13.32	13.17	14.06	15.30	26.49	29.36	2.87
	velocity	7.03	8.05	7.81	7.39	7.27	6.96	6.72	6.36	7.16		7.51	7.59	7.11	6.54	7.55	6.81	
Shibata, Chiharu (JPN) (199	time	7.24	13.49	19.94	26.61	33.54	40.58	48.01	56.04	56.04	/ 6						
reaction time	interval		6.25	6.45	6.67	6.93	7.04	7.43	8.03		# of strides	13.49	13.12	13.97	15.46	26.61	29.43	2.82
	velocity	6.91	8.00	7.75	7.50	7.22	7.10	6.73	6.23	7.14		7.41	7.62	7.16	6.47	7.52	6.80	
Shibata, Mie (JPN) (1998)	time	7.07	13.10	19.47	26.28	33.40	40.74	48.37	56.46	56.46	/ 7						
reaction time	interval		6.03	6.37	6.81	7.12	7.34	7.63	8.09		# of strides	13.10	13.18	14.46	15.72	26.28	30.18	3.90
	velocity	7.07	8.29	7.85	7.34	7.02	6.81	6.55	6.18	7.08		7.63	7.59	6.92	6.36	7.61	6.63	
Fujii, Ayano (JPN) (1998)	time	7.33	13.57	20.00	26.81	33.88	41.23	48.91	57.24	57.24	/ 8						
reaction time	interval		6.24	6.43	6.81	7.07	7.35	7.68	8.33		# of strides	13.57	13.24	14.42	16.01	26.81	30.43	3.62
	velocity	6.82	8.01	7.78	7.34	7.07	6.80	6.51	6.00	6.99		7.37	7.55	6.93	6.25	7.46	6.57	

FINAL date 04-Oct-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.94	12.80	19.14	25.70	32.42	39.34	46.40	53.75	53.75	5 / 1							
reaction time	interval		5.86	6.34	6.56	6.72	6.92	7.06	7.35		# of strides	12.80	12.90	13.64	14.41	25.70	28.05	2.35
	velocity	7.20	8.53	7.89	7.62	7.44	7.23	7.08	6.80	7.44		7.81	7.75	7.33	6.94	7.78	7.13	
Matsumoto, Nanako (JPN) (	time	7.20	13.60	20.27	26.98	33.71	40.48	47.41	54.69	54.69	3 / 2							
reaction time	interval		6.40	6.67	6.71	6.73	6.77	6.93	7.28		# of strides	13.60	13.38	13.50	14.21	26.98	27.71	0.73
	velocity	6.94	7.81	7.50	7.45	7.43	7.39	7.22	6.87	7.31		7.35	7.47	7.41	7.04	7.41	7.22	
Chiba, Asami (JPN) (1985)	time	7.01	13.24	19.84	26.64	33.45	40.27	47.36	54.74	54.74	7 / 3							
reaction time	interval		6.23	6.60	6.80	6.81	6.82	7.09	7.38		# of strides	13.24	13.40	13.63	14.47	26.64	28.10	1.46
	velocity	7.13	8.03	7.58	7.35	7.34	7.33	7.05	6.78	7.31		7.55	7.46	7.34	6.91	7.51	7.12	
Nishida, Ayaka (JPN) (1993)	time	7.09	13.27	19.85	26.64	33.60	40.53	47.63	55.10	55.10	8 / 4							
reaction time	interval		6.18	6.58	6.79	6.96	6.93	7.10	7.47		# of strides	13.27	13.37	13.89	14.57	26.64	28.46	1.82
	velocity	7.05	8.09	7.60	7.36	7.18	7.22	7.04	6.69	7.26		7.54	7.48	7.20	6.86	7.51	7.03	
Aoki, Sayaka (JPN) (1986)	time	6.89	13.03	19.62	26.40	33.28	40.28	47.54	55.14	55.14	9 / 5							
reaction time	interval		6.14	6.59	6.78	6.88	7.00	7.26	7.60		# of strides	13.03	13.37	13.88	14.86	26.40	28.74	2.34
	velocity	7.26	8.14	7.59	7.37	7.27	7.14	6.89	6.58	7.25		7.67	7.48	7.20	6.73	7.58	6.96	
Sato, Hinako (JPN) (1996)	time	7.17	13.78	20.62	27.33	33.94	40.75	47.81	55.23	55.23	6 / 6							
reaction time	interval		6.61	6.84	6.71	6.61	6.81	7.06	7.42		# of strides	13.78	13.55	13.42	14.48	27.33	27.90	0.57
	velocity	6.97	7.56	7.31	7.45	7.56	7.34	7.08	6.74	7.24		7.26	7.38	7.45	6.91	7.32	7.17	
Shintaku, Asami (JPN) (1994	time	7.28	13.64	20.27	27.07	33.80	40.60	47.70	55.40	55.40	4 / 7							
reaction time	interval		6.36	6.63	6.80	6.73	6.80	7.10	7.70		# of strides	13.64	13.43	13.53	14.80	27.07	28.33	1.26
	velocity	6.87	7.86	7.54	7.35	7.43	7.35	7.04	6.49	7.22		7.33	7.45	7.39	6.76	7.39	7.06	
Kubokura, Satomi (JPN) (19	time	7.00	13.28	19.99	26.81	33.71	40.67	47.85	55.47	55.47	4 / 7							
reaction time	interval		6.28	6.71	6.82	6.90	6.96	7.18	7.62		# of strides	13.28	13.53	13.86	14.80	26.81	28.66	1.85
	velocity	7.14	7.96	7.45	7.33	7.25	7.18	6.96	6.56	7.21		7.53	7.39	7.22	6.76	7.46	6.98	

2015 IAAF World Championships (Beijing, CHN)

FINAL date 27-Aug-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Felix, Allyson (USA) (1985)	time	6.29	11.46	17.15	23.34	29.46	35.67	42.24	49.26	49.26	6 / 1							
reaction time 0.164	interval		5.17	5.69	6.19	6.12	6.21	6.57	7.02	PB	# of strides	11.46	11.88	12.33	13.59	23.34	25.92	2.58
	velocity	7.95	9.67	8.79	8.08	8.17	8.05	7.61	7.12	8.12	179.5	8.73	8.42	8.11	7.36	8.57	7.72	
Miller-Uibo, Shaunae (BAH)	time	6.78	12.24	17.90	23.84	30.01	36.14	42.65	49.67	49.67	5 / 2							
reaction time 0.176	interval		5.46	5.66	5.94	6.17	6.13	6.51	7.02	PB	# of strides	12.24	11.60	12.30	13.53	23.84	25.83	1.99
	velocity	7.37	9.16	8.83	8.42	8.10	8.16	7.68	7.12	8.05		8.17	8.62	8.13	7.39	8.39	7.74	
Jackson, Shericka (JAM) (19	time	6.80	12.14	17.63	23.45	29.56	36.03	42.79	49.99	49.99	4 / 3							
reaction time 0.196	interval		5.34	5.49	5.82	6.11	6.47	6.76	7.20	PB	# of strides	12.14	11.31	12.58	13.96	23.45	26.54	3.09
	velocity	7.35	9.36	9.11	8.59	8.18	7.73	7.40	6.94	8.00		8.24	8.84	7.95	7.16	8.53	7.54	
Day, Christine (JAM) (1986)	time	6.94	12.61	18.42	24.37	30.40	36.62	43.17	50.14	50.14	8 / 4							
reaction time 0.180	interval		5.67	5.81	5.95	6.03	6.22	6.55	6.97	PB	# of strides	12.61	11.76	12.25	13.52	24.37	25.77	1.40
	velocity	7.20	8.82	8.61	8.40	8.29	8.04	7.63	7.17	7.98		7.93	8.50	8.16	7.40	8.21	7.76	
McPherson, Stephenie (JAM	time	6.78	12.41	18.18	24.27	30.36	36.58	43.19	50.42	50.42	9 / 5							
reaction time 0.150	interval		5.63	5.77	6.09	6.09	6.22	6.61	7.23		# of strides	12.41	11.86	12.31	13.84	24.27	26.15	1.88
	velocity	7.37	8.88	8.67	8.21	8.21	8.04	7.56	6.92	7.93		8.06	8.43	8.12	7.23	8.24	7.65	
Williams-Mills, Novlene (JAI	time	6.79	12.37	18.02	23.96	30.13	36.57	43.37	50.47	50.47	2 / 6							
reaction time 0.313	interval		5.58	5.65	5.94	6.17	6.44	6.80	7.10		# of strides	12.37	11.59	12.61	13.90	23.96	26.51	2.55
	velocity	7.36	8.96	8.85	8.42	8.10	7.76	7.35	7.04	7.93		8.08	8.63	7.93	7.19	8.35	7.54	
Francis, Phyllis (USA) (1992)	time	6.74	12.28	17.93	23.94	30.23	36.64	43.34	50.51	50.51	3 / 7							
reaction time 0.183	interval		5.54	5.65	6.01	6.29	6.41	6.70	7.17		# of strides	12.28	11.66	12.70	13.87	23.94	26.57	2.63
	velocity	7.42	9.03	8.85	8.32	7.95	7.80	7.46	6.97	7.92		8.14	8.58	7.87	7.21	8.35	7.53	
Ohurougu, Christine (GBR)	time	6.68	12.10	17.77	23.76	29.92	36.29	43.07	50.63	50.63	7 / 8							
reaction time 0.189	interval		5.42	5.67	5.99	6.16	6.37	6.78	7.56		# of strides	12.10	11.66	12.53	14.34	23.76	26.87	3.11

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity	7.49	9.23	8.82	8.35	8.12	7.85	7.37	6.61	7.90		8.26	8.58	7.98	6.97	8.42	7.44	

Heat 6

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miller-Uibo, Shaunae (BAH)	time	6.76	12.30	18.05	24.11	30.28	36.64	43.28	50.53	50.53	5 / 1							
reaction time 0.181	interval		5.54	5.75	6.06	6.17	6.36	6.64	7.25		# of strides	12.30	11.81	12.53	13.89	24.11	26.42	2.31
	velocity	7.40	9.03	8.70	8.25	8.10	7.86	7.53	6.90	7.92		8.13	8.47	7.98	7.20	8.30	7.57	
Williams-Mills, Novlene (JAM	time	6.86	12.34	18.07	24.02	30.26	36.75	43.61	51.07	51.07	3 / 2							
reaction time 0.306	interval		5.48	5.73	5.95	6.24	6.49	6.86	7.46		# of strides	12.34	11.68	12.73	14.32	24.02	27.05	3.03
	velocity	7.29	9.12	8.73	8.40	8.01	7.70	7.29	6.70	7.83		8.10	8.56	7.86	6.98	8.33	7.39	
Renzhina, Yekaterina (RUS)	time	6.84	12.55	18.44	24.67	31.06	37.49	44.25	51.55	51.55	7 / 3							
reaction time 0.193	interval		5.71	5.89	6.23	6.39	6.43	6.76	7.30		# of strides	12.55	12.12	12.82	14.06	24.67	26.88	2.21
	velocity	7.31	8.76	8.49	8.03	7.82	7.78	7.40	6.85	7.76		7.97	8.25	7.80	7.11	8.11	7.44	
Grenot, Libania (ITA) (1983)	time	6.71	12.38	18.37	24.60	31.02	37.64	44.49	51.64	51.64	8 / 4							
reaction time 0.186	interval		5.67	5.99	6.23	6.42	6.62	6.85	7.15		# of strides	12.38	12.22	13.04	14.00	24.60	27.04	2.44
	velocity	7.45	8.82	8.35	8.03	7.79	7.55	7.30	6.99	7.75		8.08	8.18	7.67	7.14	8.13	7.40	
Zemlyak, Olha (UKR) (1990)	time	6.89	12.59	18.44	24.56	30.90	37.51	44.46	52.00	52.00	9 / 5							
reaction time 0.197	interval		5.70	5.85	6.12	6.34	6.61	6.95	7.54		# of strides	12.59	11.97	12.95	14.49	24.56	27.44	2.88
	velocity	7.26	8.77	8.55	8.17	7.89	7.56	7.19	6.63	7.69		7.94	8.35	7.72	6.90	8.14	7.29	
Baumgart, Iga (POL) (1989)	time	7.01	12.70	18.59	24.77	31.10	37.65	44.60	52.02	52.02	6 / 6							
reaction time 0.228	interval		5.69	5.89	6.18	6.33	6.55	6.95	7.42	PB	# of strides	12.70	12.07	12.88	14.37	24.77	27.25	2.48
	velocity	7.13	8.79	8.49	8.09	7.90	7.63	7.19	6.74	7.69		7.87	8.29	7.76	6.96	8.07	7.34	
Bokesa, Aauri Lorena (ESP)	time	7.12	12.92	18.87	24.98	31.32	37.99	45.14	52.98	52.98	4 / 7							
reaction time 0.194	interval		5.80	5.95	6.11	6.34	6.67	7.15	7.84		# of strides	12.92	12.06	13.01	14.99	24.98	28.00	3.02
	velocity	7.02	8.62	8.40	8.18	7.89	7.50	6.99	6.38	7.55		7.74	8.29	7.69	6.67	8.01	7.14	

Heat 5

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Răzor, Bianca (ROU) (1994)	time	6.94	12.63	18.47	24.46	30.55	36.81	43.37	50.37	50.37	9 / 1							
reaction time 0.194	interval		5.69	5.84	5.99	6.09	6.26	6.56	7.00	PB	# of strides	12.63	11.83	12.35	13.56	24.46	25.91	1.45
	velocity	7.20	8.79	8.56	8.35	8.21	7.99	7.62	7.14	7.94		7.92	8.45	8.10	7.37	8.18	7.72	
Jackson, Shericka (JAM) (19	time	6.70	12.29	18.00	23.93	30.20	36.66	43.39	50.41	50.41	5 / 2							
reaction time 0.183	interval		5.59	5.71	5.93	6.27	6.46	6.73	7.02		# of strides	12.29	11.64	12.73	13.75	23.93	26.48	2.55
	velocity	7.46	8.94	8.76	8.43	7.97	7.74	7.43	7.12	7.93		8.14	8.59	7.86	7.27	8.36	7.55	
George, Patience (NGR) (199	time	6.71	12.18	17.87	23.83	30.00	36.53	43.47	50.87	50.87	3 / 3							
reaction time 0.249	interval		5.47	5.69	5.96	6.17	6.53	6.94	7.40		# of strides	12.18	11.65	12.70	14.34	23.83	27.04	3.21
	velocity	7.45	9.14	8.79	8.39	8.10	7.66	7.20	6.76	7.86		8.21	8.58	7.87	6.97	8.39	7.40	
Onuora, Anyika (GBR) (1984	time	6.86	12.43	18.42	24.64	30.87	37.11	43.79	51.14	51.14	6 / 4							
reaction time 0.167	interval		5.57	5.99	6.22	6.23	6.24	6.68	7.35	PB	# of strides	12.43	12.21	12.47	14.03	24.64	26.50	1.86
	velocity	7.29	8.98	8.35	8.04	8.03	8.01	7.49	6.80	7.82		8.05	8.19	8.02	7.13	8.12	7.55	
Muir, Carline (CAN) (1987)	time	6.89	12.45	18.18	24.14	30.39	36.96	44.04	51.70	51.70	4 / 5							
reaction time 0.229	interval		5.56	5.73	5.96	6.25	6.57	7.08	7.66		# of strides	12.45	11.69	12.82	14.74	24.14	27.56	3.42
	velocity	7.26	8.99	8.73	8.39	8.00	7.61	7.06	6.53	7.74		8.03	8.55	7.80	6.78	8.29	7.26	
Veitía, Lisneidy (CUB) (1994)	time	7.04	12.78	18.75	25.04	31.46	37.96	44.79	52.25	52.25	7 / 6							
reaction time 0.364	interval		5.74	5.97	6.29	6.42	6.50	6.83	7.46		# of strides	12.78	12.26	12.92	14.29	25.04	27.21	2.17
	velocity	7.10	8.71	8.38	7.95	7.79	7.69	7.32	6.70	7.66		7.82	8.16	7.74	7.00	7.99	7.35	

Heat 4

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McPherson, Stephenie (JAM	time	6.68	12.22	17.93	23.86	30.07	36.63	43.42	50.34	50.34	5 / 1							
reaction time 0.169	interval		5.54	5.71	5.93	6.21	6.56	6.79	6.92		# of strides	12.22	11.64	12.77	13.71	23.86	26.48	2.62
	velocity	7.49	9.03	8.76	8.43	8.05	7.62	7.36	7.23	7.95		8.18	8.59	7.83	7.29	8.38	7.55	
Francis, Phyllis (USA) (1992)	time	6.76	12.35	18.07	24.11	30.40	36.81	43.47	50.52	50.52	6 / 2							
reaction time 0.170	interval		5.59	5.72	6.04	6.29	6.41	6.66	7.05	PB	# of strides	12.35	11.76	12.70	13.71	24.11	26.41	2.30
	velocity	7.40	8.94	8.74	8.28	7.95	7.80	7.51	7.09	7.92		8.10	8.50	7.87	7.29	8.30	7.57	
Kotlyarova, Nadezhda (RUS)	time	6.75	12.31	18.08	24.11	30.39	37.03	43.98	51.42	51.42	3 / 3							
reaction time 0.187	interval		5.56	5.77	6.03	6.28	6.64	6.95	7.44	PB	# of strides	12.31	11.80	12.92	14.39	24.11	27.31	3.20
	velocity	7.41	8.99	8.67	8.29	7.96	7.53	7.19	6.72	7.78		8.12	8.47	7.74	6.95	8.30	7.32	
George, Regina (NGR) (1991	time	6.84	12.51	18.42	24.54	31.01	37.55	44.41	51.74	51.74	9 / 4							
reaction time 0.192	interval		5.67	5.91	6.12	6.47	6.54	6.86	7.33		# of strides	12.51	12.03	13.01	14.19	24.54	27.20	2.66
	velocity	7.31	8.82	8.46	8.17	7.73	7.65	7.29	6.82	7.73		7.99	8.31	7.69	7.05	8.15	7.35	
Hołub, Małgorzata (POL) (19	time	7.04	12.78	18.55	24.49	30.70	37.21	44.15	51.74	51.74	4 / 5							
reaction time 0.200	interval		5.74	5.77	5.94	6.21	6.51	6.94	7.59	PB	# of strides	12.78	11.71	12.72	14.53	24.49	27.25	2.76
	velocity	7.10	8.71	8.67	8.42	8.05	7.68	7.20	6.59	7.73		7.82	8.54	7.86	6.88	8.17	7.34	
Palframan, Justine (RSA) (19	time	6.69	12.32	18.30	24.43	30.79	37.34	44.47	52.45	52.45	8 / 6							
reaction time 0.168	interval		5.63	5.98	6.13	6.36	6.55	7.13	7.98		# of strides	12.32	12.11	12.91	15.11	24.43	28.02	3.59
	velocity	7.47	8.88	8.36	8.16	7.86	7.63	7.01	6.27	7.63		8.12	8.26	7.75	6.62	8.19	7.14	

Heat 3

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Day, Christine (JAM) (1986)	time	6.85	12.40	18.12	24.06	30.18	36.51	43.29	50.58	50.58	4 / 1							
reaction time 0.215	interval		5.55	5.72	5.94	6.12	6.33	6.78	7.29		# of strides	12.40	11.66	12.45	14.07	24.06	26.52	2.46

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity	7.30	9.01	8.74	8.42	8.17	7.90	7.37	6.86	7.91		8.06	8.58	8.03	7.11	8.31	7.54	
Kabange, Mupopo (ZAM) (1	time	6.57	12.22	18.37	24.71	30.95	37.24	44.01	51.55	51.55	8 / 2							
reaction time 0.180	interval		5.65	6.15	6.34	6.24	6.29	6.77	7.54		# of strides	12.22	12.49	12.53	14.31	24.71	26.84	2.13
	velocity	7.61	8.85	8.13	7.89	8.01	7.95	7.39	6.63	7.76		8.18	8.01	7.98	6.99	8.09	7.45	
Mikhailyuk, Mariya (RUS) (19	time	6.91	12.69	18.64	24.90	31.29	37.74	44.57	52.16	52.16	5 / 3							
reaction time 0.229	interval		5.78	5.95	6.26	6.39	6.45	6.83	7.59		# of strides	12.69	12.21	12.84	14.42	24.90	27.26	2.36
	velocity	7.24	8.65	8.40	7.99	7.82	7.75	7.32	6.59	7.67		7.88	8.19	7.79	6.93	8.03	7.34	
Latiševa-Čudare, Gunta (LA	time	7.00	12.74	18.65	24.84	31.26	37.88	44.76	52.17	52.17	7 / 4							
reaction time 0.229	interval		5.74	5.91	6.19	6.42	6.62	6.88	7.41	NUR / PB	# of strides	12.74	12.10	13.04	14.29	24.84	27.33	2.49
	velocity	7.14	8.71	8.46	8.08	7.79	7.55	7.27	6.75	7.67		7.85	8.26	7.67	7.00	8.05	7.32	
Chigbolu, Maria Benedicta (I	time	6.70	12.38	18.34	24.51	30.86	37.50	44.57	52.48	52.48	6 / 5							
reaction time 0.190	interval		5.68	5.96	6.17	6.35	6.64	7.07	7.91		# of strides	12.38	12.13	12.99	14.98	24.51	27.97	3.46
	velocity	7.46	8.80	8.39	8.10	7.87	7.53	7.07	6.32	7.62		8.08	8.24	7.70	6.68	8.16	7.15	
Jean-Baptiste, Audrey (CAN	time	6.91	12.77	19.07	25.49	31.29	38.59	45.59	53.18	53.18	9 / 6							
reaction time 0.154	interval		5.86	6.30	6.42	5.80	7.30	7.00	7.59		# of strides	12.77	12.72	13.10	14.59	25.49	27.69	2.20
	velocity	7.24	8.53	7.94	7.79	8.62	6.85	7.14	6.59	7.52		7.83	7.86	7.63	6.85	7.85	7.22	

Heat 2

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ohurougu, Christine (GBR)	time	6.88	12.60	18.55	24.77	31.05	37.30	43.90	51.01	51.01	3 / 1							
reaction time 0.177	interval		5.72	5.95	6.22	6.28	6.25	6.60	7.11		# of strides	12.60	12.17	12.53	13.71	24.77	26.24	1.47
	velocity	7.27	8.74	8.40	8.04	7.96	8.00	7.58	7.03	7.84		7.94	8.22	7.98	7.29	8.07	7.62	
Gayot, Marie (FRA) (1989)	time	7.10	13.02	19.02	25.21	31.59	37.89	44.39	51.24	51.24	6 / 2							
reaction time 0.200	interval		5.92	6.00	6.19	6.38	6.30	6.50	6.85	PB	# of strides	13.02	12.19	12.68	13.35	25.21	26.03	0.82
	velocity	7.04	8.45	8.33	8.08	7.84	7.94	7.69	7.30	7.81		7.68	8.20	7.89	7.49	7.93	7.68	
Hastings, Natasha (USA) (19	time	6.51	11.94	17.72	23.91	30.26	36.86	43.83	51.25	51.25	7 / 3							
reaction time 0.154	interval		5.43	5.78	6.19	6.35	6.60	6.97	7.42		# of strides	11.94	11.97	12.95	14.39	23.91	27.34	3.43
	velocity	7.68	9.21	8.65	8.08	7.87	7.58	7.17	6.74	7.80		8.38	8.35	7.72	6.95	8.36	7.32	
Maiyo, Maureen (KEN) (1985	time	6.79	12.36	18.25	24.38	30.67	37.18	44.05	51.40	51.40	8 / 4							
reaction time 0.199	interval		5.57	5.89	6.13	6.29	6.51	6.87	7.35	PB	# of strides	12.36	12.02	12.80	14.22	24.38	27.02	2.64
	velocity	7.36	8.98	8.49	8.16	7.95	7.68	7.28	6.80	7.78		8.09	8.32	7.81	7.03	8.20	7.40	
Adeloye, Tosin (NGR) (1996)	time	6.87	12.54	18.39	24.54	31.01	37.66	44.65	52.42	52.42	9 / ~~5~~							
reaction time 0.234	interval		5.67	5.85	6.15	6.47	6.65	6.99	7.77	DV	# of strides	12.54	12.00	13.12	14.76	24.54	27.88	3.34
	velocity	7.28	8.82	8.55	8.13	7.73	7.52	7.15	6.44	7.63		7.97	8.33	7.62	6.78	8.15	7.17	
Coutinho, Geisa (BRA) (198	time	6.90	12.74	18.77	25.08	31.52	38.17	45.22	52.72	52.72	5 / ~~6~~ 5							
reaction time 0.187	interval		5.84	6.03	6.31	6.44	6.65	7.05	7.50		# of strides	12.74	12.34	13.09	14.55	25.08	27.64	2.56
	velocity	7.25	8.56	8.29	7.92	7.76	7.52	7.09	6.67	7.59		7.85	8.10	7.64	6.87	7.97	7.24	

Heat 1

date 24-Aug-15

Yamamoto (2015) - race analysis of 15th World Championships 400m- focusing on men's semis and women's prelims

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Felix, Allyson (USA) (1985)	time	6.39	11.75	17.55	23.89	30.35	36.88	43.50	50.60	50.60	6 / 1							
reaction time 0.173	interval		5.36	5.80	6.34	6.46	6.53	6.62	7.10		# of strides	11.75	12.14	12.99	13.72	23.89	26.71	2.82
	velocity	7.82	9.33	8.62	7.89	7.74	7.66	7.55	7.04	7.91		8.51	8.24	7.70	7.29	8.37	7.49	
Guei, Floria (FRA) (1990)	time	6.93	12.56	18.47	24.61	30.84	37.21	43.85	50.89	50.89	7 / 2							
reaction time 0.203	interval		5.63	5.91	6.14	6.23	6.37	6.64	7.04	PB	# of strides	12.56	12.05	12.60	13.68	24.61	26.28	1.67
	velocity	7.22	8.88	8.46	8.14	8.03	7.85	7.53	7.10	7.86		7.96	8.30	7.94	7.31	8.13	7.61	
Pyhyda, Nataliya (UKR) (198	time	6.60	12.29	18.07	24.15	30.46	37.06	43.88	51.07	51.07	3 / 3							
reaction time 0.184	interval		5.69	5.78	6.08	6.31	6.60	6.82	7.19		# of strides	12.29	11.86	12.91	14.01	24.15	26.92	2.77
	velocity	7.58	8.79	8.65	8.22	7.92	7.58	7.33	6.95	7.83		8.14	8.43	7.75	7.14	8.28	7.43	
Wyciszkiewicz, Patrycja (POL	time	6.82	12.50	18.25	24.32	30.66	37.17	44.01	51.31	51.31	9 / 4							
reaction time 0.190	interval		5.68	5.75	6.07	6.34	6.51	6.84	7.30	NUR / PB	# of strides	12.50	11.82	12.85	14.14	24.32	26.99	2.67
	velocity	7.33	8.80	8.70	8.24	7.89	7.68	7.31	6.85	7.80		8.00	8.46	7.78	7.07	8.22	7.41	
Rubie, Anneliese (AUS) (199	time	6.68	12.37	18.28	24.47	30.77	37.35	44.25	51.69	51.69	4 / 5							
reaction time 0.184	interval		5.69	5.91	6.19	6.30	6.58	6.90	7.44	PB	# of strides	12.37	12.10	12.88	14.34	24.47	27.22	2.75
	velocity	7.49	8.79	8.46	8.08	7.94	7.60	7.25	6.72	7.74		8.08	8.26	7.76	6.97	8.17	7.35	
Alexander, Kineke (VIN) (198	time	6.92	12.74	18.82	25.14	31.65	38.24	44.98	52.24	52.24	8 / 6							
reaction time 0.217	interval		5.82	6.08	6.32	6.51	6.59	6.74	7.26		# of strides	12.74	12.40	13.10	14.00	25.14	27.10	1.96
	velocity	7.23	8.59	8.22	7.91	7.68	7.59	7.42	6.89	7.66		7.85	8.06	7.63	7.14	7.96	7.38	
Putalová, Iveta (SVK) (1988)	time	6.72	12.26	18.03	24.20	30.68	37.44	44.72	52.52	52.52	5 / 7							
reaction time 0.219	interval		5.54	5.77	6.17	6.48	6.76	7.28	7.80		# of strides	12.26	11.94	13.24	15.08	24.20	28.32	4.12
	velocity	7.44	9.03	8.67	8.10	7.72	7.40	6.87	6.41	7.62		8.16	8.38	7.55	6.63	8.26	7.06	

2015 Japanese National High School Championships (Wakayama, JPN)

FINAL

date 29-Jul-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ishizuka, Haruko (JPN) (1997	time	6.91	12.75	18.82	25.07	31.62	38.49	45.70	53.30	53.30	/ 1							
reaction time	interval		5.84	6.07	6.25	6.55	6.87	7.21	7.60	PB	# of strides	12.75	12.32	13.42	14.81	25.07	28.23	3.16
	velocity	7.24	8.56	8.24	8.00	7.63	7.28	6.93	6.58	7.50		7.84	8.12	7.45	6.75	7.98	7.08	
Iwata, Yuna (JPN) (1997)	time	7.05	13.16	19.39	25.83	32.52	39.51	46.71	54.37	54.37	/ 2							
reaction time	interval		6.11	6.23	6.44	6.69	6.99	7.20	7.66		# of strides	13.16	12.67	13.68	14.86	25.83	28.54	2.71
	velocity	7.09	8.18	8.03	7.76	7.47	7.15	6.94	6.53	7.36		7.60	7.89	7.31	6.73	7.74	7.01	

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

Aoki, Rin (JPN) (1998)	time	7.21	13.29	19.49	26.00	32.84	39.90	47.05	54.74	54.74	/ 3							
reaction time	interval		6.08	6.20	6.51	6.84	7.06	7.15	7.69	PB	# of strides	13.29	12.71	13.90	14.84	26.00	28.74	2.74
	velocity	6.93	8.22	8.06	7.68	7.31	7.08	6.99	6.50	7.31		7.52	7.87	7.19	6.74	7.69	6.96	
Ikezaki, Airi (JPN) (1998)	time	7.15	13.04	19.22	25.73	32.59	39.78	47.17	55.08	55.08	/ 4							
reaction time	interval		5.89	6.18	6.51	6.86	7.19	7.39	7.91		# of strides	13.04	12.69	14.05	15.30	25.73	29.35	3.62
	velocity	6.99	8.49	8.09	7.68	7.29	6.95	6.77	6.32	7.26		7.67	7.88	7.12	6.54	7.77	6.81	
Matsumoto, Fuya (JPN) (199	time	6.98	13.15	19.59	26.19	33.06	40.28	47.71	55.68	55.68	/ 5							
reaction time	interval		6.17	6.44	6.60	6.87	7.22	7.43	7.97		# of strides	13.15	13.04	14.09	15.40	26.19	29.49	3.30
	velocity	7.16	8.10	7.76	7.58	7.28	6.93	6.73	6.27	7.18		7.60	7.67	7.10	6.49	7.64	6.78	
Uesugi, Haruna (JPN) (1998)	time	7.12	13.27	19.50	26.12	33.09	40.38	47.88	55.74	55.74	/ 6							
reaction time	interval		6.15	6.23	6.62	6.97	7.29	7.50	7.86		# of strides	13.27	12.85	14.26	15.36	26.12	29.62	3.50
	velocity	7.02	8.13	8.03	7.55	7.17	6.86	6.67	6.36	7.18		7.54	7.78	7.01	6.51	7.66	6.75	
Eda, Ryo (JPN) (1997)	time	6.91	13.05	19.37	25.99	32.97	40.24	47.81	55.82	55.82	/ 7							
reaction time	interval		6.14	6.32	6.62	6.98	7.27	7.57	8.01		# of strides	13.05	12.94	14.25	15.58	25.99	29.83	3.84
	velocity	7.24	8.14	7.91	7.55	7.16	6.88	6.61	6.24	7.17		7.66	7.73	7.02	6.42	7.70	6.70	
Yoshida, Sayumi (JPN) (1997	time	7.34	13.44	19.72	26.35	33.26	40.39	47.94	55.97	55.97	/ 8							
reaction time	interval		6.10	6.28	6.63	6.91	7.13	7.55	8.03		# of strides	13.44	12.91	14.04	15.58	26.35	29.62	3.27
	velocity	6.81	8.20	7.96	7.54	7.24	7.01	6.62	6.23	7.15		7.44	7.75	7.12	6.42	7.59	6.75	

2015 USATF National Championships (Eugene, OR)

FINAL date 27-Jun-15

Track Newsletter (2015) - USATF women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Felix, Allyson (USA) (1985)	time				24.6		37.2		50.2	50.19	/ 1							
reaction time	interval						12.6		13.0		# of strides			12.60	13.00	24.60	25.60	1.00
	velocity				8.13		7.94		7.69	7.97				7.94	7.69	8.13	7.81	
Hastings, Natasha (USA) (19	time				23.9		36.6		50.2	50.25	/ 2							
reaction time	interval						12.7		13.6		# of strides			12.70	13.60	23.90	26.30	2.40
	velocity				8.37		7.87		7.35	7.96				7.87	7.35	8.37	7.60	
Francis, Phyllis (USA) (1992)	time				24.7		37.7		50.7	50.67	/ 3							
reaction time	interval						13.0		13.0		# of strides			13.00	13.00	24.70	26.00	1.30
	velocity				8.10		7.69		7.69	7.89				7.69	7.69	8.10	7.69	
McCorory, Francena (USA) (	time				24.4		36.8		50.9	50.88	/ 4							
reaction time	interval						12.4		14.1		# of strides			12.40	14.10	24.40	26.50	2.10
	velocity				8.20		8.06		7.09	7.86				8.06	7.09	8.20	7.55	
Hayes, Quanera (USA) (1992	time				24.3		37.1		51.3	51.27	/ 5							
reaction time	interval						12.8		14.2		# of strides			12.80	14.20	24.30	27.00	2.70
	velocity				8.23		7.81		7.04	7.80				7.81	7.04	8.23	7.41	
Beard, Jessica (USA) (1989)	time				24.1		37.5		51.5	51.48	/ 6							
reaction time	interval						13.4		14.0		# of strides			13.40	14.00	24.10	27.40	3.30
	velocity				8.30		7.46		7.14	7.77				7.46	7.14	8.30	7.30	
Baisden, Kendall (USA) (199	time				25.3		38.5		52.6	52.64	/ 7							
reaction time	interval						13.2		14.1		# of strides			13.20	14.10	25.30	27.30	2.00
	velocity				7.91		7.58		7.09	7.60				7.58	7.09	7.91	7.33	
Wimbley, Shakima (USA) (19	time				25.2		38.9		53.0	52.96	/ 8							
reaction time	interval						13.7		14.1		# of strides			13.70	14.10	25.20	27.80	2.60
	velocity				7.94		7.30		7.09	7.55				7.30	7.09	7.94	7.19	

2015 Japanese National Championships (Niigata, JPN)

FINAL date 27-Jun-15

Kohei (2015) - 400m race analysis of male & female at major 2015 competitions

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoki, Sayaka (JPN) (1986)	time	6.84	12.66	18.72	25.00	31.71	38.57	45.58	53.05	53.05	5 / 1							
reaction time 0.176	interval		5.82	6.06	6.28	6.71	6.86	7.01	7.47	PB	# of strides	12.66	12.34	13.57	14.48	25.00	28.05	3.05
	velocity	7.31	8.59	8.25	7.96	7.45	7.29	7.13	6.69	7.54	200.0	7.90	8.10	7.37	6.91	8.00	7.13	
Fujisawa, Sayaka (JPN) (1991	time	6.73	12.36	18.18	24.44	31.18	38.19	45.39	53.14	53.14	7 / 2							
reaction time 0.191	interval		5.63	5.82	6.26	6.74	7.01	7.20	7.75	PB	# of strides	12.36	12.08	13.75	14.95	24.44	28.70	4.26
	velocity	7.43	8.88	8.59	7.99	7.42	7.13	6.94	6.45	7.53	201.0	8.09	8.28	7.27	6.69	8.18	6.97	
Ishizuka, Haruko (JPN) (1997	time	7.07	12.84	18.85	25.11	31.75	38.76	45.94	53.44	53.44	4 / 3							
reaction time 0.272	interval		5.77	6.01	6.26	6.64	7.01	7.18	7.50	=PB	# of strides	12.84	12.27	13.65	14.68	25.11	28.33	3.22
	velocity	7.07	8.67	8.32	7.99	7.53	7.13	6.96	6.67	7.49	200.5	7.79	8.15	7.33	6.81	7.96	7.06	
Takeishi, Konomi (JPN) (199	time	6.85	12.67	18.72	25.09	31.97	39.05	46.18	53.58	53.58	8 / 4							
reaction time 0.158	interval		5.82	6.05	6.37	6.88	7.08	7.13	7.40	PB	# of strides	12.67	12.42	13.96	14.53	25.09	28.49	3.40
	velocity	7.30	8.59	8.26	7.85	7.27	7.06	7.01	6.76	7.47	196.5	7.89	8.05	7.16	6.88	7.97	7.02	
Chiba, Asami (JPN) (1985)	time	6.85	12.71	18.79	25.07	31.87	38.83	45.97	53.65	53.65	9 / 5							
reaction time 0.193	interval		5.86	6.08	6.28	6.80	6.96	7.14	7.68		# of strides	12.71	12.36	13.76	14.82	25.07	28.58	3.51
	velocity	7.30	8.53	8.22	7.96	7.35	7.18	7.00	6.51	7.46	202.5	7.87	8.09	7.27	6.75	7.98	7.00	
Shintaku, Asami (JPN) (1994	time	7.07	13.03	19.05	25.21	31.77	38.53	45.68	53.78	53.78	6 / 6							
reaction time 0.180	interval		5.96	6.02	6.16	6.56	6.76	7.15	8.10	PB	# of strides	13.03	12.18	13.32	15.25	25.21	28.57	3.36
	velocity	7.07	8.39	8.31	8.12	7.62	7.40	6.99	6.17	7.44	221.2	7.67	8.21	7.51	6.56	7.93	7.00	
Sato, Hinako (JPN) (1996)	time	7.17	12.95	18.95	25.20	31.76	38.82	46.13	54.00	54.00	2 / 7							

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 0.184	interval		5.78	6.00	6.25	6.56	7.06	7.31	7.87	PB	# of strides	12.95	12.25	13.62	15.18	25.20	28.80	3.60
	velocity	6.97	8.65	8.33	8.00	7.62	7.08	6.84	6.35	7.41		7.72	8.16	7.34	6.59	7.94	6.94	
Matsumoto, Nanako (JPN) (	time	7.23	13.15	19.20	25.55	32.37	39.48	46.70	54.31	54.31	3 / 8							
reaction time 0.185	interval		5.92	6.05	6.35	6.82	7.11	7.22	7.61		# of strides	13.15	12.40	13.93	14.83	25.55	28.76	3.21
	velocity	6.92	8.45	8.26	7.87	7.33	7.03	6.93	6.57	7.37		7.60	8.06	7.18	6.74	7.83	6.95	

2015 NCAA Championships (Eugene, OR)

FINAL date 13-Jun-15

Track Newsletter (2015) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Funderbunk, Kala (USA) (19	time				26.0				51.7	51.67	8 / 1							
reaction time	interval								25.70		# of strides					26.00	25.70	-0.30
	velocity				7.69				7.78	7.74						7.69	7.78	
Baisden, Kendall (USA) (199	time				25.5				51.7	51.74	4 / 2							
reaction time	interval								26.20		# of strides					25.50	26.20	0.70
	velocity				7.84				7.63	7.73						7.84	7.63	
Roberson, Daye Shon (USA)	time				25.5				51.7	51.74	7 / 3							
reaction time	interval								26.20		# of strides					25.50	26.20	0.70
	velocity				7.84				7.63	7.73						7.84	7.63	
Ellis-Watson, Taylor (USA) (	time				25.3				52.0	52.01	/ 4							
reaction time	interval								26.70		# of strides					25.30	26.70	1.40
	velocity				7.91				7.49	7.69						7.91	7.49	
Wimbley, Shakima (USA) (19	time				26.0				52.1	52.08	/ 5							
reaction time	interval								26.10		# of strides					26.00	26.10	0.10
	velocity				7.69				7.66	7.68						7.69	7.66	
Bamgbose, Margaret (USA)	time				25.1				52.1	52.13	/ 6							
reaction time	interval								27.00		# of strides					25.10	27.00	1.90
	velocity				7.97				7.41	7.67						7.97	7.41	
Spencer, Ashley (USA) (1993	time				25.4				52.6	52.65	/ 7							
reaction time	interval								27.20		# of strides					25.40	27.20	1.80
	velocity				7.87				7.35	7.60						7.87	7.35	
Porter, Kiara (USA) (1993)	time				24.9				52.7	52.67	/ 8							
reaction time	interval								27.80		# of strides					24.90	27.80	2.90
	velocity				8.03				7.19	7.59						8.03	7.19	

2015 Asian Championships (Wuhan, CHN)

FINAL date 04-Jun-15

Yang (2019) - analysis of the characteristics of Yang Huizhen's running speed in 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yang Huizhen (CHN) (1992)	time				25.08		38.09		52.37	52.37	/ 1							
reaction time	interval						13.01		14.28	PB	# of strides			13.01	14.28	25.08	27.29	2.21
	velocity				7.97		7.69		7.00	7.64	191.0			7.69	7.00	7.97	7.33	

2014 European Championships (Zurich, SUI)

FINAL date 15-Aug-14

Incalza (2014) - https://www.youtube.com/watch?v=09l9yDmjZus&list=UU7691fXeyNFIMROfkJ-WWUg

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Grenot, Libania (ITA) (1983)	time		11.95		23.49		36.30		51.10	51.10	3 / 1							
reaction time 0.180	interval				11.54		12.81		14.80		# of strides			12.81	14.80	23.49	27.61	4.12
	velocity		8.37		8.67		7.81		6.76	7.83				7.81	6.76	8.51	7.24	
Zemlyak, Olha (UKR) (1990)	0.172	no information available								51.36	4 / 2							
Terrero, Indira (ESP) (1985)	0.250	no information available								51.38	6 / 3							
Ohuruogu, Christine (GBR)	0.170	no information available								51.38	5 / 4							
Holub, Malgorzata (POL) (19	0.177	no information available							PB	51.84	7 / 5							
Razor, Bianca (ROU) (1994)	0.213	no information available								51.95	1 / 6							
Gayot, Marie (FRA) (1989)	0.183	no information available								52.14	2 / 7							
Bokesa, Aauir Lorena (ESP)	0.213	no information available								52.39	8 / 8							

2014 Japanese National High School Championships (Kofu, JPN)

FINAL date 30-Jul-14

Yanagiya (2014) - research on athlete performance and technique- 2014 data book

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Aoyama, Seika (JPN) (1996)	time	6.88	12.64	18.55	24.78	31.35	38.52	45.98	53.73	53.73	/ 1							
reaction time	interval		5.76	5.91	6.23	6.57	7.17	7.46	7.75		# of strides	12.64	12.14	13.74	15.21	24.78	28.95	4.17
	velocity	7.27	8.68	8.46	8.03	7.61	6.97	6.70	6.45	7.44		7.91	8.24	7.28	6.57	8.07	6.91	
Eguchi, Kotomi (JPN) (1997)	time	7.14	13.17	19.25	25.46	31.91	38.80	46.09	53.94	53.94	/ 2							
reaction time	interval		6.03	6.08	6.21	6.45	6.89	7.29	7.85		# of strides	13.17	12.29	13.34	15.14	25.46	28.48	3.02
	velocity	7.00	8.29	8.22	8.05	7.75	7.26	6.86	6.37	7.42		7.59	8.14	7.50	6.61	7.86	7.02	
Sato, Hinako (JPN) (1996)	time	7.18	13.25	19.25	25.49	32.06	39.08	46.57	54.63	54.63	/ 3							
reaction time	interval		6.07	6.00	6.24	6.57	7.02	7.49	8.06	PB	# of strides	13.25	12.24	13.59	15.55	25.49	29.14	3.65
	velocity	6.96	8.24	8.33	8.01	7.61	7.12	6.68	6.20	7.32		7.55	8.17	7.36	6.43	7.85	6.86	
Mori, Miyu (JPN)	time	7.01	13.10	19.35	25.83	32.49	39.71	47.05	54.79	54.79	/ 4							
reaction time	interval		6.09	6.25	6.48	6.66	7.22	7.34	7.74		# of strides	13.10	12.73	13.88	15.08	25.83	28.96	3.13
	velocity	7.13	8.21	8.00	7.72	7.51	6.93	6.81	6.46	7.30		7.63	7.86	7.20	6.63	7.74	6.91	
Iwata, Yuna (JPN) (1997)	time	7.29	13.53	19.74	26.07	32.72	39.71	47.09	55.00	55.00	/ 5							
reaction time	interval		6.24	6.21	6.33	6.65	6.99	7.38	7.91	PB	# of strides	13.53	12.54	13.64	15.29	26.07	28.93	2.86
	velocity	6.86	8.01	8.05	7.90	7.52	7.15	6.78	6.32	7.27		7.39	7.97	7.33	6.54	7.67	6.91	

Kimoto, Ayana (JPN) (1996)	time	7.45	13.59	19.89	26.17	32.79	39.85	47.15	55.11	55.11	/ 6							
reaction time	interval		6.14	6.30	6.28	6.62	7.06	7.30	7.96		# of strides	13.59	12.58	13.68	15.26	26.17	28.94	2.77
	velocity	6.71	8.14	7.94	7.96	7.55	7.08	6.85	6.28	7.26		7.36	7.95	7.31	6.55	7.64	6.91	
Okuda, Masumi (JPN) (1996)	time	7.39	13.56	19.65	26.03	32.78	39.95	47.63	56.10	56.10	/ 7							
reaction time	interval		6.17	6.09	6.38	6.75	7.17	7.68	8.47		# of strides	13.56	12.47	13.92	16.15	26.03	30.07	4.04
	velocity	6.77	8.10	8.21	7.84	7.41	6.97	6.51	5.90	7.13		7.37	8.02	7.18	6.19	7.68	6.65	
Kyoya, Yuka (JPN) (1997)	time	7.50	13.81	20.12	26.60	33.49	40.86	48.87	57.28	57.28	/ 8							
reaction time	interval		6.31	6.31	6.48	6.89	7.37	8.01	8.41	PB	# of strides	13.81	12.79	14.26	16.42	26.60	30.68	4.08
	velocity	6.67	7.92	7.92	7.72	7.26	6.78	6.24	5.95	6.98		7.24	7.82	7.01	6.09	7.52	6.52	

2014 IAAF World Junior Championships (Eugene, OR)

FINAL date 25-Jul-14

Track Newsletter (2014) - World Junior championships women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Baisden, Kendall (USA) (199	time				24.9		38.1		51.9	51.85	/ 1							
reaction time 0.250	interval						13.2		13.8		# of strides			13.20	13.80	24.90	27.00	2.10
	velocity				8.03		7.58		7.25	7.71				7.58	7.25	8.03	7.41	
Casanova, Gilda (CUB) (199	time				25.2		38.0		52.6	52.59	/ 2							
reaction time 0.207	interval						12.8		14.6		# of strides			12.80	14.60	25.20	27.40	2.20
	velocity				7.94		7.81		6.85	7.61				7.81	6.85	7.94	7.30	
Baker, Olivia (USA) (1996)	time				25.6		38.8		53.0	53.00	/ 3							
reaction time 0.210	interval						13.2		14.2		# of strides			13.20	14.20	25.60	27.40	1.80
	velocity				7.81		7.58		7.04	7.55				7.58	7.04	7.81	7.30	
Müller, Laura (GER) (1995)	time						38.7		53.4	53.40	/ 4							
reaction time 0.193	interval								14.7		# of strides							
	velocity						7.75		6.80	7.49								

2014 USATF National Championships (Sacramento, CA)

FINAL date 28-Jun-14

Track Newsletter (2014) - USATF women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McCorory, Francena (USA) (	time		12.4		24.0		36.2		49.5	49.48	/ 1							
reaction time 0.292	interval				11.6		12.2		13.3		# of strides	12.40	11.60	12.20	13.30	24.00	25.50	1.50
	velocity		8.06		8.62		8.20		7.52	8.08		8.06	8.62	8.20	7.52	8.33	7.84	
Richards-Ross, Sanya (USA)	time		12.3		24.1		36.5		49.7	49.66	/ 2							
reaction time 0.168	interval				11.8		12.4		13.2		# of strides	12.30	11.80	12.40	13.20	24.10	25.60	1.50
	velocity		8.13		8.47		8.06		7.58	8.05		8.13	8.47	8.06	7.58	8.30	7.81	
Hastings, Natasha (USA) (19	time		12.2		24.2		36.6		50.5	50.53	/ 3							
reaction time 0.205	interval				12.0		12.4		13.9		# of strides	12.20	12.00	12.40	13.90	24.20	26.30	2.10
	velocity		8.20		8.33		8.06		7.19	7.92		8.20	8.33	8.06	7.19	8.26	7.60	
Francis, Phyllis (USA) (1992)	time		12.7		24.8		37.8		50.8	50.80	/ ~~4~~							
reaction time	interval				12.1		13.0		13.0	DQ	# of strides	12.70	12.10	13.00	13.00	24.80	26.00	1.20
	velocity		7.87		8.26		7.69		7.69	7.87		7.87	8.26	7.69	7.69	8.06	7.69	
Beard, Jessica (USA) (1989)	time		12.6		24.4		37.3		50.8	50.81	/ ~~5~~ 4							
reaction time 0.255	interval				11.8		12.9		13.5		# of strides	12.60	11.80	12.90	13.50	24.40	26.40	2.00
	velocity		7.94		8.47		7.75		7.41	7.87		7.94	8.47	7.75	7.41	8.20	7.58	
Trotter, Deedee (USA) (1982	time		12.6		24.4		36.8		51.0	51.04	/ ~~6~~ 5							
reaction time 0.200	interval				11.8		12.4		14.2		# of strides	12.60	11.80	12.40	14.20	24.40	26.60	2.20
	velocity		7.94		8.47		8.06		7.04	7.84		7.94	8.47	8.06	7.04	8.20	7.52	
Nelson, Briana (USA) (1992)	time		12.5		24.6		37.1		51.1	51.10	/ ~~7~~ 6							
reaction time 0.211	interval				12.1		12.5		14.0		# of strides	12.50	12.10	12.50	14.00	24.60	26.50	1.90
	velocity		8.00		8.26		8.00		7.14	7.83		8.00	8.26	8.00	7.14	8.13	7.55	
Ellis-Watson, Taylor (USA) (	time		13.0		24.8		37.9		51.8	51.78	/ ~~8~~ 7							
reaction time 0.219	interval				11.8		13.1		13.9	PB	# of strides	13.00	11.80	13.10	13.90	24.80	27.00	2.20
	velocity		7.69		8.47		7.63		7.19	7.72		7.69	8.47	7.63	7.19	8.06	7.41	

2014 NCAA Championships (Eugene, OR)

FINAL date 13-Jun-14

Track Newsletter (2014) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Okolo, Courtney (USA) (199	time				24.1		36.8		50.2	50.23	4 / 1							
reaction time	interval						12.70		13.40		# of strides			12.70	13.40	24.10	26.10	2.00
	velocity				8.30		7.87		7.46	7.96				7.87	7.46	8.30	7.66	
Francis, Phyllis (USA) (1992)	time				24.1		36.9		50.6	50.59	8 / 2							
reaction time	interval						12.80		13.70	PB	# of strides			12.80	13.70	24.10	26.50	2.40
	velocity				8.30		7.81		7.30	7.91				7.81	7.30	8.30	7.55	
Baisden, Kendall (USA) (199	time				24.4		37.5		51.3	51.32	7 / 3							
reaction time	interval						13.10		13.80		# of strides			13.10	13.80	24.40	26.90	2.50
	velocity				8.20		7.63		7.25	7.79				7.63	7.25	8.20	7.43	
Nelson, Briana (USA) (1992)	time				24.6		37.4		51.6	51.59	/ 4							
reaction time	interval						12.80		14.20		# of strides			12.80	14.20	24.60	27.00	2.40
	velocity				8.13		7.81		7.04	7.75				7.81	7.04	8.13	7.41	
Brown, Michelle (USA) (1992	time				24.5		37.7		51.7	51.70	/ 5							
reaction time	interval						13.20		14.00	PB	# of strides			13.20	14.00	24.50	27.20	2.70

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

	velocity		8.16	7.58	7.14	7.74			7.58	7.14	8.16	7.35		
Bamgbose, Margaret (USA)	time		24.5	37.7	51.7	51.72	/ 6							
reaction time	interval			13.20	14.00	**PB**	# of strides		13.20	14.00	24.50	27.20	2.70	
	velocity		8.16	7.58	7.14	7.73			7.58	7.14	8.16	7.35		
Reynolds, Robin (USA) (199	time		24.1	37.2	52.0	52.02	/ 7							
reaction time	interval			13.10	14.80		# of strides		13.10	14.80	24.10	27.90	3.80	
	velocity		8.30	7.63	6.76	7.69			7.63	6.76	8.30	7.17		
Porter, Kiara (USA) (1993)	time		24.7	38.3	52.8	52.80	/ 8							
reaction time	interval			13.60	14.50		# of strides		13.60	14.50	24.70	28.10	3.40	
	velocity		8.10	7.35	6.90	7.58			7.35	6.90	8.10	7.12		

2013 IAAF World Championships (Moscow, RUS)

FINAL date 12-Aug-13

Track Newsletter (2013) - world championships women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ohurougu, Christine (GBR)	time		12.3		23.8		36.1		49.4	49.41	4 / 1							
reaction time 0.247	interval				11.5		12.3		13.3	**NR**	# of strides	12.30	11.50	12.30	13.30	23.80	25.60	1.80
	velocity		8.13		8.70		8.13		7.52	8.10		8.13	8.70	8.13	7.52	8.40	7.81	
Montsho, Amantle (BOT) (1!	time		12.2		23.4		35.7		49.4	49.41	5 / 2							
reaction time 0.273	interval				11.2		12.3		13.7		# of strides	12.20	11.20	12.30	13.70	23.40	26.00	2.60
	velocity		8.20		8.93		8.13		7.30	8.10		8.20	8.93	8.13	7.30	8.55	7.69	
Krivoshapka, Antonia (RUS)	time		12.1		23.5		36.0		49.8	49.78	8 / 3							
reaction time 0.209	interval				11.4		12.5		13.8		# of strides	12.10	11.40	12.50	13.80	23.50	26.30	2.80
	velocity		8.26		8.77		8.00		7.25	8.04		8.26	8.77	8.00	7.25	8.51	7.60	
McPherson, Stephenie (JAM	time		12.1		23.7		36.4		50.0	49.99	2 / 4							
reaction time 0.198	interval				11.6		12.7		13.6		# of strides	12.10	11.60	12.70	13.60	23.70	26.30	2.60
	velocity		8.26		8.62		7.87		7.35	8.00		8.26	8.62	7.87	7.35	8.44	7.60	
Hastings, Natasha (USA) (19	time		11.8		23.5		36.1		50.3	50.30	3 / 5							
reaction time 0.163	interval				11.7		12.6		14.2		# of strides	11.80	11.70	12.60	14.20	23.50	26.80	3.30
	velocity		8.47		8.55		7.94		7.04	7.95		8.47	8.55	7.94	7.04	8.51	7.46	
McCorory, Francena (USA) (	time		12.0		23.3		35.7		50.7	50.68	6 / 6							
reaction time 0.241	interval				11.3		12.4		15.0		# of strides	12.00	11.30	12.40	15.00	23.30	27.40	4.10
	velocity		8.33		8.85		8.06		6.67	7.89		8.33	8.85	8.06	6.67	8.58	7.30	
Ryzhova, Kseniya (RUS) (19	time		12.1		23.6		36.3		51.0	50.98	7 / 7							
reaction time 0.195	interval				11.5		12.7		14.7		# of strides	12.10	11.50	12.70	14.70	23.60	27.40	3.80
	velocity		8.26		8.70		7.87		6.80	7.85		8.26	8.70	7.87	6.80	8.47	7.30	
Williams-Mills, Novlene (JAN	time		12.6		24.3		37.1		51.5	51.49	1 / 8							
reaction time 0.276	interval				11.7		12.8		14.4		# of strides	12.60	11.70	12.80	14.40	24.30	27.20	2.90
	velocity		7.94		8.55		7.81		6.94	7.77		7.94	8.55	7.81	6.94	8.23	7.35	

2013 Japanese National High School Championships (Oita, JPN)

Yanagiya (2014) - research on athlete performance and technique- 2014 data book

Matsuo (2013) - 66th high school championships: JAF scientific committee - biomechanics data collection

FINAL date 30-Jul-13

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Oki, Sayaka (JPN) (1995)	time	7.05	13.48	19.89	26.27	32.80	39.58	46.47	53.66	53.66	4 / 1							*Yanagiya (2014)*
reaction time	interval		6.43	6.41	6.38	6.53	6.78	6.89	7.19		# of strides	13.48	12.79	13.31	14.08	26.27	27.39	1.12
	velocity	7.09	7.78	7.80	7.84	7.66	7.37	7.26	6.95	7.45		7.42	7.82	7.51	7.10	7.61	7.30	
Sugiura, Haruka (JPN) (1995)	time		13.17		26.10		39.55		54.10	54.10	6 / 2							Matsuo (2013)
reaction time	interval				12.93		13.45		14.55		# of strides	13.17	12.93	13.45	14.55	26.10	28.00	1.90
	velocity		7.59		7.73		7.43		6.87	7.39		7.59	7.73	7.43	6.87	7.66	7.14	
Jingbo, Yuki (JPN) (1995)	time		13.47		26.53		39.98		54.24	54.24	9 / 3							Matsuo (2013)
reaction time	interval				13.06		13.45		14.26		# of strides	13.47	13.06	13.45	14.26	26.53	27.71	1.18
	velocity		7.42		7.66		7.43		7.01	7.37		7.42	7.66	7.43	7.01	7.54	7.22	
Aoyama, Seika (JPN) (1996)	time		13.50		26.70		40.12		54.24	54.24	7 / 4							Matsuo (2013)
reaction time	interval				13.20		13.42		14.12		# of strides	13.50	13.20	13.42	14.12	26.70	27.54	0.84
	velocity		7.41		7.58		7.45		7.08	7.37		7.41	7.58	7.45	7.08	7.49	7.26	
Matsumoto, Nanako (JPN) (	time		13.50		26.47		39.97		54.81	54.81	5 / 5							Matsuo (2013)
reaction time	interval				12.97		13.50		14.84		# of strides	13.50	12.97	13.50	14.84	26.47	28.34	1.87
	velocity		7.41		7.71		7.41		6.74	7.30		7.41	7.71	7.41	6.74	7.56	7.06	
Kikuchi, Ruina (JPN) (1995)	time		13.48		26.57		40.27		55.42	55.42	3 / 6							Matsuo (2013)
reaction time	interval				13.09		13.70		15.15	**PB**	# of strides	13.48	13.09	13.70	15.15	26.57	28.85	2.28
	velocity		7.42		7.64		7.30		6.60	7.22		7.42	7.64	7.30	6.60	7.53	6.93	
Dezuka, Chie (JPN)	time		13.57		26.50		40.03		55.74	55.74	8 / 7							Matsuo (2013)
reaction time	interval				12.93		13.53		15.71		# of strides	13.57	12.93	13.53	15.71	26.50	29.24	2.74
	velocity		7.37		7.73		7.39		6.37	7.18		7.37	7.73	7.39	6.37	7.55	6.84	
Okamoto, Yuna (CHN) (1995	time		13.60		26.80		40.83		56.06	56.06	2 / 8							Matsuo (2013)
reaction time	interval				13.20		14.03		15.23		# of strides	13.60	13.20	14.03	15.23	26.80	29.26	2.46
	velocity		7.35		7.58		7.13		6.57	7.14		7.35	7.58	7.13	6.57	7.46	6.84	

2013 Japanese National Championships (Chofu, JPN)

FINAL date 08-Jun-13

Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

Sugiura, Haruka (JPN) (1995)	time	7.00	12.94	19.09	25.31	31.60	38.22	45.18	52.52	52.52	5 / 1							
reaction time	interval		5.94	6.15	6.22	6.29	6.62	6.96	7.34	PB	# of strides	12.94	12.37	12.91	14.30	25.31	27.21	1.90
	velocity	7.14	8.42	8.13	8.04	7.95	7.55	7.18	6.81	7.62	211.0	7.73	8.08	7.75	6.99	7.90	7.35	

2012 Olympic Games (London, GBR)

FINAL

date 05-Aug-12

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards-Ross, Sanya (USA)	time		11.9		23.7		36.0		49.6	49.55	6 / 1							
reaction time 0.189	interval				11.80		12.30		13.60		# of strides	11.90	11.80	12.30	13.60	23.70	25.90	2.20
	velocity		8.40		8.47		8.13		7.35	8.07	190.5	8.40	8.47	8.13	7.35	8.44	7.72	
Ohuruogu, Christine (GBR)	time		12.2		23.9		36.2		49.7	49.70	8 / 2							
reaction time 0.174	interval				11.70		12.30		13.50		# of strides	12.20	11.70	12.30	13.50	23.90	25.80	1.90
	velocity		8.20		8.55		8.13		7.41	8.05	183.0	8.20	8.55	8.13	7.41	8.37	7.75	
Trotter, Deedee (USA) (1982)	time		12.1		23.7		35.9		49.7	49.72	4 / 3							
reaction time 0.167	interval				11.60		12.20		13.80		# of strides	12.10	11.60	12.20	13.80	23.70	26.00	2.30
	velocity		8.26		8.62		8.20		7.25	8.05	187.5	8.26	8.62	8.20	7.25	8.44	7.69	
Montsho, Amantie (BOT) (19	time		12.2		23.9		36.3		49.8	49.75	7 / 4							
reaction time 0.198	interval				11.70		12.40		13.50		# of strides	12.20	11.70	12.40	13.50	23.90	25.90	2.00
	velocity		8.20		8.55		8.06		7.41	8.04	182.0	8.20	8.55	8.06	7.41	8.37	7.72	
Williams-Mills, Novlene (JAM	time		12.2		24.1		36.6		50.1	50.11	2 / 5							
reaction time 0.258	interval				11.90		12.50		13.50		# of strides	12.20	11.90	12.50	13.50	24.10	26.00	1.90
	velocity		8.20		8.40		8.00		7.41	7.98	192.0	8.20	8.40	8.00	7.41	8.30	7.69	
Krivoshapka, Antonia (RUS)	time		11.8		23.2		35.8		50.2	50.17	5 / ~~6~~							
reaction time 0.175	interval				11.40		12.60		14.40	DV	# of strides	11.80	11.40	12.60	14.40	23.20	27.00	3.80
	velocity		8.47		8.77		7.94		6.94	7.97	199.5	8.47	8.77	7.94	6.94	8.62	7.41	
McCorory, Francena (USA) (	time		12.2		23.8		35.8		50.3	50.33	9 / ~~7~~ 6							
reaction time 0.196	interval				11.60		12.00		14.50		# of strides	12.20	11.60	12.00	14.50	23.80	26.50	2.70
	velocity		8.20		8.62		8.33		6.90	7.95	189.7	8.20	8.62	8.33	6.90	8.40	7.55	
Whyte, Rosemarie (JAM) (19	time		12.1		23.9		36.9		50.8	50.79	3 / ~~8~~ 7							
reaction time 0.184	interval				11.80		13.00		13.90		# of strides	12.10	11.80	13.00	13.90	23.90	26.90	3.00
	velocity		8.26		8.47		7.69		7.19	7.88	187.0	8.26	8.47	7.69	7.19	8.37	7.43	

Semi-Final 2

date 04-Aug-12

Hadley (2012) - uka 2012 olympic games report: 400m, 4x 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Montsho, Amantle (BOT) (1	time				23.45		36.06		50.15	50.15	5 / 1							
reaction time 0.205	interval						12.61		14.09		# of strides			12.61	14.09	23.45	26.70	3.25
	velocity				8.53		7.93		7.10	7.98	184.0			7.93	7.10	8.53	7.49	

Semi-Final 1

date 04-Aug-12

Hadley (2012) - uka 2012 olympic games report: 400m, 4x 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards-Ross, Sanya (USA)	time				23.25		35.97		50.07	50.07	4 / 1							
reaction time 0.149	interval						12.72		14.10		# of strides			12.72	14.10	23.25	26.82	3.57
	velocity				8.60		7.86		7.09	7.99	189.7			7.86	7.09	8.60	7.46	

Heat 7

date 03-Aug-12

Hadley (2012) - uka 2012 olympic games report: 400m, 4x 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
George, Regina (NGR) (1991	time				23.54				51.24	51.24	6 / 1							
reaction time 0.175	interval								27.70		# of strides					23.54	27.70	4.16
	velocity				8.50				7.22	7.81	193.0					8.50	7.22	

2012 Japanese National High School Championships (Niigata, JPN)

FINAL

date 29-Jul-12

Yasunori (2012) - 65th high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Oki, Sayaka (JPN) (1995)	time		12.93		25.38		39.14		54.31	54.31	6 / 1							
reaction time	interval				12.45		13.76		15.17		# of strides	12.93	12.45	13.76	15.17	25.38	28.93	3.55
	velocity		7.73		8.03		7.27		6.59	7.37		7.73	8.03	7.27	6.59	7.88	6.91	
Jingbo, Yuki (JPN) (1995)	time		13.22		26.01		39.96		54.84	54.84	5 / 2							
reaction time	interval				12.79		13.95		14.88		# of strides	13.22	12.79	13.95	14.88	26.01	28.83	2.82
	velocity		7.56		7.82		7.17		6.72	7.29		7.56	7.82	7.17	6.72	7.69	6.94	
Shiranaga, Yumiko (JPN) (19	time		13.34		26.30		40.12		55.47	55.47	7 / 3							
reaction time	interval				12.96		13.82		15.35		# of strides	13.34	12.96	13.82	15.35	26.30	29.17	2.87
	velocity		7.50		7.72		7.24		6.51	7.21		7.50	7.72	7.24	6.51	7.60	6.86	
Fukuzato, Akiho (JPN) (1994	time		13.53		26.86		40.55		55.49	55.49	8 / 4							
reaction time	interval				13.33		13.69		14.94		# of strides	13.53	13.33	13.69	14.94	26.86	28.63	1.77
	velocity		7.39		7.50		7.30		6.69	7.21		7.39	7.50	7.30	6.69	7.45	6.99	
Sugiura, Haruka (JPN) (1995)	time		13.33		25.99		40.01		55.90	55.90	2 / 5							
reaction time	interval				12.66		14.02		15.89		# of strides	13.33	12.66	14.02	15.89	25.99	29.91	3.92
	velocity		7.50		7.90		7.13		6.29	7.16		7.50	7.90	7.13	6.29	7.70	6.69	
Matsumoto, Nanako (JPN) (	time		14.16		27.31		41.05		56.10	56.10	4 / 6							
reaction time	interval				13.15		13.74		15.05		# of strides	14.16	13.15	13.74	15.05	27.31	28.79	1.48
	velocity		7.06		7.60		7.28		6.64	7.13		7.06	7.60	7.28	6.64	7.32	6.95	
Tsuboura, Ryoko (JPN) (199	time		13.38		26.53		40.71		56.42	56.42	3 / 7							
reaction time	interval				13.15		14.18		15.71		# of strides	13.38	13.15	14.18	15.71	26.53	29.89	3.36
	velocity		7.47		7.60		7.05		6.37	7.09		7.47	7.60	7.05	6.37	7.54	6.69	

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Takisawa, Aya (JPN) (1994)	time		13.50		26.99		41.13		56.56	56.56	9 / 8							
reaction time	interval				13.49		14.14		15.43		# of strides	13.50	13.49	14.14	15.43	26.99	29.57	2.58
	velocity		7.41		7.41		7.07		6.48	7.07		7.41	7.41	7.07	6.48	7.41	6.76	

2012 USA Olympic Trials (Eugene, OR)

FINAL date 24-Jun-12

Hymans (2020) - history of the US olympic trials - track and field

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards-Ross, Sanya (USA)	time				23.8		36.1		49.28	49.28	5 / 1							
reaction time 0.232	interval						12.30		13.18		# of strides			12.30	13.18	23.80	25.48	1.68
	velocity				8.40		8.13		7.59	8.12				8.13	7.59	8.40	7.85	
Trotter, Deedee (USA) (1982)	time				24.3		36.5		50.02	50.02	7 / 2							
reaction time 0.269	interval						12.20		13.52		# of strides			12.20	13.52	24.30	25.72	1.42
	velocity				8.23		8.20		7.40	8.00				8.20	7.40	8.23	7.78	
McCorory, Francena (USA) (	time				23.5		36.0		50.43	50.43	6 / 3							
reaction time 0.259	interval						12.50		14.43		# of strides			12.50	14.43	23.50	26.93	3.43
	velocity				8.51		8.00		6.93	7.93				8.00	6.93	8.51	7.43	
Dunn, Debbie (USA) (1978)	time				23.7		36.3		50.78	50.78	4 / ~~4~~							
reaction time 0.198	interval						12.60		14.48	DV	# of strides			12.60	14.48	23.70	27.08	3.38
	velocity				8.44		7.94		6.91	7.88				7.94	6.91	8.44	7.39	
Dixon, Diamond (USA) (199	time				24.3		36.9		50.88	50.88	8 / ~~5~~ 4							
reaction time 0.340	interval						12.60		13.98	PB	# of strides			12.60	13.98	24.30	26.58	2.28
	velocity				8.23		7.94		7.15	7.86				7.94	7.15	8.23	7.52	
Baker, Keshia (USA) (1988)	time				24.2		36.7		51.23	51.23	1 / ~~6~~ 5							
reaction time 0.273	interval						12.50		14.53		# of strides			12.50	14.53	24.20	27.03	2.83
	velocity				8.26		8.00		6.88	7.81				8.00	6.88	8.26	7.40	
Hastings, Natasha (USA) (19	time				23.9		36.5		51.28	51.28	3 / ~~7~~ 6							
reaction time 0.200	interval						12.60		14.78		# of strides			12.60	14.78	23.90	27.38	3.48
	velocity				8.37		7.94		6.77	7.80				7.94	6.77	8.37	7.30	
Beard, Jessica (USA) (1989)	time				24.1		36.8		51.52	51.52	2 / ~~8~~ 7							
reaction time 0.264	interval						12.70		14.72		# of strides			12.70	14.72	24.10	27.42	3.32
	velocity				8.30		7.87		6.79	7.76				7.87	6.79	8.30	7.29	

2011 IAAF World Championships (Daegu, KOR)

FINAL date 29-Aug-11

Butler (2013) - IAAF world athletic results 2008-2011 full results

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Montsho, Amantle (BOT) (1!	time				23.3		35.7		49.56	49.56	4 / 1							
reaction time 0.247	interval						12.4		13.9	NR	# of strides			12.40	13.86	23.30	26.26	2.96
	velocity				8.58		8.06		7.22	8.07	183.5			8.06	7.22	8.58	7.62	
Felix, Allyson (USA) (1985)	time				23.4		35.9		49.59	49.59	3 / 2							
reaction time 0.273	interval						12.5		13.7		# of strides			12.50	13.69	23.40	26.19	2.79
	velocity				8.55		8.00		7.30	8.07	175.7			8.00	7.30	8.55	7.64	
Kapachinskaya, Anastasiya (	time				23.8		36.3		50.24	50.24	6 / 3							
reaction time 0.209	interval						12.5		13.9		# of strides			12.50	13.94	23.80	26.44	2.64
	velocity				8.40		8.00		7.17	7.96	194.0			8.00	7.17	8.40	7.56	
McCorory, Francena (USA) (	time				23.7		36.1		50.45	50.45	5 / 4							
reaction time 0.198	interval						12.4		14.4		# of strides			12.40	14.35	23.70	26.75	3.05
	velocity				8.44		8.06		6.97	7.93	185.0			8.06	6.97	8.44	7.48	
Krivoshapka, Antonia (RUS)	time				23.7		36.6		50.66	50.66	2 / 5							
reaction time 0.163	interval						12.9		14.1		# of strides			12.90	14.06	23.70	26.96	3.26
	velocity				8.44		7.75		7.11	7.90	199.0			7.75	7.11	8.44	7.42	
Williams, Shericka (JAM) (19	time				24.3		36.7		50.79	50.79	7 / 6							
reaction time 0.241	interval						12.4		14.1		# of strides			12.40	14.09	24.30	26.49	2.19
	velocity				8.23		8.06		7.10	7.88				8.06	7.10	8.23	7.55	
Richards-Ross, Sanya (USA)	time				24.1		36.8		51.32	51.32	1 / 7							
reaction time 0.195	interval						12.7		14.5		# of strides			12.70	14.52	24.10	27.22	3.12
	velocity				8.30		7.87		6.89	7.79	188.0			7.87	6.89	8.30	7.35	
Williams-Mills, Novlene (JAI	time				23.5		36.3		52.89	52.89	8 / 8							
reaction time 0.276	interval						12.8		16.6		# of strides			12.80	16.59	23.50	29.39	5.89
	velocity				8.51		7.81		6.03	7.56				7.81	6.03	8.51	6.81	

2011 Japanese National High School Championships (Okinawa, JPN)

FINAL date 03-Aug-11

Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Shimada, Manayu (JPN) (199	time		13.33		26.78		39.68		54.88	54.88	6 / 1							
reaction time	interval				13.45		12.90		15.20	PB	# of strides	13.33	13.45	12.90	15.20	26.78	28.10	1.32
	velocity		7.50		7.43		7.75		6.58	7.29		7.50	7.43	7.75	6.58	7.47	7.12	
Nagura, Chiaki (JPN) (1993)	time		13.13		26.18		39.68		54.96	54.96	5 / 2							
reaction time	interval				13.05		13.50		15.28	PB	# of strides	13.13	13.05	13.50	15.28	26.18	28.78	2.60
	velocity		7.62		7.66		7.41		6.54	7.28		7.62	7.66	7.41	6.54	7.64	6.95	
Ikejima, Shoko (JPN) (1994)	time		13.09		26.17		40.63		55.26	55.26	4 / 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	interval		13.08	14.46	14.63	PB	# of strides	13.09	13.08	14.46	14.63	26.17	29.09	2.92
	velocity	7.64	7.65	6.92	6.84	7.24		7.64	7.65	6.92	6.84	7.64	6.88	
Yamamoto, Mizuki (JPN) (19	time	13.69	27.20	40.70	55.42	55.42	7 / 4							
reaction time	interval		13.51	13.50	14.72	PB	# of strides	13.69	13.51	13.50	14.72	27.20	28.22	1.02
	velocity	7.30	7.40	7.41	6.79	7.22		7.30	7.40	7.41	6.79	7.35	7.09	
Odagaki, Aki (JPN) (1993)	time	13.38	26.98	41.28	55.52	55.52	3 / 5							
reaction time	interval		13.60	14.30	14.24		# of strides	13.38	13.60	14.30	14.24	26.98	28.54	1.56
	velocity	7.47	7.35	6.99	7.02	7.20		7.47	7.35	6.99	7.02	7.41	7.01	
Nishida, Ayaka (JPN) (1993)	time	13.28	26.65	40.22	55.52	55.52	2 / 6							
reaction time	interval		13.37	13.57	15.30		# of strides	13.28	13.37	13.57	15.30	26.65	28.87	2.22
	velocity	7.53	7.48	7.37	6.54	7.20		7.53	7.48	7.37	6.54	7.50	6.93	
Nagura, Ayaka (JPN) (1994)	time	13.65	26.93	40.70	55.63	55.63	8 / 7							
reaction time	interval		13.28	13.77	14.93		# of strides	13.65	13.28	13.77	14.93	26.93	28.70	1.77
	velocity	7.33	7.53	7.26	6.70	7.19		7.33	7.53	7.26	6.70	7.43	6.97	
Shintaku, Asami (JPN) (1994	time	13.58	27.10	40.77	57.56	57.56	9 / 8							
reaction time	interval		13.52	13.67	16.79		# of strides	13.58	13.52	13.67	16.79	27.10	30.46	3.36
	velocity	7.36	7.40	7.32	5.96	6.95		7.36	7.40	7.32	5.96	7.38	6.57	

2011 USATF National Championships (Eugene, OR)

FINAL date 25-Jun-11

Track Newsletter (2011) - USATF women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Felix, Allyson (USA) (1985)	time		12.1		24.2		37.0		50.4	50.40	/ 1							
reaction time	interval				12.10		12.80		13.40		# of strides	12.10	12.10	12.80	13.40	24.20	26.20	2.00
	velocity		8.26		8.26		7.81		7.46	7.94		8.26	8.26	7.81	7.46	8.26	7.63	
McCorory, Francena (USA) (	time		12.4		24.7		37.0		50.5	50.49	/ 2							
reaction time	interval				12.30		12.30		13.50	PB	# of strides	12.40	12.30	12.30	13.50	24.70	25.80	1.10
	velocity		8.06		8.13		8.13		7.41	7.92		8.06	8.13	8.13	7.41	8.10	7.75	
Dunn, Debbie (USA) (1978)	time		12.2		24.3		37.0		50.7	50.70	/ 3							
reaction time	interval				12.10		12.70		13.70		# of strides	12.20	12.10	12.70	13.70	24.30	26.40	2.10
	velocity		8.20		8.26		7.87		7.30	7.89		8.20	8.26	7.87	7.30	8.23	7.58	
Beard, Jessica (USA) (1989)	time		12.2		24.2		37.1		51.1	51.06	/ 4							
reaction time	interval				12.00		12.90		14.00		# of strides	12.20	12.00	12.90	14.00	24.20	26.90	2.70
	velocity		8.20		8.33		7.75		7.14	7.83		8.20	8.33	7.75	7.14	8.26	7.43	
Hastings, Natasha (USA) (19	time		12.2		24.4		37.2		51.1	51.14	/ 5							
reaction time	interval				12.20		12.80		13.90		# of strides	12.20	12.20	12.80	13.90	24.40	26.70	2.30
	velocity		8.20		8.20		7.81		7.19	7.82		8.20	8.20	7.81	7.19	8.20	7.49	
Trotter, Deedee (USA) (1982	time		13.1		25.2		37.5		51.2	51.17	/ 6							
reaction time	interval				12.10		12.30		13.70		# of strides	13.10	12.10	12.30	13.70	25.20	26.00	0.80
	velocity		7.63		8.26		8.13		7.30	7.82		7.63	8.26	8.13	7.30	7.94	7.69	
Baker, Keshia (USA) (1988)	time		12.4		24.6		37.4		52.2	52.21	/ 7							
reaction time	interval				12.20		12.80		14.80		# of strides	12.40	12.20	12.80	14.80	24.60	27.60	3.00
	velocity		8.06		8.20		7.81		6.76	7.66		8.06	8.20	7.81	6.76	8.13	7.25	
Wineberg, Mary (USA) (1980	time		12.6		24.8		38.3		52.3	52.26	/ 8							
reaction time	interval				12.20		13.50		14.00		# of strides	12.60	12.20	13.50	14.00	24.80	27.50	2.70
	velocity		7.94		8.20		7.41		7.14	7.65		7.94	8.20	7.41	7.14	8.06	7.27	

2010 Japanese National High School Championships (Okinawa, JPN)

FINAL date 29-Jul-10

Matsuo (2010) - 63rd high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hasegawa, Misato (JPN) (19	time	7.22	13.26	19.52	26.03	32.82	39.71	47.05	55.05	55.05	/ 1							
reaction time	interval		6.04	6.26	6.51	6.79	6.89	7.34	8.00		# of strides	13.26	12.77	13.68	15.34	26.03	29.02	2.99
	velocity	6.93	8.28	7.99	7.68	7.36	7.26	6.81	6.25	7.27		7.54	7.83	7.31	6.52	7.68	6.89	
Ueyama, Misaki (JPN) (1992)	time	7.20	13.30	19.57	25.98	32.69	39.84	47.33	55.52	55.52	/ 2							
reaction time	interval		6.10	6.27	6.41	6.71	7.15	7.49	8.19		# of strides	13.30	12.68	13.86	15.68	25.98	29.54	3.56
	velocity	6.94	8.20	7.97	7.80	7.45	6.99	6.68	6.11	7.20		7.52	7.89	7.22	6.38	7.70	6.77	
Saito, Erika (JPN) (1992)	time	7.10	13.32	19.82	26.47	33.29	40.39	47.89	55.93	55.93	/ 3							
reaction time	interval		6.22	6.50	6.65	6.82	7.10	7.50	8.04		# of strides	13.32	13.15	13.92	15.54	26.47	29.46	2.99
	velocity	7.04	8.04	7.69	7.52	7.33	7.04	6.67	6.22	7.15		7.51	7.60	7.18	6.44	7.56	6.79	

2010 European Championships (Barcelona, ESP)

Heat 3 date 28-Jul-10

Le Bras (2013) - analyse de la performance et conception de dispositifs d'entraînement

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hurtis, Muriel (FRA) (1979)	time		12.2		24.1		36.8		52.0	51.97	/ 3							
reaction time	interval				12.0		12.6		15.2		# of strides	12.15	11.97	12.63	15.20	24.12	27.83	3.71
	velocity		8.23		8.35		7.92		6.58	7.70		8.23	8.35	7.92	6.58	8.29	7.19	

2010 NCAA Championships (Eugene, OR)

FINAL date 11-Jun-10

Track Newsletter (2010) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
McCorory, Francena (USA) (	time				23.9		36.6		50.7	50.69	/ 1							
reaction time	interval						12.7		14.1		# of strides			12.70	14.10	23.90	26.80	2.90
	velocity				8.37		7.87		7.09	7.89				7.87	7.09	8.37	7.46	

Beard, Jessica (USA) (1989)	time	24.2	37.0	51.0	51.02	/ 2							
reaction time	interval		12.8	14.0		# of strides	12.80	14.00	24.20	26.80	2.60		
	velocity	8.26	7.81	7.14	7.84		7.81	7.14	8.26	7.46			
Atkins, Joanna (USA) (1989)	time	23.7	36.7	52.0	52.01	/ 3							
reaction time	interval		13.0	15.3		# of strides	13.00	15.30	23.70	28.30	4.60		
	velocity	8.44	7.69	6.54	7.69		7.69	6.54	8.44	7.07			
Baker, Keshia (USA) (1988)	time	24.2	37.6	52.3	52.34	/ 4							
reaction time	interval		13.4	14.7		# of strides	13.40	14.70	24.20	28.10	3.90		
	velocity	8.26	7.46	6.80	7.64		7.46	6.80	8.26	7.12			
Williams, Shelise (USA) (198	time	24.3	37.5	52.7	52.67	/ 5							
reaction time	interval		13.2	15.2		# of strides	13.20	15.20	24.30	28.40	4.10		
	velocity	8.23	7.58	6.58	7.59		7.58	6.58	8.23	7.04			
Muir, Jody Ann (JAM) (1991	time	25.5	38.6	52.9	52.93	/ 6							
reaction time	interval		13.1	14.3		# of strides	13.10	14.30	25.50	27.40	1.90		
	velocity	7.84	7.63	6.99	7.56		7.63	6.99	7.84	7.30			
Cross, Brandi (USA) (1988)	time	25.3	38.6	53.0	53.01	/ 7							
reaction time	interval		13.3	14.4		# of strides	13.30	14.40	25.30	27.70	2.40		
	velocity	7.91	7.52	6.94	7.55		7.52	6.94	7.91	7.22			
George, Regina (USA) (1991	time	25.4	39.0	54.1	54.14	/ 8							
reaction time	interval		13.6	15.1		# of strides	13.60	15.10	25.40	28.70	3.30		
	velocity	7.87	7.35	6.62	7.39		7.35	6.62	7.87	6.97			

2009 Chinese National Games (Jinan, CHN)

FINAL date 22-Oct-09

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Huang Xiaoxiao (CHN) (1983	time		12.45		24.58		38.14		52.23	52.23	/ 1							
reaction time	interval				12.13		13.56		14.09		# of strides	12.45	12.13	13.56	14.09	24.58	27.65	3.07
	velocity		8.03		8.24		7.37		7.10	7.66		8.03	8.24	7.37	7.10	8.14	7.23	

2009 Memorial Van Damme (Brussels, BEL)

FINAL date 04-Sep-09

Vazel (2011) - speed reserve in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.0		23.9		36.0		48.8	48.83	/ 1							
reaction time 0.201	interval				11.9		12.1		12.8		# of strides	12.00	11.90	12.10	12.80	23.90	24.90	1.00
	velocity		8.33		8.40		8.26		7.81	8.19		8.33	8.40	8.26	7.81	8.37	8.03	

2009 Weltklasse (Zurich, SUI)

FINAL date 28-Aug-09

Vazel (2011) - speed reserve in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.0		24.0		36.0		48.9	48.94	/ 1							
reaction time 0.214	interval				12.0		12.0		12.9		# of strides	12.00	12.00	12.00	12.90	24.00	24.90	0.90
	velocity		8.33		8.33		8.33		7.75	8.17		8.33	8.33	8.33	7.75	8.33	8.03	

2009 IAAF World Championships (Berlin, GER)

FINAL date 18-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

Graubner (2011) - biomechanical analysis of the sprint and hurdle events at the 2009 IAAF world championships in athletics

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time	6.34	11.81	17.51	23.50	29.49	35.62	41.99	49.00	49.00	3 / 1							*Graubner (2011)*
reaction time 0.164	interval		5.47	5.70	5.99	5.99	6.13	6.37	7.01		# of strides	11.81	11.69	12.12	13.38	23.50	25.50	2.00
	velocity	7.89	9.14	8.77	8.35	8.35	8.16	7.85	7.13	8.16	187.7	8.47	8.55	8.25	7.47	8.51	7.84	
Williams, Shericka (JAM) (19	time	6.59	12.07	17.77	23.76	29.82	36.00	42.38	49.32	49.32	4 / 2							*Graubner (2011)*
reaction time 0.194	interval		5.48	5.70	5.99	6.06	6.18	6.38	6.94	**PB**	# of strides	12.07	11.69	12.24	13.32	23.76	25.56	1.80
	velocity	7.59	9.12	8.77	8.35	8.25	8.09	7.84	7.20	8.11	197.5	8.29	8.55	8.17	7.51	8.42	7.82	
Krivoshapka, Antonina (RUS	time		12.13		23.59		35.90		49.71	49.71	5 / 3							*Graubner (2009)*
reaction time 0.187	interval				11.46		12.31		13.81		# of strides	12.13	11.46	12.31	13.81	23.59	26.12	2.53
	velocity		8.24		8.73		8.12		7.24	8.05	199.5	8.24	8.73	8.12	7.24	8.48	7.66	
Williams-Mills, Novlene (JAM	time	6.72	12.36	18.11	24.00	29.97	36.18	42.67	49.77	49.77	6 / 4							*Graubner (2011)*
reaction time 0.214	interval		5.64	5.75	5.89	5.97	6.21	6.49	7.10		# of strides	12.36	11.64	12.18	13.59	24.00	25.77	1.77
	velocity	7.44	8.87	8.70	8.49	8.38	8.05	7.70	7.04	8.04	197.0	8.09	8.59	8.21	7.36	8.33	7.76	
Ohuruogu, Christine (GBR)	time		12.56		24.32		36.76		50.21	50.21	7 / 5							*Graubner (2009)*
reaction time 0.231	interval				11.76		12.44		13.45		# of strides	12.56	11.76	12.44	13.45	24.32	25.89	1.57
	velocity		7.96		8.50		8.04		7.43	7.97	184.2	7.96	8.50	8.04	7.43	8.22	7.72	
Dunn, Debbie (USA) (1978)	time		12.19		23.94		36.49		50.35	50.35	1 / 6							*Graubner (2009)*
reaction time 0.275	interval				11.75		12.55		13.86		# of strides	12.19	11.75	12.55	13.86	23.94	26.41	2.47
	velocity		8.20		8.51		7.97		7.22	7.94	197.2	8.20	8.51	7.97	7.22	8.35	7.57	
Kapachinskaya, Anastasiya (	time		12.54		24.39		36.92		50.53	50.53	2 / 7							*Graubner (2009)*
reaction time 0.220	interval				11.85		12.53		13.61		# of strides	12.54	11.85	12.53	13.61	24.39	26.14	1.75
	velocity		7.97		8.44		7.98		7.35	7.92	194.0	7.97	8.44	7.98	7.35	8.20	7.65	
Montsho, Amantle (BOT) (1	time		12.38		24.47		37.05		50.65	50.65	8 / 8							*Graubner (2009)*
reaction time 0.212	interval				12.09		12.58		13.60		# of strides	12.38	12.09	12.58	13.60	24.47	26.18	1.71
	velocity		8.08		8.27		7.95		7.35	7.90	178.0	8.08	8.27	7.95	7.35	8.17	7.64	

Semi-Final 3 date 16-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.08		24.15		36.41		50.21	50.21	3 / 1							

reaction time 0.192	interval		12.07	12.26	13.80		# of strides	12.08	12.07	12.26	13.80	24.15	26.06	1.91
	velocity	8.28	8.29	8.16	7.25	7.97		8.28	8.29	8.16	7.25	8.28	7.67	
Ohuruogu, Christine (GBR)	time	12.51	24.43	36.92	50.35	50.35	4 / 2							
reaction time 0.204	interval		11.92	12.49	13.43		# of strides	12.51	11.92	12.49	13.43	24.43	25.92	1.49
	velocity	7.99	8.39	8.01	7.45	7.94		7.99	8.39	8.01	7.45	8.19	7.72	
Litvinova, Lyudmila (RUS) (1	time	12.50	24.24	36.86	50.52	50.52	6 / 3							
reaction time 0.206	interval		11.74	12.62	13.66		# of strides	12.50	11.74	12.62	13.66	24.24	26.28	2.04
	velocity	8.00	8.52	7.92	7.32	7.92		8.00	8.52	7.92	7.32	8.25	7.61	
Grenot, Libania (ITA) (1983)	time	12.82	25.02	37.37	50.85	50.85	5 / 4							
reaction time 0.178	interval		12.20	12.35	13.48		# of strides	12.82	12.20	12.35	13.48	25.02	25.83	0.81
	velocity	7.80	8.20	8.10	7.42	7.87		7.80	8.20	8.10	7.42	7.99	7.74	
Terrero, Indira (CUB) (1985)	time	12.73	24.77	37.46	51.87	51.87	7 / 5							
reaction time 0.273	interval		12.04	12.69	14.41		# of strides	12.73	12.04	12.69	14.41	24.77	27.10	2.33
	velocity	7.86	8.31	7.88	6.94	7.71		7.86	8.31	7.88	6.94	8.07	7.38	
Nwachukwu, Sorina (GER) (	time	12.56	24.90	37.74	51.98	51.98	8 / 6							
reaction time 0.210	interval		12.34	12.84	14.24		# of strides	12.56	12.34	12.84	14.24	24.90	27.08	2.18
	velocity	7.96	8.10	7.79	7.02	7.70		7.96	8.10	7.79	7.02	8.03	7.39	
Ponteen, Tiandra (SKN) (198	time	12.16	23.83	37.28	53.22	53.22	1 / 7							
reaction time 0.162	interval		11.67	13.45	15.94		# of strides	12.16	11.67	13.45	15.94	23.83	29.39	5.56
	velocity	8.22	8.57	7.43	6.27	7.52		8.22	8.57	7.43	6.27	8.39	6.81	
Day, Christine (JAM) (1986)	time	12.42	24.37	37.60	53.46	53.46	2 / 8							
reaction time 0.177	interval		11.95	13.23	15.86		# of strides	12.42	11.95	13.23	15.86	24.37	29.09	4.72
	velocity	8.05	8.37	7.56	6.31	7.48		8.05	8.37	7.56	6.31	8.21	6.88	

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

Semi-Final 2

date 16-Aug-09

Graubner (2011) - biomechanical analysis of the sprint and hurdle events at the 2009 IAAF world championships in athletics

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams, Shericka (JAM) (19	time	12.30		24.05		36.20		49.51	49.51	4 / 1							*Graubner (2009)*
reaction time 0.208	interval			11.75		12.15		13.31	PB	# of strides	12.30	11.75	12.15	13.31	24.05	25.46	1.41
	velocity		8.13		8.51		8.23		7.51	8.08		8.13	8.51	8.23	7.51	8.32	7.86	
Krivoshapka, Antonina (RUS	time	6.69	12.26	17.89	23.76	29.81	36.11	42.70	49.67	49.67	5 / 2							*Graubner (2011)*
reaction time 0.180	interval		5.57	5.63	5.87	6.05	6.30	6.59	6.97		# of strides	12.26	11.50	12.35	13.56	23.76	25.91	2.15
	velocity	7.47	8.98	8.88	8.52	8.26	7.94	7.59	7.17	8.05		8.16	8.70	8.10	7.37	8.42	7.72	
Dunn, Debbie (USA) (1978)	time		12.08		23.70		36.08		49.95	49.95	3 / 3							*Graubner (2009)*
reaction time 0.189	interval				11.62		12.38		13.87	PB	# of strides	12.08	11.62	12.38	13.87	23.70	26.25	2.55
	velocity		8.28		8.61		8.08		7.21	8.01		8.28	8.61	8.08	7.21	8.44	7.62	
Sanders, Nicola (GBR) (1982	time		12.13		23.79		36.19		50.45	50.45	6 / 4							*Graubner (2009)*
reaction time 0.160	interval				11.66		12.40		14.26		# of strides	12.13	11.66	12.40	14.26	23.79	26.66	2.87
	velocity		8.24		8.58		8.06		7.01	7.93		8.24	8.58	8.06	7.01	8.41	7.50	
Thiam, Amy Mbacké (SEN) (	time		12.11		24.04		37.16		51.70	51.70	8 / 5							*Graubner (2009)*
reaction time 0.166	interval				11.93		13.12		14.54		# of strides	12.11	11.93	13.12	14.54	24.04	27.66	3.62
	velocity		8.26		8.38		7.62		6.88	7.74		8.26	8.38	7.62	6.88	8.32	7.23	
Abugan, Folasade (NGR) (1	time		12.09		24.04		37.25		51.75	51.75	1 / 6							*Graubner (2009)*
reaction time 0.229	interval				11.95		13.21		14.50		# of strides	12.09	11.95	13.21	14.50	24.04	27.71	3.67
	velocity		8.27		8.37		7.57		6.90	7.73		8.27	8.37	7.57	6.90	8.32	7.22	
Zakari, Joy Nakhumicha (KE	time		12.58		24.66		37.90		52.69	52.69	2 / 7							*Graubner (2009)*
reaction time 0.183	interval				12.08		13.24		14.79		# of strides	12.58	12.08	13.24	14.79	24.66	28.03	3.37
	velocity		7.95		8.28		7.55		6.76	7.59		7.95	8.28	7.55	6.76	8.11	7.14	
Désert-Mariller, Solen (FRA)	time		12.47		24.90		37.57		53.26	53.26	7 / 8							*Graubner (2009)*
reaction time 0.221	interval				12.43		12.67		15.69		# of strides	12.47	12.43	12.67	15.69	24.90	28.36	3.46
	velocity		8.02		8.05		7.89		6.37	7.51		8.02	8.05	7.89	6.37	8.03	7.05	

Semi-Final 1

date 16-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams-Mills, Novlene (JAM	time		12.33		23.96		36.25		49.88	49.88	5 / 1						
reaction time 0.226	interval				11.63		12.29		13.63		# of strides	12.33	11.63	12.29	13.63	23.96	25.92	1.96
	velocity		8.11		8.60		8.14		7.34	8.02		8.11	8.60	8.14	7.34	8.35	7.72	
Montsho, Amantle (BOT) (1	time		12.20		23.74		36.26		49.89	49.89	4 / 2						
reaction time 0.220	interval				11.54		12.52		13.63		# of strides	12.20	11.54	12.52	13.63	23.74	26.15	2.41
	velocity		8.20		8.67		7.99		7.34	8.02		8.20	8.67	7.99	7.34	8.42	7.65	
Kapachinskaya, Anastasiya (	time		12.37		24.08		36.49		50.30	50.30	6 / 3						
reaction time 0.247	interval				11.71		12.41		13.81		# of strides	12.37	11.71	12.41	13.81	24.08	26.22	2.14
	velocity		8.08		8.54		8.06		7.24	7.95		8.08	8.54	8.06	7.24	8.31	7.63	
Pompey, Aliann (GUY) (1978	time		12.25		24.05		36.70		50.71	50.71	8 / 4						
reaction time 0.178	interval				11.80		12.65		14.01	NR	# of strides	12.25	11.80	12.65	14.01	24.05	26.66	2.61
	velocity		8.16		8.47		7.91		7.14	7.89		8.16	8.47	7.91	7.14	8.32	7.50	
Beard, Jessica (USA) (1989)	time		12.41		24.01		36.79		51.20	51.20	3 / 5						
reaction time 0.265	interval				11.60		12.78		14.41		# of strides	12.41	11.60	12.78	14.41	24.01	27.19	3.18
	velocity		8.06		8.62		7.82		6.94	7.81		8.06	8.62	7.82	6.94	8.33	7.36	
González, Norma (COL) (198	time		12.21		23.92		37.15		51.91	51.91	1 / 6						

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 0.193	interval		11.71	13.23	14.76		# of strides	12.21	11.71	13.23	14.76	23.92	27.99	4.07
	velocity	8.19	8.54	7.56	6.78	7.71		8.19	8.54	7.56	6.78	8.36	7.15	
Alexander, Kineke (VIN) (198	time	12.52	24.59	38.08	53.43	53.43	2 / 7							
reaction time 0.177	interval		12.07	13.49	15.35		# of strides	12.52	12.07	13.49	15.35	24.59	28.84	4.25
	velocity	7.99	8.29	7.41	6.51	7.49		7.99	8.29	7.41	6.51	8.13	6.93	

Heat 6

date 15-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Krivoshapka, Antonina (RUS	time	12.57		24.73		37.31		51.03	51.03	4 / 1							
reaction time 0.194	interval			12.16		12.58		13.72		# of strides	12.57	12.16	12.58	13.72	24.73	26.30	1.57
	velocity	7.96		8.22		7.95		7.29	7.84		7.96	8.22	7.95	7.29	8.09	7.60	
Sanders, Nicola (GBR) (1982	time	12.59		24.62		37.04		51.64	51.64	3 / 2							
reaction time 0.171	interval			12.03		12.42		14.60		# of strides	12.59	12.03	12.42	14.60	24.62	27.02	2.40
	velocity	7.94		8.31		8.05		6.85	7.75		7.94	8.31	8.05	6.85	8.12	7.40	
Thiam, Amy Mbacké (SEN) (	time	12.68		25.40		38.56		52.79	52.79	6 / 3							
reaction time 0.159	interval			12.72		13.16		14.23		# of strides	12.68	12.72	13.16	14.23	25.40	27.39	1.99
	velocity	7.89		7.86		7.60		7.03	7.58		7.89	7.86	7.60	7.03	7.87	7.30	
Akinsulie, Esther (CAN) (198	time	12.60		25.34		38.77		53.21	53.21	5 / 4							
reaction time 0.194	interval			12.74		13.43		14.44		# of strides	12.60	12.74	13.43	14.44	25.34	27.87	2.53
	velocity	7.94		7.85		7.45		6.93	7.52		7.94	7.85	7.45	6.93	7.89	7.18	
Tanno, Asami (JPN) (1985)	time	12.81		25.36		38.66		53.30	53.30	2 / 5							
reaction time 0.161	interval			12.55		13.30		14.64		# of strides	12.81	12.55	13.30	14.64	25.36	27.94	2.58
	velocity	7.81		7.97		7.52		6.83	7.50		7.81	7.97	7.52	6.83	7.89	7.16	

Heat 5

date 15-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time	12.46		24.89		37.50		51.06	51.06	7 / 1							
reaction time 0.176	interval			12.43		12.61		13.56		# of strides	12.46	12.43	12.61	13.56	24.89	26.17	1.28
	velocity	8.03		8.05		7.93		7.37	7.83		8.03	8.05	7.93	7.37	8.04	7.64	
Ohuruogu, Christine (GBR)	time	12.74		24.62		37.36		51.30	51.30	4 / 2							
reaction time 0.263	interval			11.88		12.74		13.94		# of strides	12.74	11.88	12.74	13.94	24.62	26.68	2.06
	velocity	7.85		8.42		7.85		7.17	7.80		7.85	8.42	7.85	7.17	8.12	7.50	
Pompey, Aliann (GUY) (1978	time	12.52		24.88		37.67		51.38	51.38	6 / 3							
reaction time 0.184	interval			12.36		12.79		13.71		# of strides	12.52	12.36	12.79	13.71	24.88	26.50	1.62
	velocity	7.99		8.09		7.82		7.29	7.79		7.99	8.09	7.82	7.29	8.04	7.55	
González, Norma (COL) (198	time	12.38		24.80		37.06		51.86	51.86	3 / 4							
reaction time 0.187	interval			12.42		12.26		14.80	PB	# of strides	12.38	12.42	12.26	14.80	24.80	27.06	2.26
	velocity	8.08		8.05		8.16		6.76	7.71		8.08	8.05	8.16	6.76	8.06	7.39	

Heat 4

date 15-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Dunn, Debbie (USA) (1978)	time	12.37		24.29		36.94		51.13	51.13	5 / 1							
reaction time 0.181	interval			11.92		12.65		14.19		# of strides	12.37	11.92	12.65	14.19	24.29	26.84	2.55
	velocity	8.08		8.39		7.91		7.05	7.82		8.08	8.39	7.91	7.05	8.23	7.45	
Kapachinskaya, Anastasiya (	time	12.53		24.38		37.12		51.17	51.17	6 / 2							
reaction time 0.225	interval			11.85		12.74		14.05		# of strides	12.53	11.85	12.74	14.05	24.38	26.79	2.41
	velocity	7.98		8.44		7.85		7.12	7.82		7.98	8.44	7.85	7.12	8.20	7.47	
Ogoegbunam, Amaka (NGR)	time	12.74		24.74		37.95		52.85	52.85	3 / ~~3~~							
reaction time 0.166	interval			12.00		13.21		14.90	DV	# of strides	12.74	12.00	13.21	14.90	24.74	28.11	3.37
	velocity	7.85		8.33		7.57		6.71	7.57		7.85	8.33	7.57	6.71	8.08	7.11	
Rasnayake, Chandrika (SRI)	time	13.21		25.70		38.90		53.68	53.68	4 / ~~4~~ 3							
reaction time 0.162	interval			12.49		13.20		14.78		# of strides	13.21	12.49	13.20	14.78	25.70	27.98	2.28
	velocity	7.57		8.01		7.58		6.77	7.45		7.57	8.01	7.58	6.77	7.78	7.15	

Heat 3

date 15-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Montsho, Amantle (BOT) (19	time	12.31		23.86		36.68		50.65	50.65	8 / 1							
reaction time 0.219	interval			11.55		12.82		13.97		# of strides	12.31	11.55	12.82	13.97	23.86	26.79	2.93
	velocity	8.12		8.66		7.80		7.16	7.90		8.12	8.66	7.80	7.16	8.38	7.47	
Williams, Shericka (JAM) (19	time	12.94		25.01		37.79		51.23	51.23	3 / 2							
reaction time 0.182	interval			12.07		12.78		13.44		# of strides	12.94	12.07	12.78	13.44	25.01	26.22	1.21
	velocity	7.73		8.29		7.82		7.44	7.81		7.73	8.29	7.82	7.44	8.00	7.63	
Désert-Mariller, Solen (FRA)	time	12.75		24.79		37.81		51.63	51.63	6 / 3							
reaction time 0.210	interval			12.04		13.02		13.82		# of strides	12.75	12.04	13.02	13.82	24.79	26.84	2.05
	velocity	7.84		8.31		7.68		7.24	7.75		7.84	8.31	7.68	7.24	8.07	7.45	
Abugan, Folasade (NGR) (19	time	12.56		24.68		37.64		51.70	51.70	5 / 4							
reaction time 0.217	interval			12.12		12.96		14.06		# of strides	12.56	12.12	12.96	14.06	24.68	27.02	2.34
	velocity	7.96		8.25		7.72		7.11	7.74		7.96	8.25	7.72	7.11	8.10	7.40	
Nachula, Racheal (ZAM) (19	time	13.14		25.58		38.88		53.21	53.21	2 / 5							
reaction time 0.184	interval			12.44		13.30		14.33		# of strides	13.14	12.44	13.30	14.33	25.58	27.63	2.05
	velocity	7.61		8.04		7.52		6.98	7.52		7.61	8.04	7.52	6.98	7.82	7.24	

Heat 2

date 15-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams-Mills, Novlene (JAN	time		12.59		24.24		37.00		51.55	51.55	4 / 1							
reaction time 0.222	interval				11.65		12.76		14.55		# of strides	12.59	11.65	12.76	14.55	24.24	27.31	3.07
	velocity		7.94		8.58		7.84		6.87	7.76		7.94	8.58	7.84	6.87	8.25	7.32	
Beard, Jessica (USA) (1989)	time		12.55		24.54		37.54		51.72	51.72	7 / 2							
reaction time 0.239	interval				11.99		13.00		14.18		# of strides	12.55	11.99	13.00	14.18	24.54	27.18	2.64
	velocity		7.97		8.34		7.69		7.05	7.73		7.97	8.34	7.69	7.05	8.15	7.36	
Nwachukwu, Sorina (GER) (	time		12.87		25.07		37.74		51.74	51.74	6 / 3							
reaction time 0.208	interval				12.20		12.67		14.00		# of strides	12.87	12.20	12.67	14.00	25.07	26.67	1.60
	velocity		7.77		8.20		7.89		7.14	7.73		7.77	8.20	7.89	7.14	7.98	7.50	
Alexander, Kineke (VIN) (198	time		12.91		24.83		37.78		52.44	52.44	5 / 4							
reaction time 0.193	interval				11.92		12.95		14.66		# of strides	12.91	11.92	12.95	14.66	24.83	27.61	2.78
	velocity		7.75		8.39		7.72		6.82	7.63		7.75	8.39	7.72	6.82	8.05	7.24	

Heat 1

date 15-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Litvinova, Lyudmila (RUS) (1	time		12.92		25.13		37.83		51.31	51.31	4 / 1							
reaction time 0.209	interval				12.21		12.70		13.48		# of strides	12.92	12.21	12.70	13.48	25.13	26.18	1.05
	velocity		7.74		8.19		7.87		7.42	7.80		7.74	8.19	7.87	7.42	7.96	7.64	
Grenot, Libania (ITA) (1983)	time		12.89		25.00		37.64		51.45	51.45	5 / 2							
reaction time 0.188	interval				12.11		12.64		13.81		# of strides	12.89	12.11	12.64	13.81	25.00	26.45	1.45
	velocity		7.76		8.26		7.91		7.24	7.77		7.76	8.26	7.91	7.24	8.00	7.56	
Terrero, Indira (CUB) (1985)	time		12.85		24.96		37.89		51.98	51.98	2 / 3							
reaction time 0.301	interval				12.11		12.93		14.09		# of strides	12.85	12.11	12.93	14.09	24.96	27.02	2.06
	velocity		7.78		8.26		7.73		7.10	7.70		7.78	8.26	7.73	7.10	8.01	7.40	
Ponteen, Tiandra (SKN) (198	time		12.90		25.30		38.29		52.54	52.54	7 / 4							
reaction time 0.177	interval				12.40		12.99		14.25		# of strides	12.90	12.40	12.99	14.25	25.30	27.24	1.94
	velocity		7.75		8.06		7.70		7.02	7.61		7.75	8.06	7.70	7.02	7.91	7.34	
Day, Christine (JAM) (1986)	time		13.08		25.64		38.62		53.13	53.13	8 / 5							
reaction time 0.208	interval				12.56		12.98		14.51		# of strides	13.08	12.56	12.98	14.51	25.64	27.49	1.85
	velocity		7.65		7.96		7.70		6.89	7.53		7.65	7.96	7.70	6.89	7.80	7.28	

2009 Japanese National High School Championships (Nara, JPN)

FINAL

date 29-Jul-09

Matsuo (2009) - 62nd high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Shingu, Miho (JPN) (1991)	time		13.07		26.17		40.08		54.21	54.21	3 / 1							
reaction time	interval				13.10		13.91		14.13		# of strides	13.07	13.10	13.91	14.13	26.17	28.04	1.87
	velocity		7.65		7.63		7.19		7.08	7.38		7.65	7.63	7.19	7.08	7.64	7.13	
Torihara, Saki (JPN) (1992)	time		13.28		26.33		40.33		55.22	55.22	2 / 2							
reaction time	interval				13.05		14.00		14.89		# of strides	13.28	13.05	14.00	14.89	26.33	28.89	2.56
	velocity		7.53		7.66		7.14		6.72	7.24		7.53	7.66	7.14	6.72	7.60	6.92	
Fujii, Natsumi (JPN) (1991)	time		13.23		27.02		40.95		55.32	55.32	5 / 3							
reaction time	interval				13.79		13.93		14.37		# of strides	13.23	13.79	13.93	14.37	27.02	28.30	1.28
	velocity		7.56		7.25		7.18		6.96	7.23		7.56	7.25	7.18	6.96	7.40	7.07	
Mashita, Manami (JPN) (199	time		13.45		26.63		40.68		55.34	55.34	4 / 4							
reaction time	interval				13.18		14.05		14.66		# of strides	13.45	13.18	14.05	14.66	26.63	28.71	2.08
	velocity		7.43		7.59		7.12		6.82	7.23		7.43	7.59	7.12	6.82	7.51	6.97	
Shihi, Natsumi (JPN) (1991)	time		13.58		27.37		41.62		55.75	55.75	6 / 5							
reaction time	interval				13.79		14.25		14.13		# of strides	13.58	13.79	14.25	14.13	27.37	28.38	1.01
	velocity		7.36		7.25		7.02		7.08	7.17		7.36	7.25	7.02	7.08	7.31	7.05	
Morinaga, Saki (JPN) (1991)	time		13.42		26.95		41.23		56.21	56.21	7 / 6							
reaction time	interval				13.53		14.28		14.98		# of strides	13.42	13.53	14.28	14.98	26.95	29.26	2.31
	velocity		7.45		7.39		7.00		6.68	7.12		7.45	7.39	7.00	6.68	7.42	6.84	
Hayashi, Maho (JPN)	time		13.08		26.48		40.87		56.24	56.24	1 / 7							
reaction time	interval				13.40		14.39		15.37		# of strides	13.08	13.40	14.39	15.37	26.48	29.76	3.28
	velocity		7.65		7.46		6.95		6.51	7.11		7.65	7.46	6.95	6.51	7.55	6.72	
Hagiwara, Sayaka (JPN) (198	time		13.53		27.60		42.13		57.18	57.18	8 / 8							
reaction time	interval				14.07		14.53		15.05		# of strides	13.53	14.07	14.53	15.05	27.60	29.58	1.98
	velocity		7.39		7.11		6.88		6.64	7.00		7.39	7.11	6.88	6.64	7.25	6.76	

2009 French National Championships (Angers, FRA)

FINAL

date 24-Jul-09

Le Bras (2013) - analyse de la perfromance et conception de dispositifs d'entraînement

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Désert-Mariller, Solen (FRA)	time		12.2		24.1		37.2		52.2	52.31	/ 1							
reaction time	interval				11.9		13.1		15.0		# of strides	12.20	11.90	13.10	15.00	24.10	28.10	4.00
	velocity		8.20		8.40		7.63		6.67	7.65		8.20	8.40	7.63	6.67	8.30	7.12	

2009 ISTAF (Berlin, GER)

FINAL

date 14-Jun-09

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.27		24.36		36.62		49.57	49.57	/ 1							
reaction time 0.361	interval				12.09		12.26		12.95		# of strides	12.27	12.09	12.26	12.95	24.36	25.21	0.85

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

	velocity	8.15	8.27	8.16	7.72	8.07		8.15	8.27	8.16	7.72	8.21	7.93	
Montsho, Amantle (BOT) (1!	time	12.56	24.73	37.42	50.94	50.94	/ 2							
reaction time 0.572	interval		12.17	12.69	13.52		# of strides	12.56	12.17	12.69	13.52	24.73	26.21	1.48
	velocity	7.96	8.22	7.88	7.40	7.85		7.96	8.22	7.88	7.40	8.09	7.63	
Gushchina, Yuliya (RUS) (19	time	12.21	24.26	37.11	51.10	51.10	/ 3							
reaction time 0.186	interval		12.05	12.85	13.99		# of strides	12.21	12.05	12.85	13.99	24.26	26.84	2.58
	velocity	8.19	8.30	7.78	7.15	7.83		8.19	8.30	7.78	7.15	8.24	7.45	
McConnell, Lee (GBR) (1978	time	12.49	24.76	37.77	52.22	52.22	/ 4							
reaction time 0.282	interval		12.27	13.01	14.45		# of strides	12.49	12.27	13.01	14.45	24.76	27.46	2.70
	velocity	8.01	8.15	7.69	6.92	7.66		8.01	8.15	7.69	6.92	8.08	7.28	
Wilkins, Bobby-Gaye (JAM)	time	12.74	24.75	37.63	52.23	52.23	/ 5							
reaction time 0.380	interval		12.01	12.88	14.60		# of strides	12.74	12.01	12.88	14.60	24.75	27.48	2.73
	velocity	7.85	8.33	7.76	6.85	7.66		7.85	8.33	7.76	6.85	8.08	7.28	
Firova, Tatyana (RUS) (1982)	time	13.00	25.28	38.20	52.36	52.36	/ 6							
reaction time 0.259	interval		12.28	12.92	14.16		# of strides	13.00	12.28	12.92	14.16	25.28	27.08	1.80
	velocity	7.69	8.14	7.74	7.06	7.64		7.69	8.14	7.74	7.06	7.91	7.39	
Nwachukwu, Sorina (GER) (	time	12.38	24.42	37.49	52.45	52.45	/ 7							
reaction time 0.313	interval		12.04	13.07	14.96		# of strides	12.38	12.04	13.07	14.96	24.42	28.03	3.61
	velocity	8.08	8.31	7.65	6.68	7.63		8.08	8.31	7.65	6.68	8.19	7.14	
Wittstock, Estie (RSA) (1980	time	12.72	25.08	38.47	53.39	53.39	/ 8							
reaction time 0.199	interval		12.36	13.39	14.92		# of strides	12.72	12.36	13.39	14.92	25.08	28.31	3.23
	velocity	7.86	8.09	7.47	6.70	7.49		7.86	8.09	7.47	6.70	7.97	7.06	

2009 Chinese National Championships (Suzhou, CHN)

FINAL date 22-May-09

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Tang Xiaoyin (CHN) (1985)	time		12.50		24.79		38.41		53.06	53.06	/ 1							
reaction time	interval				12.29		13.62		14.65		# of strides	12.50	12.29	13.62	14.65	24.79	28.27	3.48
	velocity		8.00		8.14		7.34		6.83	7.54		8.00	8.14	7.34	6.83	8.07	7.07	

2008 IAAF World Athletic Final (Stuttgart, GER)

FINAL date 14-Sep-08

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.44		24.64		37.16		50.41	50.41	5 / 1							
reaction time 0.173	interval				12.20		12.52		13.25		# of strides	12.44	12.20	12.52	13.25	24.64	25.77	1.13
	velocity		8.04		8.20		7.99		7.55	7.93		8.04	8.20	7.99	7.55	8.12	7.76	
Ohuruogu, Christine (GBR)	time		12.75		24.85		37.72		50.83	50.83	4 / 2							
reaction time 0.234	interval				12.10		12.87		13.11		# of strides	12.75	12.10	12.87	13.11	24.85	25.98	1.13
	velocity		7.84		8.26		7.77		7.63	7.87		7.84	8.26	7.77	7.63	8.05	7.70	
Williams, Novlene (JAM) (19!	time		12.94		24.88		37.62		51.30	51.30	8 / 3							
reaction time 0.231	interval				11.94		12.74		13.68		# of strides	12.94	11.94	12.74	13.68	24.88	26.42	1.54
	velocity		7.73		8.38		7.85		7.31	7.80		7.73	8.38	7.85	7.31	8.04	7.57	
Montsho, Amantle (BOT) (1!	time		13.04		24.83		37.69		51.54	51.54	3 / 4							
reaction time 0.387	interval				11.79		12.86		13.85		# of strides	13.04	11.79	12.86	13.85	24.83	26.71	1.88
	velocity		7.67		8.48		7.78		7.22	7.76		7.67	8.48	7.78	7.22	8.05	7.49	
Williams, Shericka (JAM) (19	time		12.72		24.91		37.75		51.55	51.55	6 / 5							
reaction time 0.231	interval				12.19		12.84		13.80		# of strides	12.72	12.19	12.84	13.80	24.91	26.64	1.73
	velocity		7.86		8.20		7.79		7.25	7.76		7.86	8.20	7.79	7.25	8.03	7.51	
Wineberg, Mary (USA) (1980	time		12.31		24.12		37.22		51.65	51.65	1 / 6							
reaction time 0.263	interval				11.81		13.10		14.43		# of strides	12.31	11.81	13.10	14.43	24.12	27.53	3.41
	velocity		8.12		8.47		7.63		6.93	7.74		8.12	8.47	7.63	6.93	8.29	7.26	
Firova, Tatyana (RUS) (1982)	time		13.21		25.44		38.29		51.85	51.85	7 / 7							
reaction time 0.192	interval				12.23		12.85		13.56		# of strides	13.21	12.23	12.85	13.56	25.44	26.41	0.97
	velocity		7.57		8.18		7.78		7.37	7.71		7.57	8.18	7.78	7.37	7.86	7.57	
Lloyd, Shereefa (JAM) (1982	time		12.70		24.45		37.38		51.86	51.86	2 / 8							
reaction time 0.206	interval				11.75		12.93		14.48		# of strides	12.70	11.75	12.93	14.48	24.45	27.41	2.96
	velocity		7.87		8.51		7.73		6.91	7.71		7.87	8.51	7.73	6.91	8.18	7.30	

Vazel (2011) - speed reserve in the 400m

2008 Olympic Games (Beijing, CHN)

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

FINAL date 19-Aug-08

Graubner (2008) - http://www.fgs.uni-halle.de (TV Analysis)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ohuruogu, Christine (GBR)	time		12.4		23.83		36.24		49.62	49.62	4 / 1							*Graubner (2008)*
reaction time 0.237	interval				11.43		12.41		13.38		# of strides	12.40	11.43	12.41	13.38	23.83	25.79	1.96
	velocity		8.06		8.75		8.06		7.47	8.06	185.2	8.06	8.75	8.06	7.47	8.39	7.75	
Williams, Shericka (JAM) (19	time		12.3		23.59		36.38		49.69	49.69	6 / 2							*Graubner (2008)*
reaction time 0.207	interval				11.29		12.79		13.31	PB	# of strides	12.30	11.29	12.79	13.31	23.59	26.10	2.51
	velocity		8.13		8.86		7.82		7.51	8.05	192.2	8.13	8.86	7.82	7.51	8.48	7.66	
Richards, Sanya (USA) (1985	time		11.75		23.50		35.66		49.93	49.93	7 / 3							*Vazel (2011)*
reaction time 0.196	interval				11.75		12.16		14.27		# of strides	11.75	11.75	12.16	14.27	23.50	26.43	2.93
	velocity		8.51		8.51		8.22		7.01	8.01	189.5	8.51	8.51	8.22	7.01	8.51	7.57	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Gushchina, Yulia (RUS) (198	time		11.8		23.3		35.8		50.0	50.01	5 / 4							*Butler (2016)*
reaction time 0.242	interval				11.50		12.50		14.20	PB	# of strides	11.80	11.50	12.50	14.20	23.30	26.70	3.40
	velocity		8.47		8.70		8.00		7.04	8.00	181.5	8.47	8.70	8.00	7.04	8.58	7.49	
Kapachinskaya, Anastasiya (	time		12.3		24.1		36.2		50.0	50.03	9 / 5							*Butler (2016)*
reaction time 0.378	interval				11.80		12.10		13.80	PB	# of strides	12.30	11.80	12.10	13.80	24.10	25.90	1.80
	velocity		8.13		8.47		8.26		7.25	8.00	194.5	8.13	8.47	8.26	7.25	8.30	7.72	
Firova, Tatyana (RUS) (1982)	time		12.5		24.0		36.0		50.1	50.11	3 / 6							*Butler (2016)*
reaction time 0.196	interval				11.50		12.00		14.10		# of strides	12.50	11.50	12.00	14.10	24.00	26.10	2.10
	velocity		8.00		8.70		8.33		7.09	7.98	184.0	8.00	8.70	8.33	7.09	8.33	7.66	
Whyte, Rosemarie (JAM) (19	time		12.4		24.2		36.6		50.7	50.68	2 / 7							*Butler (2016)*
reaction time 0.181	interval				11.80		12.40		14.10		# of strides	12.40	11.80	12.40	14.10	24.20	26.50	2.30
	velocity		8.06		8.47		8.06		7.09	7.89	180.7	8.06	8.47	8.06	7.09	8.26	7.55	
Montsho, Amantie (BOT) (1!	time		12.3		24.2		36.8		51.2	51.18	8 / 8							*Butler (2016)*
reaction time 0.299	interval				11.90		12.60		14.40		# of strides	12.30	11.90	12.60	14.40	24.20	27.00	2.80
	velocity		8.13		8.40		7.94		6.94	7.82		8.13	8.40	7.94	6.94	8.26	7.41	

Semi-Final 2

date 17-Aug-08

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time						35.5		49.9	49.90	7 / 1							
reaction time 0.190	interval								14.40		# of strides				14.40			
	velocity						8.45		6.94	8.02					6.94			

2008 Japanese National High School Championships (Kumagaya, JPN)

FINAL

date 29-Jul-08

Abe (2008) - 61st high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kitamura, Chisato (JPN) (19!	time	7.28	13.55	20.05	26.72	33.53	40.38	47.62	55.30	55.30	/ 1							
reaction time	interval		6.27	6.50	6.67	6.81	6.85	7.24	7.68		# of strides	13.55	13.17	13.66	14.92	26.72	28.58	1.86
	velocity	6.87	7.97	7.69	7.50	7.34	7.30	6.91	6.51	7.23		7.38	7.59	7.32	6.70	7.49	7.00	
Mizuguchi, Sayo (JPN) (1990	time	7.02	13.10	19.42	25.94	32.96	40.12	47.73	55.91	55.91	/ 2							
reaction time	interval		6.08	6.32	6.52	7.02	7.16	7.61	8.18		# of strides	13.10	12.84	14.18	15.79	25.94	29.97	4.03
	velocity	7.12	8.22	7.91	7.67	7.12	6.98	6.57	6.11	7.15		7.63	7.79	7.05	6.33	7.71	6.67	
Miki, Shiori (JPN) (1991)	time	7.27	13.49	20.02	26.76	33.77	40.89	48.31	56.03	56.03	/ 3							
reaction time	interval		6.22	6.53	6.74	7.01	7.12	7.42	7.72		# of strides	13.49	13.27	14.13	15.14	26.76	29.27	2.51
	velocity	6.88	8.04	7.66	7.42	7.13	7.02	6.74	6.48	7.14		7.41	7.54	7.08	6.61	7.47	6.83	

2008 USA Olympic Trials (Eugene, OR)

FINAL

date 03-Jul-08

USATF Women's Sprint Development with HPC (2008)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.87	17.18	24.07	30.09	36.43	42.79	49.89	49.89	5 / 1							
reaction time	interval			5.31	6.89	6.02	6.34	6.36	7.10		# of strides	11.87	12.20	12.36	13.46	24.07	25.82	1.75
	velocity		8.42	9.42	7.26	8.31	7.89	7.86	7.04	8.02		8.42	8.20	8.09	7.43	8.31	7.75	
Wineberg, Mary (USA) (1980	time		11.96	17.08	23.69	29.96	36.50	43.22	50.85	50.85	4 / 2							
reaction time	interval			5.12	6.61	6.27	6.54	6.72	7.63		# of strides	11.96	11.73	12.81	14.35	23.69	27.16	3.47
	velocity		8.36	9.77	7.56	7.97	7.65	7.44	6.55	7.87		8.36	8.53	7.81	6.97	8.44	7.36	
Trotter, De'Hashia (Dee Dee)	time		12.79	17.89	24.62	30.72	37.15	43.61	50.88	50.88	7 / 3							
reaction time	interval			5.10	6.73	6.10	6.43	6.46	7.27		# of strides	12.79	11.83	12.53	13.73	24.62	26.26	1.64
	velocity		7.82	9.80	7.43	8.20	7.78	7.74	6.88	7.86		7.82	8.45	7.98	7.28	8.12	7.62	
Henderson, Monique (USA)	time		12.23	17.63	24.51	30.68	37.23	43.72	50.98	50.98	8 / 4							
reaction time	interval			5.40	6.88	6.17	6.55	6.49	7.26		# of strides	12.23	12.28	12.72	13.75	24.51	26.47	1.96
	velocity		8.18	9.26	7.27	8.10	7.63	7.70	6.89	7.85		8.18	8.14	7.86	7.27	8.16	7.56	
Hastings, Natasha (USA) (19	time		12.17	17.40	24.29	30.46	36.92	43.69	51.13	51.13	6 / 5							
reaction time	interval			5.23	6.89	6.17	6.46	6.77	7.44		# of strides	12.17	12.12	12.63	14.21	24.29	26.84	2.55
	velocity		8.22	9.56	7.26	8.10	7.74	7.39	6.72	7.82		8.22	8.25	7.92	7.04	8.23	7.45	
Floyd, Ebonie (USA) (1983)	time		12.31	17.88	24.70	30.93	37.55	44.23	51.26	51.26	1 / 6							
reaction time	interval			5.57	6.82	6.23	6.62	6.68	7.03		# of strides	12.31	12.39	12.85	13.71	24.70	26.56	1.86
	velocity		8.12	8.98	7.33	8.03	7.55	7.49	7.11	7.80		8.12	8.07	7.78	7.29	8.10	7.53	
Hargrove, Monica (USA) (19!	time		12.28	17.40	24.20	30.40	37.10	44.30	51.94	51.94	2 / 7							
reaction time	interval			5.12	6.80	6.20	6.70	7.20	7.64		# of strides	12.28	11.92	12.90	14.84	24.20	27.74	3.54
	velocity		8.14	9.77	7.35	8.06	7.46	6.94	6.54	7.70		8.14	8.39	7.75	6.74	8.26	7.21	
Dunn, Debbie (USA) (1978)	time		11.90	17.05	23.42	29.90	36.66	43.96	52.41	52.41	3 / 8							
reaction time	interval			5.15	6.37	6.48	6.76	7.30	8.45		# of strides	11.90	11.52	13.24	15.75	23.42	28.99	5.57
	velocity		8.40	9.71	7.85	7.72	7.40	6.85	5.92	7.63		8.40	8.68	7.55	6.35	8.54	6.90	

Quarter-Final 4

date 29-Jun-08

USATF Women's Sprint Development with HPC (2008)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Trotter, De'Hashia (Dee Dee)	time			19.53	25.72	31.92	38.43	44.83	51.97	51.97	8 / 1							
reaction time	interval				6.19	6.20	6.51	6.40	7.14		# of strides			12.71	13.54	25.72	26.25	0.53
	velocity			7.68	8.08	8.06	7.68	7.81	7.00	7.70				7.87	7.39	7.78	7.62	
Dunn, Debbie (USA) (1978)	time		12.66	19.07	25.40	31.70	38.37	44.86	52.20	52.20	7 / 2							
reaction time	interval			6.41	6.33	6.30	6.67	6.49	7.34		# of strides	12.66	12.74	12.97	13.83	25.40	26.80	1.40
	velocity		7.90	7.80	7.90	7.94	7.50	7.70	6.81	7.66		7.90	7.85	7.71	7.23	7.87	7.46	
Hargrove, Monica (USA) (19!	time		12.65	18.93	25.24	31.64	38.36	44.89	52.36	52.36	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	interval		6.28	6.31	6.40	6.72	6.53	7.47		# of strides	12.65	12.59	13.12	14.00	25.24	27.12	1.88
	velocity	7.91	7.96	7.92	7.81	7.44	7.66	6.69	7.64		7.91	7.94	7.62	7.14	7.92	7.37	
Coleman, Kenyata (USA) (19	time	12.35	18.89	25.30	31.68	38.51	45.62	52.92	52.92	2 / 4							
reaction time	interval		6.54	6.41	6.38	6.83	7.11	7.30		# of strides	12.35	12.95	13.21	14.41	25.30	27.62	2.32
	velocity	8.10	7.65	7.80	7.84	7.32	7.03	6.85	7.56		8.10	7.72	7.57	6.94	7.91	7.24	
Rooks, Cynethia (USA) (198	time	12.52	18.80	25.25	31.59	38.34	45.22	52.95	52.95	3 / 5							
reaction time	interval		6.28	6.45	6.34	6.75	6.88	7.73		# of strides	12.52	12.73	13.09	14.61	25.25	27.70	2.45
	velocity	7.99	7.96	7.75	7.89	7.41	7.27	6.47	7.55		7.99	7.86	7.64	6.84	7.92	7.22	
Cole, Leslie (USA) (1987)	time		19.20	25.60	31.88	38.51	45.54	53.19	53.19	4 / 6							
reaction time	interval			6.40	6.28	6.63	7.03	7.65		# of strides			12.91	14.68	25.60	27.59	1.99
	velocity		7.81	7.81	7.96	7.54	7.11	6.54	7.52				7.75	6.81	7.81	7.25	
Baldwin, LaJada (USA) (198	time	13.16		26.31	32.92	39.76	46.58	54.01	54.01	5 / 7							
reaction time	interval			13.15	6.61	6.84	6.82	7.43		# of strides	13.16	13.15	13.45	14.25	26.31	27.70	1.39
	velocity	7.60		7.60	7.56	7.31	7.33	6.73	7.41		7.60	7.60	7.43	7.02	7.60	7.22	

Quarter-Final 3

date 29-Jun-08

USATF Women's Sprint Development with HPC (2008)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.11	18.24	24.48	30.48	36.80	43.64	51.08	51.08	5 / 1							
reaction time	interval			6.13	6.24	6.00	6.32	6.84	7.44		# of strides	12.11	12.37	12.32	14.28	24.48	26.60	2.12
	velocity		8.26	8.16	8.01	8.33	7.91	7.31	6.72	7.83		8.26	8.08	8.12	7.00	8.17	7.52	
Floyd, Ebonie (USA) (1983)	time		12.70	18.47	24.59	30.79	37.40	44.18	51.37	51.37	4 / 2							
reaction time	interval			5.77	6.12	6.20	6.61	6.78	7.19		# of strides	12.70	11.89	12.81	13.97	24.59	26.78	2.19
	velocity		7.87	8.67	8.17	8.06	7.56	7.37	6.95	7.79		7.87	8.41	7.81	7.16	8.13	7.47	
Cross, Brandi (USA) (1988)	time		12.33	18.12	24.24	30.55	37.20	44.06	51.63	51.63	3 / 3							
reaction time	interval			5.79	6.12	6.31	6.65	6.86	7.57	PB	# of strides	12.33	11.91	12.96	14.43	24.24	27.39	3.15
	velocity		8.11	8.64	8.17	7.92	7.52	7.29	6.61	7.75		8.11	8.40	7.72	6.93	8.25	7.30	
Hennagan, Monique (USA) (	time		12.62	18.53	24.71	30.98	37.62	44.29	51.73	51.73	7 / 4							
reaction time	interval			5.91	6.18	6.27	6.64	6.67	7.44		# of strides	12.62	12.09	12.91	14.11	24.71	27.02	2.31
	velocity		7.92	8.46	8.09	7.97	7.53	7.50	6.72	7.73		7.92	8.27	7.75	7.09	8.09	7.40	
Cousins, Jessica (USA) (198	time		12.88	18.67	24.75	31.30	37.88	45.02	52.63	52.63	2 / 5							
reaction time	interval			5.79	6.08	6.55	6.58	7.14	7.61		# of strides	12.88	11.87	13.13	14.75	24.75	27.88	3.13
	velocity		7.76	8.64	8.22	7.63	7.60	7.00	6.57	7.60		7.76	8.42	7.62	6.78	8.08	7.17	
Parrish, Donniece (USA) (19	time		12.65	18.73	25.00	31.67	38.68	45.95	54.14	54.14	6 / 6							
reaction time	interval			6.08	6.27	6.67	7.01	7.27	8.19		# of strides	12.65	12.35	13.68	15.46	25.00	29.14	4.14
	velocity		7.91	8.22	7.97	7.50	7.13	6.88	6.11	7.39		7.91	8.10	7.31	6.47	8.00	6.86	

Quarter-Final 2

date 29-Jun-08

USATF Women's Sprint Development with HPC (2008)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hastings, Natasha (USA) (19	time		12.35	18.51	25.03	31.37	37.71	44.40	51.51	51.51	7 / 1							
reaction time	interval			6.16	6.52	6.34	6.34	6.69	7.11		# of strides	12.35	12.68	12.68	13.80	25.03	26.48	1.45
	velocity		8.10	8.12	7.67	7.89	7.89	7.47	7.03	7.77		8.10	7.89	7.89	7.25	7.99	7.55	
Woods, Shareese (USA) (19	time		12.94	19.21	25.55	31.77	38.08	44.60	51.60	51.60	8 / 2							
reaction time	interval			6.27	6.34	6.22	6.31	6.52	7.00	PB	# of strides	12.94	12.61	12.53	13.52	25.55	26.05	0.50
	velocity		7.73	7.97	7.89	8.04	7.92	7.67	7.14	7.75		7.73	7.93	7.98	7.40	7.83	7.68	
Cox, Shana (USA) (1985)	time		12.31	18.08	24.21	31.44	37.17	44.16	51.69	51.69	3 / 3							
reaction time	interval			5.77	6.13	7.23	5.73	6.99	7.53		# of strides	12.31	11.90	12.96	14.52	24.21	27.48	3.27
	velocity		8.12	8.67	8.16	6.92	8.73	7.15	6.64	7.74		8.12	8.40	7.72	6.89	8.26	7.28	
Robinson, Moushaumi (USA	time		12.16	18.09	24.26	30.70	37.35	44.21	52.02	52.02	4 / 4							
reaction time	interval			5.93	6.17	6.44	6.65	6.86	7.81		# of strides	12.16	12.10	13.09	14.67	24.26	27.76	3.50
	velocity		8.22	8.43	8.10	7.76	7.52	7.29	6.40	7.69		8.22	8.26	7.64	6.82	8.24	7.20	
Griffin, Jenna (USA) (1985)	time		12.41	18.42	24.72	31.38	38.28	45.41	53.20	53.20	2 / 5							
reaction time	interval			6.01	6.30	6.66	6.90	7.13	7.79		# of strides	12.41	12.31	13.56	14.92	24.72	28.48	3.76
	velocity		8.06	8.32	7.94	7.51	7.25	7.01	6.42	7.52		8.06	8.12	7.37	6.70	8.09	7.02	
Holmes, Dominique (USA) (	time		12.86	19.12	25.52	32.03	38.74	45.76	53.35	53.35	5 / 6							
reaction time	interval			6.26	6.40	6.51	6.71	7.02	7.59		# of strides	12.86	12.66	13.22	14.61	25.52	27.83	2.31
	velocity		7.78	7.99	7.81	7.68	7.45	7.12	6.59	7.50		7.78	7.90	7.56	6.84	7.84	7.19	
McNary, Lauren (USA) (1986	time		12.60	18.73	25.34	31.54	38.40	45.60	53.60	53.60	6 / 7							
reaction time	interval			6.13	6.61	6.20	6.86	7.20	8.00		# of strides	12.60	12.74	13.06	15.20	25.34	28.26	2.92
	velocity		7.94	8.16	7.56	8.06	7.29	6.94	6.25	7.46		7.94	7.85	7.66	6.58	7.89	7.08	

Quarter-Final 1

date 29-Jun-08

USATF Women's Sprint Development with HPC (2008)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Wineberg, Mary (USA) (1980	time			19.03	25.55	31.45	37.96	44.29	51.46	51.46	8 / 1							
reaction time	interval				6.52	5.90	6.51	6.33	7.17		# of strides			12.41	13.50	25.55	25.91	0.36
	velocity			7.88	7.67	8.47	7.68	7.90	6.97	7.77				8.06	7.41	7.83	7.72	
Henderson, Monique (USA)	time		12.66	18.72	25.12	31.45	38.03	44.72	52.24	52.24	5 / 2							
reaction time	interval			6.06	6.40	6.33	6.58	6.69	7.52		# of strides	12.66	12.46	12.91	14.21	25.12	27.12	2.00
	velocity		7.90	8.25	7.81	7.90	7.60	7.47	6.65	7.66		7.90	8.03	7.75	7.04	7.96	7.37	
Kidd, Ashlee (USA) (1985)	time		12.52	18.52	24.78	31.38	38.33	45.49	53.22	53.22	2 / 3							
reaction time	interval			6.00	6.26	6.60	6.95	7.16	7.73		# of strides	12.52	12.26	13.55	14.89	24.78	28.44	3.66
	velocity		7.99	8.33	7.99	7.58	7.19	6.98	6.47	7.52		7.99	8.16	7.38	6.72	8.07	7.03	

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

Gilbert, Nina (USA) (1984)	time		12.43	18.29	24.49	30.99	37.82	45.15	53.37	53.37	3 / 4						
reaction time	interval			5.86	6.20	6.50	6.83	7.33	8.22		# of strides	12.43	12.06	13.33	15.55	24.49	28.88	4.39
	velocity		8.05	8.53	8.06	7.69	7.32	6.82	6.08	7.49		8.05	8.29	7.50	6.43	8.17	6.93	
Blake, Dominique (USA) (19	time		12.91	18.94	25.35	31.92	38.91	46.18	53.90	53.90	7 / 5						
reaction time	interval			6.03	6.41	6.57	6.99	7.27	7.72		# of strides	12.91	12.44	13.56	14.99	25.35	28.55	3.20
	velocity		7.75	8.29	7.80	7.61	7.15	6.88	6.48	7.42		7.75	8.04	7.37	6.67	7.89	7.01	
McCorory, Francena (USA) (	time		13.01	19.04	25.61	32.45	40.02		57.73	57.73	4 / 6						
reaction time	interval			6.03	6.57	6.84	7.57		17.71		# of strides	13.01	12.60	14.41	17.71	25.61	32.12	6.51
	velocity		7.69	8.29	7.61	7.31	6.61		5.65	6.93		7.69	7.94	6.94	5.65	7.81	6.23	

2007 IAAF World Athletic Final (Stuttgart, GER)

FINAL date 23-Sep-07

Graubner (2007) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.88		23.71		36.06		49.27	49.27	5 / 1							
reaction time 0.166	interval				11.83		12.35		13.21		# of strides	11.88	11.83	12.35	13.21	23.71	25.56	1.85
	velocity		8.42		8.45		8.10		7.57	8.12		8.42	8.45	8.10	7.57	8.44	7.82	
Williams, Novlene (JAM) (19	time		12.37		24.23		36.69		50.12	50.12	6 / 2							
reaction time 0.186	interval				11.86		12.46		13.43		# of strides	12.37	11.86	12.46	13.43	24.23	25.89	1.66
	velocity		8.08		8.43		8.03		7.45	7.98		8.08	8.43	8.03	7.45	8.25	7.72	
Ohuruogu, Christine (GBR)	time		12.54		24.37		36.97		50.20	50.20	4 / 3							
reaction time 0.185	interval				11.83		12.60		13.23		# of strides	12.54	11.83	12.60	13.23	24.37	25.83	1.46
	velocity		7.97		8.45		7.94		7.56	7.97		7.97	8.45	7.94	7.56	8.21	7.74	
Thiam, Amy Mbacké (SEN) (	time		12.10		23.87		36.63		50.33	50.33	1 / 4							
reaction time 0.159	interval				11.77		12.76		13.70		# of strides	12.10	11.77	12.76	13.70	23.87	26.46	2.59
	velocity		8.26		8.50		7.84		7.30	7.95		8.26	8.50	7.84	7.30	8.38	7.56	
Sanders, Nicola (GBR) (1982	time		12.59		24.40		36.69		50.44	50.44	3 / 5							
reaction time 0.177	interval				11.81		12.29		13.75		# of strides	12.59	11.81	12.29	13.75	24.40	26.04	1.64
	velocity		7.94		8.47		8.14		7.27	7.93		7.94	8.47	8.14	7.27	8.20	7.68	
Williams, Shericka (JAM) (19	time		12.67		24.51		36.73		50.64	50.64	7 / 6							
reaction time 0.201	interval				11.84		12.22		13.91		# of strides	12.67	11.84	12.22	13.91	24.51	26.13	1.62
	velocity		7.89		8.45		8.18		7.19	7.90		7.89	8.45	8.18	7.19	8.16	7.65	
Wineberg, Mary (USA) (1980	time		12.43		24.19		36.90		50.73	50.73	2 / 7							
reaction time 0.146	interval				11.76		12.71		13.83		# of strides	12.43	11.76	12.71	13.83	24.19	26.54	2.35
	velocity		8.05		8.50		7.87		7.23	7.88		8.05	8.50	7.87	7.23	8.27	7.54	
Usovich, Ilona (BLR) (1982)	time		12.59		24.27		37.21		51.31	51.38	8 / 8							
reaction time 0.196	interval				11.68		12.94		14.10		# of strides	12.59	11.68	12.94	14.10	24.27	27.04	2.77
	velocity		7.94		8.56		7.73		7.09	7.79		7.94	8.56	7.73	7.09	8.24	7.40	

2007 ISTAF (Berlin, GER) (TV Analysis)

FINAL date 16-Sep-07

Graubner (2008) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.03		23.89		36.24		49.27	49.27	4 / 1							
reaction time 0.251	interval				11.86		12.35		13.03		# of strides	12.03	11.86	12.35	13.03	23.89	25.38	1.49
	velocity		8.31		8.43		8.10		7.67	8.12	188.5	8.31	8.43	8.10	7.67	8.37	7.88	

2007 IAAF World Championships (Osaka, JPN)

FINAL date 29-Aug-07

Mochida (2008) - biomechancial analysis of the 400m final race at ehe 2007 world championships in athletics

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ohuruogu, Christine (GBR)	time	6.86	12.27	17.98	23.85	29.87	36.14	42.72	49.61	49.61	6 / 1							
reaction time 0.219	interval		5.41	5.71	5.87	6.02	6.27	6.58	6.89	PB	# of strides	12.27	11.58	12.29	13.47	23.85	25.76	1.91
	velocity	7.29	9.24	8.76	8.52	8.31	7.97	7.60	7.26	8.06	183.5	8.15	8.64	8.14	7.42	8.39	7.76	
Sanders, Nicola (GBR) (1982	time	6.83	12.47	18.20	24.17	29.96	36.21	42.72	49.65	49.65	4 / 2							
reaction time 0.175	interval		5.64	5.73	5.97	5.79	6.25	6.51	6.93	PB	# of strides	12.47	11.70	12.04	13.44	24.17	25.48	1.31
	velocity	7.32	8.87	8.73	8.38	8.64	8.00	7.68	7.22	8.06	190.0	8.02	8.55	8.31	7.44	8.27	7.85	
Williams, Novlene (JAM) (19	time	6.63	12.07	17.65	23.47	29.46	35.77	42.44	49.66	49.66	7 / 3							
reaction time 0.206	interval		5.44	5.58	5.82	5.99	6.31	6.67	7.22		# of strides	12.07	11.40	12.30	13.89	23.47	26.19	2.72
	velocity	7.54	9.19	8.96	8.59	8.35	7.92	7.50	6.93	8.05	197.5	8.29	8.77	8.13	7.20	8.52	7.64	
Guevara, Ana (MEX) (1977)	time	6.90	12.47	18.28	24.31	30.24	36.50	43.05	50.16	50.16	9 / 4							
reaction time 0.183	interval		5.57	5.81	6.03	5.93	6.26	6.55	7.11		# of strides	12.47	11.84	12.19	13.66	24.31	25.85	1.54
	velocity	7.25	8.98	8.61	8.29	8.43	7.99	7.63	7.03	7.97	196.0	8.02	8.45	8.20	7.32	8.23	7.74	
Trotter, DeeDee (USA) (1982	time	7.00	12.54	18.28	24.23	30.03	36.27	42.91	50.17	50.17	8 / 5							
reaction time 0.162	interval		5.54	5.74	5.95	5.80	6.24	6.64	7.26		# of strides	12.54	11.69	12.04	13.90	24.23	25.94	1.71
	velocity	7.14	9.03	8.71	8.40	8.62	8.01	7.53	6.89	7.97	187.7	7.97	8.55	8.31	7.19	8.25	7.71	
Antyukh, Natalya (RUS) (198	time	6.78	12.19	17.75	23.53	29.58	35.93	42.66	50.33	50.33	5 / 6							
reaction time 0.161	interval		5.41	5.56	5.78	6.05	6.35	6.73	7.67		# of strides	12.19	11.34	12.40	14.40	23.53	26.80	3.27
	velocity	7.37	9.24	8.99	8.65	8.26	7.87	7.43	6.52	7.95	185.0	8.20	8.82	8.06	6.94	8.50	7.46	
Usovich, Ilona (BLR) (1982)	time	6.90	12.54	18.35	24.45	30.62	36.97	43.53	50.54	50.54	3 / 7							
reaction time 0.192	interval		5.64	5.81	6.10	6.17	6.35	6.56	7.01		# of strides	12.54	11.91	12.52	13.57	24.45	26.09	1.64
	velocity	7.25	8.87	8.61	8.20	8.10	7.87	7.62	7.13	7.91	194.0	7.97	8.40	7.99	7.37	8.18	7.67	
Wineberg, Mary (USA) (1980	time	6.60	12.20	18.03	24.22	30.42	36.94	43.69	50.96	50.96	2 / 8							

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 0.159	interval		5.60	5.83	6.19	6.20	6.52	6.75	7.27		# of strides	12.20	12.02	12.72	14.02	24.22	26.74	2.52
	velocity	7.58	8.93	8.58	8.08	8.06	7.67	7.41	6.88	7.85	185.0	8.20	8.32	7.86	7.13	8.26	7.48	

Semi-Final 1

date 27-Aug-07

Mochida (2008) - biomechancial analysis of the 400m final race at ehe 2007 world championships in athletics

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Tanno, Asami (JPN) (1985)	time	6.84	12.58	18.54	24.76	31.06	37.63	44.57	51.81	51.81	3 / 8							
reaction time 0.199	interval		5.74	5.96	6.22	6.30	6.57	6.94	7.24		# of strides	12.58	12.18	12.87	14.18	24.76	27.05	2.29
	velocity	7.31	8.71	8.39	8.04	7.94	7.61	7.20	6.91	7.72	203.7	7.95	8.21	7.77	7.05	8.08	7.39	

2007 DN Galan (Stockholm, SWE)

FINAL

date 07-Aug-07

Vazel (2011) - speed reserve in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.8		23.6		36.0		49.7	49.72	/ 2							
reaction time	interval				11.8		12.4		13.7		# of strides	11.80	11.80	12.40	13.70	23.60	26.10	2.50
	velocity		8.47		8.47		8.06		7.30	8.05		8.47	8.47	8.06	7.30	8.47	7.66	

2007 Japanese National High School Championships (Saga, JPN)

FINAL

date 02-Aug-07

Hitorara (2007) - 60st high school championships: JAF scientific committee - biomechanics data collection

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Mabuchi, Kanade (JPN) (198	time	6.83	13.57	21.05	28.49	35.70	42.88	50.28	58.01	58.01	/ 1							
reaction time	interval		6.74	7.48	7.44	7.21	7.18	7.40	7.73		# of strides	13.57	14.92	14.39	15.13	28.49	29.52	1.03
	velocity	7.32	7.42	6.68	6.72	6.93	6.96	6.76	6.47	6.90		7.37	6.70	6.95	6.61	7.02	6.78	
Kitamura, Chisato (JPN) (19	time	7.43	14.31	21.92	29.36	36.41	43.46	50.74	58.38	58.38	/ 2							
reaction time	interval		6.88	7.61	7.44	7.05	7.05	7.28	7.64		# of strides	14.31	15.05	14.10	14.92	29.36	29.02	-0.34
	velocity	6.73	7.27	6.57	6.72	7.09	7.09	6.87	6.54	6.85		6.99	6.64	7.09	6.70	6.81	6.89	
Yukina, Murakami (JPN)	time	7.32	14.43	22.02	29.35	36.45	43.71	51.08	58.69	58.69	/ 3							
reaction time	interval		7.11	7.59	7.33	7.10	7.26	7.37	7.61		# of strides	14.43	14.92	14.36	14.98	29.35	29.34	-0.01
	velocity	6.83	7.03	6.59	6.82	7.04	6.89	6.78	6.57	6.82		6.93	6.70	6.96	6.68	6.81	6.82	

2007 European Cup (Munich, GER)

FINAL

date 23-Jun-07

Graubner (2007) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Halkía, Fani (GRE) (1979)	time		12.92		24.78		37.46		51.85	51.85	/ 1							
reaction time 0.180	interval				11.86		12.68		14.39		# of strides	12.92	11.86	12.68	14.39	24.78	27.07	2.29
	velocity		7.74		8.43		7.89		6.95	7.71		7.74	8.43	7.89	6.95	8.07	7.39	
Kashcheyeva, Zhanna (RUS)	time		12.70		24.58		37.34		51.87	51.87	/ 2							
reaction time 0.150	interval				11.88		12.76		14.53		# of strides	12.70	11.88	12.76	14.53	24.58	27.29	2.71
	velocity		7.87		8.42		7.84		6.88	7.71		7.87	8.42	7.84	6.88	8.14	7.33	
Yushchanka, Yulyana (BLR)	time		12.66		24.55		37.38		52.09	52.09	/ 3							
reaction time 0.217	interval				11.89		12.83		14.71		# of strides	12.66	11.89	12.83	14.71	24.55	27.54	2.99
	velocity		7.90		8.41		7.79		6.80	7.68		7.90	8.41	7.79	6.80	8.15	7.26	
Hoffmann, Claudia (GER) (1	time		12.71		24.68		37.64		52.31	52.31	/ 4							
reaction time 0.176	interval				11.97		12.96		14.67		# of strides	12.71	11.97	12.96	14.67	24.68	27.63	2.95
	velocity		7.87		8.35		7.72		6.82	7.65		7.87	8.35	7.72	6.82	8.10	7.24	
Radecka-Pakaszewska, Zuza	time		12.52		24.61		37.67		52.59	52.59	/ 5							
reaction time 0.218	interval				12.09		13.06		14.92		# of strides	12.52	12.09	13.06	14.92	24.61	27.98	3.37
	velocity		7.99		8.27		7.66		6.70	7.61		7.99	8.27	7.66	6.70	8.13	7.15	
Désert-Mariller, Solen (FRA)	time		13.01		25.47		38.76		52.60	52.60	/ 6							
reaction time 0.342	interval				12.46		13.29		13.84		# of strides	13.01	12.46	13.29	13.84	25.47	27.13	1.66
	velocity		7.69		8.03		7.52		7.23	7.60		7.69	8.03	7.52	7.23	7.85	7.37	
Shcherbak, Oksana (UKR) (1	time		13.29		25.71		38.80		52.63	52.63	/ 7							
reaction time 0.192	interval				12.42		13.09		13.83		# of strides	13.29	12.42	13.09	13.83	25.71	26.92	1.21
	velocity		7.52		8.05		7.64		7.23	7.60		7.52	8.05	7.64	7.23	7.78	7.43	
Recio, Belén (ESP) (1980)	time		13.30		25.76		38.91		54.16	54.16	/ 8							
reaction time 0.228	interval				12.46		13.15		15.25		# of strides	13.30	12.46	13.15	15.25	25.76	28.40	2.64
	velocity		7.52		8.03		7.60		6.56	7.39		7.52	8.03	7.60	6.56	7.76	7.04	

2007 USATF National Championships (Indianapolis, IN)

FINAL

date 23-Jun-07

Vazel (2011) - speed reserve in the 400m

Track Newsletter (2007) - USATF women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Trotter, DeeDee (USA) (1982	time				23.9		35.8		49.6	49.64	5 / 1							
reaction time	interval						11.90		13.80	PB	# of strides			11.90	13.80	23.90	25.70	1.80
	velocity				8.37		8.40		7.25	8.06				8.40	7.25	8.37	7.78	
Hastings, Natasha (USA) (19	time				23.5		35.9		49.8	49.84	7 / 2							
reaction time	interval						12.40		13.90	PB	# of strides			12.40	13.90	23.50	26.30	2.80
	velocity				8.51		8.06		7.19	8.03				8.06	7.19	8.51	7.60	
Wineberg, Mary (USA) (1980	time				24.0		36.3		50.2	50.24	6 / 3							
reaction time	interval						12.30		13.90	PB	# of strides			12.30	13.90	24.00	26.20	2.20
	velocity				8.33		8.13		7.19	7.96				8.13	7.19	8.33	7.63	
Richards, Sanya (USA) (1985	time		11.85		23.40		35.90		50.68	50.68	4 / 4							*Vazel (2011)*
reaction time	interval				11.55		12.50		14.78		# of strides	11.85	11.55	12.50	14.78	23.40	27.28	3.88
	velocity		8.44		8.66		8.00		6.77	7.89	193.5	8.44	8.66	8.00	6.77	8.55	7.33	
Henderson, Monique (USA)	time				23.9		36.3		50.8	50.82	8 / 5							
reaction time	interval						12.40		14.50		# of strides			12.40	14.50	23.90	26.90	3.00

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

	velocity		8.37	8.06	6.90	7.87			8.06	6.90	8.37	7.43			
Hennagan, Monique (USA) (	time		24.0	36.7	51.3	51.28	3 / 6								
reaction time	interval			12.70	14.60		# of strides		12.70	14.60	24.00	27.30	3.30		
	velocity		8.33	7.87	6.85	7.80			7.87	6.85	8.33	7.33			
Robinson, Moushaumi (USA	time			36.4	51.5	51.47	2 / 7								
reaction time	interval				15.10		# of strides			15.10					
	velocity			8.24	6.62	7.77				6.62					
Cox, Shana (USA) (1985)	time			36.8	52.2	52.23	1 / 8								
reaction time	interval				15.40		# of strides			15.40					
	velocity			8.15	6.49	7.66				6.49					

2007 NCAA Championships (Sacramento, CA)

FINAL date 09-Jun-07

Track Newsletter (2007) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hastings, Natasha (USA) (19	time				24.2		36.5		50.2	50.15	/ 1							
reaction time	interval						12.30		13.70	PB	# of strides			12.30	13.70	24.20	26.00	1.80
	velocity				8.26		8.13		7.30	7.98				8.13	7.30	8.26	7.69	
Cox, Shana (USA) (1985)	time				24.4		36.8		51.3	51.27	/ 2							
reaction time	interval						12.40		14.50		# of strides			12.40	14.50	24.40	26.90	2.50
	velocity				8.20		8.06		6.90	7.80				8.06	6.90	8.20	7.43	
Kidd, Ashlee (USA) (1985)	time				24.4		37.3		51.6	51.61	/ 3							
reaction time	interval						12.90		14.30		# of strides			12.90	14.30	24.40	27.20	2.80
	velocity				8.20		7.75		6.99	7.75				7.75	6.99	8.20	7.35	
Cousins, Jessica (USA) (198	time				24.7		37.9		51.9	51.92	/ 4							
reaction time	interval						13.20		14.00	PB	# of strides			13.20	14.00	24.70	27.20	2.50
	velocity				8.10		7.58		7.14	7.70				7.58	7.14	8.10	7.35	
Williams, Clora (JAM) (1983)	time				24.9		37.9		52.0	52.03	/ 5							
reaction time	interval						13.00		14.10		# of strides			13.00	14.10	24.90	27.10	2.20
	velocity				8.03		7.69		7.09	7.69				7.69	7.09	8.03	7.38	
Alexander, Kineke (VIN) (198	time				24.8		37.5		52.1	52.13	/ 6							
reaction time	interval						12.70		14.60		# of strides			12.70	14.60	24.80	27.30	2.50
	velocity				8.06		7.87		6.85	7.67				7.87	6.85	8.06	7.33	
Bartholomew, Trish (GRN) (	time						37.8		52.2	52.17	/ 7							
reaction time	interval								14.40	PB	# of strides				14.40			
	velocity						7.94		6.94	7.67					6.94			
Coleman, Kenyata (USA) (19	time						38.2		52.8	52.75	/ 8							
reaction time	interval								14.60		# of strides				14.60			
	velocity						7.85		6.85	7.58					6.85			

2006 Seiko Super Grand Prix (Yokohama, JPN)

FINAL date 24-Sep-06

Hisashi (2007) - Super Grand Prix 2006 - sprinting speed changes in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Amertil, Christine (BAH) (19	time	6.7	12.3	18.1	24.0	30.3	36.7	43.5	50.68	50.68	6 / 1							
reaction time	interval		5.60	5.80	5.90	6.30	6.40	6.80	7.18		# of strides	12.30	11.70	12.70	13.98	24.00	26.68	2.68
	velocity	7.46	8.93	8.62	8.47	7.94	7.81	7.35	6.96	7.89		8.13	8.55	7.87	7.15	8.33	7.50	
Tanno, Asami (JPN) (1985)	time	6.8	12.6	18.6	24.7	31.2	38.2	45.6	53.54	53.54	5 / 2							
reaction time	interval		5.80	6.00	6.10	6.50	7.00	7.40	7.94		# of strides	12.60	12.10	13.50	15.34	24.70	28.84	4.14
	velocity	7.35	8.62	8.33	8.20	7.69	7.14	6.76	6.30	7.47		7.94	8.26	7.41	6.52	8.10	6.93	
Sato, Mayu (JPN) (1982)	time	6.8	12.9	19.0	25.3	31.8	38.7	45.9	53.56	53.56	2 / 3							
reaction time	interval		6.10	6.10	6.30	6.50	6.90	7.20	7.66		# of strides	12.90	12.40	13.40	14.86	25.30	28.26	2.96
	velocity	7.35	8.20	8.20	7.94	7.69	7.25	6.94	6.53	7.47		7.75	8.06	7.46	6.73	7.91	7.08	
Takeuchi, Masako (JPN) (198	time	6.9	12.9	18.9	25.2	31.8	38.8	46.1	54.04	54.04	4 / 4							
reaction time	interval		6.00	6.00	6.30	6.60	7.00	7.30	7.94	PB	# of strides	12.90	12.30	13.60	15.24	25.20	28.84	3.64
	velocity	7.25	8.33	8.33	7.94	7.58	7.14	6.85	6.30	7.40		7.75	8.13	7.35	6.56	7.94	6.93	
Tanaka, Chisato (JPN) (1988	time	7.3	13.5	19.7	26.1	32.7	39.8	47.3	55.09	55.09	7 / 5							
reaction time	interval		6.20	6.20	6.40	6.60	7.10	7.50	7.79		# of strides	13.50	12.60	13.70	15.29	26.10	28.99	2.89
	velocity	6.85	8.06	8.06	7.81	7.58	7.04	6.67	6.42	7.26		7.41	7.94	7.30	6.54	7.66	6.90	
Naruse, Miki (JPN) (1982)	time	7.1	13.2	19.3	26.0	32.9	40.2	47.7	55.36	55.36	8 / 6							
reaction time	interval		6.10	6.10	6.70	6.90	7.30	7.50	7.66		# of strides	13.20	12.80	14.20	15.16	26.00	29.36	3.36
	velocity	7.04	8.20	8.20	7.46	7.25	6.85	6.67	6.53	7.23		7.58	7.81	7.04	6.60	7.69	6.81	
Muto, Nana (JPN) (1991)	time	6.9	12.9	19.1	25.6	32.4	39.8	47.5	55.53	55.53	3 / 7							
reaction time	interval		6.00	6.20	6.50	6.80	7.40	7.70	8.03		# of strides	12.90	12.70	14.20	15.73	25.60	29.93	4.33
	velocity	7.25	8.33	8.06	7.69	7.35	6.76	6.49	6.23	7.20		7.75	7.87	7.04	6.36	7.81	6.68	
Kimura, Tomomi (JPN) (198	time	7.1	13.4	19.7	26.4	33.4	40.7	48.2	56.48	56.48	9 / 8							
reaction time	interval		6.30	6.30	6.70	7.00	7.30	7.50	8.28		# of strides	13.40	13.00	14.30	15.78	26.40	30.08	3.68
	velocity	7.04	7.94	7.94	7.46	7.14	6.85	6.67	6.04	7.08		7.46	7.69	6.99	6.34	7.58	6.65	

2006 IAAF World Cup (Athens, GRE) (TV Analysis)

FINAL date 16-Sep-06

Graubner (2008) - http://www.fgs.uni-halle.de

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

Richards, Sanya (USA) (1985	time		11.93		23.82		35.83		48.70	48.70	7 / 1						
reaction time 0.175	interval				11.89		12.01		12.87	AR	# of strides	11.93	11.89	12.01	12.87	23.82	24.88	1.06
	velocity		8.38		8.41		8.33		7.77	8.21		8.38	8.41	8.33	7.77	8.40	8.04	
Stambolova, Vania (BUL) (19	0.207	no information available								50.09	8 / 2						
Williams, Novlene (JAM) (19	0.284	no information available								50.24	5 / 3						
Veshkurova, Tatyana (RUS) (	0.322	no information available								50.50	1 / 4						
Halkia, Fani (GRE) (1979)	0.160	no information available								50.94	2 / 5						
Thiam, Amy Mbacke (SEN) (	0.320	no information available								51.39	9 / 6						
Tereshkova, Olga (KAZ) (198	0.247	no information available								52.57	6 / 7						
Prokopek, Grazyna (POL) (19	0.259	no information available								53.29	4 / 8						
Hayward, Rosemary (AUS) (	0.225	no information available								54.01	3 / 9						

2006 European Championships (Göteborg, SWE)

FINAL

date 10-Aug-06

Behm (2006) - Championnats d'Europe Göteborg 2006… Le 400m avec ou sans obstacles

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Stambolova, Vania (BUL) (19	time				23.7		35.8		49.85	49.85	/ 1							
reaction time	interval						12.10		14.05		# of strides			12.10	14.05	23.70	26.15	2.45
	velocity				8.44		16.53		7.12	8.02				8.26	7.12	8.44	7.65	
Veshkurova, Tatyana (RUS) (	time				23.9		36.5		50.15	50.15	/ 2							
reaction time	interval						12.60		13.65		# of strides			12.60	13.65	23.90	26.25	2.35
	velocity				8.37		15.87		7.33	7.98				7.94	7.33	8.37	7.62	
Zaytseva, Olga (RUS) (1984)	time				23.3		35.6		50.28	50.28	/ 3							
reaction time	interval						12.30		14.68		# of strides			12.30	14.68	23.30	26.98	3.68
	velocity				8.58		16.26		6.81	7.96				8.13	6.81	8.58	7.41	
Dimitrova, Mariyana (BUL) (	time				24.6		36.8		50.64	50.64	/ 4							
reaction time	interval						12.20		13.84	PB	# of strides			12.20	13.84	24.60	26.04	1.44
	velocity				8.13		16.39		7.23	7.90				8.20	7.23	8.13	7.68	
Usovich, Ilona (BLR) (1982)	time				23.8		36.4		50.69	50.69	/ 5							
reaction time	interval						12.60		14.29	NR	# of strides			12.60	14.29	23.80	26.89	3.09
	velocity				8.40		15.87		7.00	7.89				7.94	7.00	8.40	7.44	
Sanders, Nicola (GBR) (1982	time				24.4		37.0		50.87	50.87	/ 6							
reaction time	interval						12.60		13.87		# of strides			12.60	13.87	24.40	26.47	2.07
	velocity				8.20		15.87		7.21	7.86				7.94	7.21	8.20	7.56	
Pospelova, Svetlana (RUS) (	time				24.9		37.1		50.90	50.90	/ 7							
reaction time	interval						12.20		13.80		# of strides			12.20	13.80	24.90	26.00	1.10
	velocity				8.03		16.39		7.25	7.86				8.20	7.25	8.03	7.69	
Cuddihy, Joanne (IRL) (1984	time				24.3		37.0		51.46	51.46	/ 8							
reaction time	interval						12.70		14.46		# of strides			12.70	14.46	24.30	27.16	2.86
	velocity				8.23		15.75		6.92	7.77				7.87	6.92	8.23	7.36	

Semi-Final 1 (TV A

date 09-Aug-06

Graubner (2008) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Stambolova, Vania (BUL) (19	time		12.67		24.33		36.58		49.69	49.69	/ 1							
reaction time 0.232	interval				11.66		12.25		13.11		# of strides	12.67	11.66	12.25	13.11	24.33	25.36	1.03
	velocity		7.89		8.58		8.16		7.63	8.05		7.89	8.58	8.16	7.63	8.22	7.89	

2006 USATF National Championships (Indianapolis, IN)

FINAL

date 24-Jun-06

USATF Women's Sprint Development (2006)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.40	17.11	23.37	29.46	35.78	42.36	49.27	49.27	4 / 1							
reaction time	interval			5.71	6.26	6.09	6.32	6.58	6.91		# of strides	11.40	11.97	12.41	13.49	23.37	25.90	2.53
	velocity		8.77	8.76	7.99	8.21	7.91	7.60	7.24	8.12	190.0	8.77	8.35	8.06	7.41	8.56	7.72	
Trotter, De'Hashia (Dee Dee)	time		12.12	17.58	24.07	30.01	36.24	43.01	50.40	50.40	6 / 2							
reaction time	interval			5.46	6.49	5.94	6.23	6.77	7.39		# of strides	12.12	11.95	12.17	14.16	24.07	26.33	2.26
	velocity		8.25	9.16	7.70	8.42	8.03	7.39	6.77	7.94	191.2	8.25	8.37	8.22	7.06	8.31	7.60	
Henderson, Monique (USA)	time		11.76	17.83	23.84	29.95	36.48	43.22	50.71	50.71	3 / 3							
reaction time	interval			6.07	6.01	6.11	6.53	6.74	7.49		# of strides	11.76	12.08	12.64	14.23	23.84	26.87	3.03
	velocity		8.50	8.24	8.32	8.18	7.66	7.42	6.68	7.89	191.5	8.50	8.28	7.91	7.03	8.39	7.44	
Robinson, Moushaumi (USA	time		11.96	17.93	24.34	30.68	37.22	44.04	51.13	51.13	7 / 4							
reaction time	interval			5.97	6.41	6.34	6.54	6.82	7.09		# of strides	11.96	12.38	12.88	13.91	24.34	26.79	2.45
	velocity		8.36	8.38	7.80	7.89	7.65	7.33	7.05	7.82		8.36	8.08	7.76	7.19	8.22	7.47	
Danner, Mary (USA) (1980)	time		12.02	18.32	24.39	30.73	37.37	44.26	51.27	51.27	2 / 5							
reaction time	interval			6.30	6.07	6.34	6.64	6.89	7.01	PB	# of strides	12.02	12.37	12.98	13.90	24.39	26.88	2.49
	velocity		8.32	7.94	8.24	7.89	7.53	7.26	7.13	7.80		8.32	8.08	7.70	7.19	8.20	7.44	
Cox, Crystal (USA) (1979)	time		11.82	17.50	23.69	29.85	36.45	43.63	51.34	51.34	5 / 6							
reaction time	interval			5.68	6.19	6.16	6.60	7.18	7.71		# of strides	11.82	11.87	12.76	14.89	23.69	27.65	3.96
	velocity		8.46	8.80	8.08	8.12	7.58	6.96	6.49	7.79		8.46	8.42	7.84	6.72	8.44	7.23	
Cox, Shana (USA) (1985)	time		12.48	18.38	24.71	30.88	37.40	44.14	51.36	51.36	8 / 7							
reaction time	interval			5.90	6.33	6.17	6.52	6.74	7.22		# of strides	12.48	12.23	12.69	13.96	24.71	26.65	1.94
	velocity		8.01	8.47	7.90	8.10	7.67	7.42	6.93	7.79		8.01	8.18	7.88	7.16	8.09	7.50	
Hennagan, Monique (USA) (	time		12.04	18.17	24.18	30.46	37.13	44.04	51.46	51.46	1 / 8							
reaction time	interval			6.13	6.01	6.28	6.67	6.91	7.42		# of strides	12.04	12.14	12.95	14.33	24.18	27.28	3.10

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity		8.31	8.16	8.32	7.96	7.50	7.24	6.74	7.77		8.31	8.24	7.72	6.98	8.27	7.33	

2006 USATF National Junior Championships (Indianapolis, IN)

FINAL date 24-Jun-06

USATF Women's Sprint Development (2006)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Beard, Jessica (USA) (1989)	time		13.13	18.85	25.67	32.02	38.42	44.95	51.89	51.89	6 / 1							
reaction time	interval			5.72	6.82	6.35	6.40	6.53	6.94	PB	# of strides	13.13	12.54	12.75	13.47	25.67	26.22	0.55
	velocity		7.62	8.74	7.33	7.87	7.81	7.66	7.20	7.71		7.62	7.97	7.84	7.42	7.79	7.63	
Cross, Brandi (USA) (1988)	time		12.78	18.80	24.19	31.29	37.80	44.60	51.96	51.96	4 / 2							
reaction time	interval			6.02	5.39	7.10	6.51	6.80	7.36	PB	# of strides	12.78	11.41	13.61	14.16	24.19	27.77	3.58
	velocity		7.82	8.31	9.28	7.04	7.68	7.35	6.79	7.70		7.82	8.76	7.35	7.06	8.27	7.20	
Williams, Sa'de (USA) (1989)	time		12.76	18.67	23.87	31.29	37.82	44.82	52.54	52.54	3 / 3							
reaction time	interval			5.91	5.20	7.42	6.53	7.00	7.72		# of strides	12.76	11.11	13.95	14.72	23.87	28.67	4.80
	velocity		7.84	8.46	9.62	6.74	7.66	7.14	6.48	7.61		7.84	9.00	7.17	6.79	8.38	6.98	
Young, Jessica (USA) (1987)	time		12.71	18.82	25.22	31.65	38.41	45.61	53.39	53.39	5 / 4							
reaction time	interval			6.11	6.40	6.43	6.76	7.20	7.78	PB	# of strides	12.71	12.51	13.19	14.98	25.22	28.17	2.95
	velocity		7.87	8.18	7.81	7.78	7.40	6.94	6.43	7.49		7.87	7.99	7.58	6.68	7.93	7.10	
Humphrey, Erin (USA) (1988	time		12.93	19.30	25.36	31.99	39.02	46.05	53.41	53.41	7 / 5							
reaction time	interval			6.37	6.06	6.63	7.03	7.03	7.36	PB	# of strides	12.93	12.43	13.66	14.39	25.36	28.05	2.69
	velocity		7.73	7.85	8.25	7.54	7.11	7.11	6.79	7.49		7.73	8.05	7.32	6.95	7.89	7.13	
Hilaire, Elan (USA) (1990)	time		13.36	19.52	23.47	32.67	39.64	46.66	54.23	54.23	1 / 6							
reaction time	interval			6.16	3.95	9.20	6.97	7.02	7.57	PB	# of strides	13.36	10.11	16.17	14.59	23.47	30.76	7.29
	velocity		7.49	8.12	12.66	5.43	7.17	7.12	6.61	7.38		7.49	9.89	6.18	6.85	8.52	6.50	
Blake, Dominique (USA) (19	time		12.98	18.92	25.27	31.72	38.74	46.43	54.77	54.77	8 / ~~7~~							
reaction time	interval			5.94	6.35	6.45	7.02	7.69	8.34	DV	# of strides	12.98	12.29	13.47	16.03	25.27	29.50	4.23
	velocity		7.70	8.42	7.87	7.75	7.12	6.50	6.00	7.30		7.70	8.14	7.42	6.24	7.91	6.78	
Graves-Fulgham, Mandela (U	time		13.06	19.10	23.64	32.11	39.39	46.88	55.11	55.11	2 / ~~8~~ 7							
reaction time	interval			6.04	4.54	8.47	7.28	7.49	8.23		# of strides	13.06	10.58	15.75	15.72	23.64	31.47	7.83
	velocity		7.66	8.28	11.01	5.90	6.87	6.68	6.08	7.26		7.66	9.45	6.35	6.36	8.46	6.36	

2006 NCAA Championships (Sacramento, CA)

FINAL date 10-Jun-06

Track Newsletter (2006) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams, Clora (JAM) (1983)	time		12.2		24.2		37.1		51.1	51.11	/ 1							
reaction time	interval				12.00		12.90		14.00		# of strides	12.20	12.00	12.90	14.00	24.20	26.90	2.70
	velocity		8.20		8.33		7.75		7.14	7.83		8.20	8.33	7.75	7.14	8.26	7.43	
Alexander, Kineke (VIN) (198	time		12.1		24.4		37.1		51.3	51.35	/ 2							
reaction time	interval				12.30		12.70		14.20	NR	# of strides	12.10	12.30	12.70	14.20	24.40	26.90	2.50
	velocity		8.26		8.13		7.87		7.04	7.79		8.26	8.13	7.87	7.04	8.20	7.43	
Cox, Shana (USA) (1985)	time		12.7		24.7		37.5		51.4	51.39	/ 3							
reaction time	interval				12.00		12.80		13.90		# of strides	12.70	12.00	12.80	13.90	24.70	26.70	2.00
	velocity		7.87		8.33		7.81		7.19	7.78		7.87	8.33	7.81	7.19	8.10	7.49	
Hall, Patricia (JAM) (1982)	time		12.2		24.2		37.1		51.5	51.45	/ 4							
reaction time	interval				12.00		12.90		14.40	PB	# of strides	12.20	12.00	12.90	14.40	24.20	27.30	3.10
	velocity		8.20		8.33		7.75		6.94	7.77		8.20	8.33	7.75	6.94	8.26	7.33	
Kidd, Ashlee (USA) (1985)	time		12.3		24.5		37.5		51.6	51.57	/ 5							
reaction time	interval				12.20		13.00		14.10	PB	# of strides	12.30	12.20	13.00	14.10	24.50	27.10	2.60
	velocity		8.13		8.20		7.69		7.09	7.76		8.13	8.20	7.69	7.09	8.16	7.38	
Hastings, Natasha (USA) (19	time		11.8		23.9		36.9		51.6	51.60	/ 6							
reaction time	interval				12.10		13.00		14.70		# of strides	11.80	12.10	13.00	14.70	23.90	27.70	3.80
	velocity		8.47		8.26		7.69		6.80	7.75		8.47	8.26	7.69	6.80	8.37	7.22	
Kerr, LaTashia (USA) (1983)	time		12.4		25.0		38.0		52.2	52.19	/ 7							
reaction time	interval				12.60		13.00		14.20		# of strides	12.40	12.60	13.00	14.20	25.00	27.20	2.20
	velocity		8.06		7.94		7.69		7.04	7.66		8.06	7.94	7.69	7.04	8.00	7.35	
Lawrence, Deonna (USA) (1	time		12.5		24.8		38.1		52.4	52.38	/ 8							
reaction time	interval				12.30		13.30		14.30		# of strides	12.50	12.30	13.30	14.30	24.80	27.60	2.80
	velocity		8.00		8.13		7.52		6.99	7.64		8.00	8.13	7.52	6.99	8.06	7.25	

2005 Seiko Super Grand Prix (Yokohama, JPN)

FINAL date 19-Sep-05

Masaaki (2006) - time analysis in the 400m at the Seiko Super Grand Prix

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Trotter, De'Hashia (Dee Dee)	time		12.71		24.65		36.43	42.93	50.03	50.03	5 / 1							
reaction time	interval				11.94		11.78	6.50	7.10		# of strides	12.71	11.94	11.78	13.60	24.65	25.38	0.73
	velocity		7.87		8.38		8.49	7.69	7.04	8.00		7.87	8.38	8.49	7.35	8.11	7.88	
Amertil, Christine (BAH) (19	time		12.53		24.40		36.42	43.03	50.09	50.09	6 / 2							
reaction time	interval				11.87		12.02	6.61	7.06	PB	# of strides	12.53	11.87	12.02	13.67	24.40	25.69	1.29
	velocity		7.98		8.42		8.32	7.56	7.08	7.99		7.98	8.42	8.32	7.32	8.20	7.79	
Usovich, Ilona (BLR) (1982)	time		12.73		24.89		37.53	44.32	51.45	51.45	3 / 3							
reaction time	interval				12.16		12.64	6.79	7.13		# of strides	12.73	12.16	12.64	13.92	24.89	26.56	1.67
	velocity		7.86		8.22		7.91	7.36	7.01	7.77		7.86	8.22	7.91	7.18	8.04	7.53	

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

Tanno, Asami (JPN) (1985)	time	12.83	25.14	37.80	44.62	51.80	51.80	4 / 4								
reaction time	interval		12.31	12.66	6.82	7.18	NR	# of strides	12.83	12.31	12.66	14.00	25.14	26.66	1.52	
	velocity	7.79	8.12	7.90	7.33	6.96	7.72		7.79	8.12	7.90	7.14	7.96	7.50		
Yoshida, Makiko (JPN) (1976	time	12.74	25.22	38.22	45.49	53.42	53.42	7 / 5								
reaction time	interval		12.48	13.00	7.27	7.93		# of strides	12.74	12.48	13.00	15.20	25.22	28.20	2.98	
	velocity	7.85	8.01	7.69	6.88	6.31	7.49		7.85	8.01	7.69	6.58	7.93	7.09		
Kubokura, Satomi (JPN) (19	time	12.82	25.51	38.90	45.95	53.80	53.80	2 / 6								
reaction time	interval		12.69	13.39	7.05	7.85		# of strides	12.82	12.69	13.39	14.90	25.51	28.29	2.78	
	velocity	7.80	7.88	7.47	7.09	6.37	7.43		7.80	7.88	7.47	6.71	7.84	7.07		
Aoki, Sayaka (JPN) (1986)	time	13.32	26.03	38.93	46.25	53.96	53.96	8 / 7								
reaction time	interval		12.71	12.90	7.32	7.71	PB	# of strides	13.32	12.71	12.90	15.03	26.03	27.93	1.90	
	velocity	7.51	7.87	7.75	6.83	6.49	7.41		7.51	7.87	7.75	6.65	7.68	7.16		
Horie, Mayu (JPN) (1986)	time	13.25	25.91	39.14	46.61	54.59	54.59	9 / 8								
reaction time	interval		12.66	13.23	7.47	7.98	PB	# of strides	13.25	12.66	13.23	15.45	25.91	28.68	2.77	
	velocity	7.55	7.90	7.56	6.69	6.27	7.33		7.55	7.90	7.56	6.47	7.72	6.97		
Sato, Mayu (JPN) (1983)	time	12.85	25.63	39.25	46.58	54.70	54.70	1 / 9								
reaction time	interval		12.78	13.62	7.33	8.12		# of strides	12.85	12.78	13.62	15.45	25.63	29.07	3.44	
	velocity	7.78	7.82	7.34	6.82	6.16	7.31		7.78	7.82	7.34	6.47	7.80	6.88		

2005 Weltklasse (Zurich, SUI)

FINAL date 19-Aug-05

ferrari (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.9		23.7		35.6		48.92	48.92	/ 1							
reaction time 0.269	interval				11.8		11.9		13.32	PB	# of strides	11.90	11.80	11.90	13.32	23.70	25.22	1.52
	velocity		8.40		8.47		8.40		7.51	8.18		8.40	8.47	8.40	7.51	8.44	7.93	
Wiliams-Darling, Tonique (B	time		12.0		23.3		35.5		49.30	49.30	/ 2							
reaction time 0.275	interval				11.3		12.2		13.80		# of strides	12.00	11.30	12.20	13.80	23.30	26.00	2.70
	velocity		8.33		8.85		8.20		7.25	8.11		8.33	8.85	8.20	7.25	8.58	7.69	

2005 IAAF World Championships (Helsinki, FIN)

FINAL date 10-Aug-05

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Wiliams-Darling, Tonique (B	time						35.7		49.6	49.55	6 / 1							
reaction time 0.162	interval								13.9		# of strides				13.85			
	velocity						8.40		7.22	8.07	192.7				7.22			
Richards, Sanya (USA) (1985	time		12.4		23.5		35.6		49.7	49.74	3 / 2							
reaction time 0.155	interval				11.1		12.1		14.1		# of strides	12.40	11.10	12.10	14.10	23.50	26.20	2.70
	velocity		8.06		9.01		8.26		7.09	8.04	193.7	8.06	9.01	8.26	7.09	8.51	7.63	
Guevara, Ana (MEX) (1977)	time						36.1		49.8	49.81	4 / 3							
reaction time 0.144	interval								13.7		# of strides				13.71			
	velocity						8.31		7.29	8.03	196.0				7.29			
Pospelova, Svetlana (RUS) (	time						35.8		50.1	50.11	5 / 4							
reaction time 0.130	interval								14.3		# of strides				14.31			
	velocity						8.38		6.99	7.98	184.7				6.99			
Trotter, De'Hashia (Dee Dee)	time						36.5		51.1	51.14	7 / 5							
reaction time 0.176	interval								14.6		# of strides				14.64			
	velocity						8.22		6.83	7.82					6.83			
Zykina, Olesya (RUS) (1980)	time						36.7		51.2	51.24	2 / 6							
reaction time 0.199	interval								14.5		# of strides				14.54			
	velocity						8.17		6.88	7.81					6.88			
Henderson, Monique (USA)	time						36.3		51.8	51.77	1 / 7							
reaction time 0.201	interval								15.5		# of strides				15.47			
	velocity						8.26		6.46	7.73					6.46			
Thiam, Amy Mbacké (SEN) (	time						36.5		52.2	52.22	8 / 8							
reaction time 0.169	interval								15.7		# of strides				15.72			
	velocity						8.22		6.36	7.66					6.36			

Semi-Final 3 date 08-Aug-05

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Wiliams-Darling, Tonique (B	time						35.5		49.7	49.69	4 / 1							
reaction time 0.176	interval								14.2		# of strides				14.19			
	velocity						8.45		7.05	8.05					7.05			

2005 USATF National Championships (Carson, CA)

FINAL date 25-Jun-05

USATF Women's Sprint Development (2005)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.08	17.90	23.99	29.85	35.99	42.44	49.28	49.28	4 / 1							
reaction time	interval			5.82	6.09	5.86	6.14	6.45	6.84	PB	# of strides	12.08	11.91	12.00	13.29	23.99	25.29	1.30
	velocity		8.28	8.59	8.21	8.53	8.14	7.75	7.31	8.12		8.28	8.40	8.33	7.52	8.34	7.91	
Trotter, De'Hashia (Dee Dee)	time		12.45	18.28	24.46	30.50	36.60	43.04	49.88	49.88	5 / 2							
reaction time	interval			5.83	6.18	6.04	6.10	6.44	6.84	PB	# of strides	12.45	12.01	12.14	13.28	24.46	25.42	0.96
	velocity		8.03	8.58	8.09	8.28	8.20	7.76	7.31	8.02		8.03	8.33	8.24	7.53	8.18	7.87	

Henderson, Monique (USA)	time	12.31	18.06	24.09	30.18	36.35	42.86	49.96	49.96	6 / 3								
reaction time	interval		5.75	6.03	6.09	6.17	6.51	7.10	PB	# of strides	12.31	11.78	12.26	13.61	24.09	25.87	1.78	
	velocity	8.12	8.70	8.29	8.21	8.10	7.68	7.04	8.01		8.12	8.49	8.16	7.35	8.30	7.73		
Robinson, Moushaumi (USA	time	12.42	18.39	24.58	30.69	36.80	43.33	50.38	50.38	7 / 4								
reaction time	interval		5.97	6.19	6.11	6.11	6.53	7.05	PB	# of strides	12.42	12.16	12.22	13.58	24.58	25.80	1.22	
	velocity	8.05	8.38	8.08	8.18	8.18	7.66	7.09	7.94		8.05	8.22	8.18	7.36	8.14	7.75		
Hennagan, Monique (USA) (	time	12.04	17.72	23.72	29.83	36.28	43.18	50.76	50.76	3 / 5								
reaction time	interval		5.68	6.00	6.11	6.45	6.90	7.58		# of strides	12.04	11.68	12.56	14.48	23.72	27.04	3.32	
	velocity	8.31	8.80	8.33	8.18	7.75	7.25	6.60	7.88		8.31	8.56	7.96	6.91	8.43	7.40		
Reid, Suziann (USA) (1977)	time	12.31	18.06	24.36	30.63	37.07	42.54	51.45	51.45	1 / 6								
reaction time	interval		5.75	6.30	6.27	6.44	5.47	8.91		# of strides	12.31	12.05	12.71	14.38	24.36	27.09	2.73	
	velocity	8.12	8.70	7.94	7.97	7.76	9.14	5.61	7.77		8.12	8.30	7.87	6.95	8.21	7.38		
Clay, Julian (USA) (1977)	time	12.31	18.12	24.41	30.78	37.29	42.79	51.70	51.70	2 / 7								
reaction time	interval		5.81	6.29	6.37	6.51	5.50	8.91		# of strides	12.31	12.10	12.88	14.41	24.41	27.29	2.88	
	velocity	8.12	8.61	7.95	7.85	7.68	9.09	5.61	7.74		8.12	8.26	7.76	6.94	8.19	7.33		
Smith, Stephanie (USA) (198	time	12.86	18.87	24.93	31.15	37.63	44.49	51.83	51.83	8 / 8								
reaction time	interval		6.01	6.06	6.22	6.48	6.86	7.34		# of strides	12.86	12.07	12.70	14.20	24.93	26.90	1.97	
	velocity	7.78	8.32	8.25	8.04	7.72	7.29	6.81	7.72		7.78	8.29	7.87	7.04	8.02	7.43		
Liles, Johnsie (USA) (1985)	time			25.46	31.70	38.26	45.68	52.43	52.43	9 / 9								
reaction time	interval				6.24	6.56	7.42	6.75	PB	# of strides			12.80	14.17	25.46	26.97	1.51	
	velocity			7.86	8.01	7.62	6.74	7.41	7.63				7.81	7.06	7.86	7.42		

2005 USATF National Junior Championships (Carson, CA)

FINAL date 25-Jun-05

USATF Women's Sprint Development (2005)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jones, Brittany (USA) (1989)	time		12.53	18.38	24.47	30.55	36.87	43.81	51.18	51.18	7 / ~~1~~							
reaction time	interval			5.85	6.09	6.08	6.32	6.94	7.37	DQ	# of strides	12.53	11.94	12.40	14.31	24.47	26.71	2.24
	velocity		7.98	8.55	8.21	8.22	7.91	7.20	6.78	7.82		7.98	8.38	8.06	6.99	8.17	7.49	
Hastings, Natasha (USA) (19	time		12.30	18.05	24.17	30.33	36.82	43.76	51.34	51.34	6 / ~~2~~ 1							
reaction time	interval			5.75	6.12	6.16	6.49	6.94	7.58	PB	# of strides	12.30	11.87	12.65	14.52	24.17	27.17	3.00
	velocity		8.13	8.70	8.17	8.12	7.70	7.20	6.60	7.79		8.13	8.42	7.91	6.89	8.27	7.36	
McNary, Lauren (USA) (1986	time		12.96	18.93	25.23	31.58	38.07	45.07	52.48	52.48	4 / ~~3~~ 2							
reaction time	interval			5.97	6.30	6.35	6.49	7.00	7.41	PB	# of strides	12.96	12.27	12.84	14.41	25.23	27.25	2.02
	velocity		7.72	8.38	7.94	7.87	7.70	7.14	6.75	7.62		7.72	8.15	7.79	6.94	7.93	7.34	
Cross, Brandi (USA) (1988)	time		12.79	18.79	24.98	31.33	37.91	45.05	52.65	52.65	5 / ~~4~~ 3							
reaction time	interval			6.00	6.19	6.35	6.58	7.14	7.60		# of strides	12.79	12.19	12.93	14.74	24.98	27.67	2.69
	velocity		7.82	8.33	8.08	7.87	7.60	7.00	6.58	7.60		7.82	8.20	7.73	6.78	8.01	7.23	
Lawrence, Deonna (USA) (1	time		12.86	18.95		31.53	38.05	45.18	52.98	52.98	2 / ~~5~~ 4							
reaction time	interval			6.09		12.58	6.52	7.13	7.80		# of strides	12.86			14.93			
	velocity		7.78	8.21		7.95	7.67	7.01	6.41	7.55		7.78			6.70			
Horn, Becky (USA) (1986)	time		12.86	18.87	25.21	31.72	38.41	45.71	53.57	53.57	8 / ~~6~~ 5							
reaction time	interval			6.01	6.34	6.51	6.69	7.30	7.86		# of strides	12.86	12.35	13.20	15.16	25.21	28.36	3.15
	velocity		7.78	8.32	7.89	7.68	7.47	6.85	6.36	7.47		7.78	8.10	7.58	6.60	7.93	7.05	
Coleman, Kenyata (USA) (19	time		13.21	19.33		32.10	38.79	45.96	53.68	53.68	1 / ~~7~~ 6							
reaction time	interval			6.12		12.77	6.69	7.17	7.72		# of strides	13.21			14.89			
	velocity		7.57	8.17		7.83	7.47	6.97	6.48	7.45		7.57			6.72			
Boatright, Tominique (USA)	time				25.34	32.03	39.02	46.43	54.51	54.51	9 / ~~8~~ 7							
reaction time	interval					6.69	6.99	7.41	8.08	PB	# of strides			13.68	15.49	25.34	29.17	3.83
	velocity				7.89	7.47	7.15	6.75	6.19	7.34				7.31	6.46	7.89	6.86	
Simkins, Krista (USA) (1986)	time		13.45	19.45		32.38	39.26	46.69	55.09	55.09	3 / ~~9~~ 8							
reaction time	interval			6.00		12.93	6.88	7.43	8.40		# of strides	13.45			15.83			
	velocity		7.43	8.33		7.73	7.27	6.73	5.95	7.26		7.43			6.32			

2005 NCAA Championships (Sacramento, CA)

FINAL date 11-Jun-05

Track Newsletter (2005) - NCAA women's championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Henderson, Monique (USA)	time		12.1		23.5		35.8		50.1	50.10	/ 1							
reaction time	interval				11.40		12.30		14.30	PB	# of strides	12.10	11.40	12.30	14.30	23.50	26.60	3.10
	velocity		8.26		8.77		8.13		6.99	7.98		8.26	8.77	8.13	6.99	8.51	7.52	
Ponteen, Tiandra (SKN) (198	time						36.8		50.8	50.83	/ 2							
reaction time	interval								14.00	NR	# of strides				14.00			
	velocity						8.15		7.14	7.87					7.14			
Smith, Stephanie (USA) (198	time				24.4		37.2		50.9	50.93	/ 3							
reaction time	interval						12.80		13.70	PB	# of strides			12.80	13.70	24.40	26.50	2.10
	velocity				8.20		7.81		7.30	7.85				7.81	7.30	8.20	7.55	
Lloyd, Shereefa (JAM) (1982	time				24.4		37.2		51.4	51.39	/ 4							
reaction time	interval						12.80		14.20	PB	# of strides			12.80	14.20	24.40	27.00	2.60
	velocity				8.20		7.81		7.04	7.78				7.81	7.04	8.20	7.41	
Kidd, Ashlee (USA) (1985)	time				24.8		38.1		51.9	51.87	/ 5							
reaction time	interval						13.30		13.80		# of strides			13.30	13.80	24.80	27.10	2.30

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

	velocity		8.06		7.52		7.25	7.71					7.52	7.25	8.06	7.38		
Hastings, Natasha (USA) (19	time				37.6		51.9	51.87	/ 6									
reaction time	interval						14.30	PB	# of strides					14.30				
	velocity				7.98		6.99	7.71						6.99				
Alexander, Kineke (VIN) (198	time				37.6		51.9	51.94	/ 7									
reaction time	interval						14.30		# of strides					14.30				
	velocity				7.98		6.99	7.70						6.99				
Chapple, Jerrika (USA) (1984	time				37.8		52.3	52.25	/ 8									
reaction time	interval						14.50		# of strides					14.50				
	velocity				7.94		6.90	7.66						6.90				

2005 Reebok (New York, NY)

FINAL date 11-Jun-05

Track Newsletter (2005) - US invitationals- reebok women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hennagan, Monique (USA) (	time				23.9				50.7	50.67	/ 1							
reaction time	interval								26.80		# of strides					23.90	26.80	2.90
	velocity				8.37				7.46	7.89						8.37	7.46	
Trotter, Deedee (USA) (1982	time				24.5				51.0	51.00	/ 2							
reaction time	interval								26.50		# of strides					24.50	26.50	2.00
	velocity				8.16				7.55	7.84						8.16	7.55	

2005 Jamaica Invitational (Kingston, JAM)

FINAL date 07-May-05

ferrari (2009) - Split 100 metri uomini e donne (www.noivelocisti.net/forum?func=view&catid=9&id=1813)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		12.3		24.6		36.9		49.96	49.96	/ 1							
reaction time	interval				12.3		12.3		13.06		# of strides	12.30	12.30	12.30	13.06	24.60	25.36	0.76
	velocity		8.13		8.13		8.13		7.66	8.01		8.13	8.13	8.13	7.66	8.13	7.89	

2004 Olympic Games (Athens, GRE)

FINAL date 24-Aug-04

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Williams-Darling, Tonique (E	time		12.0		23.4		35.5		49.4	49.41	4 / 1							
reaction time 0.268	interval				11.4		12.1		13.9		# of strides	12.00	11.40	12.10	13.90	23.40	26.00	2.60
	velocity		8.33		8.77		8.26		7.19	8.10		8.33	8.77	8.26	7.19	8.55	7.69	
Guevara, Ana (MEX) (1977)	time		12.0		23.5		35.7		49.6	49.56	3 / 2							
reaction time 0.234	interval				11.5		12.2		13.9		# of strides	12.00	11.50	12.20	13.90	23.50	26.10	2.60
	velocity		8.33		8.70		8.20		7.19	8.07		8.33	8.70	8.20	7.19	8.51	7.66	
Antyukh, Natalya (RUS) (198	time		12.1		23.6		35.9		49.9	49.89	6 / 3							
reaction time 0.263	interval				11.5		12.3		14.0		# of strides	12.10	11.50	12.30	14.00	23.60	26.30	2.70
	velocity		8.26		8.70		8.13		7.14	8.02		8.26	8.70	8.13	7.14	8.47	7.60	
Hennagan, Monique (USA) (	time		12.0		23.8		35.8		50.0	49.97	5 / 4							
reaction time 0.241	interval				11.8		12.0		14.2		# of strides	12.00	11.80	12.00	14.20	23.80	26.20	2.40
	velocity		8.33		8.47		8.33		7.04	8.00		8.33	8.47	8.33	7.04	8.40	7.63	
Trotter, DeeDee (USA) (1982	time		12.3		23.9		36.0		50.0	50.00	1 / 5							
reaction time 0.225	interval				11.6		12.1		14.0	PB	# of strides	12.30	11.60	12.10	14.00	23.90	26.10	2.20
	velocity		8.13		8.62		8.26		7.14	8.00		8.13	8.62	8.26	7.14	8.37	7.66	
Richards, Sanya (USA) (1985	time		11.9		23.5		35.8		50.2	50.19	2 / 6							
reaction time 0.205	interval				11.6		12.3		14.4		# of strides	11.90	11.60	12.30	14.40	23.50	26.70	3.20
	velocity		8.40		8.62		8.13		6.94	7.97		8.40	8.62	8.13	6.94	8.51	7.49	
Amertil, Christine (BAH) (19	time		12.1		24.0		36.4		50.4	50.37	8 / 7							
reaction time 0.276	interval				11.9		12.4		14.0		# of strides	12.10	11.90	12.40	14.00	24.00	26.40	2.40
	velocity		8.26		8.40		8.06		7.14	7.94		8.26	8.40	8.06	7.14	8.33	7.58	
Nazarova, Natalya (RUS) (19	time		12.2		23.8		36.3		50.7	50.65	7 / 8							
reaction time 0.251	interval				11.6		12.5		14.4		# of strides	12.20	11.60	12.50	14.40	23.80	26.90	3.10
	velocity		8.20		8.62		8.00		6.94	7.90		8.20	8.62	8.00	6.94	8.40	7.43	

2004 USA Olympic Trials (Sacramento, CA)

FINAL date 17-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hennagan, Monique (USA) (	time		12.03		23.62	29.85	36.12	42.43	49.56	49.56	7 / 1							
reaction time	interval				11.59	6.23	6.27	6.31	7.13	PB	# of strides	12.03	11.59	12.50	13.44	23.62	25.94	2.32
	velocity		8.31		8.63	8.03	7.97	7.92	7.01	8.07		8.31	8.63	8.00	7.44	8.47	7.71	
Richards, Sanya (USA) (1985	time		12.00		23.87	30.00	36.20	42.59	49.89	49.89	3 / 2							
reaction time	interval				11.87	6.13	6.20	6.39	7.30	AJR	# of strides	12.00	11.87	12.33	13.69	23.87	26.02	2.15
	velocity		8.33		8.42	8.16	8.06	7.82	6.85	8.02		8.33	8.42	8.11	7.30	8.38	7.69	
Trotter, De'Hashia (Dee Dee)	time		12.43		24.19	30.45	36.77	43.06	50.28	50.28	4 / 3							
reaction time	interval				11.76	6.26	6.32	6.29	7.22	PB	# of strides	12.43	11.76	12.58	13.51	24.19	26.09	1.90
	velocity		8.05		8.50	7.99	7.91	7.95	6.93	7.96		8.05	8.50	7.95	7.40	8.27	7.67	
Cox, Crystal (USA) (1979)	time		12.30		23.64	29.73	36.25	42.91	50.52	50.52	2 / 4							
reaction time	interval				11.34	6.09	6.52	6.66	7.61	PB	# of strides	12.30	11.34	12.61	14.27	23.64	26.88	3.24
	velocity		8.13		8.82	8.21	7.67	7.51	6.57	7.92		8.13	8.82	7.93	7.01	8.46	7.44	
Henderson, Monique (USA)	time		12.06		23.89	30.18	36.59	43.08	50.75	50.75	6 / 5							

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	interval		11.83	6.29	6.41	6.49	7.67		# of strides	12.06	11.83	12.70	14.16	23.89	26.86	2.97
	velocity	8.29	8.45	7.95	7.80	7.70	6.52	7.88		8.29	8.45	7.87	7.06	8.37	7.45	
Robinson, Moushaumi (USA	time	12.22	24.04	30.43	37.01	43.72	51.54	51.54	8 / 6							
reaction time	interval		11.82	6.39	6.58	6.71	7.82	PB	# of strides	12.22	11.82	12.97	14.53	24.04	27.50	3.46
	velocity	8.18	8.46	7.82	7.60	7.45	6.39	7.76		8.18	8.46	7.71	6.88	8.32	7.27	
Reid, Suziann (USA) (1977)	time	12.25	24.60	30.78	38.39	44.18	51.61	51.61	5 / 7							
reaction time	interval		12.35	6.18	7.61	5.79	7.43		# of strides	12.25	12.35	13.79	13.22	24.60	27.01	2.41
	velocity	8.16	8.10	8.09	6.57	8.64	6.73	7.75		8.16	8.10	7.25	7.56	8.13	7.40	
Dunn, Debbie (USA) (1978)	time	12.06	23.47	29.61	36.32	43.50	51.93	51.93	1 / 8							
reaction time	interval		11.41	6.14	6.71	7.18	8.43		# of strides	12.06	11.41	12.85	15.61	23.47	28.46	4.99
	velocity	8.29	8.76	8.14	7.45	6.96	5.93	7.70		8.29	8.76	7.78	6.41	8.52	7.03	

Semi-Final 2

date 15-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.99		23.86	30.65	36.67	43.21	50.34	50.34	3 / 1							
reaction time	interval				11.87	6.79	6.02	6.54	7.13		# of strides	11.99	11.87	12.81	13.67	23.86	26.48	2.62
	velocity		8.34		8.42	7.36	8.31	7.65	7.01	7.95	193.0	8.34	8.42	7.81	7.32	8.38	7.55	
Reid, Suziann (USA) (1977)	time		12.25		24.64	30.65	37.17	43.78	51.14	51.14	5 / 2							
reaction time	interval				12.39	6.01	6.52	6.61	7.36		# of strides	12.25	12.39	12.53	13.97	24.64	26.50	1.86
	velocity		8.16		8.07	8.32	7.67	7.56	6.79	7.82	193.0	8.16	8.07	7.98	7.16	8.12	7.55	
Robinson, Moushaumi (USA	time		12.16			30.15	37.07	43.91	51.72	51.72	2 / 3							
reaction time	interval					17.99	6.92	6.84	7.81	PB	# of strides	12.16			14.65			
	velocity		8.22			8.34	7.23	7.31	6.40	7.73		8.22			6.83			
Dunn, Debbie (USA) (1978)	time		12.76		24.78	30.75	37.15	43.91	51.84	51.84	8 / 4							
reaction time	interval				12.02	5.97	6.40	6.76	7.93		# of strides	12.76	12.02	12.37	14.69	24.78	27.06	2.28
	velocity		7.84		8.32	8.38	7.81	7.40	6.31	7.72	192.2	7.84	8.32	8.08	6.81	8.07	7.39	
Washington, Demetria (USA	time		12.15		24.11	30.73	37.39	44.44	52.27	52.27	4 / 5							
reaction time	interval				11.96	6.62	6.66	7.05	7.83		# of strides	12.15	11.96	13.28	14.88	24.11	28.16	4.05
	velocity		8.23		8.36	7.55	7.51	7.09	6.39	7.65	192.7	8.23	8.36	7.53	6.72	8.30	7.10	
Davis, Kia (USA) (1976)	time		12.41			30.64	37.39	44.96	52.27	52.27	1 / 6							
reaction time	interval					18.23	6.75	7.57	7.31		# of strides	12.41			14.88			
	velocity		8.06			8.23	7.41	6.61	6.84	7.65		8.06			6.72			
Greggs, Charlette (USA) (19	time		12.60		24.34	30.60	37.27	44.41	52.87	52.87	7 / 7							
reaction time	interval				11.74	6.26	6.67	7.14	8.46		# of strides	12.60	11.74	12.93	15.60	24.34	28.53	4.19
	velocity		7.94		8.52	7.99	7.50	7.00	5.91	7.57	181.0	7.94	8.52	7.73	6.41	8.22	7.01	
Dyer, Tonette (USA) (1982)	time		11.98		23.94	30.36	37.24	44.76	53.70	53.70	6 / 8							
reaction time	interval				11.96	6.42	6.88	7.52	8.94		# of strides	11.98	11.96	13.30	16.46	23.94	29.76	5.82
	velocity		8.35		8.36	7.79	7.27	6.65	5.59	7.45	196.0	8.35	8.36	7.52	6.08	8.35	6.72	

Semi-Final 1

date 15-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Trotter, De'Hashia (Dee Dee)	time		12.88		24.71	30.83	37.29	43.68	50.53	50.53	3 / 1							
reaction time	interval				11.83	6.12	6.46	6.39	6.85		# of strides	12.88	11.83	12.58	13.24	24.71	25.82	1.11
	velocity		7.76		8.45	8.17	7.74	7.82	7.30	7.92	188.0	7.76	8.45	7.95	7.55	8.09	7.75	
Henderson, Monique (USA)	time		12.28		23.89	30.06	36.40	43.14	50.53	50.53	4 / 2							
reaction time	interval				11.61	6.17	6.34	6.74	7.39	PB	# of strides	12.28	11.61	12.51	14.13	23.89	26.64	2.75
	velocity		8.14		8.61	8.10	7.89	7.42	6.77	7.92	190.2	8.14	8.61	7.99	7.08	8.37	7.51	
Hennagan, Monique (USA) (	time		12.16		23.92	30.01	36.45	43.16	50.59	50.59	6 / 3							
reaction time	interval				11.76	6.09	6.44	6.71	7.43		# of strides	12.16	11.76	12.53	14.14	23.92	26.67	2.75
	velocity		8.22		8.50	8.21	7.76	7.45	6.73	7.91	188.2	8.22	8.50	7.98	7.07	8.36	7.50	
Cox, Crystal (USA) (1979)	time		12.38		23.92	30.01	36.49	43.46	51.23	51.23	5 / 4							
reaction time	interval				11.54	6.09	6.48	6.97	7.77	PB	# of strides	12.38	11.54	12.57	14.74	23.92	27.31	3.39
	velocity		8.08		8.67	8.21	7.72	7.17	6.44	7.81	190.7	8.08	8.67	7.96	6.78	8.36	7.32	
Chapple, Jerrika (USA) (1984	time		12.73		24.81	31.13	37.84	44.60	52.08	52.08	1 / 5							
reaction time	interval				12.08	6.32	6.71	6.76	7.48		# of strides	12.73	12.08	13.03	14.24	24.81	27.27	2.46
	velocity		7.86		8.28	7.91	7.45	7.40	6.68	7.68		7.86	8.28	7.67	7.02	8.06	7.33	
Barber, Me'Lisa (USA) (1980)	time		12.62		24.72	30.88	37.57	44.60	52.10	52.10	2 / 6							
reaction time	interval				12.10	6.16	6.69	7.03	7.50		# of strides	12.62	12.10	12.85	14.53	24.72	27.38	2.66
	velocity		7.92		8.26	8.12	7.47	7.11	6.67	7.68		7.92	8.26	7.78	6.88	8.09	7.30	
Perkins, Angel (USA) (1984)	time		12.11		23.97	30.45	37.30	44.66	52.84	52.84	7 / 7							
reaction time	interval				11.86	6.48	6.85	7.36	8.18		# of strides	12.11	11.86	13.33	15.54	23.97	28.87	4.90
	velocity		8.26		8.43	7.72	7.30	6.79	6.11	7.57		8.26	8.43	7.50	6.44	8.34	6.93	
Danner, Mary (USA) (1980)	time		12.36		24.11	30.58	37.30	44.65	52.85	52.85	8 / 8							
reaction time	interval				11.75	6.47	6.72	7.35	8.20		# of strides	12.36	11.75	13.19	15.55	24.11	28.74	4.63
	velocity		8.09		8.51	7.73	7.44	6.80	6.10	7.57		8.09	8.51	7.58	6.43	8.30	6.96	

Heat 4

date 12-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Hennagan, Monique (USA) (	time		12.06		23.62		36.18	42.89	50.31	50.31	5 / 1							
reaction time	interval				11.56		12.56	6.71	7.42		# of strides	12.06	11.56	12.56	14.13	23.62	26.69	3.07
	velocity		8.29		8.65		7.96	7.45	6.74	7.95		8.29	8.65	7.96	7.08	8.47	7.49	

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

Henderson, Monique (USA)	time	11.92	23.69	36.58	43.34	51.06	51.06	3 / 2									
reaction time	interval		11.77	12.89	6.76	7.72		# of strides	11.92	11.77	12.89	14.48	23.69	27.37	3.68		
	velocity	8.39	8.50	7.76	7.40	6.48	7.83		8.39	8.50	7.76	6.91	8.44	7.31			
Perkins, Angel (USA) (1984)	time	12.01	23.96	37.22	44.24	52.46	52.46	4 / 3									
reaction time	interval		11.95	13.26	7.02	8.22		# of strides	12.01	11.95	13.26	15.24	23.96	28.50	4.54		
	velocity	8.33	8.37	7.54	7.12	6.08	7.62		8.33	8.37	7.54	6.56	8.35	7.02			
Davis, Kia (USA) (1976)	time	12.13	23.99	37.18	44.29	52.51	52.51	6 / 4									
reaction time	interval		11.86	13.19	7.11	8.22		# of strides	12.13	11.86	13.19	15.33	23.99	28.52	4.53		
	velocity	8.24	8.43	7.58	7.03	6.08	7.62		8.24	8.43	7.58	6.52	8.34	7.01			
Reed, Cassandra (USA) (198	time	12.42	24.59	37.92	44.92	53.14	53.14	7 / 5									
reaction time	interval		12.17	13.33	7.00	8.22		# of strides	12.42	12.17	13.33	15.22	24.59	28.55	3.96		
	velocity	8.05	8.22	7.50	7.14	6.08	7.53		8.05	8.22	7.50	6.57	8.13	7.01			
Sibley, Licretia (USA) (1983)	time	12.69	24.60	37.92	44.96	53.24	53.24	8 / 6									
reaction time	interval		11.91	13.32	7.04	8.28		# of strides	12.69	11.91	13.32	15.32	24.60	28.64	4.04		
	velocity	7.88	8.40	7.51	7.10	6.04	7.51		7.88	8.40	7.51	6.53	8.13	6.98			

Heat 3

date 12-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Washington, Demetria (USA	time		12.08		23.79		37.07	44.24	52.13	52.13	7 / 1							
reaction time	interval				11.71		13.28	7.17	7.89		# of strides	12.08	11.71	13.28	15.06	23.79	28.34	4.55
	velocity		8.28		8.54		7.53	6.97	6.34	7.67	192.7	8.28	8.54	7.53	6.64	8.41	7.06	
Dyer, Tonette (USA) (1982)	time		11.92		23.17		36.30	43.86	52.14	52.14	3 / 2							
reaction time	interval				11.25		13.13	7.56	8.28		# of strides	11.92	11.25	13.13	15.84	23.17	28.97	5.80
	velocity		8.39		8.89		7.62	6.61	6.04	7.67	196.7	8.39	8.89	7.62	6.31	8.63	6.90	
Greggs, Charlette (USA) (19	time		12.48		24.26		38.00	46.96	53.71	53.71	5 / 5							
reaction time	interval				11.78		13.74	8.96	6.75		# of strides	12.48	11.78	13.74	15.71	24.26	29.45	5.19
	velocity		8.01		8.49		7.28	5.58	7.41	7.45	186.0	8.01	8.49	7.28	6.37	8.24	6.79	

Heat 2

date 12-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time		11.98		23.66		36.43	42.92	50.22	50.22	6 / 1							
reaction time	interval				11.68		12.77	6.49	7.30		# of strides	11.98	11.68	12.77	13.79	23.66	26.56	2.90
	velocity		8.35		8.56		7.83	7.70	6.85	7.96	193.7	8.35	8.56	7.83	7.25	8.45	7.53	
Reid, Suziann (USA) (1977)	time		12.18		24.12		37.09	43.61	51.03	51.03	8 / 2							
reaction time	interval				11.94		12.97	6.52	7.42		# of strides	12.18	11.94	12.97	13.94	24.12	26.91	2.79
	velocity		8.21		8.38		7.71	7.67	6.74	7.84	197.0	8.21	8.38	7.71	7.17	8.29	7.43	
Danner, Mary (USA) (1980)	time		12.19		23.92		37.15	44.06	51.88	51.88	5 / 3							
reaction time	interval				11.73		13.23	6.91	7.82		# of strides	12.19	11.73	13.23	14.73	23.92	27.96	4.04
	velocity		8.20		8.53		7.56	7.24	6.39	7.71	181.2	8.20	8.53	7.56	6.79	8.36	7.15	
Chapple, Jerrika (USA) (1984	time		12.46		24.35		37.33	44.10	52.16	52.16	7 / 4							
reaction time	interval				11.89		12.98	6.77	8.06		# of strides	12.46	11.89	12.98	14.83	24.35	27.81	3.46
	velocity		8.03		8.41		7.70	7.39	6.20	7.67	195.0	8.03	8.41	7.70	6.74	8.21	7.19	
Barber, Me'Lisa (USA) (1980	time		11.82		23.42		36.68	43.87	52.30	52.30	4 / 5							
reaction time	interval				11.60		13.26	7.19	8.43		# of strides	11.82	11.60	13.26	15.62	23.42	28.88	5.46
	velocity		8.46		8.62		7.54	6.95	5.93	7.65	207.0	8.46	8.62	7.54	6.40	8.54	6.93	

Heat 1

date 12-Jul-04

USATF Women's Sprint Development (2004)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Trotter, De'Hashia (Dee Dee)	time		12.51		24.10		36.80	43.44	50.52	50.52	4 / 1							
reaction time	interval				11.59		12.70	6.64	7.08		# of strides	12.51	11.59	12.70	13.72	24.10	26.42	2.32
	velocity		7.99		8.63		7.87	7.53	7.06	7.92		7.99	8.63	7.87	7.29	8.30	7.57	
Cox, Crystal (USA) (1979)	time		12.61		24.22		37.12	43.99	51.44	51.44	7 / 2							
reaction time	interval				11.61		12.90	6.87	7.45	PB	# of strides	12.61	11.61	12.90	14.32	24.22	27.22	3.00
	velocity		7.93		8.61		7.75	7.28	6.71	7.78		7.93	8.61	7.75	6.98	8.26	7.35	
Dunn, Debbie (USA) (1978)	time		12.43		24.06		36.85	43.88	51.67	51.67	5 / 3							
reaction time	interval				11.63		12.79	7.03	7.79		# of strides	12.43	11.63	12.79	14.82	24.06	27.61	3.55
	velocity		8.05		8.60		7.82	7.11	6.42	7.74		8.05	8.60	7.82	6.75	8.31	7.24	
Robinson, Moushaumi (USA	time		12.43		24.14		36.88	44.11	52.14	52.14	3 / 4							
reaction time	interval				11.71		12.74	7.23	8.03		# of strides	12.43	11.71	12.74	15.26	24.14	28.00	3.86
	velocity		8.05		8.54		7.85	6.92	6.23	7.67		8.05	8.54	7.85	6.55	8.29	7.14	
Hall, Monique (USA) (1980)	time		12.35		23.99		37.08	44.29	52.71	52.71	6 / 5							
reaction time	interval				11.64		13.09	7.21	8.42		# of strides	12.35	11.64	13.09	15.63	23.99	28.72	4.73
	velocity		8.10		8.59		7.64	6.93	5.94	7.59		8.10	8.59	7.64	6.40	8.34	6.96	
Fox, Jessica (USA) (1982)	time		12.86		24.59		37.64	44.93	53.11	53.11	8 / 6							
reaction time	interval				11.73		13.05	7.29	8.18		# of strides	12.86	11.73	13.05	15.47	24.59	28.52	3.93
	velocity		7.78		8.53		7.66	6.86	6.11	7.53		7.78	8.53	7.66	6.46	8.13	7.01	

2003 IAAF World Championships (Paris, FRA)

Smith (2005) - high performance sprinting

FINAL

date 27-Aug-03

Bonvin (2003) - Compte-rendu 400m et relais 4x 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Guevara, Ana (MEX) (1977)	time		12.0		23.2		35.7		48.9	48.89	3 / 1							

Smith (2005)

reaction time 0.242	interval		11.2	12.5	13.2	AR	# of strides	12.00	11.20	12.50	13.19	23.20	25.69	2.49	
	velocity	8.33	8.93	8.00	7.58	8.18		8.33	8.93	8.00	7.58	8.62	7.79		
Fenton, Lorraine (JAM) (197	time		23.6	35.7	49.43	49.43	5 / 2								*Bonvin (2003)*
reaction time 0.177	interval			12.1	13.7		# of strides			12.10	13.73	23.60	25.83	2.23	
	velocity		8.47	8.26	7.28	8.09				8.26	7.28	8.47	7.74		
Thiam, Amy Mbacké (SEN) (	time		23.1	35.7	49.95	49.95	6 / 3								*Bonvin (2003)*
reaction time 0.175	interval			12.6	14.3		# of strides			12.60	14.25	23.10	26.85	3.75	
	velocity		8.66	7.94	7.02	8.01				7.94	7.02	8.66	7.45		
Nazarova, Natalya (RUS) (19	time		23.6	36.0	49.98	49.98	7 / 4								*Bonvin (2003)*
reaction time 0.170	interval			12.4	14.0		# of strides			12.40	13.98	23.60	26.38	2.78	
	velocity		8.47	8.06	7.15	8.00				8.06	7.15	8.47	7.58		
Williams-Darling, Tonique (E	time		23.5	36.2	50.38	50.38	4 / 5								*Bonvin (2003)*
reaction time 0.151	interval			12.7	14.2		# of strides			12.70	14.18	23.50	26.88	3.38	
	velocity		8.51	7.87	7.05	7.94				7.87	7.05	8.51	7.44		
Zykina, Olesya (RUS) (1980)	time		23.9	36.3	50.59	50.59	8 / 6								*Bonvin (2003)*
reaction time 0.107	interval			12.4	14.3		# of strides			12.40	14.29	23.90	26.69	2.79	
	velocity		8.37	8.06	7.00	7.91				8.06	7.00	8.37	7.49		
McConnell, Lee (GBR) (1978	time		23.3	36.5	51.07	51.07	1 / 7								*Bonvin (2003)*
reaction time 0.205	interval			13.2	14.6		# of strides			13.20	14.57	23.30	27.77	4.47	
	velocity		8.58	7.58	6.86	7.83				7.58	6.86	8.58	7.20		
Pospelova, Svetlana (RUS) (	time		23.7	36.7	51.30	51.30	2 / 8								*Bonvin (2003)*
reaction time 0.145	interval			13.0	14.6		# of strides			13.00	14.60	23.70	27.60	3.90	
	velocity		8.44	7.69	6.85	7.80				7.69	6.85	8.44	7.25		

2003 USATF National Junior Championships (Palo Alto, CA)

FINAL date 22-Jun-03

USATF Women's Sprint Development (2003)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Smith, Stephanie (USA) (198	time				24.07		37.25	44.26	52.04	52.04	7 / 1							
reaction time	interval						13.18	7.01	7.78	PB	# of strides			13.18	14.79	24.07	27.97	3.90
	velocity				8.31		7.59	7.13	6.43	7.69				7.59	6.76	8.31	7.15	
Perkins, Angel (USA) (1984)	time				24.42		37.67	44.70	52.06	52.06	6 / 2							
reaction time	interval						13.25	7.03	7.36	PB	# of strides			13.25	14.39	24.42	27.64	3.22
	velocity				8.19		7.55	7.11	6.79	7.68				7.55	6.95	8.19	7.24	
Hastings, Natasha (USA) (19	time				24.89		38.06	44.78	52.09	52.09	4 / 3							
reaction time	interval						13.17	6.72	7.31	PB	# of strides			13.17	14.03	24.89	27.20	2.31
	velocity				8.04		7.59	7.44	6.84	7.68				7.59	7.13	8.04	7.35	
Lee, Jasmine (USA) (1986)	time				25.01		38.46	45.16	52.52	52.52	8 / 4							
reaction time	interval						13.45	6.70	7.36	PB	# of strides			13.45	14.06	25.01	27.51	2.50
	velocity				8.00		7.43	7.46	6.79	7.62				7.43	7.11	8.00	7.27	
Lawrence, Deonna (USA) (19	time				24.89		38.14	45.23	52.77	52.77	3 / 5							
reaction time	interval						13.25	7.09	7.54	PB	# of strides			13.25	14.63	24.89	27.88	2.99
	velocity				8.04		7.55	7.05	6.63	7.58				7.55	6.84	8.04	7.17	
Cox, Shana (USA) (1985)	time				23.84		37.47	44.86	53.47	53.47	5 / 6							
reaction time	interval						13.63	7.39	8.61		# of strides			13.63	16.00	23.84	29.63	5.79
	velocity				8.39		7.34	6.77	5.81	7.48				7.34	6.25	8.39	6.75	
Austin, Lauren (USA) (1986)	time				25.00		38.64	45.86	53.61	53.61	2 / 7							
reaction time	interval						13.64	7.22	7.75		# of strides			13.64	14.97	25.00	28.61	3.61
	velocity				8.00		7.33	6.93	6.45	7.46				7.33	6.68	8.00	6.99	
Hardeman, Christina (USA) (	time				25.11		38.64	45.75	53.76	53.76	9 / 8							
reaction time	interval						13.53	7.11	8.01	PB	# of strides			13.53	15.12	25.11	28.65	3.54
	velocity				7.96		7.39	7.03	6.24	7.44				7.39	6.61	7.96	6.98	
Williams, Alycia (USA) (1985	time				25.18		39.07	46.53	54.73	54.73	1 / 9							
reaction time	interval						13.89	7.46	8.20		# of strides			13.89	15.66	25.18	29.55	4.37
	velocity				7.94		7.20	6.70	6.10	7.31				7.20	6.39	7.94	6.77	

2003 USATF National Championship (Palo Alto, CA)

FINAL date 21-Jun-03

USATF Women's Sprint Development (2003)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time				23.79		36.96	43.63	51.01	51.01	4 / 1							
reaction time	interval						13.17	6.67	7.38		# of strides			13.17	14.05	23.79	27.22	3.43
	velocity				8.41		7.59	7.50	6.78	7.84				7.59	7.12	8.41	7.35	
Washington, Demetria (USA	time				24.12		37.25	44.11	51.54	51.54	5 / 2							
reaction time	interval						13.13	6.86	7.43		# of strides			13.13	14.29	24.12	27.42	3.30
	velocity				8.29		7.62	7.29	6.73	7.76				7.62	7.00	8.29	7.29	
Trotter, De'Hashia (Dee Dee)	time				24.39		37.37	44.31	51.78	51.78	2 / 3							
reaction time	interval						12.98	6.94	7.47		# of strides			12.98	14.41	24.39	27.39	3.00
	velocity				8.20		7.70	7.20	6.69	7.72				7.70	6.94	8.20	7.30	
Robinson, Moushaumi (USA	time				25.01		38.04	44.66	51.93	51.93	7 / 4							
reaction time	interval						13.03	6.62	7.27		# of strides			13.03	13.89	25.01	26.92	1.91
	velocity				8.00		7.67	7.55	6.88	7.70				7.67	7.20	8.00	7.43	

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

Barber, Me'Lisa (USA) (1980	time		25.34		38.10	44.07	52.04	52.04	6 / 5						
reaction time	interval				12.76	5.97	7.97		# of strides		12.76	13.94	25.34	26.70	1.36
	velocity		7.89		7.84	8.38	6.27	7.69			7.84	7.17	7.89	7.49	
Cox, Crystal (USA) (1979)	time		23.99		37.12	44.18	52.07	52.07	3 / 6						
reaction time	interval				13.13	7.06	7.89		# of strides		13.13	14.95	23.99	28.08	4.09
	velocity		8.34		7.62	7.08	6.34	7.68			7.62	6.69	8.34	7.12	
Clay, Julian (USA) (1977)	time				38.41	45.11	52.47	52.47	9 / 7						
reaction time	interval					6.70	7.36		# of strides			14.06			
	velocity				7.81	7.46	6.79	7.62				7.11			
Fox, Jessica (USA) (1982)	time		25.36		38.36	45.11	52.58	52.58	8 / 8						
reaction time	interval				13.00	6.75	7.47		# of strides		13.00	14.22	25.36	27.22	1.86
	velocity		7.89		7.69	7.41	6.69	7.61			7.69	7.03	7.89	7.35	

Semi-Final 2

date 20-Jun-03

USATF Women's Sprint Development (2003)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Richards, Sanya (USA) (1985	time				23.96		37.17	44.01	51.74	51.74	7 / 1							
reaction time	interval						13.21	6.84	7.73		# of strides			13.21	14.57	23.96	27.78	3.82
	velocity				8.35		7.57	7.31	6.47	7.73				7.57	6.86	8.35	7.20	
Robinson, Moushaumi (USA	time				24.19		37.75	44.61	52.35	52.35	4 / 2							
reaction time	interval						13.56	6.86	7.74		# of strides			13.56	14.60	24.19	28.16	3.97
	velocity				8.27		7.37	7.29	6.46	7.64				7.37	6.85	8.27	7.10	
Trotter, De'Hashia (Dee Dee)	time				24.63		37.99	44.76	52.57	52.57	5 / 3							
reaction time	interval						13.36	6.77	7.81		# of strides			13.36	14.58	24.63	27.94	3.31
	velocity				8.12		7.49	7.39	6.40	7.61				7.49	6.86	8.12	7.16	
Clay, Julian (USA) (1977)	time				24.12		37.67	44.71	52.88	52.88	6 / 4							
reaction time	interval						13.55	7.04	8.17		# of strides			13.55	15.21	24.12	28.76	4.64
	velocity				8.29		7.38	7.10	6.12	7.56				7.38	6.57	8.29	6.95	
Hennagan, Monique (USA) (	time				24.07		37.62	44.86	53.22	53.22	8 / 5							
reaction time	interval						13.55	7.24	8.36		# of strides			13.55	15.60	24.07	29.15	5.08
	velocity				8.31		7.38	6.91	5.98	7.52				7.38	6.41	8.31	6.86	
Dunn, Debbie (USA) (1978)	time						37.97	46.25	53.46	53.46	2 / 6							
reaction time	interval							8.28	7.21		# of strides				15.49			
	velocity						7.90	6.04	6.93	7.48					6.46			
Trent, Tia (USA) (1979)	time				24.64		38.37	45.89	54.24	54.24	9 / 7							
reaction time	interval						13.73	7.52	8.35		# of strides			13.73	15.87	24.64	29.60	4.96
	velocity				8.12		7.28	6.65	5.99	7.37				7.28	6.30	8.12	6.76	
Henderson, Monique (USA)	time						38.77	46.05	54.43	54.43	3 / 8							
reaction time	interval							7.28	8.38		# of strides				15.66			
	velocity						7.74	6.87	5.97	7.35					6.39			

Semi-Final 1

date 20-Jun-03

USATF Women's Sprint Development (2003)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Washington, Demetria (USA	time				24.54		37.56	44.39	51.91	51.91	5 / 1							
reaction time	interval						13.02	6.83	7.52		# of strides			13.02	14.35	24.54	27.37	2.83
	velocity				8.15		7.68	7.32	6.65	7.71				7.68	6.97	8.15	7.31	
Barber, Me'Lisa (USA) (1980	time				24.84		37.82	44.83	52.53	52.53	4 / 2							
reaction time	interval						12.98	7.01	7.70		# of strides			12.98	14.71	24.84	27.69	2.85
	velocity				8.05		7.70	7.13	6.49	7.61				7.70	6.80	8.05	7.22	
Cox, Crystal (USA) (1979)	time				24.01		37.27	44.44	52.57	52.57	7 / 3							
reaction time	interval						13.26	7.17	8.13		# of strides			13.26	15.30	24.01	28.56	4.55
	velocity				8.33		7.54	6.97	6.15	7.61				7.54	6.54	8.33	7.00	
Fox, Jessica (USA) (1982)	time				24.81		38.04	44.93	52.60	52.60	6 / 4							
reaction time	interval						13.23	6.89	7.67		# of strides			13.23	14.56	24.81	27.79	2.98
	velocity				8.06		7.56	7.26	6.52	7.60				7.56	6.87	8.06	7.20	
Greggs, Charlette (USA) (19	time				24.21		38.16	45.56	53.77	53.77	8 / 5							
reaction time	interval						13.95	7.40	8.21		# of strides			13.95	15.61	24.21	29.56	5.35
	velocity				8.26		7.17	6.76	6.09	7.44				7.17	6.41	8.26	6.77	
Barnes, Tiffany (USA) (1981)	time				24.73		38.49	45.80	53.83	53.83	9 / 6							
reaction time	interval						13.76	7.31	8.03		# of strides			13.76	15.34	24.73	29.10	4.37
	velocity				8.09		7.27	6.84	6.23	7.43				7.27	6.52	8.09	6.87	
Doe, Carielle (USA) (1980)	time				24.56		38.46	45.93	54.09	54.09	3 / 7							
reaction time	interval						13.90	7.47	8.16		# of strides			13.90	15.63	24.56	29.53	4.97
	velocity				8.14		7.19	6.69	6.13	7.40				7.19	6.40	8.14	6.77	
Barber, Mikele (USA) (1980)	time				24.63		38.12	45.73	54.23	54.23	2 / 8							
reaction time	interval						13.49	7.61	8.50		# of strides			13.49	16.11	24.63	29.60	4.97
	velocity				8.12		7.41	6.57	5.88	7.38				7.41	6.21	8.12	6.76	

2003 NCAA Championships (Sacramento, CA)

FINAL

date 14-Jun-03

Track Newsletter (2003) - NCAA championships

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

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

Richards, Sanya (USA) (1985	time		23.3		36.0		50.6	50.58	/ 1							
reaction time	interval				12.70		14.60	AJR	# of strides			12.70	14.60	23.30	27.30	4.00
	velocity		8.58		7.87		6.85	7.91				7.87	6.85	8.58	7.33	

2003 Prefontaine Classic (Eugene, OR)

FINAL

date 24-May-03

Track Newsletter (2003) - prefontaine classic

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Guevara, Ana (MEX) (1977)	time				23.6				49.3	49.34	/ 1							
reaction time	interval								25.70		# of strides					23.60	25.70	2.10
	velocity				8.47				7.78	8.11						8.47	7.78	

2002 European Championships (Munich, GER)

FINAL

date 08-Aug-02

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Zykina, Olesya (RUS) (1980)	time		12.20		23.84		36.62		50.45	50.45	/ 1							
reaction time 0.131	interval				11.64		12.78		13.83		# of strides	12.20	11.64	12.78	13.83	23.84	26.61	2.77
	velocity		8.20		8.59		7.82		7.23	7.93		8.20	8.59	7.82	7.23	8.39	7.52	
Breuer, Grit (GER) (1972)	time		12.49		24.22		36.96		50.70	50.70	/ 2							
reaction time 0.161	interval				11.73		12.74		13.74		# of strides	12.49	11.73	12.74	13.74	24.22	26.48	2.26
	velocity		8.01		8.53		7.85		7.28	7.89		8.01	8.53	7.85	7.28	8.26	7.55	
McConnell, Lee (GBR) (1978	time		12.58		24.33		37.02		51.02	51.02	/ 3							
reaction time 0.209	interval				11.75		12.69		14.00	PB	# of strides	12.58	11.75	12.69	14.00	24.33	26.69	2.36
	velocity		7.95		8.51		7.88		7.14	7.84		7.95	8.51	7.88	7.14	8.22	7.49	
Prokopek, Grazzyna (POL) (1	time		12.61		24.54		37.33		51.53	51.53	/ 4							
reaction time 0.171	interval				11.93		12.79		14.20		# of strides	12.61	11.93	12.79	14.20	24.54	26.99	2.45
	velocity		7.93		8.38		7.82		7.04	7.76		7.93	8.38	7.82	7.04	8.15	7.41	
Kapachinskaya, Anastasiya (	time		12.88		24.96		37.86		51.69	51.69	/ 5							
reaction time 0.286	interval				12.08		12.90		13.83		# of strides	12.88	12.08	12.90	13.83	24.96	26.73	1.77
	velocity		7.76		8.28		7.75		7.23	7.74		7.76	8.28	7.75	7.23	8.01	7.48	
Yefremova, Antonina (UKR)	time		13.00		24.97		37.75		52.02	52.02	/ 6							
reaction time 0.162	interval				11.97		12.78		14.27		# of strides	13.00	11.97	12.78	14.27	24.97	27.05	2.08
	velocity		7.69		8.35		7.82		7.01	7.69		7.69	8.35	7.82	7.01	8.01	7.39	
Usovich, Sviatlana (BLR) (19	time		12.91		24.96		38.19		52.10	52.10	/ 7							
reaction time 0.164	interval				12.05		13.23		13.91		# of strides	12.91	12.05	13.23	13.91	24.96	27.14	2.18
	velocity		7.75		8.30		7.56		7.19	7.68		7.75	8.30	7.56	7.19	8.01	7.37	
Rockmeier, Birgit (GER) (197	time		12.75		25.02		38.46		52.91	52.91	/ 8							
reaction time 0.127	interval				12.27		13.44		14.45		# of strides	12.75	12.27	13.44	14.45	25.02	27.89	2.87
	velocity		7.84		8.15		7.44		6.92	7.56		7.84	8.15	7.44	6.92	7.99	7.17	

Heat 3

date 07-Aug-02

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Breuer, Grit (GER) (1972)	time		12.38		23.90		37.01		50.98	50.98	/ 1							
reaction time 0.150	interval				11.52		13.11		13.97		# of strides	12.38	11.52	13.11	13.97	23.90	27.08	3.18
	velocity		8.08		8.68		7.63		7.16	7.85		8.08	8.68	7.63	7.16	8.37	7.39	
McConnell, Lee (GBR) (1978	time		12.66		24.52		37.37		51.24	51.24	/ 2							
reaction time 0.218	interval				11.86		12.85		13.87		# of strides	12.66	11.86	12.85	13.87	24.52	26.72	2.20
	velocity		7.90		8.43		7.78		7.21	7.81		7.90	8.43	7.78	7.21	8.16	7.49	
Kapachinskaya, Anastasiya (	time		12.88		24.69		37.46		51.56	51.56	/ 3							
reaction time 0.209	interval				11.81		12.77		14.10		# of strides	12.88	11.81	12.77	14.10	24.69	26.87	2.18
	velocity		7.76		8.47		7.83		7.09	7.76		7.76	8.47	7.83	7.09	8.10	7.44	

Heat 2

date 07-Aug-02

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Yefremova, Antonina (UKR)	time		13.12		24.94		37.72		51.96	51.96	/ 1							
reaction time 0.175	interval				11.82		12.78		14.24		# of strides	13.12	11.82	12.78	14.24	24.94	27.02	2.08
	velocity		7.62		8.46		7.82		7.02	7.70		7.62	8.46	7.82	7.02	8.02	7.40	
Prokopek, Grazyna (POL) (19	time		12.76		24.66		37.41		52.01	52.01	/ 2							
reaction time 0.181	interval				11.90		12.75		14.60		# of strides	12.76	11.90	12.75	14.60	24.66	27.35	2.69
	velocity		7.84		8.40		7.84		6.85	7.69		7.84	8.40	7.84	6.85	8.11	7.31	
Marx, Claudia (GER) (1978)	time		12.84		25.00		37.16		52.42	52.42	/ 3							
reaction time 0.157	interval				12.16		12.16		15.26		# of strides	12.84	12.16	12.16	15.26	25.00	27.42	2.42
	velocity		7.79		8.22		8.22		6.55	7.63		7.79	8.22	8.22	6.55	8.00	7.29	

Heat 1

date 07-Aug-02

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Zykina, Olesya (RUS) (1980)	time		12.24		23.74		36.38		50.47	50.47	/ 1							
reaction time 0.134	interval				11.50		12.64		14.09		# of strides	12.24	11.50	12.64	14.09	23.74	26.73	2.99
	velocity		8.17		8.70		7.91		7.10	7.93		8.17	8.70	7.91	7.10	8.42	7.48	
Rockmeier, Birgit (GER) (197	time		12.72		25.00		37.95		52.28	52.28	/ 2							
reaction time 0.137	interval				12.28		12.95		14.33		# of strides	12.72	12.28	12.95	14.33	25.00	27.28	2.28
	velocity		7.86		8.14		7.72		6.98	7.65		7.86	8.14	7.72	6.98	8.00	7.33	

2002 Herculis (Monaco, MON)

FINAL

date 19-Jul-02

Veney - split times from PJ

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential

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

Fenton, Lorraine (JAM) (197	time		12.35		23.80		36.27		49.30	49.30	/ 2						
reaction time 0.218	interval				11.45		12.47		13.03	NR	# of strides	12.35	11.45	12.47	13.03	23.80	25.50	1.70
	velocity		8.10		8.73		8.02		7.67	8.11		8.10	8.73	8.02	7.67	8.40	7.84	

2002 NCAA Championships (Baton Rouge, LA)

FINAL date 01-Jun-02

Track Newsletter (2002) - NCAA championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Beckford, Allison (JAM) (197	time				24.2		36.8		50.8	50.83	/ 1							
reaction time	interval						12.60		14.00	PB	# of strides			12.60	14.00	24.20	26.60	2.40
	velocity				8.26		7.94		7.14	7.87				7.94	7.14	8.26	7.52	
Barder, Me'Lisa (USA) (1980)		no information available							PB	50.87	/ 2							
Demus, Lashinda (USA) (19	time				24.0				51.3	51.30	/ 3							
reaction time	interval								27.30		# of strides					24.00	27.30	3.30
	velocity				8.33				7.33	7.80						8.33	7.33	
Washington, Demetria (USA	time				23.80		36.80		51.40	51.38	/ 4							
reaction time	interval						13.00		14.60		# of strides			13.00	14.60	23.80	27.60	3.80
	velocity				8.40		7.69		6.85	7.79				7.69	6.85	8.40	7.25	
Smith, Ronetta (JAM) (1980)		no information available							PB	51.62	/ 5							
Davis, Michele (USA) (1980)		no information available							PB	52.16	/ 6							
Henderson, Monique (USA)	time				24.00		37.20		52.30	52.31	/ 7							
reaction time	interval						13.20		15.10		# of strides			13.20	15.10	24.00	28.30	4.30
	velocity				8.33		7.58		6.62	7.65				7.58	6.62	8.33	7.07	

2002 Prefontaine Classic (Eugene, OR)

FINAL date 26-May-02

Track Newsletter (2002) - prefontaine classic

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Collins, Michelle (USA) (1971)		no information available								50.87	**/ 1**							
Richards, Sanya (USA) (1985	time				24.2				51.1	51.16	/ 2							
reaction time	interval								26.90	PB	# of strides					24.20	26.90	2.70
	velocity				8.26				7.43	7.82						8.26	7.43	

2002 Mt. SAC Relays (Walnut, CA)

FINAL date 21-Apr-02

Track Newsletter (2002) - Mt. SAC relays, invitational women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jones, Marion (USA) (1975)	time				23.8		36.5		50.5	50.46	/ 1							
reaction time	interval						12.70		14.00		# of strides			12.70	14.00	23.80	26.70	2.90
	velocity				8.40		7.87		7.14	7.93				7.87	7.14	8.40	7.49	

2001 Chinese National Games (Guangzhou, CHN)

Heat 2 date 21-Nov-01

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Xiao Hongfan (CHN) (1983)	time		12.50		24.70		38.27		52.96	52.94	/ 1							
reaction time	interval				12.20		13.57		14.69		# of strides	12.50	12.20	13.57	14.69	24.70	28.26	3.56
	velocity		8.00		8.20		7.37		6.81	7.56		8.00	8.20	7.37	6.81	8.10	7.08	

2001 ISTAF (Berlin, GER)

FINAL date 31-Aug-01

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Breuer, Grit (GER) (1972)	time		12.45		24.28		37.22		50.78	50.78	/ 1							
reaction time 0.217	interval				11.83		12.94		13.56		# of strides	12.45	11.83	12.94	13.56	24.28	26.50	2.22
	velocity		8.03		8.45		7.73		7.37	7.88		8.03	8.45	7.73	7.37	8.24	7.55	
Marx, Claudia (GER) (1978)	time		12.59		24.62		37.79		52.26	52.26	/ 3							
reaction time 0.160	interval				12.03		13.17		14.47		# of strides	12.59	12.03	13.17	14.47	24.62	27.64	3.02
	velocity		7.94		8.31		7.59		6.91	7.65		7.94	8.31	7.59	6.91	8.12	7.24	
Rockmeier, Birgit (GER) (197	time		12.31		24.53		37.69		53.04	53.04	/ 5							
reaction time 0.158	interval				12.22		13.16		15.35		# of strides	12.31	12.22	13.16	15.35	24.53	28.51	3.98
	velocity		8.12		8.18		7.60		6.51	7.54		8.12	8.18	7.60	6.51	8.15	7.02	

2001 IAAF World Championships (Edmonton, CAN)

FINAL date 07-Aug-01

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Thiam, Amy Mbacke (SEN) (	0.175	no information available							NR	49.86	4 / 1							
Fenton, Lorraine (JAM) (197	0.170	no information available								49.88	7 / 2							
Guevara, Ana (MEX) (1977)	0.187	no information available								49.97	3 / 3							
Breuer, Grit (GER) (1972)	0.151	no information available								50.49	5 / 4						# of strides	191.7
Nadjina, Kaltouma (CHA) (1	0.193	no information available								50.80	6 / 5							
Zykina, Olesya (RUS) (1980)	0.144	no information available								50.93	2 / 6							
Nguimgo, Mireille (CMR) (19	0.157	no information available								51.97	1 / 7							
Ogunkoya, Falilat (NGR) (19	0.171	no information available								dnf	8 / --							

2001 European Cup (Bremen, GER)

FINAL date 23-Jun-01

Graubner (2007) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Breuer, Grit (GER) (1972)	time		12.33		24.18		37.02		50.49	50.49	/ 1							
reaction time	interval				11.85		12.84		13.47		# of strides	12.33	11.85	12.84	13.47	24.18	26.31	2.13
	velocity		8.11		8.44		7.79		7.42	7.92		8.11	8.44	7.79	7.42	8.27	7.60	
Landre, Francine (FRA) (197	time		12.42		24.52		37.48		51.21	51.21	/ 2							

reaction time	interval		12.10	12.96	13.73	=PB	# of strides	12.42	12.10	12.96	13.73	24.52	26.69	2.17
	velocity	8.05	8.26	7.72	7.28	7.81		8.05	8.26	7.72	7.28	8.16	7.49	
Antyukh, Natalya (RUS) (198	time	12.76	24.72	37.36	51.37	51.37	/ 3							
reaction time	interval		11.96	12.64	14.01		# of strides	12.76	11.96	12.64	14.01	24.72	26.65	1.93
	velocity	7.84	8.36	7.91	7.14	7.79		7.84	8.36	7.91	7.14	8.09	7.50	
Ruicu, Otilia (ROU) (1978)	time	12.67	24.98	37.79	51.65	51.65	/ 4							
reaction time	interval		12.31	12.81	13.86	PB	# of strides	12.67	12.31	12.81	13.86	24.98	26.67	1.69
	velocity	7.89	8.12	7.81	7.22	7.74		7.89	8.12	7.81	7.22	8.01	7.50	
Curbishley, Allison (GBR) (1	time	12.73	24.74	37.84	51.99	51.99	/ 5							
reaction time	interval		12.01	13.10	14.15		# of strides	12.73	12.01	13.10	14.15	24.74	27.25	2.51
	velocity	7.86	8.33	7.63	7.07	7.69		7.86	8.33	7.63	7.07	8.08	7.34	
Kozak, Anna (BLR) (1974)	time	12.49	24.04	36.66	52.08	52.08	/ 6							
reaction time	interval		11.55	12.62	15.42		# of strides	12.49	11.55	12.62	15.42	24.04	28.04	4.00
	velocity	8.01	8.66	7.92	6.49	7.68		8.01	8.66	7.92	6.49	8.32	7.13	
Perpoli, Danielle (ITA) (1968)	time	12.73	25.12	38.34	52.13	52.13	/ 7							
reaction time	interval		12.39	13.22	13.79	PB	# of strides	12.73	12.39	13.22	13.79	25.12	27.01	1.89
	velocity	7.86	8.07	7.56	7.25	7.67		7.86	8.07	7.56	7.25	7.96	7.40	
Žížalová, Tereza (CZE) (1981	time	13.28	25.84	39.42	54.06	54.06	/ 8							
reaction time	interval		12.56	13.58	14.64	PB	# of strides	13.28	12.56	13.58	14.64	25.84	28.22	2.38
	velocity	7.53	7.96	7.36	6.83	7.40		7.53	7.96	7.36	6.83	7.74	7.09	

2001 NCAA Championships (Eugene, OR)

FINAL date 02-Jun-01

Track Newsletter (2001) - NCAA championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Beckford, Allison (JAM) (197	time				24.6		37.7		52.3	52.33	/ 1							
reaction time	interval						13.10		14.60		# of strides			13.10	14.60	24.60	27.70	3.10
	velocity				8.13		7.63		6.85	7.64				7.63	6.85	8.13	7.22	
Washington, Demetria (USA	time				24.7		37.8		52.4	52.42	/ 2							
reaction time	interval						13.10		14.60		# of strides			13.10	14.60	24.70	27.70	3.00
	velocity				8.10		7.63		6.85	7.63				7.63	6.85	8.10	7.22	
Robinson, Moushaumi (USA	time				24.5		38.0		53.0	52.96	/ 3							
reaction time	interval						13.50		15.00		# of strides			13.50	15.00	24.50	28.50	4.00
	velocity				8.16		7.41		6.67	7.55				7.41	6.67	8.16	7.02	
Barber, Mikele (USA) (1980)	time				24.9		38.1		53.0	53.00	/ 4							
reaction time	interval						13.20		14.90		# of strides			13.20	14.90	24.90	28.10	3.20
	velocity				8.03		7.58		6.71	7.55				7.58	6.71	8.03	7.12	

2000 Olympic Games (Sydney, AUS)

FINAL date 25-Sep-00

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Freeman, Cathy (AUS) (1973	time		12.30		24.08		36.14		49.11	49.11	6 / 1							
reaction time 0.227	interval				11.78		12.06		12.97		# of strides	12.30	11.78	12.06	12.97	24.08	25.03	0.95
	velocity		8.13		8.49		8.29		7.71	8.14		8.13	8.49	8.29	7.71	8.31	7.99	
Fenton, Lorraine (JAM) (197	time		12.14		23.70		36.00		49.58	49.58	4 / 2							
reaction time 0.452	interval				11.56		12.30		13.58	PB	# of strides	12.14	11.56	12.30	13.58	23.70	25.88	2.18
	velocity		8.24		8.65		8.13		7.36	8.07		8.24	8.65	8.13	7.36	8.44	7.73	
Merry, Katharine (GBR) (197	time		12.32		23.80		36.08		49.72	49.72	3 / 3							
reaction time 0.270	interval				11.48		12.28		13.64	PB	# of strides	12.32	11.48	12.28	13.64	23.80	25.92	2.12
	velocity		8.12		8.71		8.14		7.33	8.05		8.12	8.71	8.14	7.33	8.40	7.72	
Fraser, Donna (GBR) (1972)	time		12.4		24.1		36.8		49.8	49.79	2 / 4							
reaction time 0.174	interval				11.70		12.70		13.00	PB	# of strides	12.40	11.70	12.70	13.00	24.10	25.70	1.60
	velocity		8.06		8.55		7.87		7.69	8.03		8.06	8.55	7.87	7.69	8.30	7.78	
Guevara, Ana (MEX) (1977)	time		12.3		24.1		36.3		50.0	49.96	5 / 5							
reaction time 0.261	interval				11.80		12.20		13.70		# of strides	12.30	11.80	12.20	13.70	24.10	25.90	1.80
	velocity		8.13		8.47		8.20		7.30	8.01		8.13	8.47	8.20	7.30	8.30	7.72	
Seyerling, Heide (RSA) (1976	time		12.2		24.3		36.5		50.1	50.05	7 / 6							
reaction time 0.175	interval				12.10		12.20		13.60	NR / PB	# of strides	12.20	12.10	12.20	13.60	24.30	25.80	1.50
	velocity		8.20		8.26		8.20		7.35	7.99		8.20	8.26	8.20	7.35	8.23	7.75	
Ogunkoya, Falilat (NGR) (19	time		12.3		24.2		36.6		50.1	50.12	8 / 7							
reaction time 0.254	interval				11.90		12.40		13.50		# of strides	12.30	11.90	12.40	13.50	24.20	25.90	1.70
	velocity		8.13		8.40		8.06		7.41	7.98		8.13	8.40	8.06	7.41	8.26	7.72	
Kotlyarova, Olga (RUS) (197	time		12.3		24.0		37.7		51.0	51.04	1 / 8							
reaction time 0.188	interval				11.70		13.70		13.30		# of strides	12.30	11.70	13.70	13.30	24.00	27.00	3.00
	velocity		8.13		8.55		7.30		7.52	7.84		8.13	8.55	7.30	7.52	8.33	7.41	

2000 USA Olympic Trials (Sacramento, CA)

FINAL date 16-Jul-00

Hymans (2008) - history of the US olympic trials - track and field

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Colander-Richardson, LaTas	time		12.3		23.7		35.9		49.87	49.87	7 / 1							
reaction time	interval				11.4		12.2		14.0	PB	# of strides	12.30	11.40	12.20	13.97	23.70	26.17	2.47
	velocity		8.13		8.77		8.20		7.16	8.02		8.13	8.77	8.20	7.16	8.44	7.64	

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miles-Clark, Jearl (USA) (196	time		12.5		24.2		36.4		50.23	50.23	5 / 2							
reaction time	interval				11.7		12.2		13.8		# of strides	12.50	11.70	12.20	13.83	24.20	26.03	1.83
	velocity		8.00		8.55		8.20		7.23	7.96		8.00	8.55	8.20	7.23	8.26	7.68	
Collins, Michelle (USA) (197	time		12.3		23.5		35.7		50.29	50.29	4 / 3							
reaction time	interval				11.2		12.2		14.6		# of strides	12.30	11.20	12.20	14.59	23.50	26.79	3.29
	velocity		8.13		8.93		8.20		6.85	7.95		8.13	8.93	8.20	6.85	8.51	7.47	
Hennagan, Monique (USA) (	time		12.5		24.0		36.6		50.82	50.82	3 / 4							
reaction time	interval				11.5		12.6		14.2	PB	# of strides	12.50	11.50	12.60	14.22	24.00	26.82	2.82
	velocity		8.00		8.70		7.94		7.03	7.87		8.00	8.70	7.94	7.03	8.33	7.46	
Barber, Mikele (USA) (1980)	time		12.5		24.1		36.8		51.17	51.17	8 / 5							
reaction time	interval				11.6		12.7		14.4		# of strides	12.50	11.60	12.70	14.37	24.10	27.07	2.97
	velocity		8.00		8.62		7.87		6.96	7.82		8.00	8.62	7.87	6.96	8.30	7.39	
Anderson, Andrea (USA) (19	time		12.2		23.4		36.0		51.32	51.32	1 / 6							
reaction time	interval				11.2		12.6		15.3		# of strides	12.20	11.20	12.60	15.32	23.40	27.92	4.52
	velocity		8.20		8.93		7.94		6.53	7.79		8.20	8.93	7.94	6.53	8.55	7.16	
Malone-Wallace, Maicel (USA	time		12.5		24.0		36.6		51.39	51.39	6 / 7							
reaction time	interval				11.5		12.6		14.8		# of strides	12.50	11.50	12.60	14.79	24.00	27.39	3.39
	velocity		8.00		8.70		7.94		6.76	7.78		8.00	8.70	7.94	6.76	8.33	7.30	
Henderson, Monique (USA)	time		12.6		24.3		37.1		51.79	51.79	2 / 8							
reaction time	interval				11.7		12.8		14.7		# of strides	12.60	11.70	12.80	14.69	24.30	27.49	3.19
	velocity		7.94		8.55		7.81		6.81	7.72		7.94	8.55	7.81	6.81	8.23	7.28	

1999 IAAF World Championships (Sevilla, ESP)

FINAL date 26-Aug-99

Ferro (2001) - biomechanical analysis of the 7th world championships, seville 1999

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Freeman, Cathy (AUS) (1973	time	6.56	12.19	17.87	23.79	29.87	35.97	42.50	49.67	49.67	5 / 1							
reaction time 0.193	interval		5.63	5.68	5.92	6.08	6.10	6.53	7.17		# of strides	12.19	11.60	12.18	13.70	23.79	25.88	2.09
	velocity	7.62	8.88	8.80	8.45	8.22	8.20	7.66	6.97	8.05		8.20	8.62	8.21	7.30	8.41	7.73	
Rücker, Anja (GER) (1972)	time	6.80	12.41	18.10	24.03	30.09	36.21	42.66	49.74	49.74	8 / 2							
reaction time 0.203	interval		5.61	5.69	5.93	6.06	6.12	6.45	7.08	PB	# of strides	12.41	11.62	12.18	13.53	24.03	25.71	1.68
	velocity	7.35	8.91	8.79	8.43	8.25	8.17	7.75	7.06	8.04		8.06	8.61	8.21	7.39	8.32	7.78	
Graham, Lorraine (JAM) (197	time	6.61	12.11	17.73	23.59	29.78	36.12	42.72	49.92	49.92	3 / 3							
reaction time 0.182	interval		5.50	5.62	5.86	6.19	6.34	6.60	7.20	PB	# of strides	12.11	11.48	12.53	13.80	23.59	26.33	2.74
	velocity	7.56	9.09	8.90	8.53	8.08	7.89	7.58	6.94	8.01		8.26	8.71	7.98	7.25	8.48	7.60	
Ogunkoya, Falilat (NGR) (19	time	6.55	12.14	17.82	23.66	29.79	35.95	42.63	50.03	50.03	4 / 4							
reaction time 0.157	interval		5.59	5.68	5.84	6.13	6.16	6.68	7.40		# of strides	12.14	11.52	12.29	14.08	23.66	26.37	2.71
	velocity	7.63	8.94	8.80	8.56	8.16	8.12	7.49	6.76	8.00		8.24	8.68	8.14	7.10	8.45	7.58	
Merry, Katharine (GBR) (197	time	6.68	12.24	17.95	23.91	30.04	36.37	43.12	50.52	50.52	1 / 5							
reaction time 0.193	interval		5.56	5.71	5.96	6.13	6.33	6.75	7.40		# of strides	12.24	11.67	12.46	14.15	23.91	26.61	2.70
	velocity	7.49	8.99	8.76	8.39	8.16	7.90	7.41	6.76	7.92		8.17	8.57	8.03	7.07	8.36	7.52	
Nazarova, Natalya (RUS) (19	time	6.70	12.29	18.04	24.09	30.47	36.91	43.53	50.61	50.61	2 / 6							
reaction time 0.176	interval		5.59	5.75	6.05	6.38	6.44	6.62	7.08		# of strides	12.29	11.80	12.82	13.70	24.09	26.52	2.43
	velocity	7.46	8.94	8.70	8.26	7.84	7.76	7.55	7.06	7.90		8.14	8.47	7.80	7.30	8.30	7.54	
Breuer, Grit (GER) (1972)	time	6.81	12.39	18.09	24.08	30.28	36.51	43.18	50.67	50.67	6 / 7							
reaction time 0.176	interval		5.58	5.70	5.99	6.20	6.23	6.67	7.49		# of strides	12.39	11.69	12.43	14.16	24.08	26.59	2.51
	velocity	7.34	8.96	8.77	8.35	8.06	8.03	7.50	6.68	7.89		8.07	8.55	8.05	7.06	8.31	7.52	
Kotlyarova, Olga (RUS) (197	time	6.86	12.51	18.23	24.26	30.57	36.85	43.41	50.72	50.72	7 / 8							
reaction time 0.185	interval		5.65	5.72	6.03	6.31	6.28	6.56	7.31		# of strides	12.51	11.75	12.59	13.87	24.26	26.46	2.20
	velocity	7.29	8.85	8.74	8.29	7.92	7.96	7.62	6.84	7.89		7.99	8.51	7.94	7.21	8.24	7.56	

1999 USATF National Championship (Eugene, OR)

FINAL date 26-Jun-99

Track Newsletter (1999) - USATF National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Malone, Maicel (USA) (1969)	time				24.1				51.3	51.29	/ 1							
reaction time	interval								27.20		# of strides					24.10	27.20	3.10
	velocity				8.30				7.35	7.80						8.30	7.35	
Reid, Suziann (USA) (1977)	time				24.4				51.4	51.38	/ 2							
reaction time	interval								27.00		# of strides					24.40	27.00	2.60
	velocity				8.20				7.41	7.79						8.20	7.41	
Collins, Michelle (USA) (197	time				25.0				51.4	51.45	/ 3							
reaction time	interval								26.40		# of strides					25.00	26.40	1.40
	velocity				8.00				7.58	7.77						8.00	7.58	
Anderson, Andrea (USA) (19	time				24.2				52.1	52.09	/ 4							
reaction time	interval								27.90		# of strides					24.20	27.90	3.70
	velocity				8.26				7.17	7.68						8.26	7.17	
Porter, Shanelle (USA) (1972	no information available									52.25	/ 5							
Nelson, Yulanda (USA) (197	time				24.9				52.6	52.61	/ 6							
reaction time	interval								27.70		# of strides					24.90	27.70	2.80
	velocity				8.03				7.22	7.60						8.03	7.22	

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

Graham, Kim (USA) (1971)	no information available								52.95	/ 7								
Barber, Mikele (USA) (1980)	time			24.9			53.0	53.05	/ 8									
reaction time	interval						28.10		# of strides						24.90	28.10	3.20	
	velocity			8.03			7.12	7.54							8.03	7.12		

1999 NCAA Championships (Boise, ID)

FINAL date 05-Jun-99

Track Newsletter (1999) - NCAA Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Reid, Suziann (USA) (1977)	time				24.2				51.1	51.08	/ 1							
reaction time	interval								26.90		# of strides					24.20	26.90	2.70
	velocity				8.26				7.43	7.83						8.26	7.43	

1999 Mt. SAC Relays (Walnut, CA)

FINAL date 18-Apr-99

Track Newsletter (1999) - Mt. SAC relays, invitational women

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jones, Marion (USA) (1975)	time				24.1		36.7		50.8	50.79	/ 1							
reaction time	interval						12.60		14.10		# of strides			12.60	14.10	24.10	26.70	2.60
	velocity				8.30		7.94		7.09	7.88				7.94	7.09	8.30	7.49	

1998 USATF National Championship (New Orleans, LA)

FINAL date 21-Jun-98

Track Newsletter (1998) - USATF National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Graham, Kim (USA) (1971)	time				24.5				50.7	50.69	/ 1							
reaction time	interval								26.20		# of strides					24.50	26.20	1.70
	velocity				8.16				7.63	7.89						8.16	7.63	

1998 NCAA Championships (Amherst, NY)

FINAL date 06-Jun-98

Track Newsletter (1998) - NCAA Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Reid, Suziann (USA) (1977)	time				24.2				51.2	51.22	/ 1							
reaction time	interval								27.00		# of strides					24.20	27.00	2.80
	velocity				8.26				7.41	7.81						8.26	7.41	
Nelson, Yulanda (USA) (1976)	no information available									52.39	/ 2							
Pierre, Beverly (TTO) (1973)	no information available									52.55	/ 3							
Brown, Toya (USA) (1975)	time				24.9				52.6	52.60	/ 4							
reaction time	interval								27.70		# of strides					24.90	27.70	2.80
	velocity				8.03				7.22	7.60						8.03	7.22	

1997 IAAF World Championships (Athens, GRE)

FINAL date 04-Aug-97

Ritzdorf (1997) - biomechanical research project at the VI th world championships in athletics, Athens 1997

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Freeman, Cathy (AUS) (1973	time	6.54	12.26	17.90	23.70	29.70	35.90	42.50	49.54	49.77	1 / 1							
reaction time 0.226	interval		5.72	5.64	5.80	6.00	6.20	6.60	7.04		# of strides	12.26	11.44	12.20	13.64	23.70	25.84	2.14
	velocity	7.65	8.74	8.87	8.62	8.33	8.06	7.58	7.10	8.04		8.16	8.74	8.20	7.33	8.44	7.74	
Richards, Sandie (JAM) (196	time	6.50	12.06	17.82	23.70	29.78	36.02	42.62	49.62	49.79	5 / 2							
reaction time 0.167	interval		5.56	5.76	5.88	6.08	6.24	6.60	7.00	PB	# of strides	12.06	11.64	12.32	13.60	23.70	25.92	2.22
	velocity	7.69	8.99	8.68	8.50	8.22	8.01	7.58	7.14	8.03		8.29	8.59	8.12	7.35	8.44	7.72	
Miles-Clark, Jearl (USA) (196	time	6.67	12.23	17.79	23.75	29.83	36.07	42.67	49.75	49.90	4 / 3							
reaction time 0.143	interval		5.56	5.56	5.96	6.08	6.24	6.60	7.08		# of strides	12.23	11.52	12.32	13.68	23.75	26.00	2.25
	velocity	7.50	8.99	8.99	8.39	8.22	8.01	7.58	7.06	8.02		8.18	8.68	8.12	7.31	8.42	7.69	
Breuer, Grit (GER) (1972)	time	6.44	11.92	17.16	23.52	29.72	36.12	42.76	49.92	50.06	6 / 4							
reaction time 0.143	interval		5.48	5.24	6.36	6.20	6.40	6.64	7.16		# of strides	11.92	11.60	12.60	13.80	23.52	26.40	2.88
	velocity	7.76	9.12	9.54	7.86	8.06	7.81	7.53	6.98	7.99		8.39	8.62	7.94	7.25	8.50	7.58	
Ogunkoya, Falilat (NGR) (19	time	6.58	12.30	17.94	23.70	29.78	35.98	42.74	50.14	50.27	3 / 5							
reaction time 0.126	interval		5.72	5.64	5.76	6.08	6.20	6.76	7.40		# of strides	12.30	11.40	12.28	14.16	23.70	26.44	2.74
	velocity	7.60	8.74	8.87	8.68	8.22	8.06	7.40	6.76	7.96		8.13	8.77	8.14	7.06	8.44	7.56	
Fuchsová, Helena (CZE) (19	time	6.62	12.18	17.70	23.66	29.90	36.38	43.14	50.50	50.66	8 / 6							
reaction time 0.159	interval		5.56	5.52	5.96	6.24	6.48	6.76	7.36		# of strides	12.18	11.48	12.72	14.12	23.66	26.84	3.18
	velocity	7.55	8.99	9.06	8.39	8.01	7.72	7.40	6.79	7.90		8.21	8.71	7.86	7.08	8.45	7.45	
Davis-Thompson, Pauline (B	time	6.58	12.30	18.18	24.18	30.38	36.79	43.39	50.55	50.68	7 / 7							
reaction time 0.120	interval		5.72	5.88	6.00	6.20	6.41	6.60	7.16		# of strides	12.30	11.88	12.61	13.76	24.18	26.37	2.19
	velocity	7.60	8.74	8.50	8.33	8.06	7.80	7.58	6.98	7.89		8.13	8.42	7.93	7.27	8.27	7.58	
Alekseyeva, Tatyana (RUS) (	time	6.48	12.24	17.64	23.48	29.72	36.28	43.24	51.20	51.37	2 / 8							
reaction time 0.167	interval		5.76	5.40	5.84	6.24	6.56	6.96	7.96		# of strides	12.24	11.24	12.80	14.92	23.48	27.72	4.24
	velocity	7.72	8.68	9.26	8.56	8.01	7.62	7.18	6.28	7.79		8.17	8.90	7.81	6.70	8.52	7.22	

1997 European Cup (Munich, GER)

FINAL date 21-Jun-97

Jung (2003) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Breuer, Grit (GER) (1972)	time		12.27		24.02		36.67		50.38	50.38	/ 1							
reaction time	interval				11.75		12.65		13.71		# of strides	12.27	11.75	12.65	13.71	24.02	26.36	2.34
	velocity		8.15		8.51		7.91		7.29	7.94		8.15	8.51	7.91	7.29	8.33	7.59	
Fraser, Donna (GBR) (1972)	time		12.70		24.57		37.09		51.51	51.51	/ 2							
reaction time	interval				11.87		12.52		14.42	PB	# of strides	12.70	11.87	12.52	14.42	24.57	26.94	2.37

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

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
	velocity		7.87		8.42		7.99		6.93	7.77		7.87	8.42	7.99	6.93	8.14	7.42	
Kotlyarova, Olga (RUS) (197	time		12.73		24.53		37.16		51.53	51.53	/ 3							
reaction time	interval				11.80		12.63		14.37		# of strides	12.73	11.80	12.63	14.37	24.53	27.00	2.47
	velocity		7.86		8.47		7.92		6.96	7.76		7.86	8.47	7.92	6.96	8.15	7.41	
De Angeli, Virna (ITA) (1976)	time		13.08		25.33		38.15		52.30	52.30	/ 4							
reaction time	interval				12.25		12.82		14.15		# of strides	13.08	12.25	12.82	14.15	25.33	26.97	1.64
	velocity		7.65		8.16		7.80		7.07	7.65		7.65	8.16	7.80	7.07	7.90	7.42	
Movchan, Tatyana (UKR) (19	time		12.66		24.46		37.58		52.56	52.56	/ 5							
reaction time	interval				11.80		13.12		14.98		# of strides	12.66	11.80	13.12	14.98	24.46	28.10	3.64
	velocity		7.90		8.47		7.62		6.68	7.61		7.90	8.47	7.62	6.68	8.18	7.12	
Bévis, Marie-Louise (FRA) (1	time		12.56		24.90		38.30		53.13	53.13	/ 6							
reaction time	interval				12.34		13.40		14.83		# of strides	12.56	12.34	13.40	14.83	24.90	28.23	3.33
	velocity		7.96		8.10		7.46		6.74	7.53		7.96	8.10	7.46	6.74	8.03	7.08	
Kozak, Anna (BLR) (1974)	time		12.71		24.68		37.94		53.50	53.50	/ 7							
reaction time	interval				11.97		13.26		15.56		# of strides	12.71	11.97	13.26	15.56	24.68	28.82	4.14
	velocity		7.87		8.35		7.54		6.43	7.48		7.87	8.35	7.54	6.43	8.10	6.94	
Pirvu, Monica (ROU) (1973)	time		13.18		25.93		39.60		54.87	54.87	/ 8							
reaction time	interval				12.75		13.67		15.27		# of strides	13.18	12.75	13.67	15.27	25.93	28.94	3.01
	velocity		7.59		7.84		7.32		6.55	7.29		7.59	7.84	7.32	6.55	7.71	6.91	

1997 USATF Championships (Indianapolis, IN)

FINAL

date 14-Jun-97

Track Newsletter (1997) - USATF National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miles-Clark, Jearl (USA) (196	time				24.0		36.1		49.4	49.40	/ 1							
reaction time	interval						12.10		13.30		# of strides			12.10	13.30	24.00	25.40	1.40
	velocity				8.33		8.26		7.52	8.10				8.26	7.52	8.33	7.87	
Graham, Kim (USA) (1971)	no information available									50.65	/ 2							
Malone, Maicel (USA) (1969)	time				24.1		36.3		50.7	50.74	/ 3							
reaction time	interval						12.20		14.40		# of strides			12.20	14.40	24.10	26.60	2.50
	velocity				8.30		8.20		6.94	7.88				8.20	6.94	8.30	7.52	

Semi-Final 2

date 13-Jun-97

Track Newsletter (1997) - USATF National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miles-Clark, Jearl (USA) (196	time				24.1		37.1		50.5	50.48	/ 1							
reaction time	interval						13.00		13.40		# of strides			13.00	13.40	24.10	26.40	2.30
	velocity				8.30		7.69		7.46	7.92				7.69	7.46	8.30	7.58	
Malone, Maicel (USA) (1969)	time				25.0		37.1		51.1	51.06	/ 2							
reaction time	interval						12.10		14.00		# of strides			12.10	14.00	25.00	26.10	1.10
	velocity				8.00		8.26		7.14	7.83				8.26	7.14	8.00	7.66	

Semi-Final 1

date 13-Jun-97

Track Newsletter (1997) - USATF National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Graham, Kim (USA) (1971)	time				24.5		36.9		50.9	50.94	/ 1							
reaction time	interval						12.40		14.00		# of strides			12.40	14.00	24.50	26.40	1.90
	velocity				8.16		8.06		7.14	7.85				8.06	7.14	8.16	7.58	

1996 Herculis (Monaco, MON)

FINAL

date 10-Aug-96

Vazel (2018.07.20) - https://twitter.com/pjvazel

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19	time		12.0		23.3		35.7		49.2	49.18	/ 1							
reaction time	interval				11.30		12.40		13.48		# of strides	12.00	11.30	12.40	13.48	23.30	25.88	2.58
	velocity		8.33		8.85		8.06		7.42	8.13		8.33	8.85	8.06	7.42	8.58	7.73	

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

1996 Olympic Games (Atlanta, GA)

Vazel (2011) - speed reserve in the 400m

FINAL

date 29-Jul-96

Urtebise (1996) - Atlanta 1996 : 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19	time		12.05		23.28		35.10		48.25	48.25	3 / 1							*Urtebise (1996)*
reaction time 0.209	interval				11.23		11.82		13.15	OR / NR	# of strides	12.05	11.23	11.82	13.15	23.28	24.97	1.69
	velocity		8.30		8.90		8.46		7.60	8.29	170.5	8.30	8.90	8.46	7.60	8.59	8.01	
Freeman, Cathy (AUS) (1973	time		12.2		23.47		35.1		48.6	48.63	4 / 2							*Vazel (2011)*
reaction time 0.320	interval				11.27		11.63		13.50	AR	# of strides	12.20	11.27	11.63	13.50	23.47	25.13	1.66
	velocity		8.20		8.87		8.60		7.41	8.23		8.20	8.87	8.60	7.41	8.52	7.96	
Ogunkoya, Falilat (NGR) (19	time				23.54		35.5		49.10	49.10	5 / 3							*Butler (2016)*
reaction time 0.288	interval						11.96		13.60	AR PB	# of strides			11.96	13.60	23.54	25.56	2.02
	velocity				8.50		8.36		7.35	8.15				8.36	7.35	8.50	7.82	
Davis-Thompson, Pauline (B	time				23.23		35.4		49.28	49.28	2 / 4							*Butler (2016)*
reaction time 0.222	interval						12.17		13.88	PB	# of strides			12.17	13.88	23.23	26.05	2.82
	velocity				8.61		8.22		7.20	8.12				8.22	7.20	8.61	7.68	
Miles-Clark, Jearl (USA) (196	time				23.97		36.1		49.55	49.55	8 / 5							*Butler (2016)*
reaction time 0.320	interval						12.13		13.45	PB	# of strides			12.13	13.45	23.97	25.58	1.61
	velocity				8.34		8.24		7.43	8.07				8.24	7.43	8.34	7.82	
Yusuf-Olukoju, Fatima (NGR	time				23.30		35.7		49.77	49.77	6 / 6							*Butler (2016)*
reaction time 0.319	interval						12.40		14.07		# of strides			12.40	14.07	23.30	26.47	3.17

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

	velocity		8.58		8.06		7.11	8.04			8.06	7.11	8.58	7.56	
Richards, Sandie (JAM) (196	time		23.64		36.1		50.45	50.45	7 / 7						*Butler (2016)*
reaction time 0.341	interval				12.46		14.35		# of strides		12.46	14.35	23.64	26.81	3.17
	velocity		8.46		8.03		6.97	7.93			8.03	6.97	8.46	7.46	
Breuer, Grit (GER) (1972)	time		23.76		36.3		50.71	50.71	1 / 8						*Butler (2016)*
reaction time 0.219	interval				12.54		14.41		# of strides		12.54	14.41	23.76	26.95	3.19
	velocity		8.42		7.97		6.94	7.89			7.97	6.94	8.42	7.42	

Semi-Final 2

date 28-Jul-96

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time				23.7				49.2	49.19	/ 1							
reaction time	interval								25.50		# of strides					23.70	25.50	1.80
	velocity				8.44				7.84	8.13						8.44	7.84	

1996 USATF National Junior Championships (Deleware, OH)

FINAL

date 29-Jun-96

USATF Women's Sprint Development (1996)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Reid, Suziann (USA) (1977)	time		12.16		24.05		37.45	44.77	52.46	52.46	5 / 1							
reaction time	interval				11.89		13.40	7.32	7.69		# of strides	12.16	11.89	13.40	15.01	24.05	28.41	4.36
	velocity		8.22		8.41		7.46	6.83	6.50	7.62		8.22	8.41	7.46	6.66	8.32	7.04	
Edmondson, Malika (USA) (	time		12.53		24.67		37.95	45.09	52.95	52.95	4 / 2							
reaction time	interval				12.14		13.28	7.14	7.86	PB	# of strides	12.53	12.14	13.28	15.00	24.67	28.28	3.61
	velocity		7.98		8.24		7.53	7.00	6.36	7.55		7.98	8.24	7.53	6.67	8.11	7.07	
Rivers, Theodoesha (USA) (	time				25.18		38.44	45.59	53.39	53.39	7 / 3							
reaction time	interval						13.26	7.15	7.80		# of strides			13.26	14.95	25.18	28.21	3.03
	velocity				7.94		7.54	6.99	6.41	7.49				7.54	6.69	7.94	7.09	
Hanchak, Heather (USA) (19	time		12.56		24.57		38.02	45.59	53.69	53.69	3 / 4							
reaction time	interval				12.01		13.45	7.57	8.10		# of strides	12.56	12.01	13.45	15.67	24.57	29.12	4.55
	velocity		7.96		8.33		7.43	6.61	6.17	7.45		7.96	8.33	7.43	6.38	8.14	6.87	
Patterson, Angel (USA) (197	time		12.94		25.11		38.58	45.96	53.95	53.95	6 / 5							
reaction time	interval				12.17		13.47	7.38	7.99		# of strides	12.94	12.17	13.47	15.37	25.11	28.84	3.73
	velocity		7.73		8.22		7.42	6.78	6.26	7.41		7.73	8.22	7.42	6.51	7.96	6.93	
Grant, Sharkara (USA) (1978	time		12.93		25.05		38.55	46.14	54.33	54.33	2 / 6							
reaction time	interval				12.12		13.50	7.59	8.19		# of strides	12.93	12.12	13.50	15.78	25.05	29.28	4.23
	velocity		7.73		8.25		7.41	6.59	6.11	7.36		7.73	8.25	7.41	6.34	7.98	6.83	
Brock, Laila (USA) (1978)	time				25.61		39.48	47.24	55.72	55.72	8 / 7							
reaction time	interval						13.87	7.76	8.48		# of strides			13.87	16.24	25.61	30.11	4.50
	velocity				7.81		7.21	6.44	5.90	7.18				7.21	6.16	7.81	6.64	
Estes, Carla (USA) (1979)	time		12.48		24.84		38.95	46.95	56.63	56.63	1 / 8							
reaction time	interval				12.36		14.11	8.00	9.68		# of strides	12.48	12.36	14.11	17.68	24.84	31.79	6.95
	velocity		8.01		8.09		7.09	6.25	5.17	7.06		8.01	8.09	7.09	5.66	8.05	6.29	

1996 USA Olympic Trials (Atlanta, GA)

FINAL

date 19-Jun-96

USATF Women's Sprint Development (1996)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Malone, Maicel (USA) (1969)	time		12.22		23.78		36.22	43.10	50.52	50.52	5 / 1							
reaction time	interval				11.56		12.44	6.88	7.42		# of strides	12.22	11.56	12.44	14.30	23.78	26.74	2.96
	velocity		8.18		8.65		8.04	7.27	6.74	7.92		8.18	8.65	8.04	6.99	8.41	7.48	
Miles-Clark, Jearl (USA) (196	time		12.28		24.05		36.60	43.33	50.61	50.61	4 / 2							
reaction time	interval				11.77		12.55	6.73	7.28		# of strides	12.28	11.77	12.55	14.01	24.05	26.56	2.51
	velocity		8.14		8.50		7.97	7.43	6.87	7.90		8.14	8.50	7.97	7.14	8.32	7.53	
Graham, Kim (USA) (1971)	time		12.55		24.34		36.84	43.63	50.87	50.87	6 / 3							
reaction time	interval				11.79		12.50	6.79	7.24		# of strides	12.55	11.79	12.50	14.03	24.34	26.53	2.19
	velocity		7.97		8.48		8.00	7.36	6.91	7.86		7.97	8.48	8.00	7.13	8.22	7.54	
Stevens, Rochelle (USA) (19(	time		12.20		23.99		36.75	43.64	51.16	51.16	1 / 4							
reaction time	interval				11.79		12.76	6.89	7.52		# of strides	12.20	11.79	12.76	14.41	23.99	27.17	3.18
	velocity		8.20		8.48		7.84	7.26	6.65	7.82		8.20	8.48	7.84	6.94	8.34	7.36	
Wilson, Linetta (USA) (1967)	time		12.62		24.38		37.02	43.93	51.49	51.49	7 / 5							
reaction time	interval				11.76		12.64	6.91	7.56		# of strides	12.62	11.76	12.64	14.47	24.38	27.11	2.73
	velocity		7.92		8.50		7.91	7.24	6.61	7.77		7.92	8.50	7.91	6.91	8.20	7.38	
Kaiser-Brown, Natasha (USA	time		12.49		24.58		37.58	44.42	51.52	51.52	2 / 6							
reaction time	interval				12.09		13.00	6.84	7.10		# of strides	12.49	12.09	13.00	13.94	24.58	26.94	2.36
	velocity		8.01		8.27		7.69	7.31	7.04	7.76		8.01	8.27	7.69	7.17	8.14	7.42	
Green, Nicole (USA) (1971)	time		12.59		24.56		37.28	44.30	51.95	51.95	8 / 7							
reaction time	interval				11.97		12.72	7.02	7.65		# of strides	12.59	11.97	12.72	14.67	24.56	27.39	2.83
	velocity		7.94		8.35		7.86	7.12	6.54	7.70		7.94	8.35	7.86	6.82	8.14	7.30	
Warren, Youlanda (USA) (19	time		12.38		24.26		37.26	44.30	52.10	52.10	3 / 8							
reaction time	interval				11.88		13.00	7.04	7.80		# of strides	12.38	11.88	13.00	14.84	24.26	27.84	3.58
	velocity		8.08		8.42		7.69	7.10	6.41	7.68		8.08	8.42	7.69	6.74	8.24	7.18	

Semi-Final 2

date 17-Jun-96

USATF Women's Sprint Development (1996)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Malone, Maicel (USA) (1969)	time		12.24		24.23		36.65	43.20	50.15	50.15	4 / 1							
reaction time	interval				11.99		12.42	6.55	6.95		# of strides	12.24	11.99	12.42	13.50	24.23	25.92	1.69
	velocity		8.17		8.34		8.05	7.63	7.19	7.98		8.17	8.34	8.05	7.41	8.25	7.72	
Miles-Clark, Jearl (USA) (196	time		12.64		24.43		36.96	43.46	50.45	50.45	3 / 2							
reaction time	interval				11.79		12.53	6.50	6.99		# of strides	12.64	11.79	12.53	13.49	24.43	26.02	1.59
	velocity		7.91		8.48		7.98	7.69	7.15	7.93		7.91	8.48	7.98	7.41	8.19	7.69	
Stevens, Rochelle (USA) (19	time		12.42		24.13		36.88	43.45	50.65	50.65	6 / 3							
reaction time	interval				11.71		12.75	6.57	7.20		# of strides	12.42	11.71	12.75	13.77	24.13	26.52	2.39
	velocity		8.05		8.54		7.84	7.61	6.94	7.90		8.05	8.54	7.84	7.26	8.29	7.54	
Kaiser-Brown, Natasha (USA	time		12.43		24.43		37.30	44.05	51.18	51.18	7 / 4							
reaction time	interval				12.00		12.87	6.75	7.13		# of strides	12.43	12.00	12.87	13.88	24.43	26.75	2.32
	velocity		8.05		8.33		7.77	7.41	7.01	7.82		8.05	8.33	7.77	7.20	8.19	7.48	
Collins, Michelle (USA) (197	time		12.68		24.70		37.35	44.28	52.03	52.03	8 / 5							
reaction time	interval				12.02		12.65	6.93	7.75		# of strides	12.68	12.02	12.65	14.68	24.70	27.33	2.63
	velocity		7.89		8.32		7.91	7.22	6.45	7.69		7.89	8.32	7.91	6.81	8.10	7.32	
Brown, Toya (USA) (1975)	time		12.26		24.13		37.16	44.38	52.27	52.27	2 / 6							
reaction time	interval				11.87		13.03	7.22	7.89		# of strides	12.26	11.87	13.03	15.11	24.13	28.14	4.01
	velocity		8.16		8.42		7.67	6.93	6.34	7.65		8.16	8.42	7.67	6.62	8.29	7.11	
Howard, Donna (USA) (1974	time		12.36		24.34		37.85	44.98	52.37	52.37	1 / 7							
reaction time	interval				11.98		13.51	7.13	7.39		# of strides	12.36	11.98	13.51	14.52	24.34	28.03	3.69
	velocity		8.09		8.35		7.40	7.01	6.77	7.64		8.09	8.35	7.40	6.89	8.22	7.14	
Hennagan, Monique (USA) (	time		12.74		24.80		37.65	45.03	52.50	52.50	5 / 8							
reaction time	interval				12.06		12.85	7.38	7.47		# of strides	12.74	12.06	12.85	14.85	24.80	27.70	2.90
	velocity		7.85		8.29		7.78	6.78	6.69	7.62		7.85	8.29	7.78	6.73	8.06	7.22	

Semi-Final 1 date 17-Jun-96 *USATF Women's Sprint Development (1996)*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Graham, Kim (USA) (1971)	time		12.36		23.93		36.34	43.18	50.53	50.53	4 / 1							
reaction time	interval				11.57		12.41	6.84	7.35	PB	# of strides	12.36	11.57	12.41	14.19	23.93	26.60	2.67
	velocity		8.09		8.64		8.06	7.31	6.80	7.92		8.09	8.64	8.06	7.05	8.36	7.52	
Warren, Youlanda (USA) (19	time		12.08		23.70		36.44	43.44	50.90	50.90	1 / 2							
reaction time	interval				11.62		12.74	7.00	7.46	PB	# of strides	12.08	11.62	12.74	14.46	23.70	27.20	3.50
	velocity		8.28		8.61		7.85	7.14	6.70	7.86		8.28	8.61	7.85	6.92	8.44	7.35	
Wilson, Linetta (USA) (1967)	time		12.63		24.35		36.84	43.62	51.02	51.02	6 / 3							
reaction time	interval				11.72		12.49	6.78	7.40	PB	# of strides	12.63	11.72	12.49	14.18	24.35	26.67	2.32
	velocity		7.92		8.53		8.01	7.37	6.76	7.84		7.92	8.53	8.01	7.05	8.21	7.50	
Green, Nicole (USA) (1971)	time		12.63		24.25		36.90	43.74	51.09	51.09	3 / 4							
reaction time	interval				11.62		12.65	6.84	7.35	PB	# of strides	12.63	11.62	12.65	14.19	24.25	26.84	2.59
	velocity		7.92		8.61		7.91	7.31	6.80	7.83		7.92	8.61	7.91	7.05	8.25	7.45	
Porter, Shanelle (USA) (1972	time		12.55		24.15		36.78	43.68	51.35	51.35	5 / 5							
reaction time	interval				11.60		12.63	6.90	7.67		# of strides	12.55	11.60	12.63	14.57	24.15	27.20	3.05
	velocity		7.97		8.62		7.92	7.25	6.52	7.79		7.97	8.62	7.92	6.86	8.28	7.35	
Howard-Hill, Denean (USA) (	time		12.05		23.78		36.65	43.85	51.74	51.74	2 / 6							
reaction time	interval				11.73		12.87	7.20	7.89		# of strides	12.05	11.73	12.87	15.09	23.78	27.96	4.18
	velocity		8.30		8.53		7.77	6.94	6.34	7.73		8.30	8.53	7.77	6.63	8.41	7.15	
Jones, Janeen (USA) (1972)	time		12.70		24.66		37.60	44.77	52.49	52.49	7 / 7							
reaction time	interval				11.96		12.94	7.17	7.72		# of strides	12.70	11.96	12.94	14.89	24.66	27.83	3.17
	velocity		7.87		8.36		7.73	6.97	6.48	7.62		7.87	8.36	7.73	6.72	8.11	7.19	
Reid, Suziann (USA) (1977)	time		12.56		24.76		38.55	46.18	54.39	54.39	8 / 8							
reaction time	interval				12.20		13.79	7.63	8.21		# of strides	12.56	12.20	13.79	15.84	24.76	29.63	4.87
	velocity		7.96		8.20		7.25	6.55	6.09	7.35		7.96	8.20	7.25	6.31	8.08	6.75	

1996 Atlanta Grand Prix (Atlanta, GA)

FINAL date 18-May-96 *Track Newsletter (1996) - atlanta GP- hot debut for Olympic track*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19	time				24.4		36.8		50.2	50.17	/ 1							
reaction time	interval						12.40		13.40		# of strides			12.40	13.40	24.40	25.80	1.40
	velocity				8.20		8.06		7.46	7.97				8.06	7.46	8.20	7.75	
Freeman, Cathy (AUS) (1973	time				24.9		37.3		50.4	50.39	/ 2							
reaction time	interval						12.40		13.10		# of strides			12.40	13.10	24.90	25.50	0.60
	velocity				8.03		8.06		7.63	7.94				8.06	7.63	8.03	7.84	

1995 IAAF World Championships (Gothenburg, SWE)

FINAL date 08-Aug-95 *Track Newsletter (1995) - World Championships V*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19	time		11.9		23.5		35.7		49.3	49.28	6 / 1							
reaction time	interval				11.60		12.20		13.60		# of strides	11.90	11.60	12.20	13.60	23.50	25.80	2.30
	velocity		8.40		8.62		8.20		7.35	8.12	174.7	8.40	8.62	8.20	7.35	8.51	7.75	
Davis, Pauline (BAH) (1966)	no information available								NR	49.96	5 / 2							

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

Miles, Jearl (USA) (1966)	time	12.30	23.9	36.3	50	50.00	3 / 3							
reaction time	interval		11.60	12.40	13.70		# of strides	12.30	11.60	12.40	13.70	23.90	26.10	2.20
	velocity	8.13	8.62	8.06	7.30	8.00		8.13	8.62	8.06	7.30	8.37	7.66	
Freeman, Cathy (AUS) (1973	time	12.0	23.3	35.7	50.6	50.60	4 / 4							
reaction time	interval		11.30	12.40	14.90		# of strides	12.00	11.30	12.40	14.90	23.30	27.30	4.00
	velocity	8.33	8.85	8.06	6.71	7.91		8.33	8.85	8.06	6.71	8.58	7.33	
Yusuf, Fatima (NGR) (1976)	no information available					50.70	1 / 5							
Ogunkoya, Falilat (NGR) (1968)	no information available					50.77	8 / 6							
Malone, Maicel (USA) (1969)	time	12.6	24.2	36.6	51	50.99	7 / 7							
reaction time	interval		11.60	12.40	14.40		# of strides	12.60	11.60	12.40	14.40	24.20	26.80	2.60
	velocity	7.94	8.62	8.06	6.94	7.84		7.94	8.62	8.06	6.94	8.26	7.46	
Richards, Sandie (JAM) (1968)	no information available					51.13	2 / 8							

1995 USATF National Championships (Sacramento, CA)

FINAL date 17-Jun-95

Track Newsletter (1995) - USATF National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miles, Jearl (USA) (1966)	time		12.8		25.6		38.2		50.9	50.90	/ 1							
reaction time	interval				12.80		12.60		12.70		# of strides	12.80	12.80	12.60	12.70	25.60	25.30	-0.30
	velocity		7.81		7.81		7.94		7.87	7.86		7.81	7.81	7.94	7.87	7.81	7.91	
Graham, Kim (USA) (1971)	time				25.0				51.5	51.48	/ 2							
reaction time	interval								26.50		# of strides					25.00	26.50	1.50
	velocity				8.00				7.55	7.77						8.00	7.55	
Malone, Maicel (USA) (1969)	time		12.3		24.9		37.9		51.6	51.56	/ 3							
reaction time	interval				12.60		13.00		13.70		# of strides	12.30	12.60	13.00	13.70	24.90	26.70	1.80
	velocity		8.13		7.94		7.69		7.30	7.76		8.13	7.94	7.69	7.30	8.03	7.49	
Stevens, Rochelle (USA) (19	time		12.9		25.6		38.3		52.0	51.97	/ 4							
reaction time	interval				12.70		12.70		13.70		# of strides	12.90	12.70	12.70	13.70	25.60	26.40	0.80
	velocity		7.75		7.87		7.87		7.30	7.70		7.75	7.87	7.87	7.30	7.81	7.58	
Green, Nicole (USA) (1971)	no information available									52.02	/ 5							
Jones, Camara (USA) (1972)					25.4				52.3	52.23	/ 6							
reaction time	interval								26.90		# of strides					25.40	26.90	1.50
	velocity				7.87				7.43	7.66						7.87	7.43	
Warren, Youlanda (USA) (1972)	no information available									52.25	/ 7							
Collins, Michelle (USA) (1971)	no information available									52.55	/ 8							

1994 Herculis (Monaco, MON)

FINAL date 02-Aug-94

Vazel (2011) - speed reserve in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Freeman, Cathy (AUS) (1973	time		12.5		24.3		36.9		50.2	50.18	/ 1							
reaction time	interval				11.80		12.60		13.30	**PB**	# of strides	12.50	11.80	12.60	13.30	24.30	25.90	1.60
	velocity		8.00		8.47		7.94		7.52	7.97		8.00	8.47	7.94	7.52	8.23	7.72	

1993 Chinese National Games (Beijing, CHN)

FINAL date 11-Sep-93

Wang (2012) - Research on the analysis of the speed distribution of China's outstanding female 400-meter runners

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ma Yuqin (CHN) (1972)	time		12.03		23.98		36.63		49.81	49.81	/ 1							
reaction time	interval				11.95		12.65		13.18	**AR**	# of strides	12.03	11.95	12.65	13.18	23.98	25.83	1.85
	velocity		8.31		8.37		7.91		7.59	8.03		8.31	8.37	7.91	7.59	8.34	7.74	

1993 IAAF World Championships (Stuttgart, GER)

FINAL date 17-Aug-93

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

Smith (1994) - 400m pace control

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Miles-Clark, Jearl (USA) (196	time				23.95		36.33		49.82	49.82	6 / 1							
reaction time	interval						12.38		13.49	**PB**	# of strides			12.38	13.49	23.95	25.87	1.92
	velocity				8.35		8.08		7.41	8.03				8.08	7.41	8.35	7.73	
Kaiser-Brown, Natasha (USA	time				23.78				50.17	50.17	3 / 2							
reaction time	interval								26.39		# of strides					23.78	26.39	2.61
	velocity				8.41				7.58	7.97						8.41	7.58	
Richards, Sandie (JAM) (196	time				23.77				50.44	50.44	4 / 3							
reaction time	interval								26.67		# of strides					23.77	26.67	2.90
	velocity				8.41				7.50	7.93						8.41	7.50	
Alekseyeva, Tatyana (RUS) (	time				23.48				50.52	50.52	5 / 4							
reaction time	interval								27.04		# of strides					23.48	27.04	3.56
	velocity				8.52				7.40	7.92						8.52	7.40	
Restrepo, Ximena (COL) (19	time				23.71				50.91	50.91	2 / 5							
reaction time	interval								27.20		# of strides					23.71	27.20	3.49
	velocity				8.44				7.35	7.86						8.44	7.35	
Myers, Sandra (ESP) (1961)	time				23.63				51.22	51.22	1 / 6							
reaction time	interval								27.59		# of strides					23.63	27.59	3.96
	velocity				8.46				7.25	7.81						8.46	7.25	
Campbell, Juliet (JAM) (1970	time				24.27				51.4	51.40	7 / 7							

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	interval						27.13		# of strides					24.27	27.13	2.86
	velocity		8.24				7.37	7.78						8.24	7.37	
Carabalí, Norfalia (COL) (196	time		24.85				51.92	51.92	8 / --							
reaction time	interval						27.07	DQ	# of strides					24.85	27.07	2.22
	velocity		8.05				7.39	7.70						8.05	7.39	

1992 Olympic Games (Barcelona, ESP)

FINAL date 05-Aug-92

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time				23.8		35.5		48.9	48.83	5 / 1							
reaction time	interval						11.70		13.40		# of strides			11.70	13.40	23.80	25.10	1.30
	velocity				8.40		8.55		7.46	8.19				8.55	7.46	8.40	7.97	
Bryzgina, Olga (URS) (1963)	time				23.7		35.4		49.1	49.05	3 / 2							
reaction time	interval						11.70		13.70		# of strides			11.70	13.70	23.70	25.40	1.70
	velocity				8.44		8.55		7.30	8.15				8.55	7.30	8.44	7.87	
Restrepo, Ximena (COL) (19(	time				24.0		35.7		49.7	49.64	5 / 3							
reaction time	interval						11.70		14.00	NR	# of strides			11.70	14.00	24.00	25.70	1.70
	velocity				8.33		8.55		7.14	8.06				8.55	7.14	8.33	7.78	
Nazarova, Olga (URS) (1965)	time				24.0		35.8		49.7	49.69	8 / 4							
reaction time	interval						11.80		13.90		# of strides			11.80	13.90	24.00	25.70	1.70
	velocity				8.33		8.47		7.19	8.05				8.47	7.19	8.33	7.78	
Richardson-Briscoe, Jillian (	time				23.9		35.8		50.0	49.93	4 / 5							
reaction time	interval						11.90		14.20		# of strides			11.90	14.20	23.90	26.10	2.20
	velocity				8.37		8.40		7.04	8.01				8.40	7.04	8.37	7.66	
Stevens, Rochelle (USA) (19(	time				24.1		36.2		50.1	50.11	1 / 6							
reaction time	interval						12.10		13.90		# of strides			12.10	13.90	24.10	26.00	1.90
	velocity				8.30		8.26		7.19	7.98				8.26	7.19	8.30	7.69	
Richards, Sandie (JAM) (196	time				24.0		36.3		50.2	50.19	2 / 7							
reaction time	interval						12.30		13.90		# of strides			12.30	13.90	24.00	26.20	2.20
	velocity				8.33		8.13		7.19	7.97				8.13	7.19	8.33	7.63	
Smith, Phylis (GBR) (1965)	time				24.1		36.4		50.9	50.87	7 / 8							
reaction time	interval						12.30		14.50		# of strides			12.30	14.50	24.10	26.80	2.70
	velocity				8.30		8.13		6.90	7.86				8.13	6.90	8.30	7.46	

1992 Nikaïa (Nice, FRA)

FINAL date 15-Jul-92

Vazel (2020) - Pérec vs Torrence 400m Nice battle of titans

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time				23.7				49.50	49.50	4 / 1							
reaction time	interval								25.80		# of strides					23.70	25.80	2.10
	velocity				8.44				7.75	8.08						8.44	7.75	
Torrence, Gwen (USA) (1965	time				24.3				49.64	49.64	5 / 2							
reaction time	interval								25.34	PB	# of strides					24.30	25.34	1.04
	velocity				8.23				7.89	8.06						8.23	7.89	

1991 IAAF World Championships (Tokyo, JPN)

FINAL date 27-Aug-91

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time				22.82		35.12		49.13	49.13	4 / 1							
reaction time	interval						12.30		14.01	NR	# of strides			12.30	14.01	22.82	26.31	3.49
	velocity				8.76		8.13		7.14	8.14	170.7			8.13	7.14	8.76	7.60	
Breuer, Grit (GER) (1972)	time				23.00		35.39		49.42	49.42	3 / 2							
reaction time	interval						12.39		14.03	WJR	# of strides			12.39	14.03	23.00	26.42	3.42
	velocity				8.70		8.07		7.13	8.09	193.5			8.07	7.13	8.70	7.57	
Myers, Sandra (ESP) (1961)	time				23.82				49.78	49.78	5 / 3							
reaction time	interval								25.96		# of strides					23.82	25.96	2.14
	velocity				8.40				7.70	8.04	193.7					8.40	7.70	
Bryzgina, Olga (URS) (1963)	time				23.49				49.82	49.82	6 / 4							
reaction time	interval								26.33		# of strides					23.49	26.33	2.84
	velocity				8.51				7.60	8.03	188.7					8.51	7.60	
Miles, Jearl (USA) (1966)	time				23.72				50.50	50.50	8 / 5							
reaction time	interval								26.78		# of strides					23.72	26.78	3.06
	velocity				8.43				7.47	7.92						8.43	7.47	
Restrepo, Ximena (COL) (19(	time				24.08				50.79	50.79	2 / 6							
reaction time	interval								26.71		# of strides					24.08	26.71	2.63
	velocity				8.31				7.49	7.88						8.31	7.49	
Leatherwood, Lillie (USA) (1	time				24.34				51.53	51.53	7 / 7							
reaction time	interval								27.19		# of strides					24.34	27.19	2.85
	velocity				8.22				7.36	7.76						8.22	7.36	
Dixon, Diane (USA) (1964)	time				24.17				51.73	51.73	1 / 8							
reaction time	interval								27.56		# of strides					24.17	27.56	3.39
	velocity				8.27				7.26	7.73						8.27	7.26	

1991 European Cup (Frankfurt, GER)

FINAL date 29-Jun-91

Federle (2003) - http://www.fgs.uni-halle.de

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time		12.43		23.92		35.93		49.32	49.32	6 / 1							
reaction time 0.336	interval				11.49		12.01		13.39	NR	# of strides	12.43	11.49	12.01	13.39	23.92	25.40	1.48
	velocity		8.05		8.70		8.33		7.47	8.11		8.05	8.70	8.33	7.47	8.36	7.87	
Breuer, Grit (GER) (1972)	time		12.21		23.83		35.98		49.87	49.87	1 / 2							
reaction time 0.183	interval				11.62		12.15		13.89		# of strides	12.21	11.62	12.15	13.89	23.83	26.04	2.21
	velocity		8.19		8.61		8.23		7.20	8.02	194.7	8.19	8.61	8.23	7.20	8.39	7.68	
Nazarova, Olga (URS) (1965)	time		12.79		24.35		36.74		51.17	51.17	7 / 3							
reaction time	interval				11.56		12.39		14.43		# of strides	12.79	11.56	12.39	14.43	24.35	26.82	2.47
	velocity		7.82		8.65		8.07		6.93	7.82		7.82	8.65	8.07	6.93	8.21	7.46	
Keough, Linda (GBR) (1963)	time		12.37		24.34		37.06		51.54	51.54	8 / 4							
reaction time	interval				11.97		12.72		14.48		# of strides	12.37	11.97	12.72	14.48	24.34	27.20	2.86
	velocity		8.08		8.35		7.86		6.91	7.76		8.08	8.35	7.86	6.91	8.22	7.35	

1990 Asian Games (Beijing, CHN)

FINAL date 02-Oct-90

Feng (1992) - Beijing asian games women's 100m, 200m, 400m technical analysis

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Li Guilian (CHN) (1970)	time		12.72		24.35		37.07		52.13	52.13	/ 1							
reaction time	interval				11.63		12.72		15.06		# of strides	12.72	11.63	12.72	15.06	24.35	27.78	3.43
	velocity		7.86		8.60		7.86		6.64	7.67	185.6	7.86	8.60	7.86	6.64	8.21	7.20	

1989 IAAF World Cup (Barcelona, ESP)

FINAL date 10-Sep-89

Pascua (1990) - atletismo (I) carreras y marcha

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time		12.52		24.00		36.52		50.53	50.53	/ ~~1~~							
reaction time	interval				11.48		12.52		14.01	DQ	# of strides	12.52	11.48	12.52	14.01	24.00	26.53	2.53
	velocity		7.99		8.71		7.99		7.14	7.92		7.99	8.71	7.99	7.14	8.33	7.54	
Quirot, Ana Fidelia (CUB) (1	time		12.88		23.40		36.28		50.60	50.60	/ ~~2~~ 1							
reaction time	interval				10.52		12.88		14.32		# of strides	12.88	10.52	12.88	14.32	23.40	27.20	3.80
	velocity		7.76		9.51		7.76		6.98	7.91		7.76	9.51	7.76	6.98	8.55	7.35	
Breuer, Grit (GDR) (1972)	time		12.87		24.50		36.87		50.67	50.67	/ ~~3~~ 2							
reaction time	interval				11.63		12.37		13.80		# of strides	12.87	11.63	12.37	13.80	24.50	26.17	1.67
	velocity		7.77		8.60		8.08		7.25	7.89		7.77	8.60	8.08	7.25	8.16	7.64	
Ogunkoya, Falilat (NGR) (19(	time		12.27		24.90		37.17		51.67	51.67	/ ~~4~~ 3							
reaction time	interval				12.63		12.27		14.50		# of strides	12.27	12.63	12.27	14.50	24.90	26.77	1.87
	velocity		8.15		7.92		8.15		6.90	7.74		8.15	7.92	8.15	6.90	8.03	7.47	
Stevens, Rochelle (USA) (19(	time		12.40		24.90		37.30		52.16	52.16	/ ~~5~~ 4							
reaction time	interval				12.50		12.40		14.86		# of strides	12.40	12.50	12.40	14.86	24.90	27.26	2.36
	velocity		8.06		8.00		8.06		6.73	7.67		8.06	8.00	8.06	6.73	8.03	7.34	
Ruzina, Yelena (URS) (1964)	time		13.01		24.90		38.21		52.48	52.48	/ ~~6~~ 5							
reaction time	interval				11.89		13.31		14.27		# of strides	13.01	11.89	13.31	14.27	24.90	27.58	2.68
	velocity		7.69		8.41		7.51		7.01	7.62		7.69	8.41	7.51	7.01	8.03	7.25	
Merino, Julia (ESP) (1971)	time		13.45		25.20		38.95		53.63	53.63	/ ~~7~~ 6							
reaction time	interval				11.75		13.75		14.68		# of strides	13.45	11.75	13.75	14.68	25.20	28.43	3.23
	velocity		7.43		8.51		7.27		6.81	7.46		7.43	8.51	7.27	6.81	7.94	7.03	
Abraham, Shiny (IND) (1965)	time		13.68		25.50		31.18		53.80	53.80	/ ~~8~~ 7							
reaction time	interval				11.82		5.68		22.62	PB	# of strides	13.68	11.82	5.68	22.62	25.50	28.30	2.80
	velocity		7.31		8.46		17.61		4.42	7.43		7.31	8.46	17.61	4.42	7.84	7.07	
Sambell, Kathy (AUS) (1963)	time		13.41		25.01		38.42		53.92	53.92	/ ~~9~~ 8							
reaction time	interval				11.60		13.41		15.50		# of strides	13.41	11.60	13.41	15.50	25.01	28.91	3.90
	velocity		7.46		8.62		7.46		6.45	7.42		7.46	8.62	7.46	6.45	8.00	6.92	

1988 Olympic Games (Seoul, KOR)

FINAL date 26-Sep-88

Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bryzgina, Olga (URS) (1963)	time		11.94		23.41		35.47		48.65	48.65	3 / 1							
reaction time 0.215	interval				11.47		12.06		13.18	OR	# of strides	11.94	11.47	12.06	13.18	23.41	25.24	1.83
	velocity		8.38		8.72		8.29		7.59	8.22	189.7	8.38	8.72	8.29	7.59	8.54	7.92	
Müller, Petra (GDR) (1965)	time		12.33		24.10		36.34		49.45	49.45	6 / 2							
reaction time 0.232	interval				11.77		12.24		13.11		# of strides	12.33	11.77	12.24	13.11	24.10	25.35	1.25
	velocity		8.11		8.50		8.17		7.63	8.09	192.0	8.11	8.50	8.17	7.63	8.30	7.89	
Nazarova, Olga (URS) (1965)	time		12.15		23.59		35.78		49.90	49.90	4 / 3							
reaction time 0.231	interval				11.44		12.19		14.12		# of strides	12.15	11.44	12.19	14.12	23.59	26.31	2.72
	velocity		8.23		8.74		8.20		7.08	8.02	201.5	8.23	8.74	8.20	7.08	8.48	7.60	
Brisco-Hooks, Valerie (USA)	time		11.71		22.94		35.47		50.16	50.16	1 / 4							
reaction time 0.196	interval				11.23		12.53		14.69		# of strides	11.71	11.23	12.53	14.69	22.94	27.22	4.28
	velocity		8.54		8.90		7.98		6.81	7.97	199.0	8.54	8.90	7.98	6.81	8.72	7.35	
Dixon, Diane (USA) (1964)	time		12.29		23.93		36.58		50.72	50.72	5 / 5							
reaction time 0.197	interval				11.64		12.65		14.14		# of strides	12.29	11.64	12.65	14.14	23.93	26.79	2.86

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

	velocity	8.14	8.59	7.91	7.07	7.89		8.14	8.59	7.91	7.07	8.36	7.47		
Howard-Hill, Denean (USA) (	time	12.21	24.00	36.79	51.12	51.12	8 / 6								
reaction time 0.241	interval		11.79	12.79	14.33		# of strides	12.21	11.79	12.79	14.33	24.00	27.12	3.12	
	velocity	8.19	8.48	7.82	6.98	7.82		8.19	8.48	7.82	6.98	8.33	7.37		
Arendt, Helga (FRG) (1964)	time	12.53	24.33	37.06	51.17	51.17	7 / 7								
reaction time 0.218	interval		11.80	12.73	14.11		# of strides	12.53	11.80	12.73	14.11	24.33	26.84	2.51	
	velocity	7.98	8.47	7.86	7.09	7.82		7.98	8.47	7.86	7.09	8.22	7.45		
Holland, Maree (AUS) (1963)	time	12.29	23.94	36.72	51.25	51.25	2 / 8								
reaction time 0.221	interval		11.65	12.78	14.53		# of strides	12.29	11.65	12.78	14.53	23.94	27.31	3.37	
	velocity	8.14	8.58	7.82	6.88	7.80		8.14	8.58	7.82	6.88	8.35	7.32		

Semi-Final 2

date 25-Sep-88

Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bryzgina, Olga (URS) (1963)	time		12.19		23.82		36.38		49.33	49.33	8 / 1							
reaction time	interval				11.63		12.56		12.95		# of strides	12.19	11.63	12.56	12.95	23.82	25.51	1.69
	velocity		8.20		8.60		7.96		7.72	8.11		8.20	8.60	7.96	7.72	8.40	7.84	
Brisco-Hooks, Valerie (USA)	time		12.27		23.77		36.33		49.90	49.90	4 / 2							
reaction time	interval				11.50		12.56		13.57		# of strides	12.27	11.50	12.56	13.57	23.77	26.13	2.36
	velocity		8.15		8.70		7.96		7.37	8.02		8.15	8.70	7.96	7.37	8.41	7.65	
Holland, Maree (AUS) (1963)	time		12.43		24.40		36.99		50.24	50.24	6 / 3							
reaction time	interval				11.97		12.59		13.25	PB	# of strides	12.43	11.97	12.59	13.25	24.40	25.84	1.44
	velocity		8.05		8.35		7.94		7.55	7.96		8.05	8.35	7.94	7.55	8.20	7.74	
Arendt, Helga (FRG) (1964)	time		12.34		24.00		36.59		50.36	50.36	1 / 4							
reaction time	interval				11.66		12.59		13.77	PB	# of strides	12.34	11.66	12.59	13.77	24.00	26.36	2.36
	velocity		8.10		8.58		7.94		7.26	7.94		8.10	8.58	7.94	7.26	8.33	7.59	
Emmelmann, Kirsten (GDR)	time		12.15		23.64		36.45		50.39	50.39	3 / 5							
reaction time	interval				11.49		12.81		13.94		# of strides	12.15	11.49	12.81	13.94	23.64	26.75	3.11
	velocity		8.23		8.70		7.81		7.17	7.94		8.23	8.70	7.81	7.17	8.46	7.48	
Rattray-Williams, Cathy (JAI	time		12.59		24.41		36.97		50.82	50.82	7 / 6							
reaction time	interval				11.82		12.56		13.85	PB	# of strides	12.59	11.82	12.56	13.85	24.41	26.41	2.00
	velocity		7.94		8.46		7.96		7.22	7.87		7.94	8.46	7.96	7.22	8.19	7.57	
Crooks, Charmaine (CAN) (1	time		12.43		24.17		36.85		51.63	51.63	5 / 7							
reaction time	interval				11.74		12.68		14.78		# of strides	12.43	11.74	12.68	14.78	24.17	27.46	3.29
	velocity		8.05		8.52		7.89		6.77	7.75		8.05	8.52	7.89	6.77	8.27	7.28	
Carabalí, Norfalia (COL) (196	time		12.91		25.13		38.29		52.65	52.65	2 / 8							
reaction time	interval				12.22		13.16		14.36		# of strides	12.91	12.22	13.16	14.36	25.13	27.52	2.39
	velocity		7.75		8.18		7.60		6.96	7.60		7.75	8.18	7.60	6.96	7.96	7.27	

Semi-Final 1

date 25-Sep-88

Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Nazarova, Olga (URS) (1965)	time		12.28		23.73		35.79		49.11	49.11	5 / 1							
reaction time	interval				11.45		12.06		13.32	NR	# of strides	12.28	11.45	12.06	13.32	23.73	25.38	1.65
	velocity		8.14		8.73		8.29		7.51	8.14		8.14	8.73	8.29	7.51	8.43	7.88	
Müller, Petra (GDR) (1965)	time		12.45		23.94		36.09		49.50	49.50	4 / 2							
reaction time	interval				11.49		12.15		13.41		# of strides	12.45	11.49	12.15	13.41	23.94	25.56	1.62
	velocity		8.03		8.70		8.23		7.46	8.08		8.03	8.70	8.23	7.46	8.35	7.82	
Dixon, Diane (USA) (1964)	time		12.03		23.56		36.06		49.84	49.84	8 / 3							
reaction time	interval				11.53		12.50		13.78	PB	# of strides	12.03	11.53	12.50	13.78	23.56	26.28	2.72
	velocity		8.31		8.67		8.00		7.26	8.03		8.31	8.67	8.00	7.26	8.49	7.61	
Howard-Hill, Denean (USA) (	time		12.11		23.90		36.37		49.87	49.87	3 / 4							
reaction time	interval				11.79		12.47		13.50	PB	# of strides	12.11	11.79	12.47	13.50	23.90	25.97	2.07
	velocity		8.26		8.48		8.02		7.41	8.02		8.26	8.48	8.02	7.41	8.37	7.70	
Richardson-Briscoe, Jillian (	time		11.99		23.57		36.19		49.91	49.91	7 / 5							
reaction time	interval				11.58		12.62		13.72	NR	# of strides	11.99	11.58	12.62	13.72	23.57	26.34	2.77
	velocity		8.34		8.64		7.92		7.29	8.01		8.34	8.64	7.92	7.29	8.49	7.59	
Thimm, Ute (FRG) (1958)	time		12.07		23.80		36.15		50.28	50.28	6 / 6							
reaction time	interval				11.73		12.35		14.13	PB	# of strides	12.07	11.73	12.35	14.13	23.80	26.48	2.68
	velocity		8.29		8.53		8.10		7.08	7.96		8.29	8.53	8.10	7.08	8.40	7.55	
Payne-Wiggins, Marita (CAN	time		12.15		23.92		36.81		50.29	50.29	1 / 7							
reaction time	interval				11.77		12.89		13.48		# of strides	12.15	11.77	12.89	13.48	23.92	26.37	2.45
	velocity		8.23		8.50		7.76		7.42	7.95		8.23	8.50	7.76	7.42	8.36	7.58	
Neubauer, Dagmar (GDR) (1	time		12.31		24.18		37.01		50.92	50.92	2 / 8							
reaction time	interval				11.87		12.83		13.91		# of strides	12.31	11.87	12.83	13.91	24.18	26.74	2.56
	velocity		8.12		8.42		7.79		7.19	7.86		8.12	8.42	7.79	7.19	8.27	7.48	

1988 USA Olympic Trials (Indianapolis, IN)

FINAL

date 18-Jul-88

Hymans (2008) - history of the US olympic trials - track and field

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Dixon, Diane (USA) (1964)	no information available								50.38	8 / 1							
Howard-Hill, Denean (USA) (1964)	no information available								50.40	7 / 2							
Brisco-Hooks, Valerie (USA) (1960)	no information available								50.53	5 / 3							

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

Leatherwood, Lillie (USA) (1964)	no information available							50.68	2 / 5									
Howard, Sherri (USA) (1962)	no information available							51.63										
Malone, Maicel (USA) (1969)	time		23.4			51.93	51.93	6 / 6										
reaction time	interval					28.5		# of strides							23.40	28.53	5.13	
	velocity		8.55			7.01	7.70								8.55	7.01		
Miles, Jearl (USA) (1966)	no information available							52.14	3 / 7									
Dendy, Terri (USA) (1965)	no information available							52.82	9 / 8									

1988 French National Championships (Tours, FRA)

FINAL

date 14-Aug-88

Vazel (2011) - speed reserve in the 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pérec, Marie-José (FRA) (19(	time		12.8		24.6		37.4		51.3	51.35	/ 1							
reaction time	interval				11.80		12.80		13.90	**PB**	# of strides	12.80	11.80	12.80	13.90	24.60	26.70	2.10
	velocity		7.81		8.47		7.81		7.19	7.79	170.5	7.81	8.47	7.81	7.19	8.13	7.49	

1988 Nikaia (Nice, FRA)

FINAL

date 10-Jul-88

Veney - split times from PJ

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Jackson, Grace (JAM) (1961)	time		12.52		23.91		36.39		49.57	49.57	/ 1							
reaction time	interval				11.39		12.48		13.18	**PB**	# of strides	12.52	11.39	12.48	13.18	23.91	25.66	1.75
	velocity		7.99		8.78		8.01		7.59	8.07		7.99	8.78	8.01	7.59	8.36	7.79	
Quirot, Ana Fidelia (CUB) (1	time		12.10		23.59		36.13		49.81	49.81	/ 2							
reaction time	interval				11.49		12.54		13.68		# of strides	12.10	11.49	12.54	13.68	23.59	26.22	2.63
	velocity		8.26		8.70		7.97		7.31	8.03		8.26	8.70	7.97	7.31	8.48	7.63	

1987 IAAF World Championships (Rome, ITA)

FINAL

date 31-Aug-87

Moravec (1990) - time analyis of the sprints - Rome 1987 Scientific Report (2nd ed)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bryzgina, Olga (URS) (1963)	time		12.34		23.82		36.15		49.38	49.38	2 / 1							
reaction time	interval				11.48		12.33		13.23		# of strides	12.34	11.48	12.33	13.23	23.82	25.56	1.74
	velocity		8.10		8.71		8.11		7.56	8.10		8.10	8.71	8.11	7.56	8.40	7.82	
Müller, Petra (GDR) (1965)	time		12.20		23.64		36.07		49.94	49.94	3 / 2							
reaction time	interval				11.44		12.43		13.87		# of strides	12.20	11.44	12.43	13.87	23.64	26.30	2.66
	velocity		8.20		8.74		8.05		7.21	8.01		8.20	8.74	8.05	7.21	8.46	7.60	
Emmelmann, Kirsten (GDR)	time		12.21		23.75		36.35		50.20	50.20	6 / 3							
reaction time	interval				11.54		12.60		13.85		# of strides	12.21	11.54	12.60	13.85	23.75	26.45	2.70
	velocity		8.19		8.67		7.94		7.22	7.97		8.19	8.67	7.94	7.22	8.42	7.56	
Pinigina, Mariya (URS) (1958	time		12.40		23.85		36.53		50.53	50.53	5 / 4							
reaction time	interval				11.45		12.68		14.00		# of strides	12.40	11.45	12.68	14.00	23.85	26.68	2.83
	velocity		8.06		8.73		7.89		7.14	7.92		8.06	8.73	7.89	7.14	8.39	7.50	
Leatherwood, Lillie (USA) (1	time		12.70		24.37		37.07		50.82	50.82	7 / 5							
reaction time	interval				11.67		12.70		13.75		# of strides	12.70	11.67	12.70	13.75	24.37	26.45	2.08
	velocity		7.87		8.57		7.87		7.27	7.87		7.87	8.57	7.87	7.27	8.21	7.56	
Richardson, Jillian (CAN) (1!	time		12.82		24.76		37.32		51.03	51.03	8 / 6							
reaction time	interval				11.94		12.56		13.71		# of strides	12.82	11.94	12.56	13.71	24.76	26.27	1.51
	velocity		7.80		8.38		7.96		7.29	7.84		7.80	8.38	7.96	7.29	8.08	7.61	
Dixon, Diane (USA) (1964)	time		12.32		23.94		37.01		51.13	51.13	4 / 7							
reaction time	interval				11.62		13.07		14.12		# of strides	12.32	11.62	13.07	14.12	23.94	27.19	3.25
	velocity		8.12		8.61		7.65		7.08	7.82		8.12	8.61	7.65	7.08	8.35	7.36	
Nazarova, Olga (URS) (1965)	time		12.90		24.68		37.40		51.20	51.20	1 / 8							
reaction time	interval				11.78		12.72		13.80		# of strides	12.90	11.78	12.72	13.80	24.68	26.52	1.84
	velocity		7.75		8.49		7.86		7.25	7.81		7.75	8.49	7.86	7.25	8.10	7.54	

Semi-Final 3

date 30-Aug-87

Moravec (1990) - time analyis of the sprints - Rome 1987 Scientific Report (2nd ed)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Emmelmann, Kirsten (GDR)	time		12.39		24.15		36.78		50.53	50.53	7 / 1							
reaction time	interval				11.76		12.63		13.75		# of strides	12.39	11.76	12.63	13.75	24.15	26.38	2.23
	velocity		8.07		8.50		7.92		7.27	7.92		8.07	8.50	7.92	7.27	8.28	7.58	

Semi-Final 2

date 30-Aug-87

Moravec (1990) - time analyis of the sprints - Rome 1987 Scientific Report (2nd ed)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Müller, Petra (GDR) (1965)	time		12.11		23.98		36.43		50.15	50.15	7 / 1							
reaction time	interval				11.87		12.45		13.72		# of strides	12.11	11.87	12.45	13.72	23.98	26.17	2.19
	velocity		8.26		8.42		8.03		7.29	7.98		8.26	8.42	8.03	7.29	8.34	7.64	
Bryzgina, Olga (URS) (1963)	time		12.21		24.09		36.74		50.88	50.88	9 / 2							
reaction time	interval				11.88		12.65		14.14		# of strides	12.21	11.88	12.65	14.14	24.09	26.79	2.70
	velocity		8.19		8.42		7.91		7.07	7.86		8.19	8.42	7.91	7.07	8.30	7.47	

Heat 6

date 29-Aug-87

Moravec (1990) - time analyis of the sprints - Rome 1987 Scientific Report (2nd ed)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Emmelmann, Kirsten (GDR)	time		12.32		23.98		36.74		51.62	51.62	7 / 1							
reaction time	interval				11.66		12.76		14.88		# of strides	12.32	11.66	12.76	14.88	23.98	27.64	3.66
	velocity		8.12		8.58		7.84		6.72	7.75		8.12	8.58	7.84	6.72	8.34	7.24	

Heat 2

date 29-Aug-87

Moravec (1990) - time analyis of the sprints - Rome 1987 Scientific Report (2nd ed)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Müller, Petra (GDR) (1965)	time		12.59		24.81		37.30		51.68	51.68	7 / 1							
reaction time	interval				12.22		12.49		14.38		# of strides	12.59	12.22	12.49	14.38	24.81	26.87	2.06
	velocity		7.94		8.18		8.01		6.95	7.74		7.94	8.18	8.01	6.95	8.06	7.44	

Heat 1 date 29-Aug-87

Moravec (1990) - time analyis of the sprints - Rome 1987 Scientific Report (2nd ed)

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Bryzgina, Olga (URS) (1963)	time		12.51		24.50		37.22		51.62	51.62	8 / 1							
reaction time	interval				11.99		12.72		14.40		# of strides	12.51	11.99	12.72	14.40	24.50	27.12	2.62
	velocity		7.99		8.34		7.86		6.94	7.75		7.99	8.34	7.86	6.94	8.16	7.37	

1987 TAC National Championships (San Jose, CA)

FINAL date 27-Jun-87

Track Newsletter (1987) - TAC National Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Leatherwood, Lillie (USA) (1	time				23.8				50.0	49.95	5 / 1							
reaction time	interval								26.20	PB	# of strides					23.80	26.20	2.40
	velocity				8.40				7.63	8.01						8.40	7.63	
Dixon, Diane (USA) (1964)	time				23.5				50.7	50.62	4 / 2							
reaction time	interval								27.20		# of strides					23.50	27.20	3.70
	velocity				8.51				7.35	7.90						8.51	7.35	
Howard, Denean (USA) (1964)	no information available									51.02	2 / 3							
Brisco, Valerie (USA) (1960)	time				22.5				51.3	51.28	3 / 4							
reaction time	interval								28.80		# of strides					22.50	28.80	6.30
	velocity				8.89				6.94	7.80						8.89	6.94	

1987 NCAA Championships (Baton Rouge, LA)

FINAL date 06-Jun-87

Track Newsletter (1987) - NCAA Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Leatherwood, Lillie (USA) (1	time				24.6				50.9	50.90	5 / 1							
reaction time	interval								26.30		# of strides					24.60	26.30	1.70
	velocity				8.13				7.60	7.86						8.13	7.60	

1986 European Championships (Stuttgart, FRG)

FINAL date 28-Aug-86

Bondarchuk (2007) - transfer of training in sports

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.79		22.63		34.67		48.22	48.22	/ 1							
reaction time	interval				10.84		12.04		13.55		# of strides	11.79	10.84	12.04	13.55	22.63	25.59	2.96
	velocity		8.48		9.23		8.31		7.38	8.30		8.48	9.23	8.31	7.38	8.84	7.82	
Bryzgina, Olga (URS) (1963)	time		11.82		23.41		35.75		49.67	49.67	/ 2							
reaction time	interval				11.59		12.34		13.92		# of strides	11.82	11.59	12.34	13.92	23.41	26.26	2.85
	velocity		8.46		8.63		8.10		7.18	8.05		8.46	8.63	8.10	7.18	8.54	7.62	
Müller, Petra (GDR) (1965)	no information available									49.88	/ 3							
Emmelmann, Kirsten (GDR) (1961)	no information available									50.43	/ 4							
Thimm, Ute (FRG) (1958)	no information available									51.15	/ 5							
Kocembova, Tatána (TCH) (1962)	no information available									51.50	/ 6							
Ficher, Fabienne (FRA) (1966)	no information available									51.91	/ 7							
Lix, Karin (FRG) (1965)	no information available									52.89	/ 8							

1986 Golden Oval (Dresden, GDR)

FINAL date 16-Aug-86

Bondarchuk (2007) - transfer of training in sports

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Müller, Petra (GDR) (1965)	time		11.00		22.14				49.79	49.79	/ 2							
reaction time	interval				11.14				27.65		# of strides	11.00	11.14			22.14	27.65	5.51
	velocity		9.09		8.98				7.23	8.03		9.09	8.98			9.03	7.23	

1986 Bulgarian National Championships (Sofia, BUL)

FINAL date 13-Aug-86

Bondarchuk (2007) - transfer of training in sports

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Pavlova, Pepa (BUL) (1961)	time		11.30		22.68				51.40	51.40	/ 1							
reaction time	interval				11.38				28.72	PB	# of strides	11.30	11.38			22.68	28.72	6.04
	velocity		8.85		8.79				6.96	7.78		8.85	8.79			8.82	6.96	

1986 IAAF World Junor Championships (Athens, GRE)

FINAL date 18-Jul-86

Moravec (1986) - IAAF biomechanical research - Athens 1986 - sprints

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Sieger, Susanne (GDR) (1968	time		12.82		24.57		37.44		52.02	52.02	/ 1							
reaction time	interval				11.75		12.87		14.58	CR	# of strides	12.82	11.75	12.87	14.58	24.57	27.45	2.88
	velocity		7.80		8.51		7.77		6.86	7.69		7.80	8.51	7.77	6.86	8.14	7.29	
Pesnopevtseva, Olga (URS) (	time		13.11		25.38		37.74		52.17	52.17	/ 2							
reaction time	interval				12.27		12.36		14.43		# of strides	13.11	12.27	12.36	14.43	25.38	26.79	1.41
	velocity		7.63		8.15		8.09		6.93	7.67		7.63	8.15	8.09	6.93	7.88	7.47	
Richards, Sandie (JAM) (196	time		13.01		24.96		38.06		52.23	52.23	/ 3							
reaction time	interval				11.95		13.10		14.17		# of strides	13.01	11.95	13.10	14.17	24.96	27.27	2.31
	velocity		7.69		8.37		7.63		7.06	7.66		7.69	8.37	7.63	7.06	8.01	7.33	
Vickers, Janeene (USA) (1968)	no information available									52.25	/ 4							
Downing, Tasha (USA) (1970)	no information available									53.21	/ 5							
Andrei, Lacromioara (ROM)	no information available									53.57	/ 6							
Kurach, Malgorzata (POL)	no information available									54.18	/ 7							

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

Alge, Ulrike (AUT) (1969) no information available 54.55 / 8

1985 IAAF World Cup (Canberra, AUS)

Vazel (2011) - speed reserve in the 400m

FINAL date 06-Oct-85

Saunders (2015) - 400m performance- time as percentages splits

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.30		22.90		34.60		47.60	47.60	2 / 1							*Saunders (2015)*
reaction time	interval				11.60		11.70		13.00	WR	# of strides	11.30	11.60	11.70	13.00	22.90	24.70	1.80
	velocity		8.85		8.62		8.55		7.69	8.40	196.0	8.85	8.62	8.55	7.69	8.73	8.10	
Bryzgina, Olga (URS) (1963)	no information available								NR	48.27	1 / 2							
Leatherwood, Lillie (USA) (1964)	no information available									50.43	8 / 3							
Quirot, Ana Fidelia (CUB) (1963)					24.9				50.9	50.86	6 / 4							*Vazel (2011)*
reaction time	interval								26.00	PB	# of strides					24.90	26.00	1.10
	velocity				8.03				7.69	7.86						8.03	7.69	
Kratochvilova, Jarmila (CZE) (1951)	no information available									50.95	7 / 5							
Flintoff, Debbie (AUS) (1960)	no information available									51.57	5 / 6							
Usha, P. T. (IND) (1964)	no information available									51.61	4 / 7							
Vaughan, Kehinde (NGR) (1961)	no information available									53.16	3 / 8							

1985 NCAA Championships (Austin, TX)

FINAL date 01-Jun-85

Track Newsletter (1985) - NCAA Championships

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Howard, Sherri (USA) (1962)	time				23.6				51.0	50.95	5 / 1							
reaction time	interval								27.40		# of strides					23.60	27.40	3.80
	velocity				8.47				7.30	7.85						8.47	7.30	
Oliver, Ilrey (JAM) (1962)	time				23.7				52.1	52.05	3 / 2							
reaction time	interval								28.40	PB	# of strides					23.70	28.40	4.70
	velocity				8.44				7.04	7.68						8.44	7.04	

1984 Women's Friendship Games (Praha, TCH)

FINAL date 16-Aug-84

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.79		22.62		34.67		48.19	48.16	/ 1							
reaction time	interval				10.83		12.05		13.52		# of strides	11.79	10.83	12.05	13.52	22.62	25.57	2.95
	velocity		8.48		9.23		8.30		7.40	8.31		8.48	9.23	8.30	7.40	8.84	7.82	
Bryzgina, Olga (URS) (1963)	time		11.82		23.41		35.76		49.55	49.52	/ 3							
reaction time	interval				11.59		12.35		13.79		# of strides	11.82	11.59	12.35	13.79	23.41	26.14	2.73
	velocity		8.46		8.63		8.10		7.25	8.08		8.46	8.63	8.10	7.25	8.54	7.65	
Stamenova, Rositsa (BUL) (	time		11.3		23.64				50.82	50.82	/ 6							
reaction time	interval				12.34				27.18	PB	# of strides	11.30	12.34			23.64	27.18	3.54
	velocity		8.85		8.10				7.36	7.87		8.85	8.10			8.46	7.36	

1984 Olympic Games (Los Angeles, CA)

FINAL date 06-Aug-84

Adams (1984) - 1984 olympic games - 200m & 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brisco-Hooks, Valerie (USA)	time				23.5				48.83	48.83	5 / 1							
reaction time 0.182	interval								25.33	OR / NR	# of strides					23.50	25.33	1.83
	velocity				8.51				7.90	8.19	192.5					8.51	7.90	
Chesesborough, Chandra (L	time				24.2				49.05	49.05	7 / 2							
reaction time 0.212	interval								24.85	PB	# of strides					24.20	24.85	0.65
	velocity				8.26				8.05	8.15	192.0					8.26	8.05	
Cook, Kathy (GBR) (1960)	time				23.4				49.43	49.43	6 / 3							
reaction time 0.208	interval								26.03	NR	# of strides					23.40	26.03	2.63
	velocity				8.55				7.68	8.09	178.0					8.55	7.68	
Payne-Wiggins, Marita (CAN	time				24.6				49.91	49.91	2 / 4							
reaction time 0.251	interval								25.31	NR	# of strides					24.60	25.31	0.71
	velocity				8.13				7.90	8.01						8.13	7.90	
Leatherwood, Lillie (USA) (1	time				24.4				50.25	50.25	8 / 5							
reaction time 0.260	interval								25.85		# of strides					24.40	25.85	1.45
	velocity				8.20				7.74	7.96						8.20	7.74	
Thimm, Ute (FRG) (1958)	time				24.9				50.37	50.37	1 / 6							
reaction time 0.215	interval								25.47		# of strides					24.90	25.47	0.57
	velocity				8.03				7.85	7.94						8.03	7.85	
Crooks, Charmaine (CAN) (1	time				24.8				50.45	50.45	3 / 7							
reaction time 0.239	interval								25.65	PB	# of strides					24.80	25.65	0.85
	velocity				8.06				7.80	7.93						8.06	7.80	
Waithera, Ruth (KEN) (1958)	time				25.1				51.56	51.56	4 / 8							
reaction time 0.334	interval								26.46		# of strides					25.10	26.46	1.36
	velocity				7.97				7.56	7.76						7.97	7.56	

Semi-Final 2 (TV A

date 05-Aug-84

Adams (1984) - 1984 olympic games - 200m & 400m

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Probert-Scutt, Michelle (GBI	time				24.41				52.07	52.07	4 / 6							
reaction time	interval								27.66		# of strides					24.41	27.66	3.25
	velocity				8.19				7.23	7.68						8.19	7.23	

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

Barnett-Burkart, Helen (GBF	time			23.88			52.26	52.26	7 / 8										
reaction time	interval						28.38	PB	# of strides							23.88	28.38	4.50	
	velocity			8.38			7.05	7.65								8.38	7.05		

1984 East German Spitzenklasse (Dresden, GDR)

FINAL date 26-Jul-84

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.64		22.88		34.99		48.26	48.26	/ 1							
reaction time	interval				11.24		12.11		13.27		# of strides	11.64	11.24	12.11	13.27	22.88	25.38	2.50
	velocity		8.59		8.90		8.26		7.54	8.29		8.59	8.90	8.26	7.54	8.74	7.88	

1984 USA Olympic Trials (Los Angeles, CA)

FINAL date 19-Jun-84

Hymans (2008) - history of the US olympic trials - track and field

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Cheeseborough, Chandra (L	time				23.8				49.3	49.28	5 / 1							
reaction time	interval								25.5	NR	# of strides					23.80	25.50	1.70
	velocity				8.40				7.84	8.12						8.40	7.84	
Brisco-Hooks, Valerie (USA)	time				23.0				49.8	49.79	3 / 2							
reaction time	interval								26.8		# of strides					23.00	26.80	3.80
	velocity				8.70				7.46	8.03						8.70	7.46	
Leatherwood, Lillie (USA) (1	time				24.4				50.2	50.19	6 / 3							
reaction time	interval								25.8	PB	# of strides					24.40	25.80	1.40
	velocity				8.20				7.75	7.97						8.20	7.75	
Howard, Sherri (USA) (1962)	time				23.5				50.4	50.40	8 / 4							
reaction time	interval								26.9		# of strides					23.50	26.90	3.40
	velocity				8.51				7.43	7.94						8.51	7.43	
Howard, Denean (USA) (196	time				24.0				51.1	51.05	7 / 5							
reaction time	interval								27.1		# of strides					24.00	27.10	3.10
	velocity				8.33				7.38	7.84						8.33	7.38	
Griffith, Florence (USA) (195	time				23.8				51.2	51.11	4 / 6							
reaction time	interval								27.4		# of strides					23.80	27.40	3.60
	velocity				8.40				7.30	7.83						8.40	7.30	
Dixon, Diane (USA) (1964)	time				23.9				51.3	51.26	1 / 7							
reaction time	interval								27.4		# of strides					23.90	27.40	3.50
	velocity				8.37				7.30	7.80						8.37	7.30	
Belle, Roberta (USA) (1958)	time				24.7				51.3	51.26	2 / 8							
reaction time	interval								26.6		# of strides					24.70	26.60	1.90
	velocity				8.10				7.52	7.80						8.10	7.52	

1984 East German National Championships (Erfurt, GDR)

FINAL date 02-Jun-84

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)		no information available								48.86	**/ 1**							
Busch, Sabine (GDR) (1962)	time		12.54		24.06		36.08		49.24	49.24	/ 2							
reaction time	interval				11.52		12.02		13.16	PB	# of strides	12.54	11.52	12.02	13.16	24.06	25.18	1.12
	velocity		7.97		8.68		8.32		7.60	8.12		7.97	8.68	8.32	7.60	8.31	7.94	
Rübsam-Neubauer, Dagmar	time		12.46		24.12		36.43		49.58	49.58	/ 3							
reaction time	interval				11.66		12.31		13.15	PB	# of strides	12.46	11.66	12.31	13.15	24.12	25.46	1.34
	velocity		8.03		8.58		8.12		7.60	8.07		8.03	8.58	8.12	7.60	8.29	7.86	

1983 IAAF World Championships (Helsinki, FIN)

FINAL date 10-Aug-83

Butler (2013) - IAAF world championships statistics handbook- moscow 2013

Veney - split times from PJ

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kratochvilová, Jarmila (TCH)	time				23.1				48.0	47.99	3 / 1							*Butler (2013)*
reaction time	interval								24.9	WR / CR	# of strides					23.10	24.90	1.80
	velocity				8.66				8.03	8.34	196.7					8.66	8.03	
Kocembová, Tatána (TCH) (	time		12.40		23.50		35.24		48.59	48.59	1 / 2							*Veney - split times from PJ*
reaction time	interval				11.10		11.74		13.35	PB	# of strides	12.40	11.10	11.74	13.35	23.50	25.09	1.59
	velocity		8.06		9.01		8.52		7.49	8.23		8.06	9.01	8.52	7.49	8.51	7.97	
Kulchunova-Pinigina, Mariya	time				23.2				49.2	49.19	4 / 3							*Butler (2013)*
reaction time	interval								26.0		# of strides					23.20	26.00	2.80
	velocity				8.62				7.69	8.13						8.62	7.69	
Bussman, Gaby (FRG) (1959	time				23.9				49.8	49.75	5 / 4							*Butler (2013)*
reaction time	interval								25.9		# of strides					23.90	25.90	2.00
	velocity				8.37				7.72	8.04						8.37	7.72	
Payne-Wiggins, Marita (CAN	time				23.6				50.1	50.06	6 / 5							*Butler (2013)*
reaction time	interval								26.5	AR	# of strides					23.60	26.50	2.90
	velocity				8.47				7.55	7.99						8.47	7.55	
Baskakova, Irina (URS) (1956	time				24.1				50.5	50.48	8 / 6							*Butler (2013)*
reaction time	interval								26.4		# of strides					24.10	26.40	2.30
	velocity				8.30				7.58	7.92						8.30	7.58	

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

Rübsam-Neubauer, Dagmar	time		24.1			50.5	50.48	7 / 7									*Butler (2013)*
reaction time	interval					26.4		# of strides						24.10	26.40	2.30	
	velocity		8.30			7.58	7.92							8.30	7.58		
Bryant, Rosalyn (USA) (1956	time		24.9			50.7	50.66	7 / 8									*Butler (2013)*
reaction time	interval					25.8		# of strides						24.90	25.80	0.90	
	velocity		8.03			7.75	7.90							8.03	7.75		

1982 European Championships (Athens, GRE)

FINAL date 08-Sep-82

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.82		22.80		34.75		48.16	48.16	3 / 1							
reaction time	interval				10.98		11.95		13.41	WR	# of strides	11.82	10.98	11.95	13.41	22.80	25.36	2.56
	velocity		8.46		9.11		8.37		7.46	8.31		8.46	9.11	8.37	7.46	8.77	7.89	
Kratochvílová, Jarmila (TCH) (1951)	no information available								NR	48.85	4 / 2							
Kocembová, Tatána (TCH) (	time		12.40		24.38		37.00		50.55	50.55	/ 3							
reaction time	interval				11.98		12.62		13.55		# of strides	12.40	11.98	12.62	13.55	24.38	26.17	1.79
	velocity		8.06		8.35		7.92		7.38	7.91		8.06	8.35	7.92	7.38	8.20	7.64	
Busch, Sabine (GDR) (1962)	no information available									50.57	/ 4							
Baskakova, Irina (URS) (1956)	no information available									50.58	/ 5							
Rubsam, Dagmar (GDR) (1962)	no information available									50.76	/ 6							
Bussmann, Gabriele (FRG) (1959)	no information available									50.93	/ 7							
Forgacs, Judit (HUN) (1959)	no information available									52.49	/ 8							

1982 Weltklasse (Zürich, SUI)

FINAL date 18-Aug-82

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kratochvílová, Jarmila (TCH)	time		11.64		22.64		34.94		48.86	48.86	/ 1							
reaction time	interval				11.00		12.30		13.92		# of strides	11.64	11.00	12.30	13.92	22.64	26.22	3.58
	velocity		8.59		9.09		8.13		7.18	8.19		8.59	9.09	8.13	7.18	8.83	7.63	

1982 GDR vs. USA (Karl-Marx-Stadt, GDR)

FINAL date 09-Jul-82

Schäfer (1989) - zu strukturmerkmalen der wettkamfleistung un den entsprechenden trainingshalten

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.70		22.76		34.97		48.77	48.77	/ 1							
reaction time	interval				11.06		12.21		13.80		# of strides	11.70	11.06	12.21	13.80	22.76	26.01	3.25
	velocity		8.55		9.04		8.19		7.25	8.20		8.55	9.04	8.19	7.25	8.79	7.69	

1981 IAAF World Cup (Rome, ITA)

FINAL date 06-Sep-81

Quercetani (2005) - a world history of the one-lap race: 1850-2004

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Kratochvilova, Jarmila (TCH)	time		11.95		23.53		35.82		48.61	48.61	/ 1							
reaction time	interval				11.58		12.29		12.79	PB	# of strides	11.95	11.58	12.29	12.79	23.53	25.08	1.55
	velocity		8.37		8.64		8.14		7.82	8.23		8.37	8.64	8.14	7.82	8.50	7.97	
Koch, Marita (GDR) (1957)	no information available									49.27	/ 2							
Pusey, Jackie (JAM) (1959)	no information available									51.48	/ 3							
Howard, Denean (USA) (1964)	no information available									51.76	/ 4							
Rossi, Erika (ITA) (1955)	no information available									52.50	/ 5							
Nasarova, Irina (URS) (1957)	no information available									53.21	/ 6							
Evans, Leanne (AUS)	no information available									53.44	/ 7							
Atuki, Ruth (KEN)	no information available									53.58	/ 8							
Yoshica, Junko (JPN)	no information available									56.00	/ 9							

1980 Olympic Games (Moscow, URS)

FINAL date 28-Jul-80

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time						35.3		48.88	48.88	4 / 1							
reaction time	interval								13.58	OR	# of strides				13.58			
	velocity						8.50		7.36	8.18					7.36			
Kratochvilova, Jarmila (TCH)	time						35.6		49.46	49.46	6 / 2							
reaction time	interval								13.86	PB	# of strides				13.86			
	velocity						8.43		7.22	8.09					7.22			
Brehmer, Christina (GDR) (1	time						36.2		49.66	49.66	5 / 3							
reaction time	interval								13.46	PB	# of strides				13.46			
	velocity						8.29		7.43	8.05					7.43			
Nazarova, Irina (URS) (1957)	time						36.2		50.07	50.07	8 / 4							
reaction time	interval								13.87	PB	# of strides				13.87			
	velocity						8.29		7.21	7.99					7.21			
Zyuskova, Nina (URS) (1952)	time						36.9		50.17	50.17	3 / 5							
reaction time	interval								13.27	PB	# of strides				13.27			
	velocity						8.13		7.54	7.97					7.54			
Löwe, Gabriele (GDR) (1958)	time						37.6		51.33	51.33	1 / 6							
reaction time	interval								13.73		# of strides				13.73			
	velocity						7.98		7.28	7.79					7.28			
Häggman, Pirjo (FIN) (1951)	time						37.6		51.35	51.35	2 / 7							
reaction time	interval								13.75		# of strides				13.75			

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

	velocity					7.98		7.27	7.79						7.27			
MacDonald, Linsey (GBR) (1	time					37.8		52.40	52.40	7 / 8								
reaction time	interval							14.60		# of strides					14.60			
	velocity					7.94		6.85	7.63						6.85			

1980 USA Olympic Trials (Eugene, OR)

FINAL date 25-Jun-80

Track Newsletter (1980) - US olympic trials

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Howard, Sherri (USA) (1962)	time		14.1		24.2		37.4		51.5	51.48	/ 1							
reaction time	interval				10.10		13.20		14.10		# of strides	14.10	10.10	13.20	14.10	24.20	27.30	3.10
	velocity		7.09		9.90		7.58		7.09	7.77		7.09	9.90	7.58	7.09	8.26	7.33	
Gardner, Gwen (USA) (1960)	time				24.0				51.7	51.68	/ 2							
reaction time	interval								27.70		# of strides					24.00	27.70	3.70
	velocity				8.33				7.22	7.74						8.33	7.22	
Howard, Denean (USA) (196	time				24.1				51.7	51.70	/ 3							
reaction time	interval								27.60		# of strides					24.10	27.60	3.50
	velocity				8.30				7.25	7.74						8.30	7.25	
Dabney, Sharon (USA) (1957	time				24.6				52.0	52.00	/ 4							
reaction time	interval								27.40		# of strides					24.60	27.40	2.80
	velocity				8.13				7.30	7.69						8.13	7.30	
Belle, Roberta (USA) (1958)	time				24.2				52.7	52.67	/ 5							
reaction time	interval								28.50		# of strides					24.20	28.50	4.30
	velocity				8.26				7.02	7.59						8.26	7.02	
Thomas, Kim (USA)	time				25.7				52.8	52.75	/ 6							
reaction time	interval								27.10		# of strides					25.70	27.10	1.40
	velocity				7.78				7.38	7.58						7.78	7.38	
Jackson, Pat (USA) (1958)		no information available								53.20	/ 7							
Bolton, Kelia (USA) (1960)	time				24.9				53.4	53.34	/ 8							
reaction time	interval								28.50		# of strides					24.90	28.50	3.60
	velocity				8.03				7.02	7.50						8.03	7.02	

1980 Balkan Games (Sofia, BUL)

FINAL date 14-Jun-80

Bondarchuk (2007) - transfer of training in sports

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Damyanova, Svobodka (BUL	time		11.92		23.90				51.63	51.63	/ 1							
reaction time	interval				11.98				27.73		# of strides	11.92	11.98			23.90	27.73	3.83
	velocity		8.39		8.35				7.21	7.75		8.39	8.35			8.37	7.21	

1979 European Cup Final (Torino, ITA)

FINAL date 04-Aug-79

Hymans (2015) - progression of IAAF world records - 2015 edition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time				23.5		35.0		48.60	48.60	/ 1							
reaction time	interval						11.50		13.60	WR	# of strides			11.50	13.60	23.50	25.10	1.60
	velocity				8.51		8.70		7.35	8.23				8.70	7.35	8.51	7.97	

1979 East German Athletics Sportfest (Potsdam, GDR)

FINAL date 29-Jul-79

Khomenkov (1982) - a textbook for a track and field coach

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.83		22.84		34.76		48.89	48.89	/ 1							
reaction time	interval				11.01		11.92		14.13	WR	# of strides	11.83	11.01	11.92	14.13	22.84	26.05	3.21
	velocity		8.45		9.08		8.39		7.08	8.18		8.45	9.08	8.39	7.08	8.76	7.68	

1978 European Championships (Prague, TCH)

FINAL date 31-Aug-78

Lamare (1978) - championnats d'Europa 1978

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Koch, Marita (GDR) (1957)	time		11.70		23.06		35.08		48.94	48.94	5 / 1							
reaction time	interval				11.36		12.02		13.86	WR	# of strides	11.70	11.36	12.02	13.86	23.06	25.88	2.82
	velocity		8.55		8.80		8.32		7.22	8.17	199.2	8.55	8.80	8.32	7.22	8.67	7.73	
Brehmer, Christina (GDR) (1958)		no information available								50.38	8 / 2						# of strides	204.5
Szewinska, Irena (POL) (1946)		no information available								50.40	7 / 3						# of strides	190.2
Klutschunova, Maria (URS)		no information available								51.25	6 / 4						# of strides	201.7
Marquardt, Christine (GDR) (1958)		no information available								51.99	1 / 5							
Hartley, Donna (GBR) (1955)		no information available								52.31	4 / 6							
Häggman, Pirjo (FIN) (1951)		no information available								52.46	2 / 7							
Elder, Verona (GBR) (1953)		no information available								52.53	3 / 8							

1976 Olympic Games (Montreal, CAN)

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

FINAL date 29-Jul-76

Lamare (1976) - les jeux de la XXI olympia, Montreal 1976

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Szewinska, Irena (POL) (1946	time				23.12		35.58		49.29	49.29	4 / 1							*Lamare (1976)*
reaction time	interval						12.46		13.71	WR	# of strides			12.46	13.71	23.12	26.17	3.05
	velocity				8.65		8.03		7.29	8.12				8.03	7.29	8.65	7.64	
Brehmer, Christina (GDR) (1	time		11.78		23.3		35.3		50.6	50.51	2 / 2							*Lamare (1976) + Butler (2016)*
reaction time	interval				11.52		12.00		15.30		# of strides	11.78	11.52	12.00	15.30	23.30	27.30	4.00
	velocity		8.49		8.68		8.33		6.54	7.92		8.49	8.68	8.33	6.54	8.58	7.33	

Strophal, Ellen (GDR) (1952)	time		23.7	35.7	50.6	50.55	8 / 3								*Butler (2016)*
reaction time	interval			12.00	14.90		# of strides			12.00	14.90	23.70	26.90	3.20	
	velocity		8.44	8.33	6.71	7.91				8.33	6.71	8.44	7.43		
Häggman, Pirjo (FIN) (1951)	time		24.0	35.9	50.6	50.56	1 / 4								*Butler (2016)*
reaction time	interval			11.90	14.70		# of strides			11.90	14.70	24.00	26.60	2.60	
	velocity		8.33	8.40	6.80	7.91				8.40	6.80	8.33	7.52		
Bryant, Rosalyn (USA) (1956	time		23.3	35.8	50.7	50.65	7 / 5								*Butler (2016)*
reaction time	interval			12.50	14.90		# of strides			12.50	14.90	23.30	27.40	4.10	
	velocity		8.58	8.00	6.71	7.90				8.00	6.71	8.58	7.30		
Ingram, Shelia (USA) (1957)	time		24.4	35.8	50.9	50.90	3 / 6								*Butler (2016)*
reaction time	interval			11.40	15.10		# of strides			11.40	15.10	24.40	26.50	2.10	
	velocity		8.20	8.77	6.62	7.86				8.77	6.62	8.20	7.55		
Salin, Riitta (FIN) (1950)	time		23.8		51.0	50.98	6 / 7								*Butler (2016)*
reaction time	interval				27.2		# of strides					23.80	27.20	3.40	
	velocity		8.40		7.35	7.85						8.40	7.35		
Sapenter, Debra (USA) (1952	time		24.0		51.7	51.66	5 / 8								*Butler (2016)*
reaction time	interval				27.7		# of strides					24.00	27.70	3.70	
	velocity		8.33		7.22	7.74						8.33	7.22		

Semi-Final 2

date 26-Jul-76 — *Lamare (1976) - les jeux de la XXI olympia, Montreal 1976*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Brehmer, Christina (GDR) (1	time		12.32		24.00		36.58		50.86	50.86	4 / 2							
reaction time	interval				11.68		12.58		14.28		# of strides	12.32	11.68	12.58	14.28	24.00	26.86	2.86
	velocity		8.12		8.56		7.95		7.00	7.86		8.12	8.56	7.95	7.00	8.33	7.45	

Semi-Final 1

date 26-Jul-76 — *Lamare (1976) - les jeux de la XXI olympia, Montreal 1976*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Szewinska, Irena (POL) (1946	time		12.20		24.24		36.92		50.48	50.48	1 / 1							
reaction time	interval				12.04		12.68		13.56	OR	# of strides	12.20	12.04	12.68	13.56	24.24	26.24	2.00
	velocity		8.20		8.31		7.89		7.37	7.92		8.20	8.31	7.89	7.37	8.25	7.62	

1976 USA Olympic Trials (Eugene, OR)

FINAL

date 25-Jun-76 — *Hymans (2008) - history of the US olympic trials - track and field*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Ingram, Sheila (USA) (1957)	time				25.8				52.69	52.69	/ 1							
reaction time	interval								26.9		# of strides					25.80	26.89	1.09
	velocity				7.75				7.44	7.59						7.75	7.44	
Sapenter, Debra (USA) (1952	time				24.8				52.73	52.73	/ 2							
reaction time	interval								27.9		# of strides					24.80	27.93	3.13
	velocity				8.06				7.16	7.59						8.06	7.16	
Bryant, Rosalyn (USA) (1956	time				24.8				52.76	52.76	/ 3							
reaction time	interval								28.0		# of strides					24.80	27.96	3.16
	velocity				8.06				7.15	7.58						8.06	7.15	
Gainer, Arthurene (USA)	no information available									53.48	/ 4							
Norman, Gwen (USA)	no information available									53.57	/ 5							
Dabney, Sheron (USA) (1957)	no information available									54.09	/ 6							
Williams, Veronica (USA)	no information available									54.29	/ 7							
Williams, Shirley (USA)	no information available									54.91	/ 8							

1974 Kusocinski Memorial (Warsaw, POL)

FINAL

date 22-Jun-74 — *Quercentani (2000). Athletics: A history of modern track and field athletics (1860-2000)*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Szewinska, Irena (POL) (1946	time		11.8		22.9		35.7		49.9	49.9	2 / 1							
reaction time	interval				11.1		12.8		14.2	WR	# of strides	11.80	11.10	12.80	14.20	22.90	27.00	4.10
	velocity		8.47		9.01		7.81		7.04	8.02	187.0	8.47	9.01	7.81	7.04	8.73	7.41	

1972 Olympic Games (Munich, FRG)

Butler (2016) - IAAF statistics handbook- special edition: Games of the XXXI Olympiad- Rio 2016

FINAL

date 07-Sep-72 — *Track & Field News (1979) - olympic track & field: complete results*

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Zehrt, Monika (GDR) (1952)	time				24.2		36.8		51.1	51.08	7 / 1						*Track & Field News (1979)*	
reaction time	interval						12.60		14.28	OR	# of strides			12.60	14.28	24.20	26.88	2.68
	velocity				8.26		7.94		7.00	7.83				7.94	7.00	8.26	7.44	
Jahn-Wilden, Rita (FRG) (19	time				24.4				51.2	51.21	4 / 2							*Butler (2016)*
reaction time	interval								26.8		# of strides					24.40	26.80	2.40
	velocity				8.20				7.46	7.81						8.20	7.46	
Hammond, Kathy (USA) (19!	time				24.5				51.6	51.64	5 / 3							*Butler (2016)*
reaction time	interval								27.1		# of strides					24.50	27.10	2.60
	velocity				8.16				7.38	7.75						8.16	7.38	
Seidler, Helga (GDR) (1949)	time				24.4				51.9	51.84	6 / 4							*Butler (2016)*
reaction time	interval								27.5		# of strides					24.40	27.50	3.10
	velocity				8.20				7.27	7.72						8.20	7.27	
Fergerson, Mable (USA) (19!	time				24.8				52.0	51.96	3 / 5							*Butler (2016)*
reaction time	interval								27.2		# of strides					24.80	27.20	2.40
	velocity				8.06				7.35	7.70						8.06	7.35	

Rendina, Charlene (AUS) (19	time			25.0			52.0	51.99	8 / 6								*Butler (2016)*
reaction time	interval						27.0		# of strides						25.00	27.00	2.00
	velocity			8.00			7.41	7.69							8.00	7.41	
Käsling, Dagmar (GDR) (194	time			24.7			52.2	52.19	1 / 7								*Butler (2016)*
reaction time	interval						27.5		# of strides						24.70	27.50	2.80
	velocity			8.10			7.27	7.66							8.10	7.27	
Balogh-Sxomov, Györgyi (H	time			24.2			52.4	52.39	2 / 8								*Butler (2016)*
reaction time	interval						28.2		# of strides						24.20	28.20	4.00
	velocity			8.26			7.09	7.64							8.26	7.09	

1972 FRA vs. GDR (Colombes, FRA)

FINAL date 04-Jul-72

Hymans (2015) - progression of IAAF world records - 2015 edition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Zehrt, Monika (GDR) (1952)	time				23.8				51.0	51.0	/ 1							
reaction time	interval								27.2	**=WR**	# of strides					23.80	27.20	3.40
	velocity				8.40				7.35	7.84	(51.08)					8.40	7.35	

1970 Commonwealth Games (Edinburgh, GBR)

FINAL date 23-Jul-70

Hymans (2015) - progression of IAAF world records - 2015 edition

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Neufville, Marilyn (JAM) (195	time				23.8				51.0	51.0	/ 1							
reaction time	interval								27.2	**WR**	# of strides					23.80	27.20	3.40
	velocity				8.40				7.35	7.84	(51.02)					8.40	7.35	

1968 Olympic Games (Mexico City, MEX) *(Altitude)*

FINAL date 16-Oct-68

	50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Besson, Colette (FRA) (1946	no information available							**=OR**	52.0	5 / 1	(52.03)					# of strides	198.0
Board, Lilian (GBR) (1948)	no information available								52.1	1 / 2	(52.12)						
Pechonkina, Natalya (URS) (1946)	no information available								52.2	8 / 3	(52.25)					# of strides	184.2
Simpson, Janet (GBR) (1944)	no information available								52.5	7 / 4	(52.57)					# of strides	206.2
Pentón, Aurelia (CUB) (1941)	no information available								52.7	2 / 5	(52.75)						
Scott, Jarvis (USA) (1947)	no information available								52.7	4 / 6	(52.79)					# of strides	192.2
Henning, Helga (FRG) (1937)	no information available								52.8	3 / 7	(52.89)					# of strides	192.7
van der Hoeven, Hermina (NED) (1948)	no information available								53.0	6 / 8	(53.02)					# of strides	185.2

1968 USA Olympic Trials (Walnut, CA)

FINAL date 25-Aug-68

Hymans (2008) - history of the US olympic trials - track and field

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Scott, Jarvis (USA) (1947)	time				24.7				53.5	53.5	3 / 1							
reaction time	interval								28.8		# of strides					24.70	28.80	4.10
	velocity				8.10				6.94	7.48						8.10	6.94	
Drinkwater, Lois (USA) (1951	time				24.7				54.0	54.0	8 / 2							
reaction time	interval								29.3		# of strides					24.70	29.30	4.60
	velocity				8.10				6.83	7.41						8.10	6.83	
Stroy, Esther (USA) (1953)	time				25.2				54.3	54.3	6 / 3							
reaction time	interval								29.1		# of strides					25.20	29.10	3.90
	velocity				7.94				6.87	7.37						7.94	6.87	
Shafer, Nancy (USA)	no information available									54.8	1 / 4							
Manning, Madeline (USA) (1948)	no information available									55.1	2 / 5							
Burnett, Jane (USA)	no information available									55.2	5 / 6							
Hull, Terry (USA)	no information available									55.4	7 / 7							
Fitzgerald, Gale (USA) (1951)	no information available									55.9	4 / 8							

1964 Olympic Games (Tokyo, JPN)

FINAL date 17-Oct-64

Müller (1965) - die leichtathletik-wettkampfe der XVIII olympiischen sommerspielen Tokio 1964 - 400m lauf

		50m	100m	150m	200m	250m	300m	350m	400m	Official Time	Lane / Place	0-100m	100-200m	200-300m	300-400m	0-200m	200m-400m	Differential
Cuthbert, Betty (AUS) (1938	time				24.3				52.0	52.0	2 / 1		*(52.01)*					
reaction time	interval								27.7	**OR**	# of strides					24.30	27.70	3.40
	velocity				8.23				7.22	7.69						8.23	7.22	
Packer, Ann (GBR) (1942)	time				24.6				52.2	52.2	6 / 2							
reaction time	interval								27.6	*(52.20)*	# of strides					24.60	27.60	3.00
	velocity				8.13				7.25	7.66						8.13	7.25	
Amoore, Judy (AUS) (1940)	time				24.2				53.4	53.4	3 / 3							
reaction time	interval								29.2		# of strides					24.20	29.20	5.00
	velocity				8.26				6.85	7.49						8.26	6.85	
Munkácsi, Antónia (HUN) (1	time				24.8				54.4	54.4	1 / 4							
reaction time	interval								29.6		# of strides					24.80	29.60	4.80
	velocity				8.06				6.76	7.35						8.06	6.76	
Itkina, Mariya (URS) (1932)	time				24.6				54.6	54.6	5 / 5							
reaction time	interval								30.0		# of strides					24.60	30.00	5.40
	velocity				8.13				6.67	7.33						8.13	6.67	
van der Zwaard, Tilly (NED) (	time				25.8				55.2	55.2	4 / 6							
reaction time	interval								29.4		# of strides					25.80	29.40	3.60
	velocity				7.75				6.80	7.25						7.75	6.80	

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

Schmidt, Gertrud (EUA/GDR	time	25.8	55.4	55.4	7 / 7				
reaction time	interval		29.6		# of strides	25.80	29.60	3.80	
	velocity	7.75	6.76	7.22		7.75	6.76		
Lebret, Évelyne (FRA) (1939)	time	25.3	55.5	55.5	8 / 8				
reaction time	interval		30.2		# of strides	25.30	30.20	4.90	
	velocity	7.91	6.62	7.21		7.91	6.62		

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