

2016 Women's 100m Hurdles World Record Season

Kendra Harrison (USA) - 12.20

Hurdle Touchdown Times



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Todd Henson

2016 Women's 100m Hurdles World Record Season Kendra Harrison (USA) - 12.20

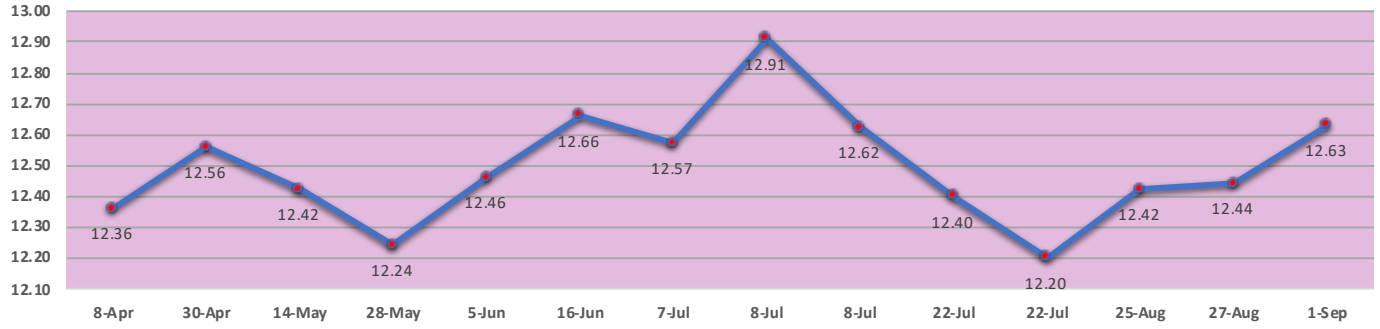
Meetings Overview:

Kendra Harrison Season Overview	3
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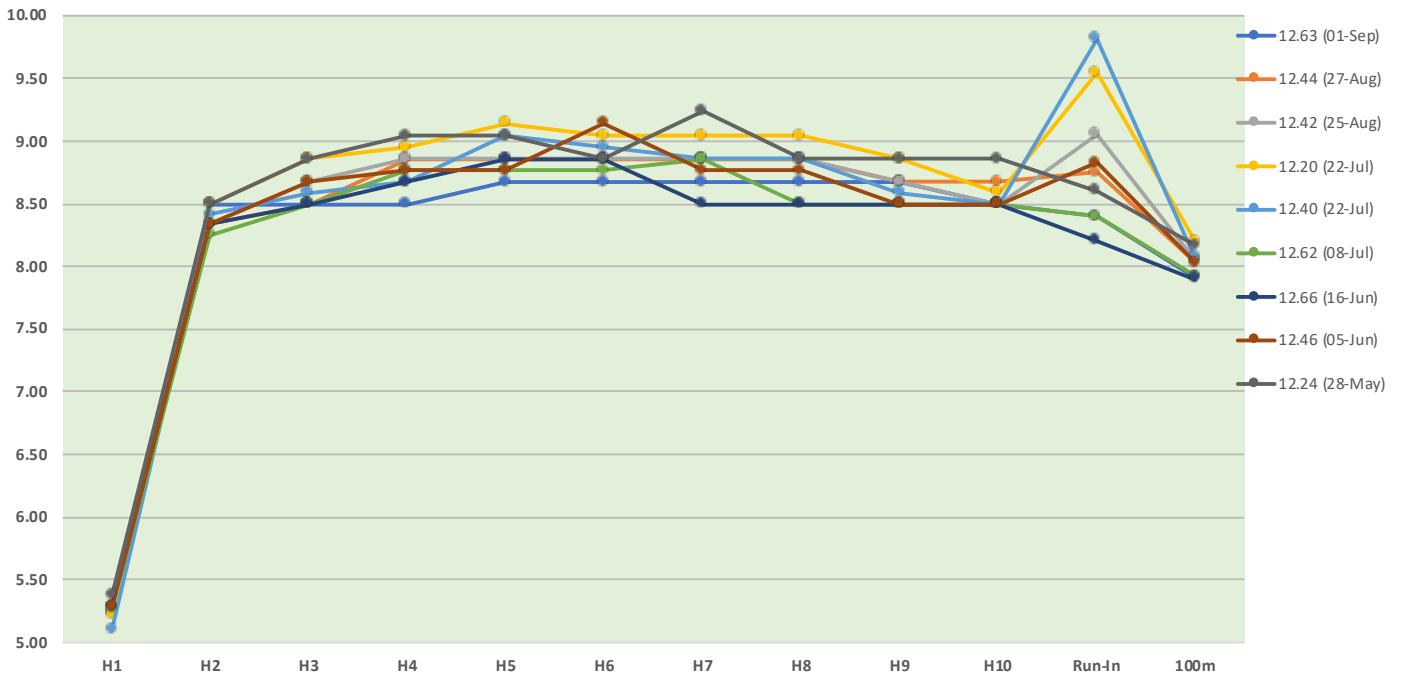
Notes:

- The times listed as TV Analysis are taken from [youtube.com](https://www.youtube.com) videos and generally coming from Television broadcasts. These are not always the best angles or coverage for getting times. They are often trying to tell a story by focusing on one athlete, and sometimes while shifting camera angles an extra frame can get added or removed.
- Where times are taken from the first movement, instead of the gun, there is at least a ± 0.12 second difference/error. This will show up from the start to the first hurdle and then from hurdle 10 to the finish. The between hurdle intervals should be fairly consistent, but there is still the usual ± 0.03 second
- Data errors, missing data, spelling mistakes, anything that need correction - please let me know. As always, I try to put together the most complete and accurate report possible.
- I have done the best I could, I hope people find it useful or at least interesting.

Kendra Harrison 2016

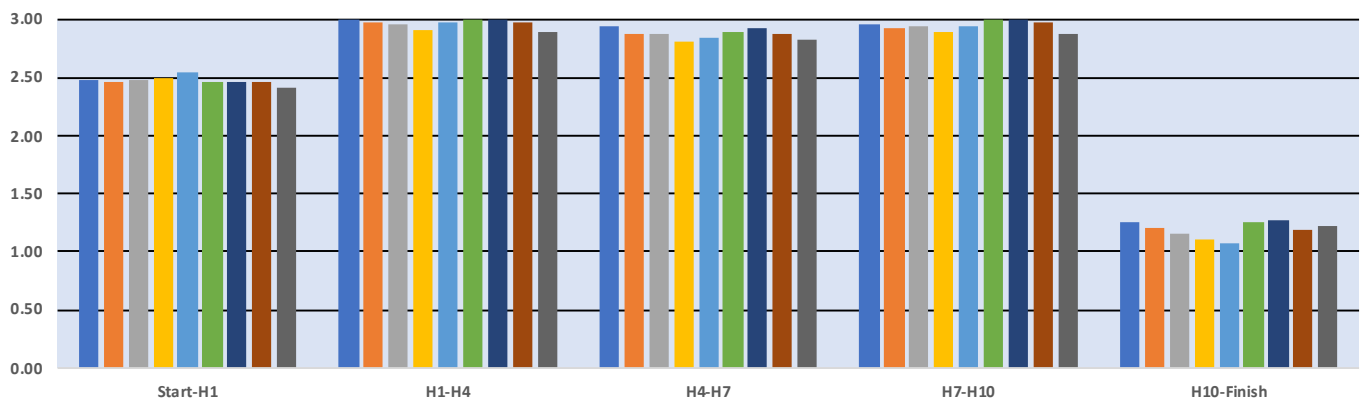


Hurdle Rhythmic Units



Time Intervals (s)

Hurdle Phases



2016 Weltklasse (Zürich, SUI) (TV Analysis)

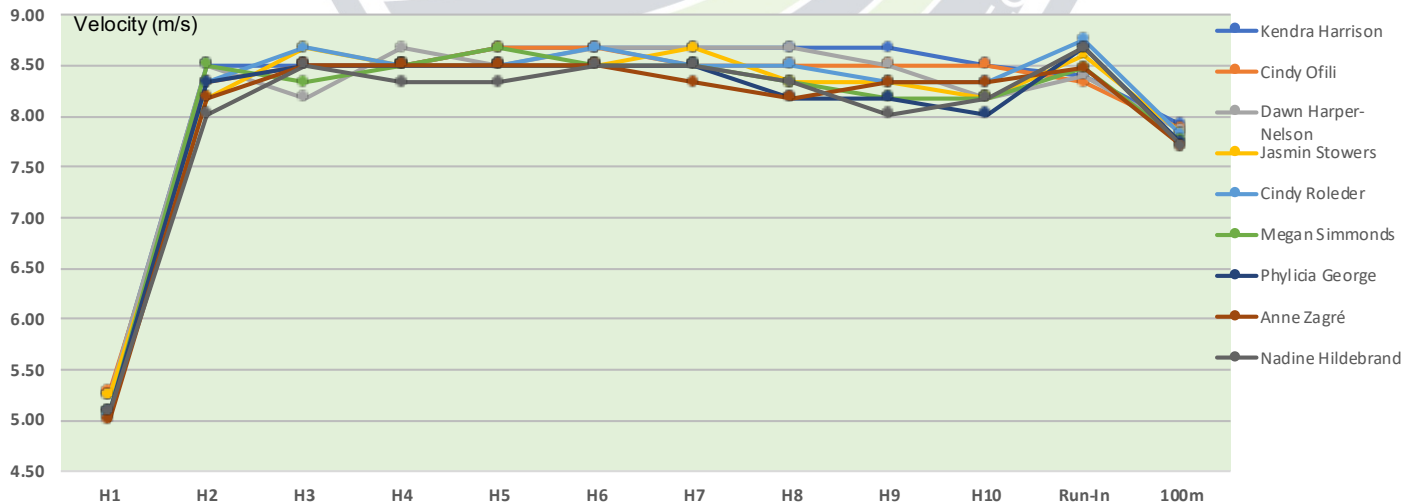
100m Hurdles

Date: 2016.09.01

Wind: 0.4 m/s

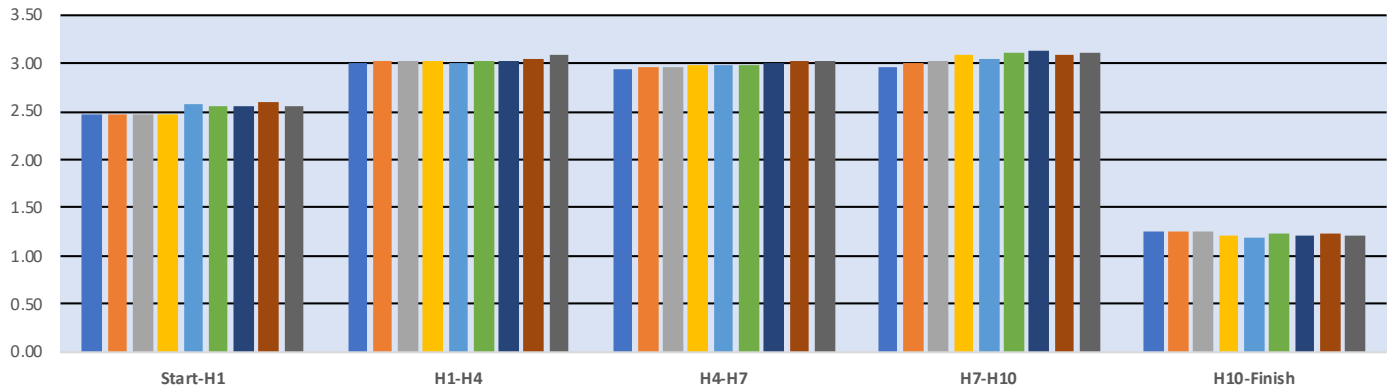
FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.48	3.48	4.48	5.48	6.46	7.44	8.42	9.40	10.38	11.38		12.63	5 / 1			
	reaction time	0.168													3.00	2.94	2.96
	interval velocity		1.00	1.00	1.00	0.98	0.98	0.98	0.98	0.98	0.98	1.00	1.25		8.50	8.67	8.61
Ofilii, Cindy (GBR) (1994)	time	2.46	3.48	4.48	5.48	6.46	7.44	8.44	9.44	10.44	11.44		12.70	6 / 2			
	reaction time	0.139													3.02	2.96	3.00
	interval velocity		1.02	1.00	1.00	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.26		8.44	8.61	8.50
Harper-Nelson, Dawn (USA) (1984)	time	2.48	3.48	4.52	5.50	6.50	7.48	8.46	9.44	10.44	11.48		12.73	7 / 3			
	reaction time	0.148													3.02	2.96	3.02
	interval velocity		1.00	1.04	0.98	1.00	0.98	0.98	0.98	1.00	1.04	1.04	1.25		8.44	8.61	8.44
Stowers, Jasmin (USA) (1991)	time	2.48	3.52	4.50	5.50	6.50	7.50	8.48	9.50	10.52	11.56		12.78	3 / 4			
	reaction time	0.120													3.02	2.98	3.08
	interval velocity		1.04	0.98	1.00	1.00	1.00	0.98	1.02	1.02	1.04	1.04	1.22		8.44	8.56	8.28
Roleder, Cindy (GER) (1989)	time	2.58	3.60	4.58	5.58	6.58	7.56	8.56	9.56	10.58	11.60		12.80	4 / 5			
	reaction time	0.120													3.00	2.98	3.04
	interval velocity		1.02	0.98	1.00	1.00	0.98	1.00	1.00	1.02	1.02	1.20		8.50	8.56	8.39	
Simmonds, Megan (JAM) (1994)	time	2.56	3.56	4.58	5.58	6.56	7.56	8.56	9.58	10.62	11.66		12.90	8 / 6			
	reaction time	0.180													3.02	2.98	3.10
	interval velocity		1.00	1.02	1.00	0.98	1.00	1.00	1.02	1.04	1.04	1.24		8.44	8.56	8.23	
George, Phylisia (CAN) (1987)	time	2.56	3.58	4.58	5.58	6.58	7.58	8.58	9.62	10.66	11.72		12.93	2 / 7			
	reaction time	0.102													3.02	3.00	3.14
	interval velocity		1.02	1.00	1.00	1.00	1.00	1.00	1.04	1.04	1.06	1.21		8.44	8.50	8.12	
Zagré, Anne (BEL) (1990)	time	2.60	3.64	4.64	5.64	6.64	7.64	8.66	9.70	10.72	11.74		12.98	9 / 8			
	reaction time	0.146													3.04	3.02	3.08
	interval velocity		1.04	1.00	1.00	1.00	1.00	1.02	1.04	1.02	1.02	1.24		8.39	8.44	8.28	
Hildebrand, Nadine (GER) (1987)	time	2.56	3.62	4.62	5.64	6.66	7.66	8.66	9.68	10.74	11.78		12.99	1 / 9			
	reaction time	0.149													3.08	3.02	3.12
	interval velocity		1.06	1.00	1.02	1.02	1.00	1.00	1.02	1.06	1.04	1.21		8.28	8.44	8.17	



Time Intervals (s)

Hurdle Phases



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1920 x 1080 @ 25fps
 Timing From: First Movement
 Source: <https://www.youtube.com/watch?v=iMrcWlO-67M>

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

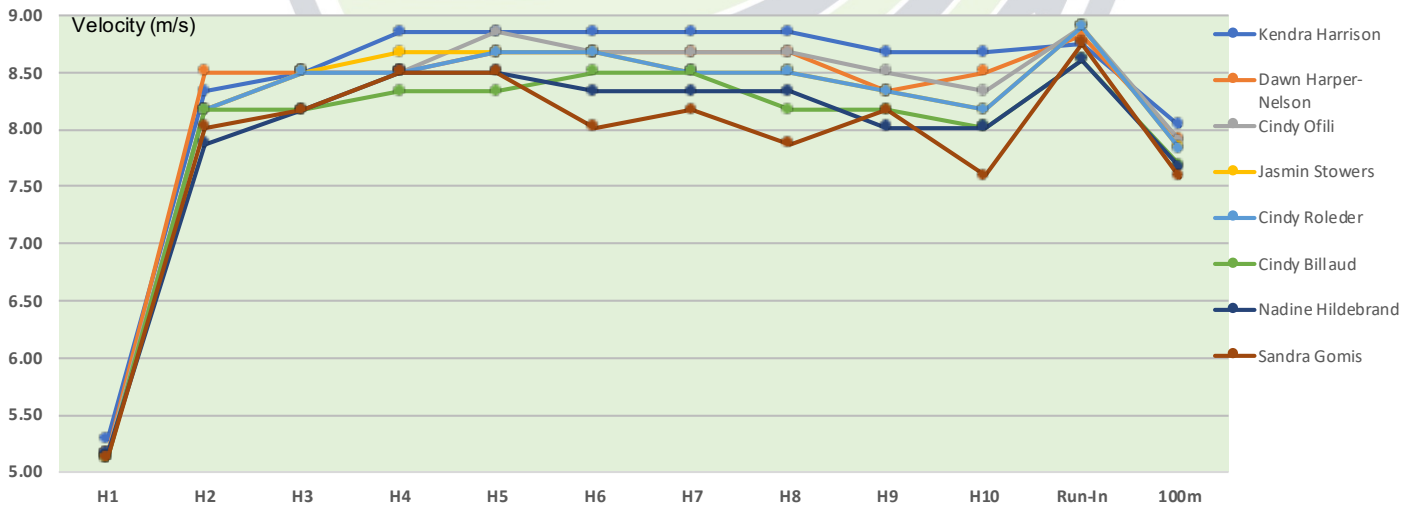
100m Hurdles

Date: 2016.08.27

Wind: 0.2 m/s

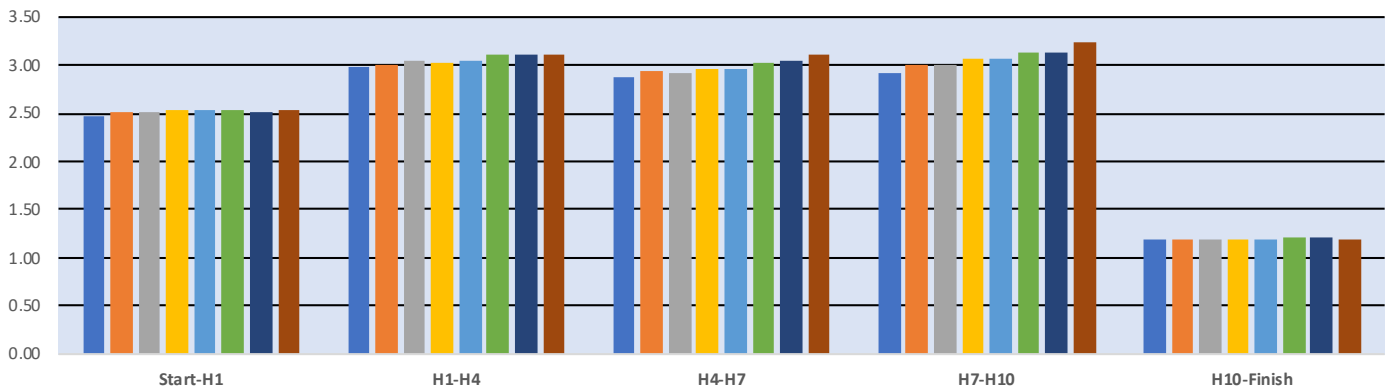
FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.46	3.48	4.48	5.44	6.40	7.36	8.32	9.28	10.26	11.24		12.44	5 / 1			
	reaction time	0.178													2.98	2.88	2.92
	interval		1.02	1.00	0.96	0.96	0.96	0.96	0.96	0.98	0.98	1.20			8.56	8.85	8.73
	velocity	5.28	8.33	8.50	8.85	8.85	8.85	8.85	8.85	8.67	8.67	8.75	8.04				
Harper-Nelson, Dawn (USA) (1984)	time	2.52	3.52	4.52	5.52	6.50	7.48	8.46	9.44	10.46	11.46		12.65	3 / 2			
	reaction time	0.132													3.00	2.94	3.00
	interval		1.00	1.00	1.00	0.98	0.98	0.98	0.98	1.02	1.00	1.19			8.50	8.67	8.50
	velocity	5.16	8.50	8.50	8.50	8.67	8.67	8.67	8.67	8.33	8.50	8.82	7.91				
Ofili, Cindy (GBR) (1994)	time	2.52	3.56	4.56	5.56	6.52	7.50	8.48	9.46	10.46	11.48		12.66	7 / 3			
	reaction time	0.146													3.04	2.92	3.00
	interval		1.04	1.00	1.00	0.96	0.98	0.98	0.98	1.00	1.02	1.18			8.39	8.73	8.50
	velocity	5.16	8.17	8.50	8.50	8.85	8.67	8.67	8.67	8.50	8.33	8.90	7.90				
Stowers, Jasmin (USA) (1991)	time	2.54	3.58	4.58	5.56	6.54	7.52	8.52	9.52	10.54	11.58		12.76	6 / 4			
	reaction time	0.140													3.02	2.96	3.06
	interval		1.04	1.00	0.98	0.98	0.98	1.00	1.00	1.02	1.04	1.18			8.44	8.61	8.33
	velocity	5.12	8.17	8.50	8.67	8.67	8.67	8.50	8.50	8.33	8.17	8.90	7.84				
Roleder, Cindy (GER) (1989)	time	2.54	3.58	4.58	5.58	6.56	7.54	8.54	9.54	10.56	11.60		12.78	4 / 5			
	reaction time	0.129													3.04	2.96	3.06
	interval		1.04	1.00	1.00	0.98	0.98	1.00	1.00	1.02	1.04	1.18			8.39	8.61	8.33
	velocity	5.12	8.17	8.50	8.50	8.67	8.67	8.50	8.50	8.33	8.17	8.90	7.82				
Billaud, Cindy (FRA) (1986)	time	2.54	3.58	4.62	5.64	6.66	7.66	8.66	9.70	10.74	11.80		13.02	2 / 6			
	reaction time	0.106													3.10	3.02	3.14
	interval		1.04	1.04	1.02	1.00	1.00	1.00	1.04	1.04	1.06	1.22			8.23	8.44	8.12
	velocity	5.12	8.17	8.17	8.33	8.33	8.50	8.50	8.17	8.17	8.02	8.61	7.68				
Hildebrand, Nadine (GER) (1987)	time	2.52	3.60	4.64	5.64	6.64	7.66	8.68	9.70	10.76	11.82		13.04	8 / 7			
	reaction time	0.142													3.12	3.04	3.14
	interval		1.08	1.04	1.00	1.00	1.02	1.02	1.02	1.06	1.06	1.22			8.17	8.39	8.12
	velocity	5.16	7.87	8.17	8.50	8.50	8.33	8.33	8.33	8.02	8.02	8.61	7.67				
Gomis, Sandra (FRA) (1983)	time	2.54	3.60	4.64	5.64	6.64	7.70	8.74	9.82	10.86	11.98		13.18	9 / 8			
	reaction time	0.161													3.10	3.10	3.24
	interval		1.06	1.04	1.00	1.00	1.06	1.04	1.08	1.04	1.12	1.20			8.23	8.23	7.87
	velocity	5.12	8.02	8.17	8.50	8.50	8.02	8.17	7.87	8.17	7.59	8.75	7.59				



Time Intervals (s)

Hurdle Phases



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1280 x 720 @ 25fps
 Timing From: First Movement
 Source: <https://www.youtube.com/watch?v=qagb706YSS9U>

2016 Athletissime (Luusanne, SUI) (TV Analysis)

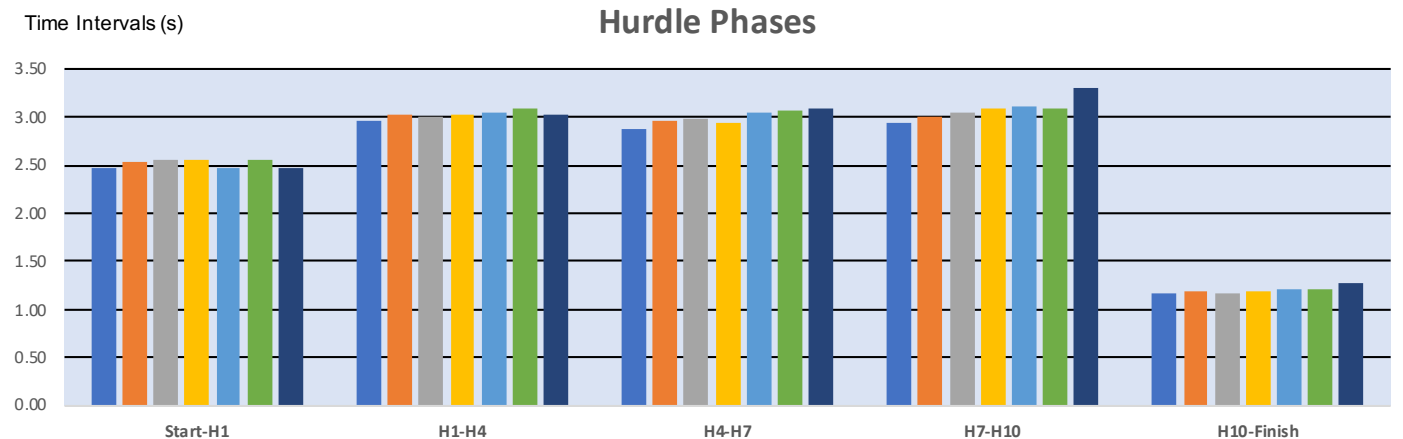
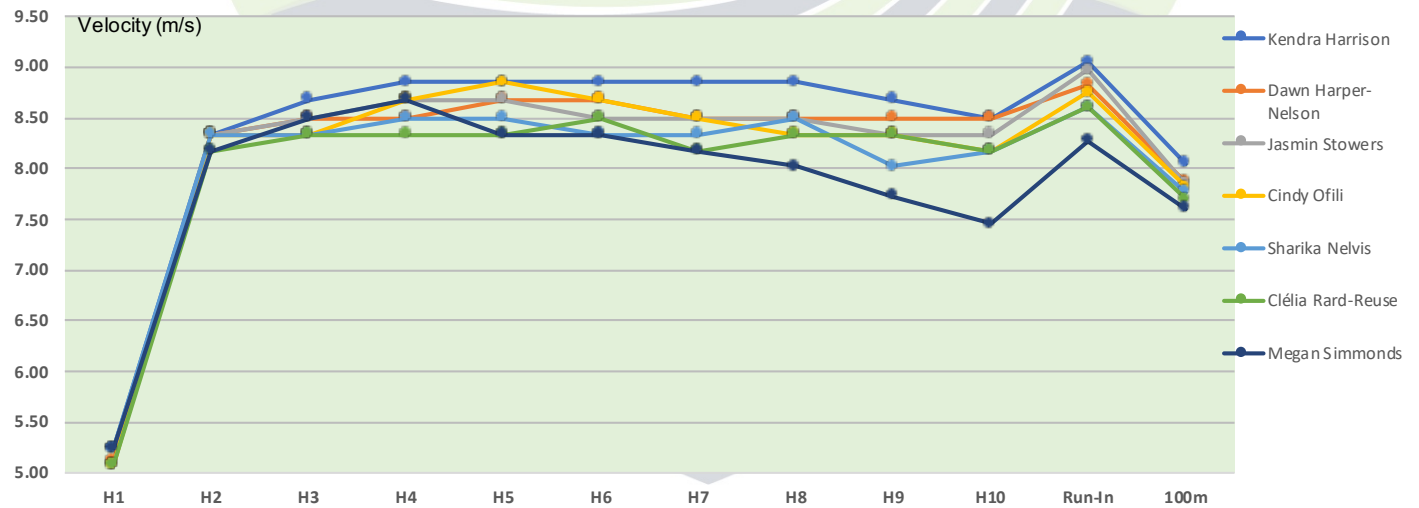
100m Hurdles

Date: 2016.08.25

Wind: 0.7 m/s

FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.48	3.50	4.48	5.44	6.40	7.36	8.32	9.28	10.26	11.26	12.42		5 / 1			
	reaction time	0.148													2.96	2.88	2.94
	interval		1.02	0.98	0.96	0.96	0.96	0.96	0.96	0.98	1.00	1.16			8.61	8.85	8.67
	velocity	5.24	8.33	8.67	8.85	8.85	8.85	8.85	8.85	8.67	8.50	9.05	8.05				
Harper-Nelson, Dawn (USA) (1984)	time	2.54	3.56	4.56	5.56	6.54	7.52	8.52	9.52	10.52	11.52	12.71		8 / 2			
	reaction time	0.145													3.02	2.96	3.00
	interval		1.02	1.00	1.00	0.98	0.98	1.00	1.00	1.00	1.00	1.19			8.44	8.61	8.50
	velocity	5.12	8.33	8.50	8.50	8.67	8.67	8.50	8.50	8.50	8.50	8.82	7.87				
Stowers, Jasmin (USA) (1991)	time	2.56	3.58	4.58	5.56	6.54	7.54	8.54	9.54	10.56	11.58	12.75		6 / 3			
	reaction time	0.135													3.00	2.98	3.04
	interval		1.02	1.00	0.98	0.98	1.00	1.00	1.00	1.02	1.02	1.17			8.50	8.56	8.39
	velocity	5.08	8.33	8.50	8.67	8.67	8.50	8.50	8.50	8.33	8.33	8.97	7.84				
Ofilii, Cindy (GBR) (1994)	time	2.56	3.58	4.60	5.58	6.54	7.52	8.52	9.54	10.56	11.60	12.80		7 / 4			
	reaction time	0.145													3.02	2.94	3.08
	interval		1.02	1.02	0.98	0.96	0.98	1.00	1.02	1.02	1.04	1.20			8.44	8.67	8.28
	velocity	5.08	8.33	8.33	8.67	8.85	8.67	8.50	8.33	8.33	8.17	8.75	7.81				
Nelvis, Sharika (USA) (1990)	time	2.48	3.50	4.52	5.52	6.52	7.54	8.56	9.56	10.62	11.66	12.88		4 / 5			
	reaction time	0.137													3.04	3.04	3.10
	interval		1.02	1.02	1.00	1.00	1.02	1.02	1.00	1.06	1.04	1.22			8.39	8.39	8.23
	velocity	5.24	8.33	8.33	8.50	8.50	8.33	8.33	8.50	8.02	8.17	8.61	7.76				
Rard-Reuse, Clélia (SUI) (1988)	time	2.56	3.60	4.62	5.64	6.66	7.66	8.70	9.72	10.74	11.78	13.00		3 / 6			
	reaction time	0.142													3.08	3.06	3.08
	interval		1.04	1.02	1.02	1.02	1.00	1.04	1.02	1.02	1.04	1.22			8.28	8.33	8.28
	velocity	5.08	8.17	8.33	8.33	8.33	8.50	8.17	8.33	8.33	8.17	7.69					
Simmonds, Megan (JAM) (1994)	time	2.48	3.52	4.52	5.50	6.52	7.54	8.58	9.64	10.74	11.88	13.15		2 / 7			
	reaction time	0.174													3.02	3.08	3.30
	interval		1.04	1.00	0.98	1.02	1.02	1.04	1.06	1.10	1.14	1.27			8.44	8.28	7.73
	velocity	5.24	8.17	8.50	8.67	8.33	8.33	8.17	8.02	7.73	7.46	8.27	7.60				



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1280 x 720 @ 25fps
 Timing From: First Movement
 Source: <https://www.youtube.com/watch?v=k2t5cmH4rkU>

2016 London Anniversary Games (London, GBR)

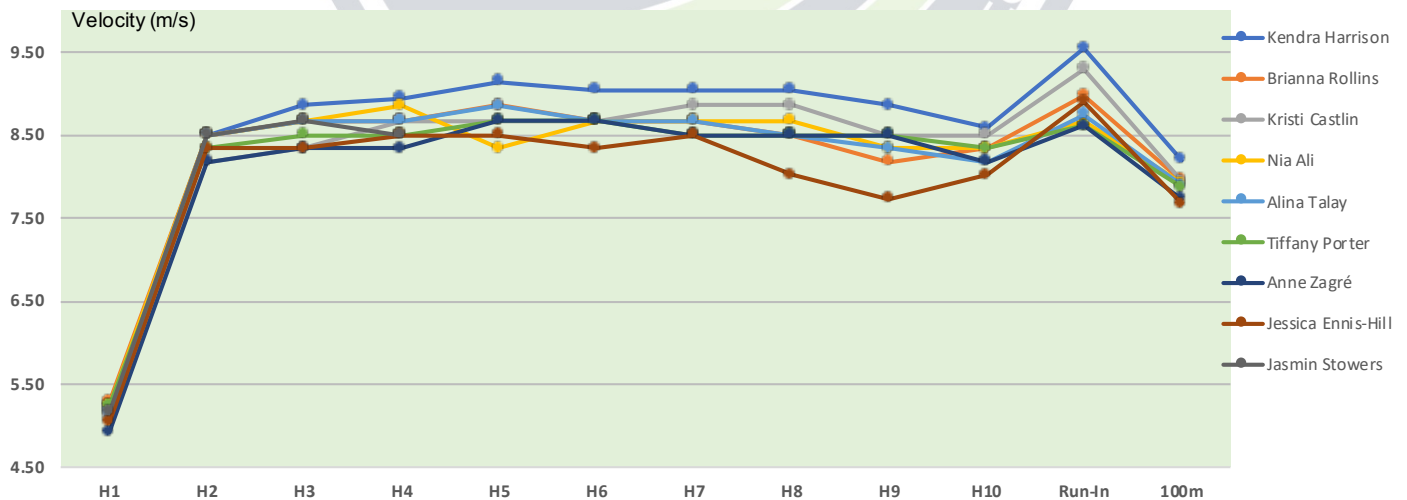
100m Hurdles

Date: 2016.07.22

Wind: 0.3 m/s

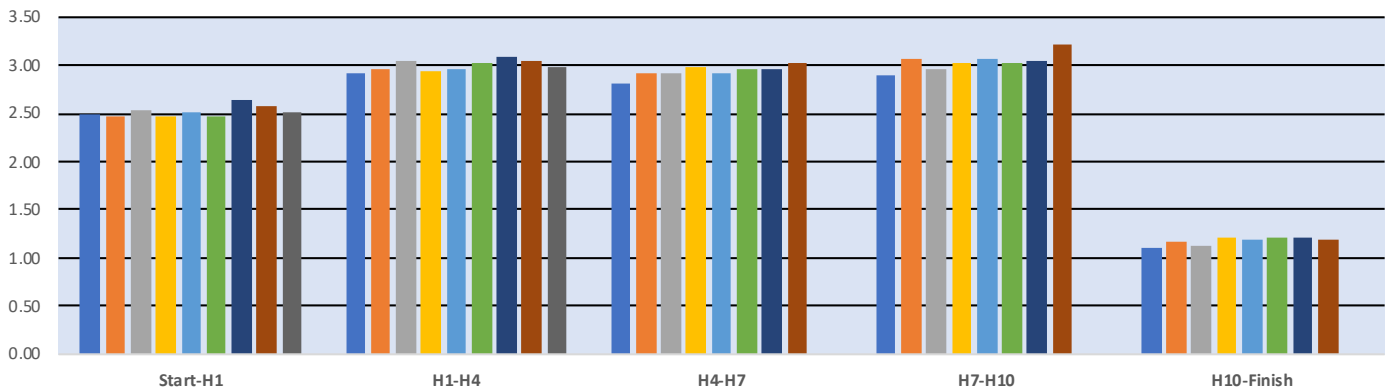
FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.49	3.49	4.45	5.40	6.33	7.27	8.21	9.15	10.11	11.10	12.20	12.20	6 / 1			
	reaction time	0.149											WR		2.91	2.81	2.89
	interval velocity		1.00	0.96	0.95	0.93	0.94	0.94	0.94	0.96	0.99	1.10	8.20		8.76	9.07	8.82
Rollins, Brianna (USA) (1991)	time	2.46	3.46	4.44	5.42	6.38	7.36	8.34	9.34	10.38	11.40	12.57	12.57	7 / 2			
	reaction time	0.140													2.96	2.92	3.06
	interval velocity		1.00	0.98	0.98	0.96	0.98	0.98	1.00	1.04	1.02	1.17	7.96		8.61	8.73	8.33
Castlin, Kristi (USA) (1988)	time	2.54	3.58	4.60	5.58	6.56	7.54	8.50	9.46	10.46	11.46	12.59	12.59	9 / 3			
	reaction time	0.144													3.04	2.92	2.96
	interval velocity		1.04	1.02	0.98	0.98	0.98	0.96	0.96	1.00	1.00	1.13	7.94		8.39	8.73	8.61
Ali, Nia (USA) (1988)	time	2.48	3.48	4.46	5.42	6.44	7.42	8.40	9.38	10.40	11.42	12.63	12.63	5 / 4			
	reaction time	0.145													2.94	2.98	3.02
	interval velocity		1.00	0.98	0.96	1.02	0.98	0.98	0.98	1.02	1.02	1.21	7.92		8.67	8.56	8.44
Talay, Alina (BLR) (1989)	time	2.52	3.52	4.50	5.48	6.44	7.42	8.40	9.40	10.42	11.46	12.66	12.66	3 / 5			
	reaction time	0.118													2.96	2.92	3.06
	interval velocity		1.00	0.98	0.98	0.96	0.98	0.98	1.00	1.02	1.04	1.20	7.90		8.61	8.73	8.33
Porter, Tiffany (GBR) (1987)	time	2.48	3.50	4.50	5.50	6.48	7.46	8.46	9.46	10.46	11.48	12.70	12.70	2 / 6			
	reaction time	0.119													3.02	2.96	3.02
	interval velocity		1.02	1.00	1.00	0.98	0.98	1.00	1.00	1.00	1.02	1.22	7.87		8.44	8.61	8.44
Zagré, Anne (BEL) (1990)	time	2.64	3.68	4.70	5.72	6.70	7.68	8.68	9.68	10.68	11.72	12.94	12.94	1 / 7			
	reaction time	0.160													3.08	2.96	3.04
	interval velocity		1.04	1.02	1.02	0.98	0.98	1.00	1.00	1.00	1.04	1.22	7.73		8.28	8.61	8.39
Ennis-Hill, Jessica (GBR) (1986)	time	2.58	3.60	4.62	5.62	6.62	7.64	8.64	9.70	10.80	11.86	13.04	13.04	8 / 8			
	reaction time	0.155													3.04	3.02	3.22
	interval velocity		1.02	1.02	1.00	1.00	1.02	1.00	1.06	1.10	1.06	1.18	7.67		8.39	8.44	7.92
Stowers, Jasmin (USA) (1991)	time	2.52	3.52	4.50	5.50								dnf	4 / --			
	reaction time	0.132													2.98		
	interval velocity		1.00	0.98	1.00										8.56		



Time Intervals (s)

Hurdle Phases



Kendra Harrison

Source: Vazel, P.J. (2016) Analysis of Keni Harrison's World Record 100m Hurdles Race. Retrieved from <https://simplifaster.com/articles/analysis-of-keni-harrisons-world-record-100m-hurdles-race/>

2nd - 8th Place (TV Analysis)

Evaluated with: ObjectusVideo

Quality & Frame Rate: 1920 x 1080 @ 25fps

Timing From: First Movement

Source: <https://www.youtube.com/watch?v=eJl995weE9kU>

2016 London Anniversary Games (London, GBR)

100m Hurdles

Date: 2016.07.22

Wind: 0.2 m/s

Heat 2

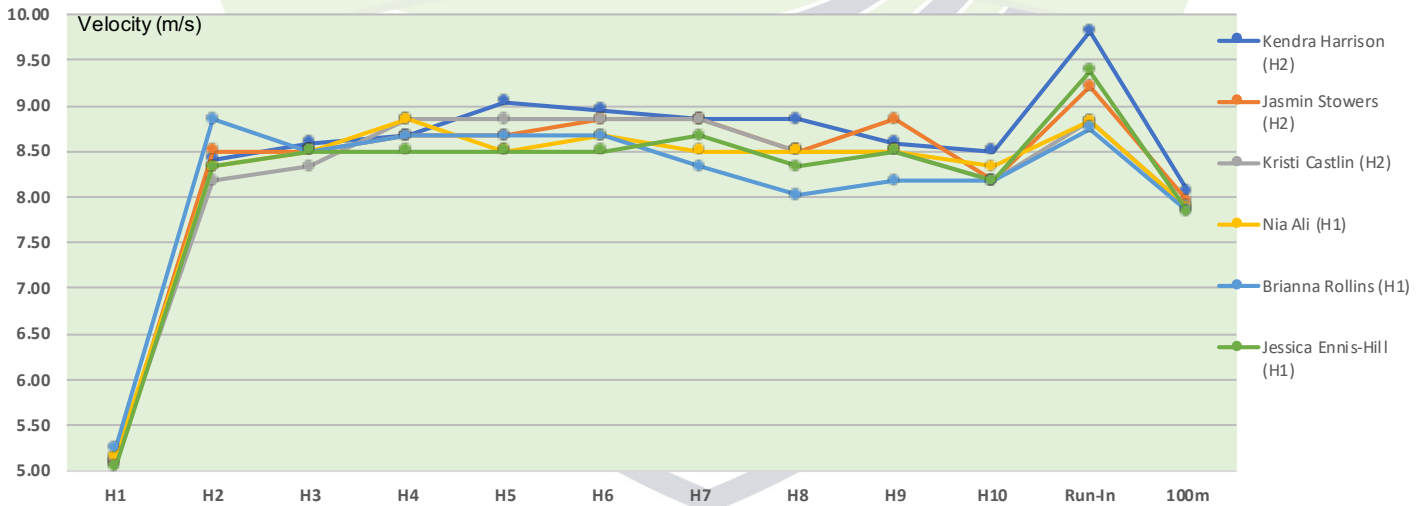
		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.55	3.56	4.55	5.53	6.47	7.42	8.38	9.34	10.33	11.33		12.40	4 / 1			
	reaction time	0.143													2.98	2.85	2.95
	interval		1.01	0.99	0.98	0.94	0.95	0.96	0.96	0.99	1.00	1.07			8.56	8.95	8.64
	velocity	5.10	8.42	8.59	8.67	9.04	8.95	8.85	8.85	8.59	8.50	9.81	8.06				
Stowers, Jasmin (USA) (1991)	time	2.56	3.56	4.56	5.54	6.52	7.48	8.44	9.44	10.40	11.44		12.58	7 / 2			
	reaction time	0.143													2.98	2.90	3.00
	interval		1.00	1.00	0.98	0.98	0.96	0.96	1.00	0.96	1.04	1.14			8.56	8.79	8.50
	velocity	5.08	8.50	8.50	8.67	8.67	8.85	8.85	8.50	8.85	8.17	9.21	7.95				
Castlin, Kristi (USA) (1988)	time	2.54	3.58	4.60	5.56	6.52	7.48	8.44	9.44	10.44	11.48		12.67	5 / 3			
	reaction time	0.140													3.02	2.88	3.04
	interval		1.04	1.02	0.96	0.96	0.96	0.96	1.00	1.00	1.04	1.19			8.44	8.85	8.39
	velocity	5.12	8.17	8.33	8.85	8.85	8.85	8.85	8.50	8.50	8.17	8.82	7.89				

Date: 2016.07.22

Wind: 0.3 m/s

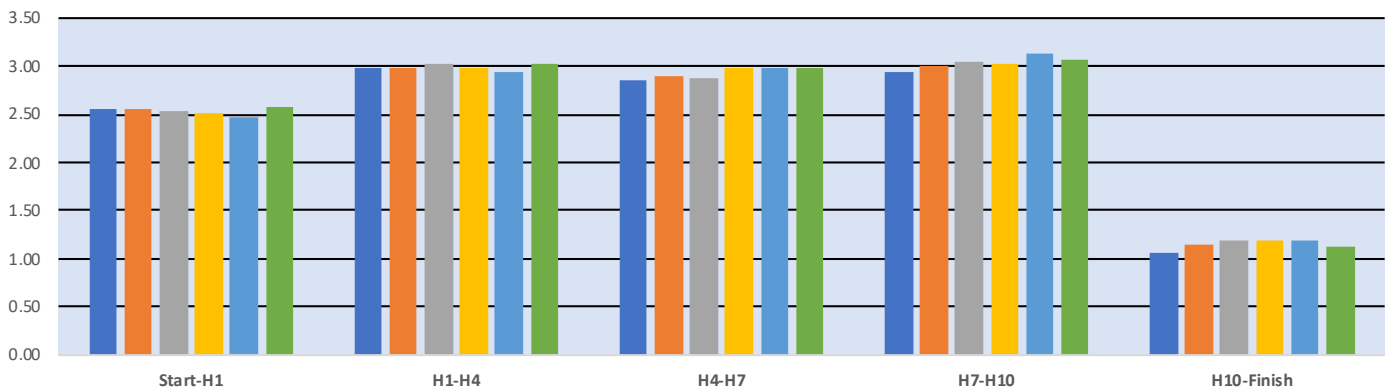
Heat 1

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Ali, Nia (USA) (1988)	time	2.52	3.54	4.54	5.50	6.50	7.48	8.48	9.48	10.48	11.50		12.69	7 / 1			
	reaction time	0.156													2.98	2.98	3.02
	interval		1.02	1.00	0.96	1.00	0.98	1.00	1.00	1.00	1.02	1.19			8.56	8.56	8.44
	velocity	5.16	8.33	8.50	8.85	8.50	8.67	8.50	8.50	8.50	8.33	8.82	7.88				
Rollins, Brianna (USA) (1991)	time	2.48	3.44	4.44	5.42	6.40	7.38	8.40	9.46	10.50	11.54		12.74	6 / 2			
	reaction time	0.135													2.94	2.98	3.14
	interval		0.96	1.00	0.98	0.98	0.98	1.02	1.06	1.04	1.04	1.20			8.67	8.56	8.12
	velocity	5.24	8.85	8.50	8.67	8.67	8.33	8.02	8.17	8.17	8.17	8.75	7.85				
Ennis-Hill, Jessica (GBR) (1986)	time	2.58	3.60	4.60	5.60	6.60	7.60	8.58	9.60	10.60	11.64		12.76	9 / 3			
	reaction time	0.152													3.02	2.98	3.06
	interval		1.02	1.00	1.00	1.00	1.00	1.00	0.98	1.02	1.00	1.04	1.12		8.44	8.56	8.33
	velocity	5.04	8.33	8.50	8.50	8.50	8.50	8.67	8.33	8.50	8.17	9.38	7.84				



Time Intervals (s)

Hurdle Phases



Heat 2 - Kendra Harrison

Source: Brice, P. (2017) Critical determinants of sprint hurdle performance

Heat 2 - 2nd & 3rd (TV Analysis)

Evaluated with: ObjectusVideo

Quality & Frame Rate: 1280 x 720 @ 25fps

Timing From: First Movement

Source: <https://www.youtube.com/watch?v=1vsMbeYXPIA>

Heat 1 (TV Analysis)

Evaluated with: ObjectusVideo

Quality & Frame Rate: 1280 x 720 @ 25fps

Timing From: First Movement

Source: <https://www.youtube.com/watch?v=0E2uE2-i-k>

2016 USA Olympic Trials (Eugene, OR) (TV Analysis)

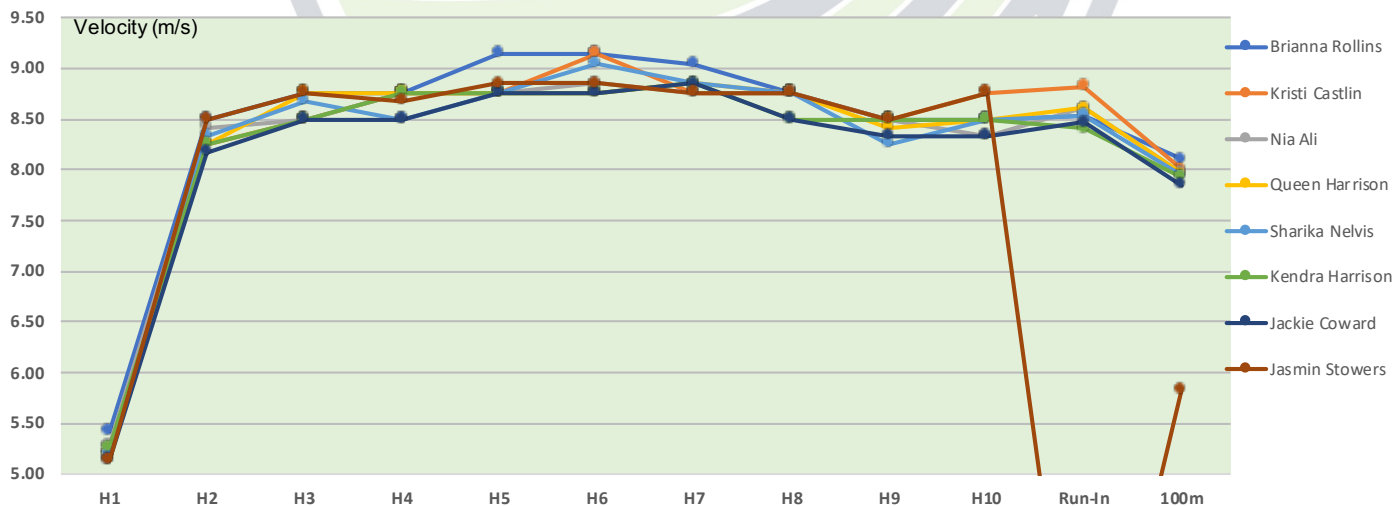
100m Hurdles

Date: 2016.07.08

Wind: 1.2 m/s

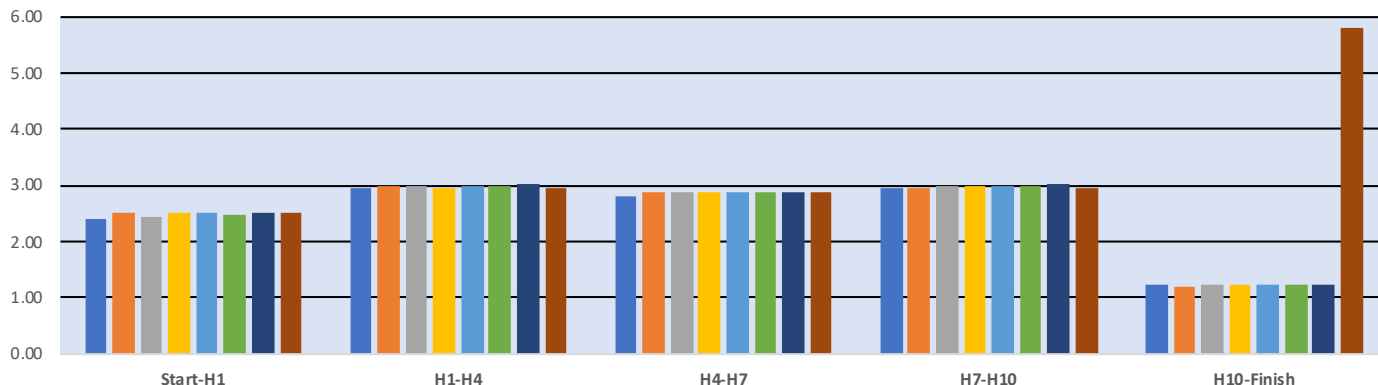
FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Rollins, Brianna (USA) (1991)	time	2.40	3.40	4.37	5.34	6.27	7.20	8.14	9.11	10.11	11.11	12.34		4 / 1			
	reaction time		1.00	0.97	0.97	0.93	0.93	0.94	0.97	1.00	1.00	1.23			2.94	2.80	2.97
	velocity	5.42	8.50	8.76	8.76	9.14	9.14	9.04	8.76	8.50	8.50	8.54	8.10		8.67	9.11	8.59
Castlin, Kristi (USA) (1988)	time	2.50	3.53	4.53	5.50	6.47	7.40	8.37	9.34	10.34	11.31	12.50		3 / 2			
	reaction time		1.03	1.00	0.97	0.97	0.93	0.97	0.97	1.00	0.97	1.19	PB		3.00	2.87	2.94
	velocity	5.20	8.25	8.50	8.76	8.76	9.14	8.76	8.76	8.50	8.76	8.82	8.00		8.50	8.89	8.67
Ali, Nia (USA) (1988)	time	2.46	3.47	4.47	5.44	6.41	7.37	8.34	9.31	10.31	11.33	12.55		6 / 3			
	reaction time		1.01	1.00	0.97	0.97	0.96	0.97	0.97	1.00	1.02	1.22			2.98	2.90	2.99
	velocity	5.28	8.42	8.50	8.76	8.76	8.85	8.76	8.76	8.50	8.33	8.61	7.97		8.56	8.79	8.53
Harrison, Queen (USA) (1988)	time	2.50	3.53	4.50	5.47	6.44	7.41	8.37	9.34	10.35	11.35	12.57		5 / 4			
	reaction time		1.03	0.97	0.97	0.97	0.97	0.96	0.97	1.01	1.00	1.22			2.97	2.90	2.98
	velocity	5.20	8.25	8.76	8.76	8.76	8.76	8.85	8.76	8.42	8.50	8.61	7.96		8.59	8.79	8.56
Nelvis, Sharika (USA) (1990)	time	2.50	3.52	4.50	5.50	6.47	7.41	8.37	9.34	10.37	11.37	12.60		8 / 5			
	reaction time		1.02	0.98	1.00	0.97	0.94	0.96	0.97	1.03	1.00	1.23			3.00	2.87	3.00
	velocity	5.20	8.33	8.67	8.50	8.76	9.04	8.85	8.76	8.25	8.50	8.54	7.94		8.50	8.89	8.50
Harrison, Kendra (USA) (1992)	time	2.47	3.50	4.50	5.47	6.44	7.41	8.37	9.37	10.37	11.37	12.62		2 / 6			
	reaction time		1.03	1.00	0.97	0.97	0.97	0.96	1.00	1.00	1.00	1.25			3.00	2.90	3.00
	velocity	5.26	8.25	8.50	8.76	8.76	8.76	8.85	8.50	8.50	8.50	8.40	7.92		8.50	8.79	8.50
Coward, Jackie (USA) (1989)	time	2.53	3.57	4.57	5.57	6.54	7.51	8.47	9.47	10.49	11.51	12.75		1 / 7			
	reaction time		1.04	1.00	1.00	0.97	0.97	0.96	1.00	1.02	1.02	1.24			3.04	2.90	3.04
	velocity	5.14	8.17	8.50	8.50	8.76	8.76	8.85	8.50	8.33	8.33	8.47	7.84		8.39	8.79	8.39
Stowers, Jasmin (USA) (1991)	time	2.53	3.53	4.50	5.48	6.44	7.40	8.37	9.34	10.34	11.31	17.13		7 / 8			
	reaction time		1.00	0.97	0.98	0.96	0.96	0.97	0.97	1.00	0.97	5.82			2.95	2.89	2.94
	velocity	5.14	8.50	8.76	8.67	8.85	8.85	8.76	8.76	8.50	8.76	1.80	5.84		8.64	8.82	8.67



Time Intervals (s)

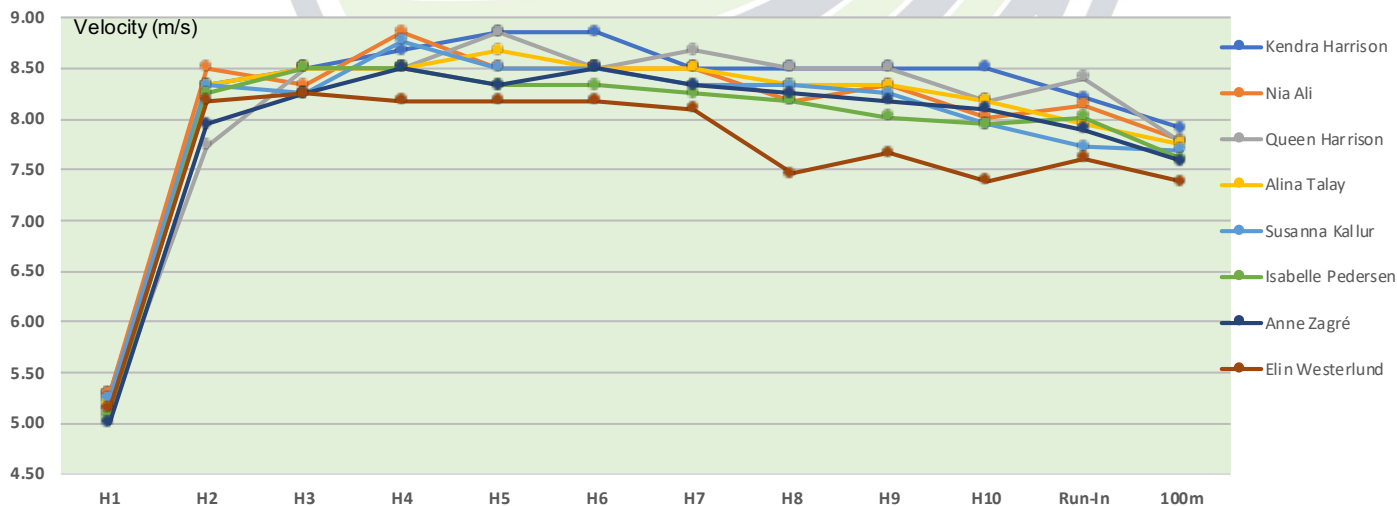
Hurdle Phases



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1920 x 1080 @ 25fps
 Timing From: First Movement
 Source: <https://www.youtube.com/watch?v=MvTFPQMJdUk>

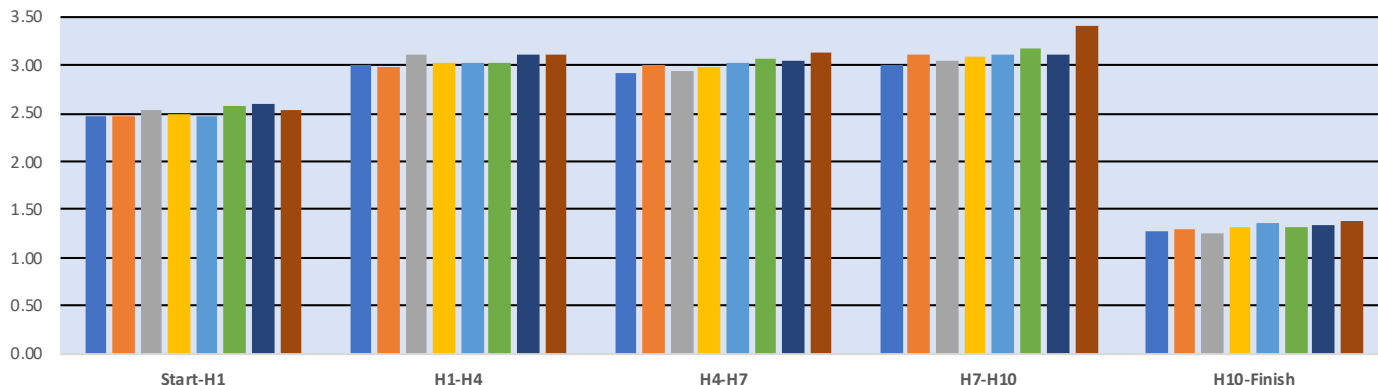
2016 Bauhaus Athletics (Stockholm, SWE) (TV Analysis)

100m Hurdles		Date: 2016.06.16	Wind: -0.4 m/s										FINAL				
		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.46	3.48	4.48	5.46	6.42	7.38	8.38	9.38	10.38	11.38		12.66	5 / 1			
	reaction time	0.185													3.00	2.92	3.00
	interval		1.02	1.00	0.98	0.96	0.96	1.00	1.00	1.00	1.00	1.28			8.50	8.73	8.50
	velocity	5.28	8.33	8.50	8.67	8.85	8.85	8.50	8.50	8.50	8.50	8.20	7.90				
Ali, Nia (USA) (1988)	time	2.46	3.46	4.48	5.44	6.44	7.44	8.44	9.48	10.50	11.56		12.85	2 / 2			
	reaction time	0.145													2.98	3.00	3.12
	interval		1.00	1.02	0.96	1.00	1.00	1.00	1.04	1.02	1.06	1.29			8.56	8.50	8.17
	velocity	5.28	8.50	8.33	8.85	8.50	8.50	8.50	8.17	8.33	8.02	8.14	7.78				
Harrison, Queen (USA) (1988)	time	2.54	3.64	4.64	5.64	6.60	7.60	8.58	9.58	10.58	11.62		12.87	6 / 3			
	reaction time	0.175													3.10	2.94	3.04
	interval		1.10	1.00	1.00	0.96	1.00	0.98	1.00	1.00	1.04	1.25			8.23	8.67	8.39
	velocity	5.12	7.73	8.50	8.50	8.85	8.50	8.67	8.50	8.50	8.17	8.40	7.77				
Talay, Alina (BLR) (1989)	time	2.50	3.52	4.52	5.52	6.50	7.50	8.50	9.52	10.54	11.58		12.90	3 / 4			
	reaction time	0.148													3.02	2.98	3.08
	interval		1.02	1.00	1.00	0.98	1.00	1.00	1.02	1.02	1.04	1.32			8.44	8.56	8.28
	velocity	5.20	8.33	8.50	8.50	8.50	8.50	8.50	8.33	8.33	8.17	7.95	7.75				
Kallur, Susanna (SWE) (1981)	time	2.48	3.50	4.53	5.50	6.50	7.50	8.52	9.54	10.57	11.64		13.00	4 / 5			
	reaction time	0.163													3.02	3.02	3.12
	interval		1.02	1.03	0.97	1.00	1.00	1.02	1.02	1.03	1.07	1.36			8.44	8.44	8.17
	velocity	5.24	8.33	8.25	8.76	8.50	8.50	8.33	8.33	8.25	7.94	7.72	7.69				
Pedersen, Isabelle (NOR) (1992)	time	2.57	3.60	4.60	5.60	6.62	7.64	8.67	9.71	10.77	11.84		13.15	8 / 6			
	reaction time	0.190													3.03	3.07	3.17
	interval		1.03	1.00	1.00	1.02	1.02	1.03	1.04	1.06	1.07	1.31			8.42	8.31	8.04
	velocity	5.06	8.25	8.50	8.50	8.33	8.33	8.25	8.17	8.02	7.94	8.02	7.60				
Zagré, Anne (BEL) (1990)	time	2.60	3.67	4.70	5.70	6.72	7.72	8.74	9.77	10.81	11.86		13.19	7 / 7			
	reaction time	0.192													3.10	3.04	3.12
	interval		1.07	1.03	1.00	1.02	1.00	1.02	1.03	1.04	1.05	1.33			8.23	8.39	8.17
	velocity	5.00	7.94	8.25	8.50	8.33	8.50	8.33	8.25	8.17	8.10	7.89	7.58				
Westerlund, Elin (SWE) (1990)	time	2.53	3.57	4.60	5.64	6.68	7.72	8.77	9.91	11.02	12.17		13.55	1 / 8			
	reaction time	0.148													3.11	3.13	3.40
	interval		1.04	1.03	1.04	1.04	1.04	1.05	1.14	1.11	1.15	1.38			8.20	8.15	7.50
	velocity	5.14	8.17	8.25	8.17	8.17	8.17	8.10	7.46	7.66	7.39	7.61	7.38				



Time Intervals (s)

Hurdle Phases



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1280 x 720 @ 30fps
 Timing From: First Movement
 Source: https://www.youtube.com/watch?v=AJTCbn_dFO4

2016 Birmingham Diamond League (Birmingham, GBR) (TV Analysis)

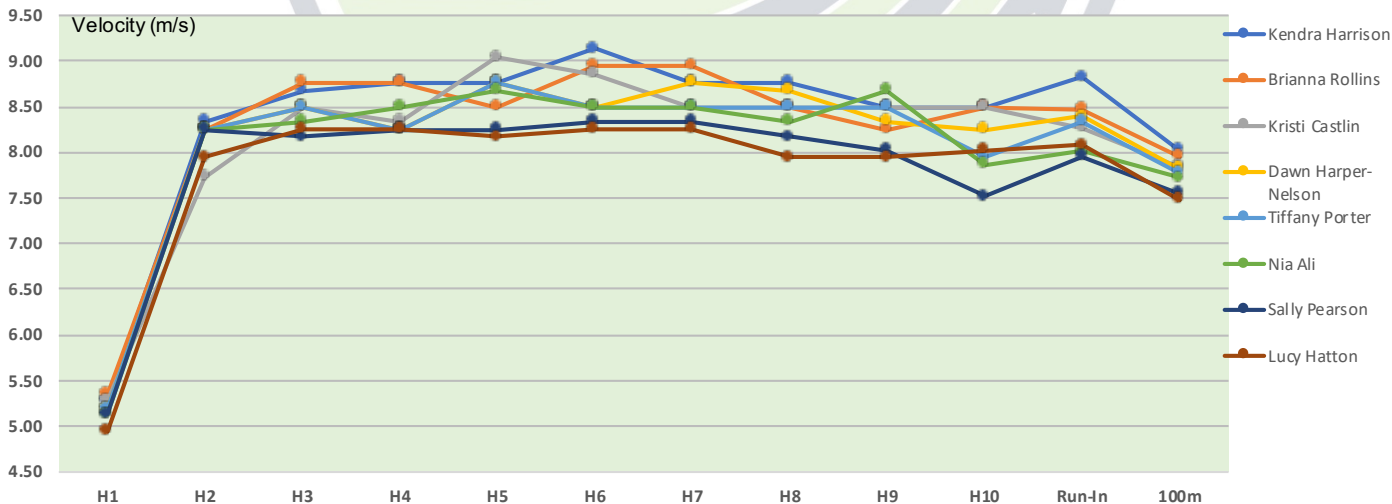
100m Hurdles

Date: 2016.06.05

Wind: -0.3 m/s

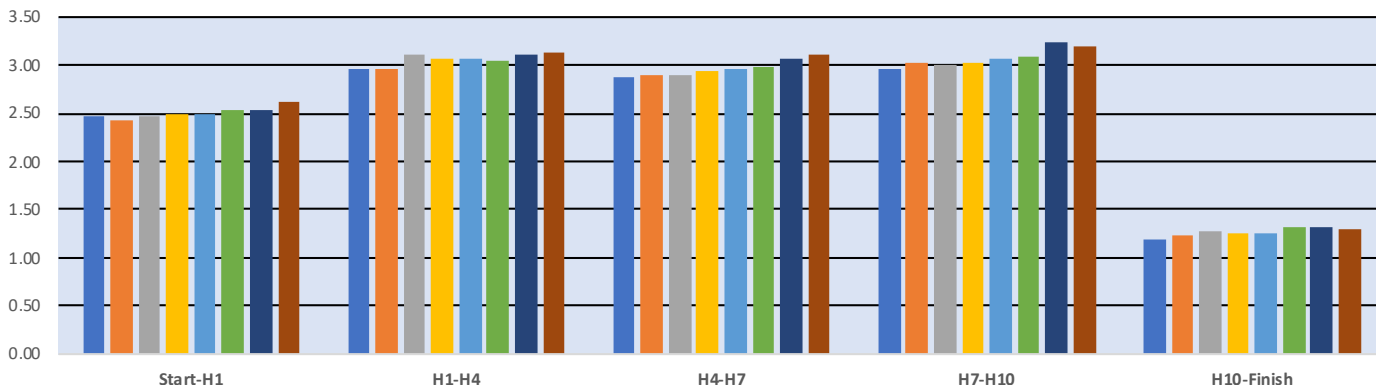
FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.46	3.48	4.46	5.43	6.40	7.33	8.30	9.27	10.27	11.27		12.46	6 / 1			
	reaction time	0.212													2.97	2.87	2.97
	interval		1.02	0.98	0.97	0.97	0.93	0.97	0.97	1.00	1.00	1.19			8.59	8.89	8.59
	velocity	5.28	8.33	8.67	8.76	8.76	9.14	8.76	8.76	8.50	8.50	8.82	8.03				
Rollins, Brianna (USA) (1991)	time	2.43	3.46	4.43	5.40	6.40	7.35	8.30	9.30	10.33	11.33		12.57	7 / 2			
	reaction time	0.144													2.97	2.90	3.03
	interval		1.03	0.97	0.97	1.00	0.95	0.95	1.00	1.03	1.00	1.24			8.59	8.79	8.42
	velocity	5.35	8.25	8.76	8.76	8.50	8.95	8.95	8.50	8.25	8.50	8.47	7.96				
Castlin, Kristi (USA) (1988)	time	2.46	3.56	4.56	5.58	6.52	7.48	8.48	9.48	10.48	11.48		12.75	5 / 3			
	reaction time	0.164													3.12	2.90	3.00
	interval		1.10	1.00	1.02	0.94	0.96	1.00	1.00	1.00	1.00	1.27			8.17	8.79	8.50
	velocity	5.28	7.73	8.50	8.33	9.04	8.85	8.50	8.50	8.50	8.50	8.27	7.84				
Harper-Nelson, Dawn (USA) (1984)	time	2.50	3.53	4.53	5.56	6.53	7.53	8.50	9.48	10.50	11.53		12.78	2 / 4			
	reaction time	0.151													3.06	2.94	3.03
	interval		1.03	1.00	1.03	0.97	1.00	0.97	0.98	1.02	1.03	1.25			8.33	8.67	8.42
	velocity	5.20	8.25	8.50	8.25	8.76	8.50	8.76	8.67	8.33	8.25	8.40	7.82				
Porter, Tiffany (GBR) (1987)	time	2.50	3.53	4.53	5.56	6.53	7.53	8.53	9.53	10.53	11.60		12.86	3 / 5			
	reaction time	0.136													3.06	2.97	3.07
	interval		1.03	1.00	1.03	0.97	1.00	1.00	1.00	1.00	1.07	1.26			8.33	8.59	8.31
	velocity	5.20	8.25	8.50	8.25	8.76	8.50	8.50	8.50	8.50	7.94	8.33	7.78				
Ali, Nia (USA) (1988)	time	2.53	3.56	4.58	5.58	6.56	7.56	8.56	9.58	10.56	11.64		12.95	8 / 6			
	reaction time	0.198													3.05	2.98	3.08
	interval		1.03	1.02	1.00	0.98	1.00	1.00	1.02	0.98	1.08	1.31			8.36	8.56	8.28
	velocity	5.14	8.25	8.33	8.50	8.67	8.50	8.50	8.33	8.67	7.87	8.02	7.72				
Pearson, Sally (AUS) (1986)	time	2.53	3.56	4.60	5.63	6.66	7.68	8.70	9.74	10.80	11.93		13.25	4 / 7			
	reaction time	0.129													3.10	3.07	3.23
	interval		1.03	1.04	1.03	1.03	1.02	1.02	1.04	1.06	1.13	1.32			8.23	8.31	7.89
	velocity	5.14	8.25	8.17	8.25	8.25	8.33	8.33	8.17	8.02	7.52	7.95	7.55				
Hatton, Lucy (GBR) (1994)	time	2.63	3.70	4.73	5.76	6.80	7.83	8.86	9.93	11.00	12.06		13.36	9 / 8			
	reaction time	0.232													3.13	3.10	3.20
	interval		1.07	1.03	1.03	1.04	1.03	1.03	1.07	1.07	1.06	1.30			8.15	8.23	7.97
	velocity	4.94	7.94	8.25	8.25	8.17	8.25	8.25	7.94	7.94	8.02	8.08	7.49				



Time Intervals (s)

Hurdle Phases



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1280 x 720 @ 30fps
 Timing From: First Movement
 Source: <https://www.youtube.com/watch?v=BRUoSXAKt40>

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

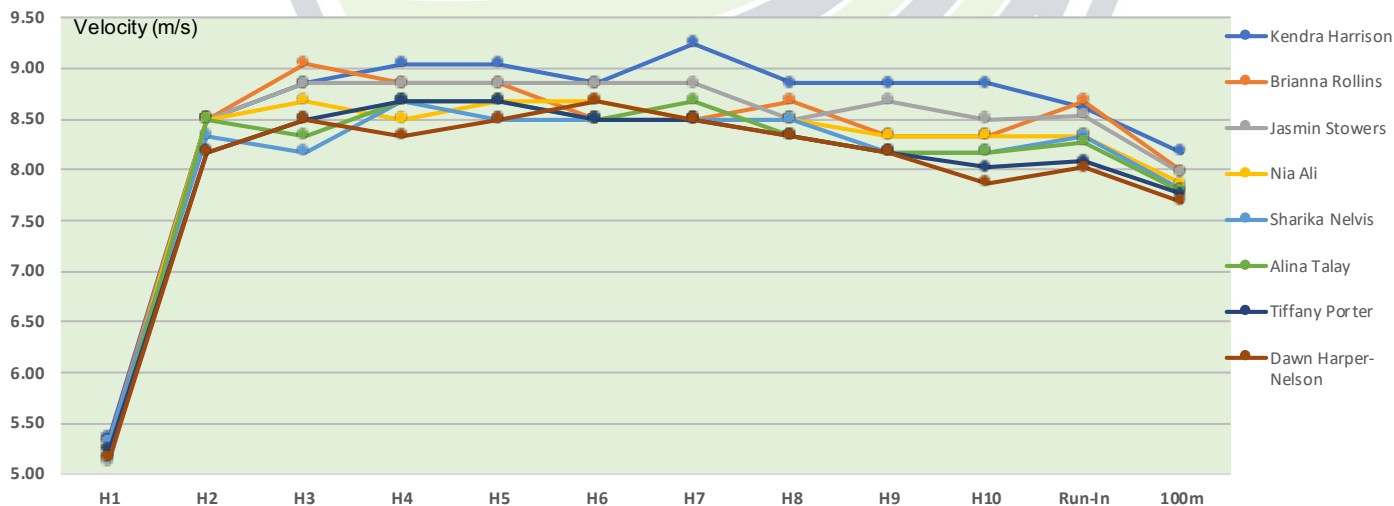
100m Hurdles

Date: 2016.05.28

Wind: 0.7 m/s

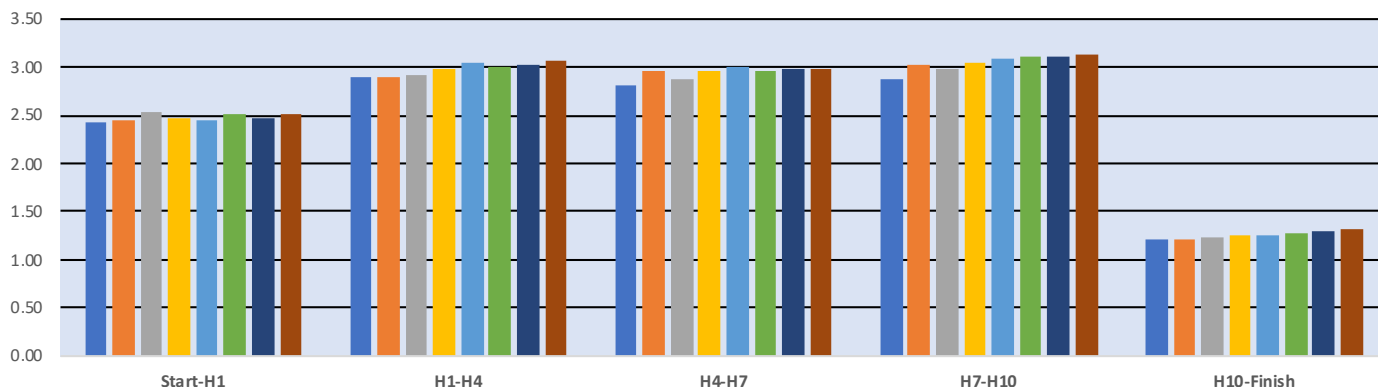
FINAL

		H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	Run-In	100m	Lane/Place	H1-H4	H4-H7	H7-H10
Harrison, Kendra (USA) (1992)	time	2.42	3.42	4.38	5.32	6.26	7.22	8.14	9.10	10.06	11.02	12.24	12.24	6 / 1			
	reaction time												AR PB		2.90	2.82	2.88
	interval		1.00	0.96	0.94	0.94	0.96	0.92	0.96	0.96	0.96	1.22	8.17		8.79	9.04	8.85
	velocity	5.37	8.50	8.85	9.04	9.04	8.85	9.24	8.85	8.85	8.85	8.61					
Rollins, Brianna (USA) (1991)	time	2.44	3.44	4.38	5.34	6.30	7.30	8.30	9.28	10.30	11.32	12.53	12.53	3 / 2			
	reaction time														2.90	2.96	3.02
	interval		1.00	0.94	0.96	0.96	1.00	1.00	0.98	1.02	1.02	1.21	7.98		8.79	8.61	8.44
	velocity	5.33	8.50	9.04	8.85	8.85	8.50	8.50	8.67	8.33	8.33	8.68					
Stowers, Jasmin (USA) (1991)	time	2.54	3.54	4.50	5.46	6.42	7.38	8.34	9.34	10.32	11.32	12.55	12.55	7 / 3			
	reaction time														2.92	2.88	2.98
	interval		1.00	0.96	0.96	0.96	0.96	0.96	1.00	0.98	1.00	1.23	7.97		8.73	8.85	8.56
	velocity	5.12	8.50	8.85	8.85	8.85	8.85	8.85	8.50	8.67	8.50	8.54					
Ali, Nia (USA) (1988)	time	2.48	3.48	4.46	5.46	6.44	7.42	8.42	9.42	10.44	11.46	12.72	12.72	1 / 4			
	reaction time														2.98	2.96	3.04
	interval		1.00	0.98	1.00	0.98	0.98	1.00	1.00	1.02	1.02	1.26	7.86		8.56	8.61	8.39
	velocity	5.24	8.50	8.67	8.50	8.67	8.67	8.50	8.50	8.33	8.33	8.33					
Nelvis, Sharika (USA) (1990)	time	2.44	3.46	4.50	5.48	6.48	7.48	8.48	9.48	10.52	11.56	12.82	12.82	5 / 5			
	reaction time														3.04	3.00	3.08
	interval		7 steps 1.02	1.04	0.98	1.00	1.00	1.00	1.00	1.04	1.04	1.26	7.80		8.39	8.50	8.28
	velocity	5.33	8.33	8.17	8.67	8.50	8.50	8.50	8.50	8.17	8.17	8.33					
Talay, Alina (BLR) (1989)	time	2.52	3.52	4.54	5.52	6.50	7.50	8.48	9.50	10.54	11.58	12.85	12.85	8 / 6			
	reaction time														3.00	2.96	3.10
	interval		1.00	1.02	0.98	0.98	1.00	0.98	1.02	1.04	1.04	1.27	7.78		8.50	8.61	8.23
	velocity	5.16	8.50	8.33	8.67	8.67	8.50	8.67	8.33	8.17	8.17	8.27					
Porter, Tiffany (GBR) (1987)	time	2.48	3.52	4.52	5.50	6.48	7.48	8.48	9.50	10.54	11.60	12.90	12.90	7 / 7			
	reaction time														3.02	2.98	3.12
	interval		1.04	1.00	0.98	0.98	1.00	1.00	1.02	1.04	1.06	1.30	7.75		8.44	8.56	8.17
	velocity	5.24	8.17	8.50	8.67	8.67	8.50	8.50	8.33	8.17	8.02	8.08					
Harper-Nelson, Dawn (USA) (1984)	time	2.52	3.56	4.56	5.58	6.58	7.56	8.56	9.58	10.62	11.70	13.01	13.01	4 / 8			
	reaction time														3.06	2.98	3.14
	interval		1.04	1.00	1.02	1.00	0.98	1.00	1.02	1.04	1.08	1.31	7.69		8.33	8.56	8.12
	velocity	5.16	8.17	8.50	8.33	8.50	8.67	8.50	8.33	8.17	7.87	8.02					



Time Intervals (s)

Hurdle Phases



Evaluated with: ObjectusVideo
 Quality & Frame Rate: 1920 x 1080 @ 25fps
 Timing From: First Movement
 Source: <https://www.youtube.com/watch?v=TLqOUJXw1Q>