

The Career Arc of Female Distance Runners: When Will We Ever Learn?!

Rod Murrow, JD

St. James Academy

Lenexa, Kansas

rodney.murrow@gmail.com

913-523-6570



**“I Don’t Want Her.
She Was Too Fast as an Age-Group.”**

Repeat After Me....

**WOMEN RUN
FASTER
THAN GIRLS!!!**

TRUE OR FALSE?

No woman who has held the U.S. high school record at 1500, 1600, mile, 3000, 3200 or 2-mile has ever made a U.S. Olympic team, but five men have done it.

TRUE

Jim Ryun

Gerry Lindgren

Steve Prefontaine

Craig Virgin

Alan Webb

TRUE OR FALSE

The average high school 1600 PR of all the woman who made the 2016 U.S. Olympic team in the 1500, steeple, 5,000, 10,000 and marathon was 4:53, a time that would rank approximately 75th on the 2019 national list.

Four of them didn't break 5:00 in high school.

TRUE

1500 Team

Jenny Simpson	4:47
Shannon Rowbury	4:52
Brenda Martinez	4:55

Steeple Team

Emma Coburn	5:11
Courtney Frerichs	N/A (2:24 800)
Colleen Quigley	4:52

5,000 Team

Kim Conley	4:52
Shelby Houlihan	4:49c
Abbey D'Agostino	5:00

10,000 Team

Molly Huddle	4:47
Emily Infeld	4:41
Marielle Hall	4:48

Marathon Team

Amy Hastings-Cragg	5:06
Shalane Flanagan	4:46
Desiree Linden	4:58

TRUE OR FALSE

Only one female high school Foot Locker champion has made a U.S. Olympic team, but six male high school Foot Locker champions have made a U.S. Olympic team.

TRUE

MEN

Reuben Reina

Marc Davis

Bob Kennedy

Adam Goucher

Jorge Torres

Dathan Ritzenhein

WOMEN

Cathy Schiro

“You notice what happens sometimes to female athletes. She hits puberty; *her times get slower or plateau*. She is confused; she is working harder than ever. Clueless adults who are overly invested in her "performance" will grieve, as if her worth is based solely on PRs. This makes you scared of growing up.

Seeing girls go through this is confusing because there is a story once told to you about running: ‘You get out what you put in.’ You've heard there is a direct line between effort and improvement, between wanting it more and winning. This is a ‘truth’ written by men, based on the experience of boys and men. Your male teammates are bathing in testosterone, a dramatic performance enhancer. You will not. You are about to bathe in different hormones, hormones that, more often than not, *temporarily interrupt that promised straight line of improvement*. What you need are knowledgeable coaches and parents who know how to support you during this time, to let you know it is normal, to celebrate you through development, who can zoom out on the big picture, because it is at this time that many girls give up.”

Dear Younger Me: Lauren Fleshman - MileSplit

Here's a Crazy Idea...

HOW ABOUT INSTEAD OF PUSHING HIGHER-LEVEL
TRAINING AND COMPETITION FOR MIDDLE SCHOOLERS...

...We Stop Setting Them Up to Fail When They're 11-14 Years Old?

*...We Have Them Train and Compete at the Age of 11-14 in Ways That
Keep Them Fit and Engaged Without Posting Times That Can Become
an Anchor Around Their Neck at 16?*

*...We Stop Pretending They're Going to Have the Same
Body at 18 That They Did at 12?*

Peak Height Velocity

The peak height velocity is simply the period of time in which an adolescent experiences their fastest upward growth in their stature – i.e. the time when they grow the fastest during their adolescent growth.

Science of Sport

Peak Weight Velocity

Peak weight velocity represents the greatest rate of change in body mass. After peak height velocity, there exists a time delay (12-14 months, approximately) where there is an increase in body mass compared to stature [6], and it is this period of time which is referred to as peak weight velocity.

Puberty is also a time of significant weight gain, where 50% of adult body weight is gained during adolescence.

In males, peak weight velocity occurs at about the same time as peak height velocity (>14) and averages 9kg/year [5].

In females, peak weight velocity lags behind peak height velocity by approximately 6 months and reaches 8.3kg/year at about 12.5 (age).

Science of Sport

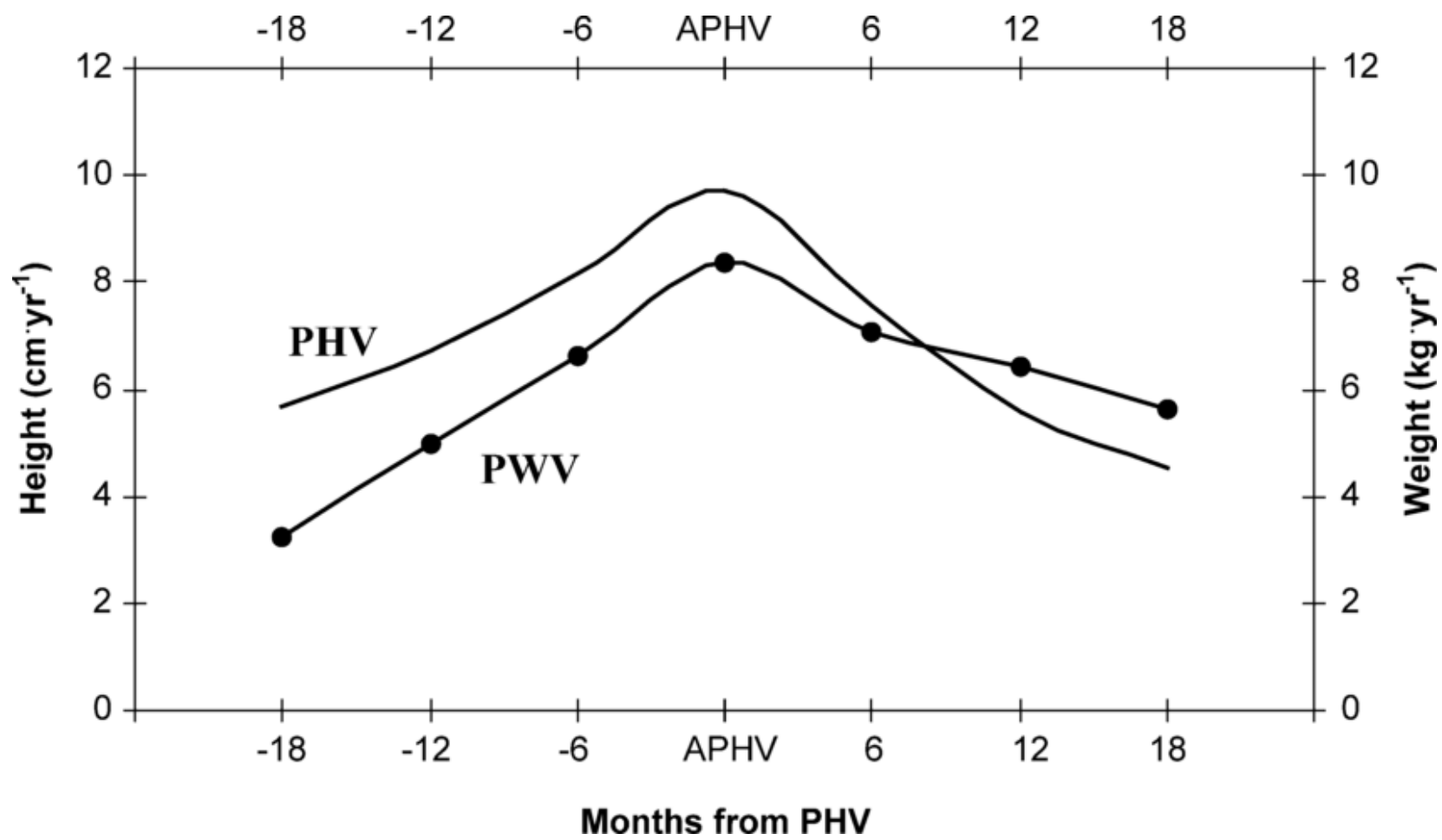
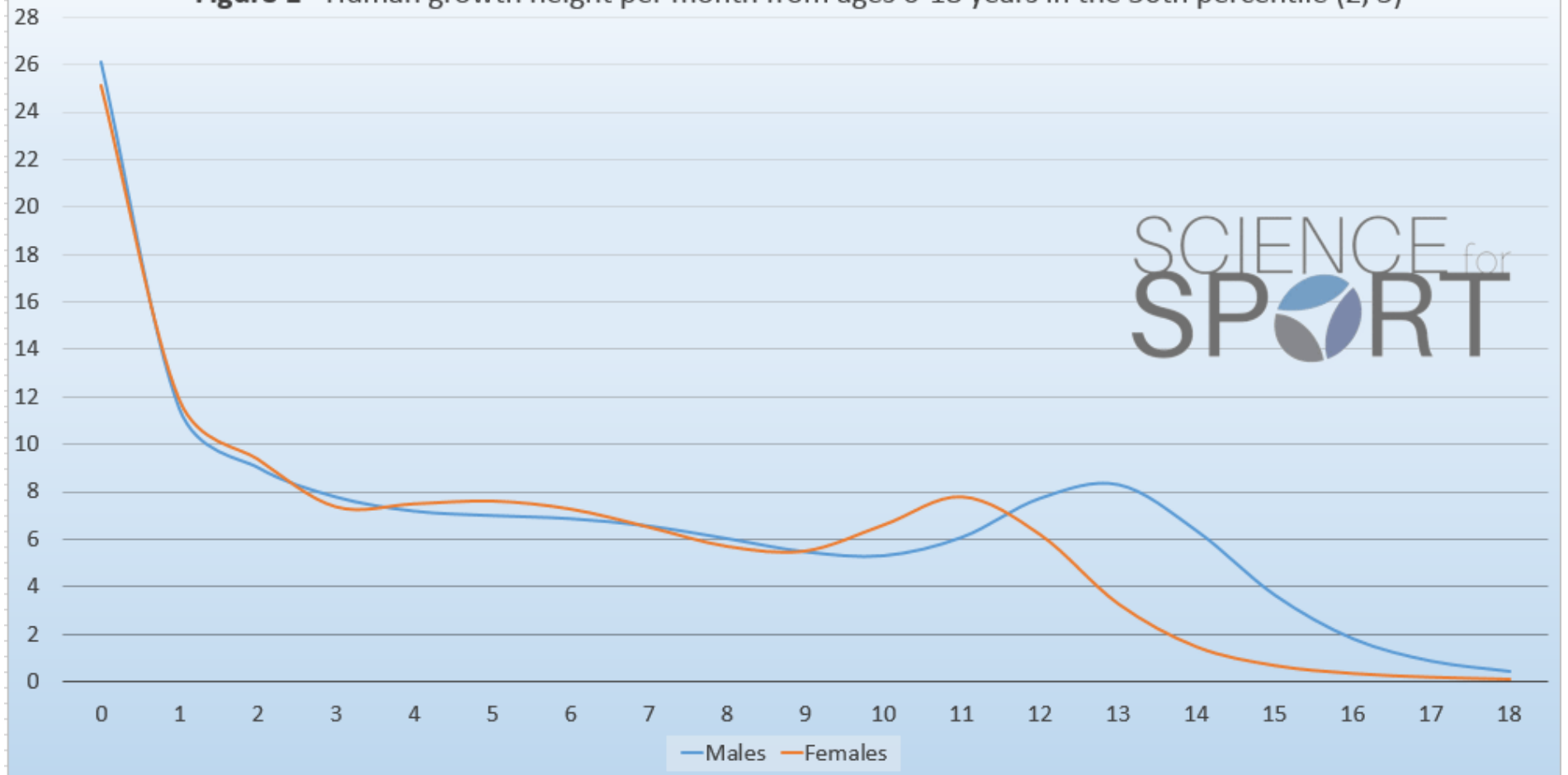


Figure 1 - Human growth height per month from ages 0-18 years in the 50th percentile (2, 3)



$$F = MA$$

Newton's Second Law of Motion states, “The **force** (F) acting on **an object** is equal to the **mass** (M) of that object times its **acceleration**. (A)”

Faster acceleration (A) = Greater Force (F) at Same Mass (M)

Rod's First Law of Training Distance Runners states, “The **training force** (F) acting on **a runner** is equal to **the size of that training load** (M) times its **rate of increase** (A).”

Faster Increase (A)(mileage, etc.) = Greater Force (F) of same training load (M)
Greater Force (F) = Max Training Load *REACHED AT A LOWER TRAINING LOAD!*

THE SUCCESS ADDICTION

Recent neuroscience research has shown that kids successful very early on “wire” their brains to see the attention and success as the reward. It’s not the love of the sport that drives them, it’s the love of the attention and success from the sport. *Steve Magness*

When they plateau and success wanes, they no longer receive the “reward” of the success or attention and motivation fades. Perhaps more importantly, enjoyment of the sport fades.

As counter-intuitive as it sounds, somewhat restricting success early on actually helps them to learn to love the sport, not the attention, and makes it more likely they will continue later. (Ruth Wysocki) They also continue to be successful through continued improvement.

THE TALE OF TWO GIRLS

GIRL A

- ▶ Ceased other sports at 12/13, running year round
- ▶ Ran 2x/day three times per week @ 14, single sessions other days
- ▶ Raced frequently throughout the year and at a high level
 - ▶ 1600 PR at 14 – 5:08c

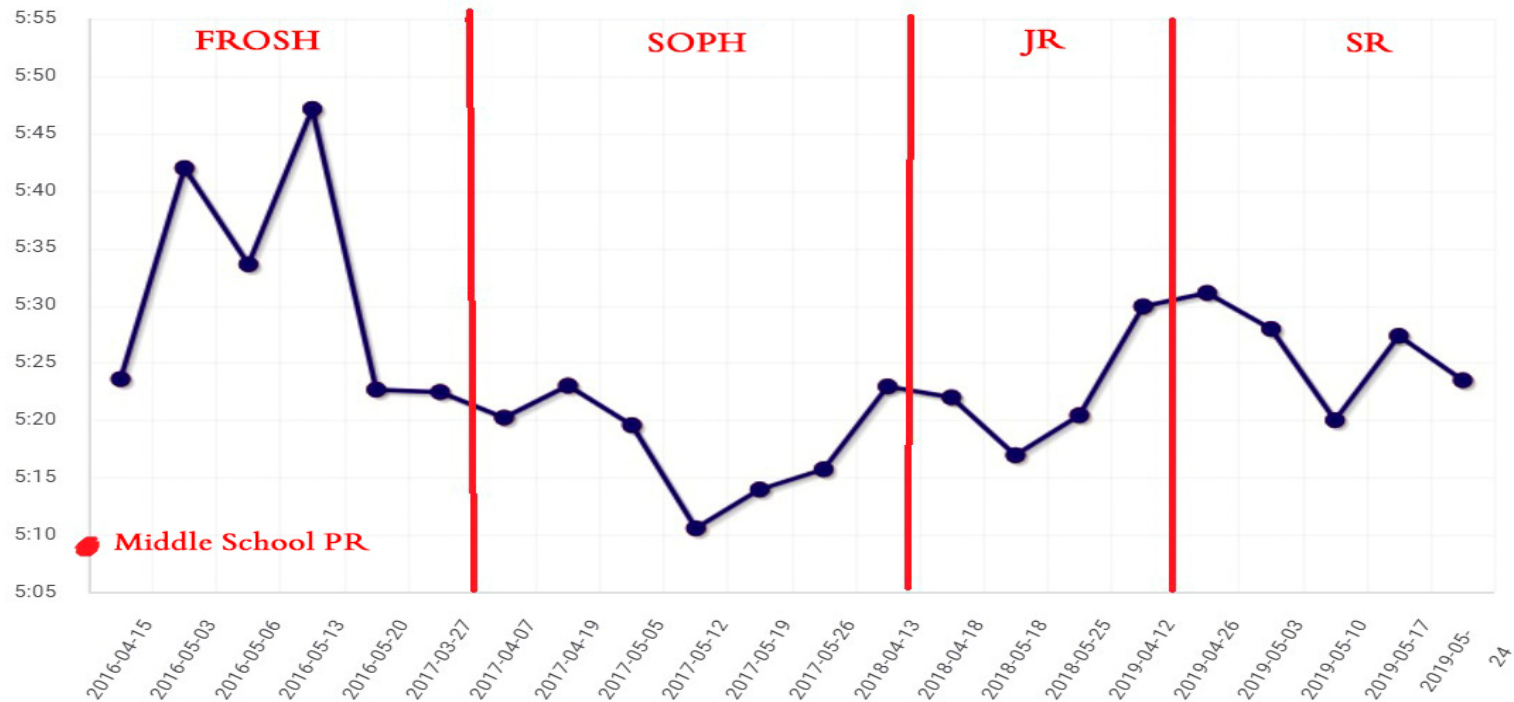
GIRL B

- ▶ Continued soccer 4x/week through age 14, basketball at 15
- ▶ Ran 3x/week @14, never more than 18-20M/week
- ▶ Only raced outside of her school schedule total of 5 times in middle school
 - ▶ 1600 PR at 14 – 5:25

GIRL A HS 1600 PROGRESSION

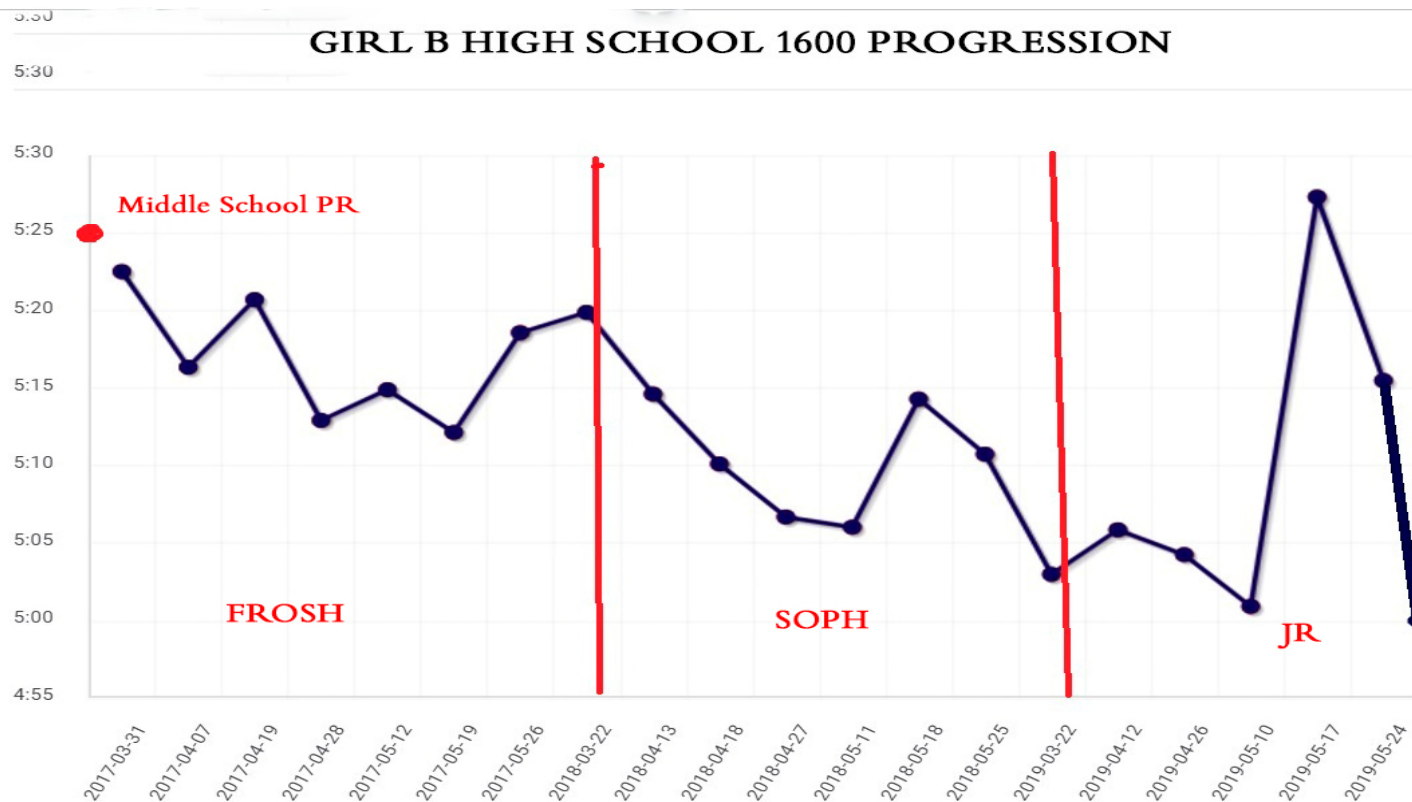
Final HS 1600 PR – 5:06 (Soph)

GIRL A HIGH SCHOOL 1600 PROGRESSION



GIRL B HS 1600 PROGRESSION

HS 1600 PR – 5:00 (JR, one more year left)



WOMEN'S 2016 U.S. OLYMPIC TEAM

1500, Steeple, 5,000. 10,000 & Marathon

WOMEN'S 2016 **1500m** RIO OLYMPIC TEAM MEMBER PROFILES

RED = Current AR, WC or Oly Medal BLUE = AR since broken

NAME	AGE (in 2016)	HIGH SCHOOL	COLLEGE	HS PRs	COLLEGE PRs	PRO PRs	NOTES
Jenny Simpson	30	Oviedo, FL	Univ. of Colorado	800 2:15.71 1600 4:47.33 3200 10:18.84	1500 3:59.90 Steeple 9:25.54 6K XC 19:43.90	800 2:00.45 1500 3:57.22 Steeple 9:12.50 AR	2016 Oly Bronze 2011 WC Gold 2013 WC Silver 2017 WC Silver Most Decorated 1500 Runner in U.S. history
Shannon Rowbury	32	Sacred Heart, San Francisco, CA	Duke	800 2:08.52 1600 4:52.77 5K XC 17:52	800 2:13.02 1500 4:14.81 3000 9:03.61	800 1:59.97 1500 3:56.29 AR Mile 4:20.34 3000 8:29.93 5000 14:38.92 AR	2009 WC Bronze
Brenda Martinez	29	Rancho Cucamonga, Chula Vista, CA	UC-Riverside	800 2:16 1600 4:55 3200 11:12	800 2:01.03 1500 4:12.45	800 1:57.91 1500 4:00.94	2000 WC Silver (800)

WOMEN'S 2016 **3000m STEEPLECHASE** RIO OLYMPIC TEAM MEMBER PROFILES

RED = Current AR, WC or Oly Medal BLUE = AR since broken

NAME	AGE (in 2016)	HIGH SCHOOL	COLLEGE	HIGH SCHOOL PRs	COLLEGE PRs	PRO PRs	NOTES
Emma Coburn	26	Crested Butte, CO	Univ. of Colorado	800 2:16.00 1600 5:11.92 3200 11:32.60	800 2:09.81 1500 4:06.87 Steeple 9:23.54	1500 4:05.10 Mile(in) 4:29.86 Steeple 9:02.58 AR	2016 Oly Bronze 2017 WC Gold
Courtney Frerichs	23	Nixa, MO	Univ. of MO - KC & New Mexico	TJ 34'5.5" 800 2:24.94 5K XC 18:12	1500 4:18.92 3000 9:35.89 Steeple 9:22.87 6K XC 19:39.30	Steeple 9:00.85 AR 1500 4:14.62	2017 WC Silver Primarily a gymnast in HS; never ran state track meet
Colleen Quigley	24	Nerinx HS, St. Louis, MO	Florida State	800 2:14.75 1600 4:52.17 3200 10:27.62	1500 4:11.61 Steeple 9:24.92 5000 15:58.90 6K XC 19:49	1500 4:03.02 Mile(in) 4:24.88 Steeple 9:10.27	

WOMEN'S 2016 U.S. OLYMPIC TEAM 1500, Steeple, 5,000. 10,000 & Marathon

WOMEN'S 2016 **5000m** RIO OLYMPIC TEAM MEMBER PROFILES

RED = Current AR, WC or Oly Medal BLUE = AR since broken

NAME	AGE (in 2016)	HIGH SCHOOL	COLLEGE	HS PRs	COLLEGE PRs	PRO PRs	NOTES
Kim Conley	30	Montgomery HS, Santa Rosa, CA	UC-Davis	1600 4:52	1500 4:22.17 3000i 9:19.16 5000 16:17.51 6K XC 20:20	3000 8:44.11 5000 15:08.61 10,000 31:35.88	
Shelby Houlihan	23	Sioux City East, Sioux City, IA	Arizona State	800 2:07.69 1500 4:29.26 (=4:50) 3000 9:56.71 (-10:43) 5K XC 17:37	800 2:01.12 1500 4:09.67 3000 9:03.71 5000 15:49.72	1500 3:57.34 Mile(in) 4:23.00 5000 14:34.45 AR	
Abbey D'Agostino	24	Masconomet HS, Topsfield, MA	Dartmouth	800 2:08.11 Mile 5:00.67 5K XC 18:50	800 2:08.11 Mile(in) 4:28.31 3000(i) 8:51.91 5000 15:11.35	1500 4:08.78 Mile: 4:28.31 3000 m: 8:51.88 5000 m: 15:03.85 10000 m: 33:10.38	

WOMEN'S 2016 **10,000m** RIO OLYMPIC TEAM MEMBER PROFILES

RED = Current AR, WC or Oly Medal BLUE = AR since broken

NAME	AGE (in 2016)	HIGH SCHOOL	COLLEGE	HS PRs	COLLEGE PRs	PRO PRs	NOTES
Molly Huddle	32	Elmira HS, Elmira, NY	Notre Dame	Mile 4:47.24 2M 10:01.08 5K XC 17:19	5000 15:17.13 10,000 32:37.87	1500 4:08.09 3000 8:42.99 5000 14:42.64 AR 10,000 30:13.17 AR ½ Marathon 67:25 AR Marathon: 2:26:44	
Emily Infeld	26	Beaumont HS, Cleveland Heights, OH	Georgetown	800 2:08.63 1600 4:41.37 3200 10:41.79 5K XC 17:30.91	1500 4:07.77 3000(in) 9:00.13 5000 15:28.60	3000 8:41.43 5000 14:56.33 10,000 31:20.45	2015 WC Bronze (10,000)
Marielle Hall	24	Haddenfield, NJ	Univ. of Texas	800 2:08.81 1600 4:48.73 2M 10:47.11	1500 4:16.98 3000 8:54.48 5000 15:12.79	5000 15:06.45 10,000 31:37.45	

WOMEN'S 2016 U.S. OLYMPIC TEAM 1500, Steeple, 5,000, 10,000 & Marathon

WOMEN'S 2016 **MARATHON** RIO OLYMPIC TEAM MEMBER PROFILES

RED = Current AR, WC or Oly Medal BLUE = AR since broken

NAME	AGE (in 2016)	HIGH SCHOOL	COLLEGE	HS PRs	COLLEGE PRs	PRO PRs	NOTES
Amy Hastings-Cragg	32	Leavenworth HS, Leavenworth, KS	Arizona State	1600 5:06.xx 3200 10:38.52 5000 17:16.43	1500 4:22.97 3000 9:19.31 5000 16:02.53 10,000 32:30.37	3000 8:58.21 5000 15:14.31 10,000 31:10.69 ½ marathon: 1:08:27 Marathon: 2:21:42	2017 WC Bronze (Marathon)
Shalane Flanagan	35	Marblehead, MA	North Carolina	Mile 4:46.91 2M 10:24.21	1500 4:13.05 5000 15:20.54	1500 4:05.86 3000(in) 8:33.25 5000 14:44.80 AR 10,000 30:22.22 AR Marathon 2:21:14	2008 Oly Silver (10,000) 2011 World XC Bronze
Desiree Linden HS info may be incomplete	33	Hilltop HS, CA	Arizona State	Mile 4:58.xx	800 2:10.21 1,500 4:28.55 5,000 16:17.45 10,000 36:52.48	3000(in) 8:51.08 5000 15:08.64 10,000 31:37.14 Marathon 2:22:38	

AN OUTSIDE-THE-BOX PROPOSAL FOR A HEALTHY WAY OUT

1. STOP SETTING UP GIRLS IN MIDDLE SCHOOL AND EARLY HIGH SCHOOL TO FAIL LATER!
 - A. Don't Let Them Post Fast Times at Primary Distances Before Age 16 or So.
 - B. Race "off" distances. If a 1600 runner, no fast races against good competition at 1600; race down-distance instead (400 or 800).
 - C. Deliberately under-train *for running primary* distances
 - D. That is NOT to say they don't train and race; just don't do it in a way or at distances that will have them post fast times at primary distances.
2. STAY IN MULTIPLE SPORTS. Continues to build fitness without being running-specific.
3. RACE ENOUGH TO TASTE A LITTLE SUCCESS BUT KEEP THEM HUNGRY, EXCITED AND MOTIVATED FOR MORE. Hershey bar example.
4. TELL THEM WHAT'S GOING TO HAPPEN AND WHY YOU'RE DOING WHAT YOU'RE DOING. Don't make this a mystery - hit it head on and bluntly.

One Last Time, Repeat After Me....

**WOMEN RUN
FASTER
THAN GIRLS!!!**