

Men and Women Not Equally Qualified, But Don't Blame Boston

An analysis of gender-based time standards reveals an interesting trend



BY KEVIN BECK OCT 26, 2010

The differences between the respective times men and women must reach in order to enter various distance events, especially marathons, is one of those issues that never strays far from the collective running consciousness. An [October 15 article](#) in the *Wall Street Journal* kicked this topic back into the limelight by focusing on the difference in the men's and women's qualifying standards for the Boston Marathon, the only citizen's race of note that includes time-based restrictions on entry (dozens of loopholes exist, but that's fodder for another discussion). At present, the Q-time for a man under 35 is 3:10 and that for women in the same age group is 3:40. Then, three days after the *WSJ* article was published, the Boston Marathon opened its doors to online registration for the 2011 race six months away. Within eight hours, the field had [filled to its capacity](#) of just over 25,000 entrants and registration was closed. While not a gender issue, this immediately intensified scrutiny of the Boston qualifying times, given that these will likely have to be toughened in order to keep what many see as an injustice from happening in the future.

At the center of this is the ongoing and evolving tension between two opposing positions: an inclination to account for long-standing gender-based iniquities within running and in sports in general by cutting women some slack, and a desire to dispense of what is arguably the most sexist position of all — lowering the bar for the girls so they can play with the boys.

In the opinions of the co-authors of the *WSJ* piece, this gap is too wide and should be tightened. They make some useful, if unoriginal, points in defending this unoriginal idea, but they go off-course in a few ways. One of these is invoking the identical qualifying standards for men and women used by the Western States 100 (100-mile races are to road marathons what skeet shooting is to horseshoes, but again, that can be tabled for now). But a much more pertinent error and evidence that the authors are not mathematically inclined, is comparing absolute difference between winning times at men's and women's marathons to absolute time difference in qualifying standards. They write: "The female winner at last Sunday's Chicago Marathon crossed the finish line about 14 minutes after the male winner. At the nation's five largest marathons — all certified as Boston Marathon qualifying races — the gender differential among top runners in 2009 stood closer to 20 minutes than 30."

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All true, but the difference between a 2:06 marathon and a 2:20 is not comparable to that between a 3:10 and a 3:24. Using



percentile differences rather than arithmetic ones (a better but imperfect translation), adding 50 percent to each of these times yields 3:09 and 3:30. So, on this basis, tightening the fastest Boston Q-time for women by 10 minutes would make sense.

But, are 2:06 and 2:20 physiologically similar times for men and women? One way to judge this is to look at the world records

for men and women: 2:03:59 and 2:15:25, respectively. That's a difference of 9.2 percent, which would, on the surface, make a 3:10 for men equivalent to a 3:27:30 for women. Were the Boston Athletic Association to impose a tightening of its standards of this magnitude today — halving the 15.8 percent time gap in place at the moment — the percentage of women finishers in its 26.2-mile juggernaut would drop from the 42 percent mentioned in the *WSJ* article to approximately diddly-squat, give or take (or at least considerably less).

One thing to think about, though, is that the women's world-record holder is an outlier of unfathomable magnitude. Paula Radcliffe of England has run the three fastest women's times in history and is an astonishing 3:22 faster than the next-fastest woman, Catherine Ndereba of Kenya, who herself is the only woman besides Radcliffe with more than one sub-2:20 finish to her credit (nine names currently occupy that list). So, a statistician may feel justified in tossing Radcliffe and perhaps even Ndereba from any pertinent analyses.

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To an undeniable extent, however, this is merely begging the question (in the original, logical sense, not the way the popular press likes to use it). That is, throwing out outliers only seems to assume the putative conclusion of the “keep the gap wide” side. Except for the those responsible for closing the gap, women just aren't there yet and need more time to close the gap.

But there's more to the story. A glance at the [men's](#) and [women's](#) all-time lists reveals something at least as striking: While Radcliffe enjoys a gulf of 2.5 percent over Ndereba with her 3:22 cushion, that same percentile gap on the men's side — extending to 2:07:04 — includes 73 men. The world record-holder for a 10-year period ending a dozen years ago, Belayneh Dinsamo, is not among the top 50 of these. Even throwing out the very best of the best and including times starting at 2:05:00 for men and 2:20:00 for women, the number of men sitting in the fastest three-minute window (2:05:00 through 2:07:59) stands at 154, while the number of women in the corresponding window is 31.

These differences are breathtaking, if not comical, and a number of plausible reasons (some sociological, some pharmacological) for their existence are ripe for exploration by other hacks. Still, the times of the 100th-fastest male and female marathoners are 2:07:23 and 2:25:09, respectively, a difference of 14.3 percent. Apply that to the Boston Marathon in the previously described way and you've got 3:10 and 3:37-low, and suddenly the disparity in Beantown doesn't seem so menacing.

Adding intrigue is the story that the fast-but-not-quite-world-class world tells. In 1984, when the first U.S. Olympic Marathon Team Trials were held for both women and men (it is sad but true that until 26 years ago, women were not allowed to compete in Olympic running events lasting longer than four minutes), the women's qualifying standard was 2:51:16. Since then, the standard has bounced around with all of the predictability of USA Track & Field's leadership itself, moving to 2:50 in 1988, then 2:45 in 1992, 2:50 in both 1996 and 2000, 2:48 in 2004, 2:47 in 2008, and finally 2:46 for the 2012 cycle. By contrast, the men's standard in 1992 was 2:20; today it is 2:19. So, in 20 years, women have gone from having to run within 17.9 percent of the men's Trials standard to needing to get within 19.4 percent — not exactly a step forward. This is all amid a background of steady clamor about the need to “keep things equal,” which is a call to action that obviously means different things to different people.

Regardless of the “whys” involved, one thing that is undeniable is that the chasm exists in the United States in distance races shorter than the marathon and is opened well before runners even reach the professional ranks. The world records for 5,000m and 10,000m for men and women are 13:37/26:17 (both by Kenenisa Bekele) and 14:11/29:31 (by Tirunesh Dibaba and Wang Junxia), differences of 12.4 percent for both races. This year's automatic qualifying standards for the USATF Outdoor Track & Field Championships in the 5,000m and 10,000m for men and women were 13:30/28:30 and 15:48/33:45, differences of 17.0 percent and 18.4 percent. Moving into the university ranks, the NCAA Division II standards for these events for this year were 14:00/29:40 and 16:57/35:30, differences of 21.1 percent and 19.7 percent. At the D III level, the differences were 16.9 percent and 20.9 percent. The difference between the D I men's and women's standards for the indoor 5,000m last winter — 13:50.8 and 16:12.5 — was 17.1percent. All of these exceed the BAA's 15.8 percent difference by margins ranging from significant to absurd.

In terms of performance, the top male and female NCAA D I performers in the 10,000m last spring ran 27:08 and 31:18, respectively, a difference of 15.4 percent. The spread between the 50th-fastest runners was 18.3 percent and that between those just inside the top 100 was just under 19 percent. This data lends validity to the gap in NCAA qualifying standards, but, of course, fails to explain it.

Taking a further step back to the high-school ranks, late-season 2010 performance lists for the 3,200m run reveal that the top hundred boys ran times ranging from 8:46 to 9:11 and the top hundred girls were distributed between 10:00 and 10:49. While the gap near the top end is less than 15 percent, it is just under 17 percent at the 25th position, which is similar to the discrepancy in the NCAA D I 10,000m times, and nearly 18 percent at the bottom. Clearly, the lack of depth that pervades the distance events at the elite level is already evident among prep runners, yet between high school and college, the gap apparently widens rather than closes.

So what conclusions can be drawn here? On the surface, it is that the differences between men's and women's qualifying standards for distance events spanning the ability spectrum from elite to mediocre are unjustifiably large (using human physiology as a metric), but not uniformly so? Do mass events such as the Boston Marathon actually do a superior job of maintaining a fair separation, when compared to championship-level competitions? What is driving the excessively large gap between male and female distance runners at the top high school and college levels is unclear.

One reasonable inference is, at the moment, adult American women runners are, on average, just not as interested in running fast in the same way that men are, meaning there's as much cause for hand-wringing over these numbers as there is over whatever participation gender gap exists in realms such as stock-car racing, bodybuilding and dressage. Based on the numerical evidence, it appears likely that a higher proportion of women who enter road races do so largely for reasons unrelated to competition. It's important to note, though, that this says nothing at all about the mindset of those women who are already competing with shazam. And it doesn't explain why the fastest women simply don't clump as closely as fast men do, something top coaches in the U.S. might want to investigate if elite American women are to extend the impressive gains they have made in recent years in the middle distances to the marathon distance.

[Kevin Beck](#), editor of the training book *Run Strong*, has been a *Running Times* contributor since 1999.

Conversation 5 Comments

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alvinrobert · 27 October, 2019 ⋮

I think the qualifying should be the same just it would only be fair that women want to have equal in every thing else why not running. They do not need a half hour gap not more then a 10 minute one and it would probably eliminate the over crowding at Boston.

Reply

Guest541504 · 20 October, 2019 ⋮

Respect women by giving them a fair gap of no more than 15 minutes. They will then train to meet it as men do. Maybe then you will start to eliminate the ridiculous circumstance of corrals containing men in their 50's with women in their 30's.

Reply

Guest541504 · 20 October, 2019 ⋮

It is sexist to assume women need more than a 10-15 minute gap to qualify for the Boston Marathon!

Reply

Guest541504 · 20 October, 2019 ⋮

Based on the 2019 Chicago Marathon, the physical difference between men and women is no more than 10 minutes. Any allowance more than 10-15 minutes for women in the Boston Marathon is fundamentally unfair to men.

Reply

Guest541504 · 20 October, 2019 ⋮

You use absolute race time differences for the same race distance not percentages! The elite class train equally and have more equal motivations unlike non-elite runners! The fair difference for the Marathon is no more than 15 minutes. This reflects the true difference between the sexes, excluding a...**See more**

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