

# THORSTEN RADDE'S STATS & CHARTS ON DEPTH OF FIELD IN WOMEN'S CYCLING

When searching for proof that men's and women's racing at the top level of pro cycling is not so very different, the universe sent me Thorsten Radde, data specialist extraordinaire. We took a close look at the races which had a men's and women's field in 2013 and/or 2014: Tour of California, Tour of the Gila, Tour of Flanders, UCI Road World Time Trial Championships, and the Tour de France, most of which we are showing here. Speed differentials were minimal. The depth and talent of women's racing was undeniably on par with the men's.

—*Kathryn Bertine, STAND*

P.S. Fun fact about Thorsten. He is the "Data and Tech Guru" of STAND. The physical book you hold in your hand, be it paper or electronic, was formatted by Thorsten. Without #TeamSTAND, this book would've remained a Word doc on my hard-drive. Thank you, Thorsten, for your fantastic data and technology skills that continue to move women forward.

## COMPARING MEN'S AND WOMEN'S RACES

Comparing Data from Men's and Women's races is usually quite difficult:

- They are typically over different distances, leading to finishing times that are not easily comparable. Even men's and women's divisions in the same race often have different distances. For example, the Tour of Flanders for the men is 259k with a winning time of 6h15m, whereas it is only 140k and 3h47min for the women.
- Men's and women's races usually have a different number of participants. For example, the Time Trial World Championship in 2014 had 63 men's participants and only 47 female participants.

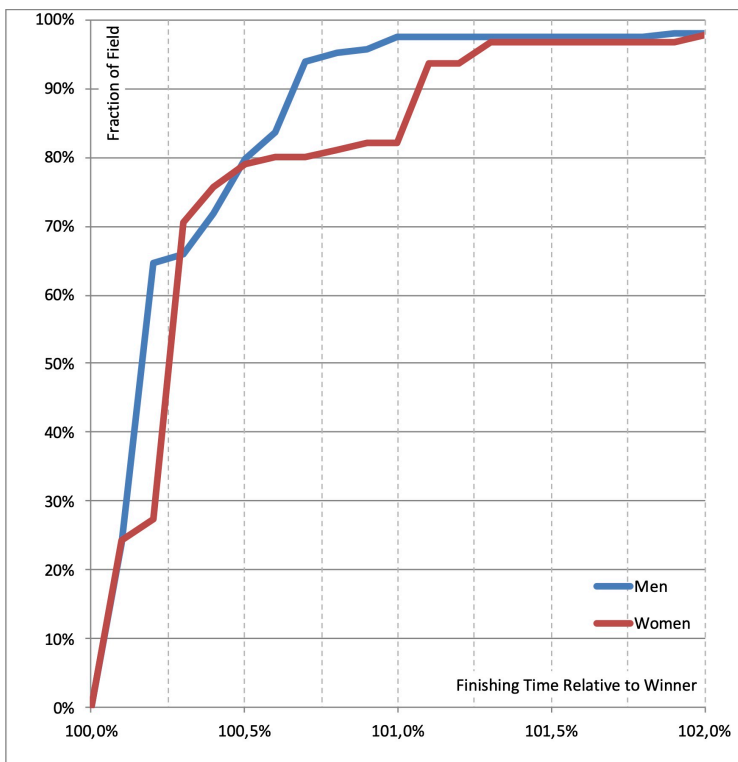
In order to deal with these issues and still be able to show data from men and women in one graph, we are using relative differences and field sizes. On the x-axis (the horizontal axis) the finishing time relative to the winner is shown. For example, 105% refers to the time that is 5% behind the winner's time. (If the winner took 4 hours = 240 minutes to finish the race, 105% is 4h12min, 12 minutes after the

winner.) On the vertical y-axis, the fraction of the field is displayed. 50% means half of the field.

## TOUR DE FRANCE

The last stage of the Tour de France traditionally ends with a number of laps on the Champs-Élysées culminating in the final sprint of the Tour. In 2014, "La Course by Le Tour de France" was a one-day women's event also taking place on the Champs-Élysées.

- Men's race: July 27th, 137.5km, 164 finishers
- Men's winner: Marcel Kittel in 3h20m, average speed 41.08 km/h or 25.53 mph
- Women's race: July 27th, 89km, 95 finishers
- Women's winner: Marianne Vos in 2h00, average speed 44.25 km/h or 27.49 mph



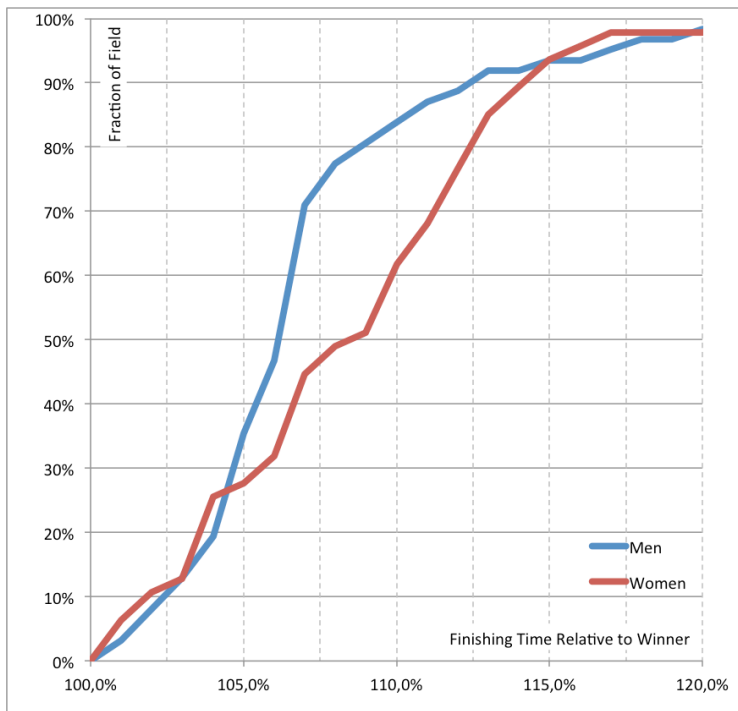
Here are a few notable features of the graph:

- The men's first group consisted of 106 finishers (about 65% of the field) within 25 seconds of the winner.
- The majority of the women's field (67 finishers or 70% of the field) finished within 20 seconds, they were split into two sub-groups.
- After the majority of the field there are only minor differences.

## TIME TRIAL WORLD CHAMPIONSHIPS 2014

Another good data set for comparing can be found at the Time Trial World Championships:

- Men's race: September 24th, 47.1km, 63 finishers
- Men's winner: Bradley Wiggins in 23m18sec, average speed 50.08 km/h or 31.12 mph
- Women's race: September 23rd, 29.5km, 47 finishers
- Women's winner: Lisa Brennauer in 38m48sec, average speed 45.62 km/h or 28.34 mph



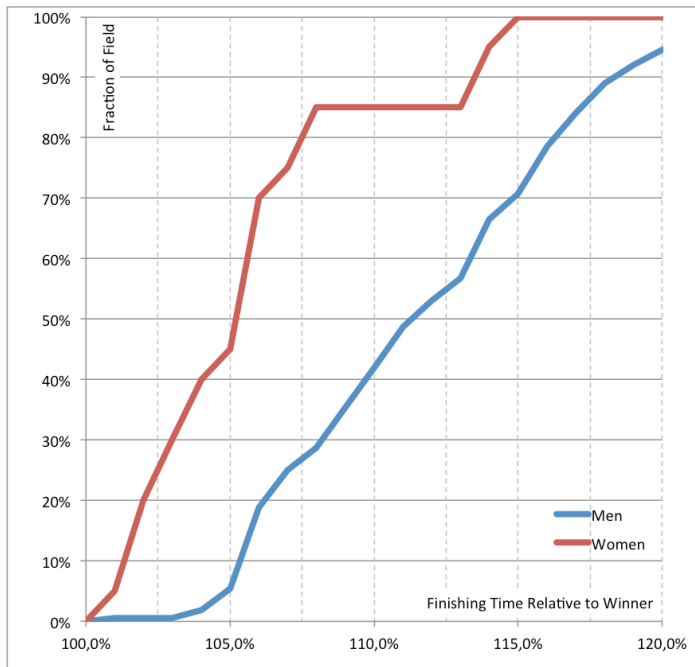
This is another graph with a very comparable men's and women's line:

- In the first part up to about 25% of the field, the women's graph is slightly to the upper left of the men's field, indicating that the women were a little bit closer together than the men in that part of the field.
- After that the men's field is a bit deeper, about 75% of the men's field finish within 7.5% of the winner while that fraction is slightly less than 50% for the women.

## TOUR OF CALIFORNIA 2014 TIME TRIAL

The first two days of the 2014 Tour of California which is an 8-day event for the men also included similar stages for the women. It is especially interesting to compare the time trial on the second day which was on the same course for the men and women.

- Men's race: May 12th, 20.1km, 164 finishers
- Men's winner: Bradley Wiggins in 23m18sec, average speed 51.75 km/h or 32.16 mph
- Women's race: May 12th, 20.1km, 20 invited finishers
- Women's winner: Alison Powers in 27m21sec, average speed 44.1 km/h or 27.4 mph



This graph is very interesting:

- The women's graph is always to the upper left of the men's graph indicating that the women's field was closer than the men's field.
- The men's graph indicated a very dominating performance by the winner, Bradley Wiggins. Only 9 men (4%) of the men's field finished with 5% of Bradley's time. On the women's side, 45% of the field (also 9 athletes but in a field about 1/8 of the size) finished less than 5% after Alison.

To sum up, you can't really identify a noticeable difference between the men's and women's races.

–Thorsten Radde, [TriRating.com](http://TriRating.com)