Safety and Education Vol. 44/23 Cycling Speed

What Is the Average Cycling Speed?

SEE HOW YOU MEASURE UP TO THE AVERAGE PACES—PLUS HOW TO FIND THE SPEED THAT WORKS FOR YOU AND YOUR TRAINING.

By Laura Williams Bustos, M.S. / Published Feb 27, 2023 / Bicycling.com

Introduction

In a competitive world where comparison and one-upmanship are as commonplace as the setting sun, it's only natural to wonder how your <u>performance</u> stacks up to other cyclists.

Considering <u>competitive cyclists</u> win their races by tearing through the miles faster than their rivals, speed is an area where you might want to gauge your own performance. Or at least, you may want to know whether your standard <u>pace</u> is aligned with other people's average cycling speeds.

To give you the info you need, we gathered stats on average cycling speeds from Strava. Plus, we chatted with experts to find out how you can find your own fast.



The Average Cycling Speed in the U.S.

Strava, the app that makes it easy to track your cycling (and other) activity to store, share, and celebrate your progress with <u>friends</u>, has an abundance of information from users across the country and around the world. They specifically pulled data on average cycling speeds and distances for users in the United States, breaking it down farther by leisure rides versus <u>commutes</u>, as well as pavement rides versus dirt rides, to help provide a little context for the data.

Keep in mind, this doesn't provide information on the <u>type of bike</u> used or the terrain (for example, flat versus hills), which of course would further affect speeds.

In a nutshell, the average cycling speed for leisure rides performed on pavement (in miles per hour) is 14.2 mph, with an average distance of 11.5 miles. Leisure rides on dirt saw an average speed of 8.2 mph, with an average distance of 10.3 miles.

While it's impossible to know for sure, it's easy to guess that the leisure rides performed on dirt involve rougher <u>trails</u> and terrain than those performed on pavement, which likely contributes to the lower average cycling speeds and distances.

<u>Commutes</u>, on the other hand, tended to be shorter, with slightly slower speeds when performed on pavement, but slightly faster speeds on dirt, when compared to the leisure ride counterparts. Specifically, commutes on pavement saw an average cycling speed of 12.1 mph (slower than the leisure ride on pavement), with an average distance of 5 miles, and commutes on dirt saw an average cycling speed of 9.4 mph (faster than the leisure ride on dirt), with an average distance of 5.6 miles.

When you think of the pavement and dirt conditions that might be encountered during a commute, these discrepancies make sense. For example, a <u>commute</u> on pavement is likely to be impacted by <u>traffic</u> and stop lights or other commuters, which is likely to slow a person

down. Likewise, the type of dirt track that might be used for a commute is more likely to be an urban bike trail that's well-kept and reasonably flat, making it easier to go faster than on a longer trail ride done for leisure purposes, where the terrain and trail may be trickier.

Average cycling speeds provided by Strava:

• Pavement Ride, Leisure, Median Speed: 14.2 mph

• Dirt Ride, Leisure, Median Speed: 8.2 mph

Pavement Ride, Commute, Median Speed: 12.1 mph

• Dirt Ride, Commute, Median Speed: 9.4 mph

Average cycling distances provided by Strava:

• Pavement Ride, Leisure, Median Distance: 11.5 miles

• Dirt Ride, Leisure, Median Distance: 10.3 miles

• Pavement Ride, Commute, Median Distance: 5.0 miles

• Dirt Ride, Commute, Median Distance: 5.6 miles

What Average Cycling Speeds Don't Tell You

Of course, these average cycling speed stats are heavily influenced by a wide variety of factors, including terrain, the type of bike being used, and the intent of the ride (like leisure versus training versus racing). Even the location—like a city commute where you're subject to traffic, pedestrians, and stop lights will impact your speed more than a ride taking place on a bike trail or a quiet country road. And of course, the distance of the ride can't be overlooked. Someone training for a short race or event is likely to speed through the miles more quickly than someone training for a longer event.

"There are a number of factors that contribute to cycling speed," says <u>Simone Provenzano</u>, avid cyclist and an assistant professor and director of the master of science in exercise physiology program at the University of Mary Hardin-Baylor. "Time-trial or <u>triathlon bikes</u> are more <u>aerodynamic</u> than <u>road bikes</u>, which are more aerodynamic than <u>gravel</u>, cyclocross, or mountain bikes."

"On a flat surface, with all other factors the same, time trial bikes will be faster than others," Provenzano adds. "Plus, <u>tires</u> impact cycling speed—the more grip a tire has, the more it will slow you down. Therefore, smoother tires will be faster. Road surface, bearings, mechanical intricacies—they can all make a difference. Then there is general terrain and environmental factors. Is it windy? Are you going up hill? These will make you slower, while going <u>downhill</u> or riding with the wind will make you faster."

It's not just the bike and the environment that contribute. "Cycling speed depends on <u>power</u> and <u>cadence</u>. The more power and cadence I use, the faster I go. Therefore, cycling

speed is highly dependent on an individual's cardiovascular and <u>muscular fitness</u>," Provenzano says.

Your fitness also depends on where and how you train. If someone regularly goes on <u>long</u> <u>rides</u> on flat terrain, they may have developed a good baseline fitness for those conditions, but if they switch things up and hit some hills with <u>steep inclines</u>? Their muscular fitness is unlikely to be prepared for the challenge, and the power just won't be there. As a result, their typical speed will suffer.

All of these factors combined help explain why Provenzano says when it comes to coaching, "It's simply impossible to prescribe a general cycling speed to anyone."

While you might want to be conscientious of average cycling speeds for different circumstances, it's important not to get too caught up in the comparison game. Instead, mentally file away the data as information, and spend more time finding the right speed for you, understanding that it's likely to vary from ride to ride depending on the aforementioned circumstances.

That said, with training and time, you can work toward gradually <u>increasing your own</u> <u>speeds</u> (comparing your personal changes and improvements), as one of several indicators that can help prove all your time on the bike is paying off in improved fitness and health.

Finding the Right Cycling Speed for You

With a few average cycling speeds filed away in your brain for reference, what really matters is your own <u>training</u> and improvement over time. That means finding a <u>workout intensity</u> that's going to help you meet your long-term goals, rather than focusing on a specific training speed. "Prescribing intensity by <u>heart rate</u> or <u>power</u> is a better way to help the general population. <u>Heart rate monitors</u> are cheap and available in many formats (like watches, chest straps, or forearm straps). Power meters, on the other hand, can be quite expensive," Provenzano says.

She suggests using a <u>CTS Field Test for heart rate or power</u> to help you determine the appropriate cycling intensities you should shoot for during training. (You could also opt for an <u>FTP test</u> if you'd prefer, as it provides a similar range for training intensities.)

The CTS test involves two, eight-minute testing bouts with appropriate time allowed for a 13-minute pretest <u>warmup</u> and a roughly 10-minute between-test recovery period. All-in-all, the test should take about 40 to50 minutes and can be counted as your <u>cycling workout</u> for the day.

Based on your test results, you can then use percentage ranges of power or heart rate (whichever you tracked during your test) to gauge the appropriate intensity levels to shoot for

when performing a variety of different workout types, like <u>endurance</u> miles, <u>tempo</u>, or power intervals.

"Most time should be spent in the 'endurance' zone. All other intensities should only make up about 20 percent of cycling time in a variety of <u>intervals</u>. The harder the intensity, the less time is spent at that intensity," Provenzano explains.

How to Build Your Workout Plan to Improve Cycling Speed

Cycling speed demons aren't built in a day, so it's important to put a reasonable plan in place to develop your cardiovascular and <u>muscular endurance</u> over time, which will eventually help improve your speed.

"Beginner cyclists should take it slow and give themselves time to adjust to the cycling environment. Start with shorter distances and gradually increase your range by about 10 percent per week. Monitor your progress as you go and take <u>rest days</u> when needed so you don't become fatigued over time," says Caroline Grainger, ISSA-certified personal trainer at FitnessTrainer.

Provenzano also suggests making time for <u>group rides</u> on the weekend. Not only do these rides allow you to train in a more social environment, but group rides offer training opportunities you might not seek out on your own. "These rides are usually mixed with a lot of endurance miles, but also some power surges and <u>uphill terrain</u>," she says.

Other than your longer, weekend group rides, Provenzano suggests making time for two to three <u>interval rides</u> during the week to help improve muscular fitness and power. After having completed your CTS or <u>FTP test</u>, you can use the suggested heart rate or power guidelines to help guide your intensity level. These shorter rides may last up to about an hour, making them easier to fit in during a busy week.

Provenzano offers the following sample ride to follow:

- 5 minute easy spin (recovery zone)
- 1 minute fast pedal (threshold zone; cadence around 100 rpm)
- 1 minute easy spin (recovery zone)
- 2 minutes fast pedal (threshold zone)
- 1 minute steady state (endurance zone; 80-95 rpm)
- 2 minutes easy spin (recovery zone)
- 3x10 minutes steady state (endurance zone) with 5 minutes easy spinning (recovery zone) in between
- Cool down with easy spinning (recovery zone)

As you start following a <u>structured cycling plan</u> using power or <u>heart rate</u> to keep your intensity where you want it, you can also keep track of your average speeds and how they change over time.

This is especially helpful when using an app, like Strava, to track your courses, which allows you to compare apples to apples (rather than trying to compare a 10-mile course on flat pavement to a 10-mile course on hilly trails, for instance). That way, if you know you completed a particular course at a particular speed a month ago while training at a "tempo" intensity, and you complete the same course <u>faster</u> the next time you do it, you'll know your efforts are paying off.

paying off.
So, how do you feel about all of that? You're probably faster than you think, compared to mos Americans. I hope that motivates you!
See you next week.
Until then, make every ride epic.
Darryl