Mobile speeds in the 10 biggest cities in the US: which was the fastest (and slowest)?

Ranking the 10 biggest cities in America in 1H 2020, plus a look at the fastest markets in the country



RootMetrics® By IHS Markit



What do speeds mean in real-world terms?

Time to download a 600MB video (min)



Why do fast speeds matter in big cities?

Major US cities drive business growth and innovation, and fast speeds are becoming a critical part of any big city's infrastructure. Fast mobile connectivity also helps create more tourist-friendly mobile experiences, supports convention activities, and improves the end-user experience for residents and visitors alike, whether for working, streaming movies, or playing cloud-based video games.

Now more than ever, fast data speeds are necessary ingredients for all facets of the end-user's connected experience, and as the 5G era in the US continues to expand, expectations for even faster speeds will continue to grow. While speeds are generally strong in major markets across the country, you might be surprised by the results from our most recent testing of the ten most populated cities in the US. As the saying goes, "bigger isn't always better" (or faster, as it were), and that's exactly what our results showed.

The first half of 2020 marks the first test period in which we're including 5G in our results. Therefore, the speeds in this report reflect speeds recorded across all network technologies, including 4G LTE and 5G, where available.

This report shows how the ten largest metropolitan markets in the country compared in terms of speed, and to put those speeds in context, we've also taken a look at three of the fastest cities in America. Read on to see how the biggest cities in the country stacked up in the first half of 2020.

How we calculated each market's speed

To determine which metropolitan markets across the US were home to the fastest (and slowest speeds), we aggregated the median download speeds recorded on the networks of AT&T, Sprint, T-Mobile, and Verizon in each of the 125 most populated metropolitan markets in the country and ranked them from fastest to slowest.

ops	4	10 Mbps	50 M	ops
loa	d speed			

Market	Population	Population rank	Aggregate median download speed (Mbps)	Speed rank (out of 125 total markets)
New York City and Tri-State Area, NY	18,351,295	1	45.8	12
Los Angeles, CA	12,150,996	2	30.2	83
Chicago, IL	8,608,208	3	34.1	61
Miami, FL	5,502,379	4	31.8	73
Philadelphia, PA	5,441,567	5	50.1	2
Dallas, TX	5,121,892	6	29.1	90
Houston, TX	4,944,332	7	31.3	77
Washington, D.C.	4,586,770	8	46.2	11
Atlanta, GA	4,515,419	9	34.9	54
Boston, MA	4,181,019	10	40.5	29

Note: aggregate median download speeds factor in speeds from each carrier in a city and reflect speeds recorded on all network technologies (4G LTE and 5G, where available).

New York City, the biggest city in the country was home to standout speeds:

New York City and the Tri-State Area's aggregate median download speed of 45.8 Mbps was faster than all but 11 of the 125 most populated markets in the US. Verizon led the way in the Big Apple with a great median download speed of 64.1 Mbps. In general, end users in NYC should find fast speeds, with each carrier clocking median download speeds of at least 32.0 Mbps. We recorded 5G median download speeds for AT&T and T-Mobile in NYC that were much faster than those on 4G LTE.

New York City Population rank 1 Speed rank 12

Los Angeles, where bigger doesn't necessarily mean faster, but Verizon's 5G was FAST:

LA's aggregate median download speed of 30.2 Mbps ranked 83rd out of 125 cities tested across the US. Verizon delivered the fastest median download speed in LA at 37.6 Mbps, while T-Mobile had the slowest speed in the city at a decent but not great 16.6 Mbps. The news was good for 5G, with LA being one of only two cities in which all four carriers offered 5G at the time of our testing, and each network's median download speed on 5G was faster than that on 4G LTE. The 5G standout, though, was Verizon, whose remarkable median download speed of 254.7 Mbps was the single fastest 5G median download speed we recorded by any carrier across the country in 1H 2020.

Chicago, a middle-of-the-road speed rank but home to some impressive speeds:

Chicago's aggregate median download speed of 34.1 Mbps and speed ranking of 61st placed Chicago among the top half of the 125 markets we tested. Despite Chicago's middle-of-the-pack speed ranking, AT&T, Sprint, and Verizon registered impressive median download speeds of roughly 40.0 Mbps each. AT&T, T-Mobile, and Verizon offered 5G at the time of our testing, and Verizon was the clear standout, clocking a blistering 5G median download speed of 138.1 Mbps.

Miami, faster than Houston, LA, and Dallas, but shows room for improvement:

Miami's aggregate median download speed of 31.8 Mbps ranked 73rd among the 125 metros we tested, though both AT&T and Verizon offered impressive speeds. AT&T delivered the fastest speed in the city at a healthy 45.5 Mbps, and Verizon delivered a strong median download speed of 36.0 Mbps. AT&T and T-Mobile were the only carriers with 5G in the city, though AT&T's speed on 5G (17.9 Mbps) was actually much slower than its speed on 4G LTE.

Los Angeles

Population rank 2 Speed rank 83

Chicago

Population rank 3 Speed rank 61

Miami

Population rank 4 Speed rank 73

Philadelphia, a city that's big, fast, and home to impressive 5G speeds:

Speeds in Philly were among the fastest in the US, with the market's outstanding aggregate median download speed of 50.1 Mbps ranking 2nd in the country, trailing only Baltimore. Median download speeds in the City of Brotherly Love ranged from T-Mobile's strong 28.1 Mbps to AT&T's exceptional 79.5 Mbps. What's more, all four carriers offered 5G, and the results were extremely impressive. Verizon delivered an obscenely fast median download speed of 239.6 Mbps on 5G, while AT&T clocked a fantastic 5G median download speed of 100.7 Mbps.

Dallas, home to a low speed rank that doesn't tell the whole story:

While Dallas ranked 90th out of 125 for speed and its aggregate median download speed of 29.1 Mbps left something to be desired, that doesn't tell the whole story. Indeed, three carriers in the city registered good median download speeds, ranging from AT&T's solid 28.9 Mbps to Verizon's strong 43.8 Mbps. One reason for the city's generally low ranking was T-Mobile, which delivered a pedestrian median download speed of 9.7 Mbps. We recorded 5G median download speeds for AT&T and T-Mobile in Dallas, and both carriers' speeds on 5G were faster than those on 4G LTE.

Houston, where the city's speed ranking doesn't paint a complete picture:

Houston's aggregate median download speed of 31.3 Mbps and speed ranking of 77th were subpar, but multiple carriers' speeds in the market were anything but. AT&T stood out with an impressive median download speed of 50.7 Mbps, while Sprint and Verizon each offered solid speeds of about 32 Mbps. We recorded 5G median download speeds on the networks of AT&T and T-Mobile in Houston, but neither carriers' speed on 5G was noteworthy or significantly different from that on 4G LTE.

Note that while we did record 5G results for Verizon in Atlanta, Boston, Dallas, Houston, New York City, and Washington, D.C., we did not collect enough 5G test samples to accurately characterize the carrier's 5G median download speed in any of those cities.

Philadelphia

Population rank 5 Speed rank 2

Dallas Population rank 6 Speed rank 90

Houston Population rank 7 Speed rank 77

Washington, D.C., was big, fast, and even faster than NYC:

The nation's capital was home to an excellent aggregate median download speed of 46.2 Mbps, ranking 11th out of the 125 markets we tested. Carrier speeds in DC were fast across the board. AT&T clocked easily the fastest median download speed in the city at a fantastic 73.5 Mbps, while Sprint and Verizon both registered strong speeds of at least 41.7 Mbps. We recorded 5G median download speeds for AT&T and T-Mobile in DC, and AT&T was especially fast, clocking a blazingfast 5G median download speed of 96.2 Mbps.

Atlanta, home of steadily strong speeds and a decent speed rank:

Atlanta's aggregate median download speed of 34.9 Mbps ranked 54th, but speeds in the city were consistently strong—but not spectacular across the board. Verizon led the pack with a robust median download speed of 48.1 Mbps, while the "slowest" speed in Atlanta was T-Mobile's solid 26.4 Mbps. Meanwhile, the 5G median download speeds we recorded for AT&T (43.0 Mbps) and T-Mobile (40.1 Mbps) in the city were both faster than their speeds on 4G LTE, and 5G should get even faster over time.

Boston impresses, with strong speeds across the board and a speed ranking in the top 25%:

Boston's aggregate median download speed of 40.5 Mbps is good news for residents and visitors alike, all of whom should find fast speeds on any carrier's network. AT&T clocked the fastest median download speed in Beantown at 44.4 Mbps, but T-Mobile and Verizon weren't far behind, recording speeds of 41.8 Mbps and 39.4 Mbps, respectively. We recorded 5G median downloads speeds for AT&T (50.1 Mbps) and T-Mobile (42.9 Mbps) in Boston, and while both carriers' speeds on 5G were good, they were relatively similar to those on 4G LTE.

Keep in mind that even though a market may have a low speed ranking, it doesn't necessarily mean that every carrier's speed in that market was poor. Because our aggregate median download speeds consider speed results across all carriers in a market, fast speeds from one carrier can be canceled out by lagging speeds from other carriers. For details on performance within individual markets, see our <u>Metro Area RootScore Reports</u> for the top 125 metros across the US.

Washington, D.C.

Population rank 8 Speed rank 11

Atlanta

Population rank 9 Speed rank 54

Boston

Population rank 10 Speed rank 29

Speeds in perspective: a look at the three fastest cities in the US compared to the three biggest (but not necessarily fastest) markets.

We've seen how the nation's biggest cities fared in terms of speed, but how do the largest metros in the US compare to the fastest? To add context to the aggregate speeds of the nation's ten largest markets, the table below shows the speeds of the three fastest cities in the country in the first half of 2020, alongside the three most populated cities in the country.

The difference between the aggregate median download speed of the single fastest city in the US—Baltimore's 50.4 Mbps—and those of many of the biggest cities was quite stark, with heavily populated markets like LA and Chicago both registering aggregate median download speeds below 35.0 Mbps. The nation's largest city, NYC, did fare well with its speed ranking of 12 falling within the top 10% of all markets, but it's clear that not all markets are created equal when it comes to speed.

Top-3 fastest cities

Market	Population	Population rank	Aggregate median download speed (Mbps)	Speed rank (out of 125 total markets)
Baltimore, MD	2,203,663	19	50.4	1
Philadelphia, PA	5,441,567	5	50.1	2
Cincinnati, OH	1,624,827	29	49.2	3

Top-3 biggest cities

Market	Population	Population rank	Aggregate median download speed (Mbps)	Speed rank (out of 125 total markets)
New York City and Tri-State Area, NY	18,351,295	1	45.8	12
Los Angeles, CA	12,150,996	2	30.2	83
Chicago, IL	8,608,208	3	34.1	61



How did your city fare?

The table below shows our aggregate speed rankings for the 15 fastest cities tested in the first half of 2020, ordered from fastest to slowest. For a look at our complete rankings of all 125 cities tested in 1H 2020, click the <u>link</u> below the table.

Market	Population	Population rank	Aggregate median download speed (Mbps)	Speed rank (out of 125 total markets)
Baltimore, MD	2,203,663	19	50.4	1
Philadelphia, PA	5,441,567	5	50.1	2
Cincinnati, OH	1,624,827	29	49.2	3
Dayton, OH	724,091	58	48.8	4
Fayetteville, NC	310,282	121	48.8	5
Minneapolis, MN	2,650,890	16	48.4	6
Cleveland, OH	1,780,673	24	47.9	7
Seattle, WA	3,059,393	14	47.4	8
Harrisburg, PA	444,474	85	47.1	9
Phoenix, AZ	3,629,114	12	46.5	10
Washington, D.C.	4,586,770	8	46.2	11
New York City and Tri-State Area, NY	18,351,295	1	45.8	12
Akron, OH	569,499	70	45.4	13
Portland, OR	1,849,898	23	44.9	14
Lansing, MI	313,532	117	44.7	15

Click here to see the complete rankings for all 125 tested in 1H 2020.



A note about 1H 2020 test results in this report:

In response to the COVID-19 pandemic, RootMetrics temporarily suspended scouting operations starting in March 2020 to ensure the safety of our employees and our communities.

In early June, we resumed testing using a modified scouting approach that included extensive safety measures and strict adherence to local and national COVID-19 guidelines and best practices. To accommodate safety restrictions while still following RootMetrics scientific testing methodologies under the extraordinary circumstances brought about by the COVID-19 pandemic, we suspended indoor test collection when testing restarted in June.

To ensure that the speeds in this report aren't skewed due to some markets including indoor results while other cities did not, we removed indoor results from all markets tested in early 2020 to assure that all speed results can be compared fairly and viewed on a level playing field.

For more information, contact us info@rootmetrics.com

