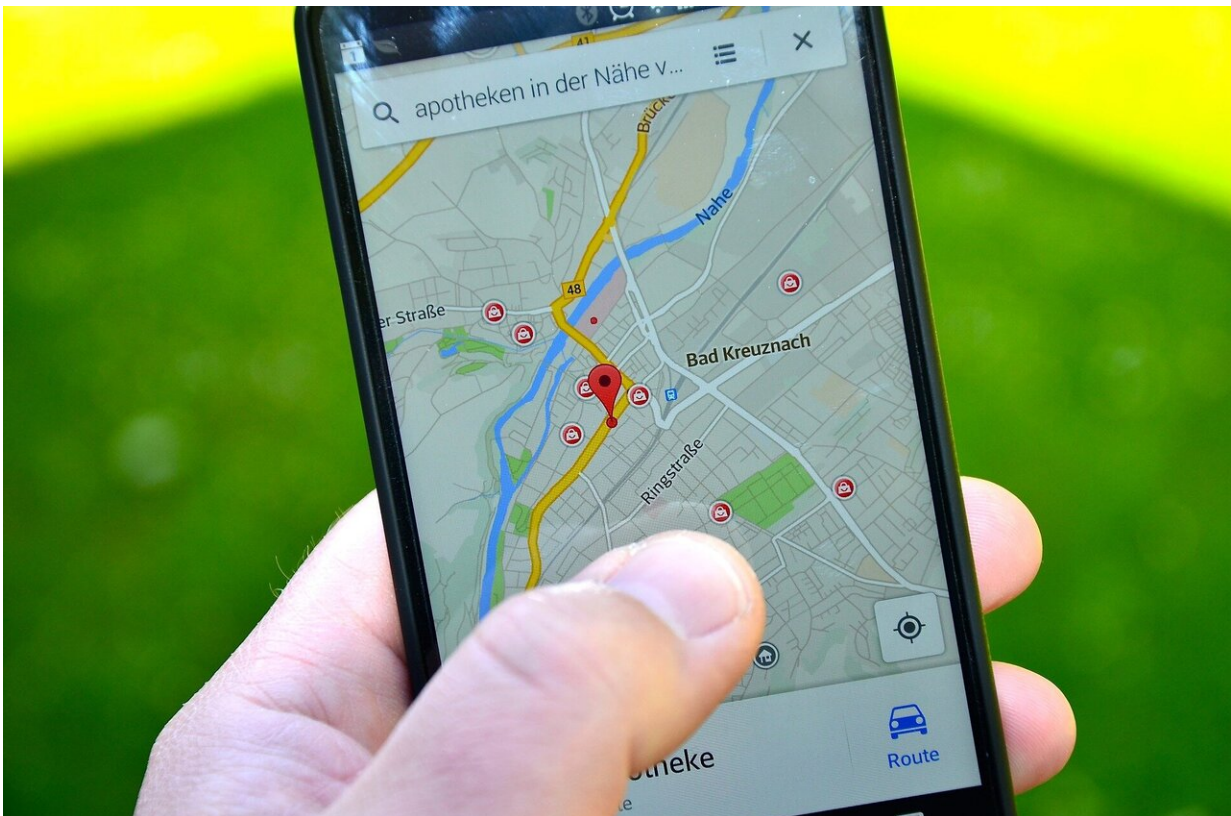


# How well are we social distancing? Smartphone location data can rank the states

March 27 2020, by N'dea Yancey-Bragg and Dalvin Brown

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Credit: CC0 Public Domain

Health officials have begged Americans to practice social distancing and many states and cities have issued stay-at-home or shelter-in-place orders to slow the spread of coronavirus. But not everyone is listening.

Now, a tech [company](#) is using smartphone data to see where people are taking these instructions seriously.

Unacast, a Norwegian company which collects and analyzes location data from various sources, released a study ranking all 50 states and the District of Columbia on a Social Distancing Scoreboard. The company tracked the change in average distance traveled using smartphone data and scored each county by how much residents had reduced their travel.

Overall, the study found that since Feb. 28, Americans have reduced their mobility by nearly 40%. Washington, D.C. topped the list, reducing its average mobility by 60% followed by Alaska, Nevada, New Jersey and Rhode Island, which all earned an A.

Meanwhile, Wyoming—the only state to receive an F—ranked 51st, with virtually no change in average mobility. Rounding out the bottom five states were Oregon, New Mexico, Idaho and Montana.

"We see that many states and counties have had a significant drop in mobility and distance traveled over the last week," said Thomas Walle, CEO of Unacast. "We are facing very uncertain times and what's important in uncertain times is to have access to some data to make the best decisions possible."

The company initially considered using other metrics for their dashboard, but found that distance traveled correlated well with the number of confirmed cases and captures how people adapt their everyday behavior by working from home, avoiding non-essential trips and canceling vacations.

The company said in a blog post that it plans to update the social distancing scores as it gets more data to show changes in the number of encounters for a given area, a change in the number of locations visited,

and adjusts its home assignment algorithms.

Walle said the company has gotten a lot of feedback from users including hospital workers who thanked them for bringing awareness to the need for [social distancing](#).

"We launched this tool 24 hours ago, there's been more than half a million people on the site and it's climbing," said Walle. "So there's clearly like a huge interest in understanding how the local community is doing."

The dashboard does not identify any individual person, device or household, but rather extrapolates population level data using "tens of millions of anonymous mobile phones and their interactions with each other each day," according to Unacast.

Big tech companies often require users to "opt-in" to location tracking to launch the service. Then, they follow your every move, even when you don't have the apps open.

The government and [health authorities](#) could use that intel in their fight against coronavirus as infection cases continue to ramp up, experts say.

"If you have all the location data from a phone, you can see whether people are following the suggested shelter in place," said Alex Hamerstone, a privacy and security risk manager at TrustedSec. "If the government says everybody should stay home, but based on [location data](#), half the phones are moving all around town, the suggestions could then become mandates."

Health officials hope that tracking data nationwide will allow for predictions on the likelihood of outbreaks in a given area, enabling officials to deploy aid to those areas.

"This can help public health agencies predict where most resources will be needed for hospitals in the coming weeks and prepare," said Randy Pargman, senior director at Binary Defense and a former FBI agent.

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