

Kazakhstan April 17, 2020

Mobility changes

Google prepared this report to help you and public health officials understand responses to social distancing guidance related to COVID-19. This report shouldn't be used for medical diagnostic, prognostic, or treatment purposes. It also isn't intended to be used for guidance on personal travel plans.

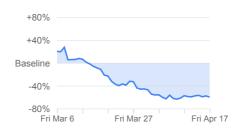
Location accuracy and the understanding of categorized places varies from region to region, so we don't recommend using this data to compare changes between countries, or between regions with different characteristics (e.g. rural versus urban areas).

To learn how we calculate these trends and preserve privacy, read About this data.

Retail & recreation

-59%

compared to baseline

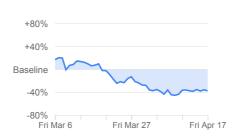


Mobility trends for places like restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters.

Grocery & pharmacy

-37%

compared to baseline

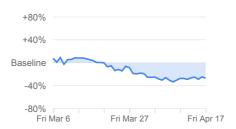


Mobility trends for places like grocery markets, food warehouses, farmers markets, specialty food shops, drug stores, and pharmacies.

Parks

-27%

compared to baseline

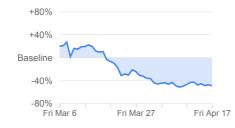


Mobility trends for places like national parks, public beaches, marinas, dog parks, plazas, and public gardens.

Transit stations

-50%

compared to baseline

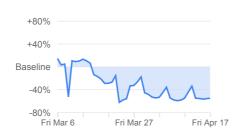


Mobility trends for places like public transport hubs such as subway, bus, and train stations.

Workplaces

-55%

compared to baseline

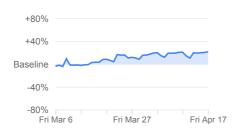


 $\label{eq:mobility trends for places of work.}$

Residential

+22%

compared to baseline



Mobility trends for places of residence.

About this data

These reports show how visits and length of stay at different places change compared to a baseline. We calculate these changes using the same kind of aggregated and anonymized data used to show popular times for places in Google Maps.

Changes for each day are compared to a baseline value for that day of the week:

- The baseline is the *median* value, for the corresponding day of the week, during the 5-week period Jan 3-Feb 6, 2020.
- The reports show trends over several weeks with the most recent data representing approximately 2-3 days ago—this is how long it takes to produce the reports.

What data is included in the calculation depends on user settings, connectivity, and whether it meets our privacy threshold. If the privacy threshold isn't met (when somewhere isn't busy enough to ensure anonymity) we don't show a change for the day.

We include categories that are useful to social distancing efforts as well as access to essential services.

We calculate these insights based on data from users who have opted-in to Location History for their Google Account, so the data represents a sample of our users. As with all samples, this may or may not represent the exact behavior of a wider population.

Preserving privacy

These reports were developed to be helpful while adhering to our stringent privacy protocols and protecting people's privacy. No personally identifiable information, like an individual's location, contacts or movement, is made available at any point.

Insights in these reports are created with aggregated, anonymized sets of data from users who have turned on the Location History setting, which is off by default. People who have Location History turned on can choose to turn it off at any time from their Google Account and can always delete Location History data directly from their Timeline.

These reports are powered by the same world-class anonymization technology that we use in our products every day and that keep your activity data private and secure. These reports use differential privacy, which adds artificial noise to our datasets enabling high quality results without identifying any individual person. These privacy-preserving protections also ensure that the absolute number of visits isn't shared.

To get the latest report, visit google.com/covid19/mobility