# Executive summary

As the largest mobility platform in the world, Uber has a responsibility to more aggressively tackle the challenge of climate change. We estimate that emissions resulting from the use of our products are the most material part of Uber's carbon footprint. Improving our climate performance requires greater transparency and accountability, and that's why we developed our first impact report based on the real-world use of our products. Learn more in the *About this report* section.
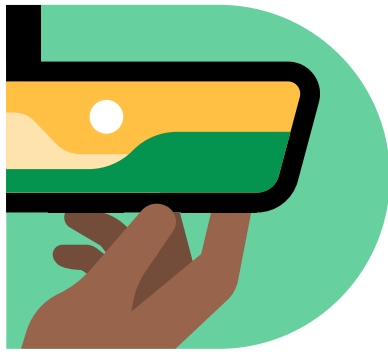
About this report

Covering nearly 4 billion rides across the US and Canada from 2017 through 2019, this report summarizes a vast amount of anonymous trip data, gathered every 4 seconds. We have made this initial data analysis public to set a baseline against which we can measure progress on delivering real, actionable solutions. Based on our current performance baseline, Uber has set ambitious improvement targets, which will in turn inform our product road map.

Decarbonizing transportation

The current state of transportation is unsustainable. As examined further in the *Decarbonizing transportation* section, transportation emissions have grown faster than any other end-use sector over the last 3 decades. Carbon emissions from the transportation sector account for nearly one-quarter of the global total. The future economic growth of cities depends on a rapid transition to more sustainable modes of transportation.

Metrics

Our journey to understanding our carbon impact began over 2 years ago. Since then, we have worked with Fehr & Peers and the World Resources Institute (WRI) to review, evaluate, and test the methodologies of the key impact metrics used for this report:

- Travel efficiency, which evaluates how well we help people move while minimizing private car use
- Carbon intensity, which measures the emissions resulting from every passenger mile, an industry best-practice metric recently adopted by one of the world's leading air-quality regulatory agencies, the California Air Resources Board (CARB)

> The future economic growth of cities depends on a rapid transition to more sustainable modes of transportation.

The *Metrics* and *FAQ* sections detail the definitions, assumptions, data sources, and methods we used for calculating all of our metrics.

We hope the data shared in this report contributes to and acts as a catalyst for ongoing development of sustainable transportation solutions.

A note on COVID-19

We collected all of the data and completed most of the analyses used in this report months before the COVID-19 pandemic began. Consequently, the results shown in the report reflect a pre-pandemic reality. Consumer demand for rides on the Uber platform, shelter-in-place orders, and guidance from health officials have greatly impacted our platform and our ability to provide high-efficiency, on-demand mobility services. For instance, as of the release of this report, Uber Pool services remain offline in keeping with guidance from health officials. However, we're seeing rides come back in markets where health outcomes from COVID-19 are improving and cities have reopened safely. As such, we expect the analytic views and conclusions shared in this report to hold true as on-demand mobility markets return to a pre-pandemic state in the near to medium term.

COVID-19 and shelter-in-place orders have led to a temporary reduction in emissions globally. When two-thirds of the world's population was under lockdown in early April, carbon emissions fell 17% compared to last year. By June, however, the drop was only 5%—and experts expect emissions to continue rebounding throughout recovery. We see many challenges as consumers may turn heavily toward personal car use. We also see opportunity, as many people experience less-polluted skylines and less-congested roadways.

The present crisis has also laid bare the pernicious social inequities that continue to plague our communities. Not least of these is the disproportionate rate of COVID-19 cases suffered by underserved communities and people of color due, in part, to histories of lung disease resulting from disproportionate exposure to air pollution from the transportation sector. The current pandemic is clearly the most pressing crisis that demands a response from all corners of society. But climate change and the long-standing environmental consequences of transportation remain the ultimate long-term crisis that cannot be overlooked.

At this unique moment, we have an unparalleled opportunity to build back better and greener, and Uber is committed to doing our part.

Performance, case studies, and insights

Our analysis shows that there are some encouraging trends as well as areas where improvement is needed.

Efficiency of trips on Uber improved while ridership grew.
From 2017 to the end of 2019, average active monthly ridership increased more than 36%, while carbon intensity declined 6%. We estimate that over the 3-year period, this efficiency improvement resulted in nearly half a million metric tons of avoided CO_2 emissions and 56 million gallons of gasoline conserved.

Uber is more climate efficient than traditional taxis.
The carbon intensity of trips on Uber is as much as 44% lower than that of traditional taxis, according to an analysis we present in the *Case studies* section on the carbon intensity of various modes frequently traveled in Los Angeles. This is consistent with findings published by the National Bureau of Economic Research showing that Uber's technology achieves 40% better vehicle utilization than traditional taxis. According to a 2015 study, US taxi services spend about 60% of miles traveled without passengers.

Uber's performance is even more efficient in cities.
In 2019, the carbon intensity of rides in our top 10 metro markets was 5.4% lower than the Uber average. Rides facilitated in our 2 largest urban markets in California (Los Angeles and San Francisco) resulted in almost 25% lower carbon intensity than those across US and Canada.

Drivers on Uber use hybrid vehicles 5.5 times more than do average car owners.
This demonstrates how Uber's platform can help accelerate the adoption of clean vehicle technologies that deliver economic benefits to drivers. Additionally, in our *Case studies* section, we highlight how vehicles used by drivers on the Uber platform show 18% higher average fuel economy than the local private vehicle market average—even in California, where the local consumer vehicle market is significantly more efficient than other markets in the US.

Uber is beginning to compete with personal car ownership from an efficiency standpoint.
Our results show that the carbon intensity of on-demand trips taken with Uber is 15% lower than that of single-occupancy vehicles (SOVs). These results show how Uber's platform is beginning to compete on an efficiency basis with private car ownership. SOV car use accounts for nearly 40% of all miles traveled in the US.

Uber is less climate efficient than average-occupancy vehicles.
Carbon intensity for a ride on Uber remains 41% higher than that of an average-occupancy vehicle (AOV) ride. Average occupancy for personal vehicles in the US is 1.67 persons per trip, according to the latest government figures (US Department of Transportation, Federal Highway Administration, 2017 National Household Travel Survey, nhts.ornl.gov). This finding mirrors findings from the California Air Resources Board's recent study on the climate impacts of transportation network companies (TNCs) like Uber.

The barriers to electrification remain high.
Battery electric vehicle (battery EV) uptake across Uber's network remains similar to that of average American car owners, with battery EVs serving 0.15% of trip miles. These findings corroborate recent research showing that rideshare drivers today face high vehicle acquisition costs, inadequate charging infrastructure, and decreased earnings potential in battery EVs. In one of the case studies highlighted later in this report, we evaluate current progress and examine options to accelerate electrification on Uber's platform.

4B

**Trips in the US and Canada, 2017-2019
based on average active monthly riders**

+36.5%

**Average active
monthly riders**

-6.1%

**Carbon intensity based on 2019 rides
on Uber compared with 2017**

5.5x

**More hybrid use by drivers on the Uber platform,
compared with average US car owners**

Commitments

While Uber has made progress in recent years, these results show that we must do much better. We can accelerate our transition to zero-emission, on-demand mobility and help our users and the cities in which they live move more sustainably. Now is the moment to drive further progress by making some key changes. That's why we're pledging to achieve critical decarbonization and electrification goals:

> By 2025, we'll make more than $800 million in resources available to help hundreds of thousands of drivers on Uber's platform more affordably switch to battery EVs.
>
> By or before 2030, 100% of rides will take place in battery EVs in US, Canadian, and European cities, as well as in major global cities where we can work with stakeholders to implement policies that ensure a fair transition for drivers. Additionally, Uber commits to reaching net-zero climate emissions from corporate operations.
>
> By 2040, 100% of rides on the Uber platform globally will be emission-free, whether in zero-emission vehicles, on micromobility, or on public transit.

Enabling 100% zero-emission, on-demand mobility—which means passenger rides supplied 100% by vehicles without tailpipe emissions—will be very challenging, and we cannot do it alone. Uber will work with the World Resources Institute (WRI) and consult with Transport & Environment, Sierra Club, Grid Alternatives, and EVNoire to publish a road map to help cities work with us to reach this goal by or before 2030. We're also launching a portfolio of new partnerships with global automakers, EV charging providers, utilities, and rental and fleet solutions companies. For more information on our growing portfolio of decarbonization and electrification initiatives, go to our announcement launched in tandem with this report.

Decarbonizing our platform

Expanding opportunities for drivers to shift to battery EVs is just one of several key strategies to reduce emissions resulting from rides on the Uber platform and to scale more sustainable mobility options in cities everywhere. We've identified 5 strategies to reduce carbon intensity across all passenger trips taken using Uber:

1. **Expand convenient and affordable low-emission products for riders**
2. **Help drivers shift to greener and electric vehicles**
3. **Increase multimodal connectivity and grow car-free trips**
4. **Engage users and stakeholders with transparency on the impact of trips**
5. **Increase vehicle utilization to reduce empty vehicle miles (deadhead) and empty seats**

We will expand and promote electric and hybrid vehicle options for riders around the world, help drivers transition to EVs, build a multimodal network that promotes sustainable alternatives to personal cars, and continue to be transparent and accountable as we move forward. We are committed to outperforming average-occupancy personal car use on a carbon-intensity basis in just a few years' time. We outline a plan for deploying innovations across the 5 strategies outlined above in the *Commitments* section of this report.

To reach for best-in-class practices as we move forward in our environmental journey, we have joined the Science Based Targets initiative (SBTi), a collaboration between CDP, WRI, the World Wildlife Fund (WWF), and the United Nations Global Compact (UNGC). SBTi has become a leading driver in the transition to a low-carbon economy, and we are looking forward to living up to the rigor and accountability set forth by SBTi.

> **We are committed to partnering with others across the transportation value chain to reduce carbon intensity and increase travel efficiency of all trips.**

Additionally, we are looking to serve as a guidepost for transportation entities (transit agencies, governments, businesses, etc.) by adopting carbon intensity as a key metric for reporting and policymaking. We hope this report and commitment help further the momentum gathering with organizations such as the California Air Resources Board (CARB) and California Public Utilities Commission (CPUC), who have recently adopted carbon intensity as the centerpiece of their Clean Miles Standard.

Advocacy and partnerships

We are committed to partnering with others across the transportation value chain to reduce carbon intensity and increase travel efficiency of all trips. Policies that we support to help scale sustainable mobility include improving the quality and availability of local transit and micromobility infrastructure; road pricing that includes all vehicles; increasing drivers' affordable access to greener and electric vehicles; and expanding the availability of EV charging infrastructure and affordable charging needed by rideshare drivers. If we work collaboratively with public- and private-sector leaders, our technology platform can drive deeper decarbonization and higher levels of electrification and contribute to a sustainable transport system that builds back better with cities.