Case studies and insights

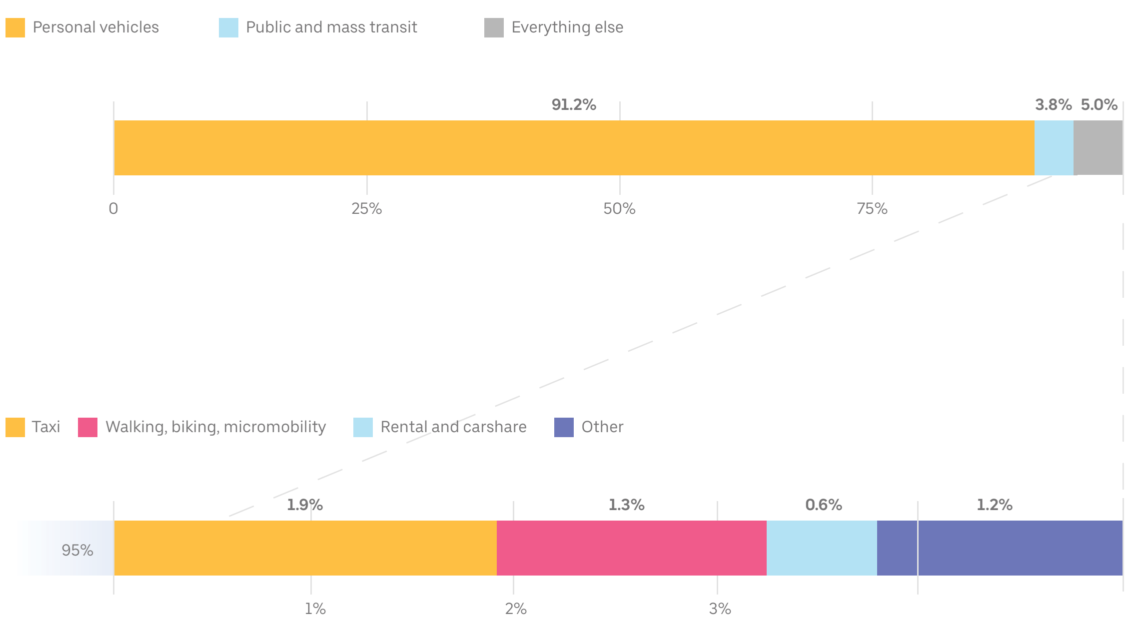
Case study 1:

Comparing carbon intensity across urban travel modes in Los Angeles

In most major cities, riders have many options for getting from A to B. Trips taken using Uber, and the emissions that result, tend to make up a tiny fraction of any individual's travel. To understand the carbon intensity performance from Uber rides within the bigger picture of urban travel, we worked with the World Resources Institute (WRI) to compare our data to that from other modes of transportation.

The team at WRI identified sufficient, publicly available data from Los Angeles, from 2018, for the majority of transportation modes (finding adequate, publicly available data with clearly stated assumptions to compute carbon intensity is a challenge in and of itself). Although personal car use comprises more than 90% of Angelenos' ground passenger miles, LA offers some of the best public transit in the US, with an innovative vanpool program for commuters and one of the highest-occupancy bus services in the country. The average annual mode split of ground travel in LA and the percentage of passenger miles traveled by mode are represented in the figure below.

Annual average of percentage of passenger miles traveled by mode in Los Angeles



The WRI team computed carbon intensity for each of the modes used by Angelenos, except walking, biking, and other active modes. We provided data from rides completed on the Uber platform in the Los Angeles metro region during 2018 to enable the WRI team to compare the carbon intensity of rides taken with Uber to the carbon intensity of other modes. A full account of their analysis can be found on WRI's website. The results are shown in the figure below.

Carbon intensity

Grams CO_2 emitted per passenger mile traveled per mode in Los Angeles, 2018

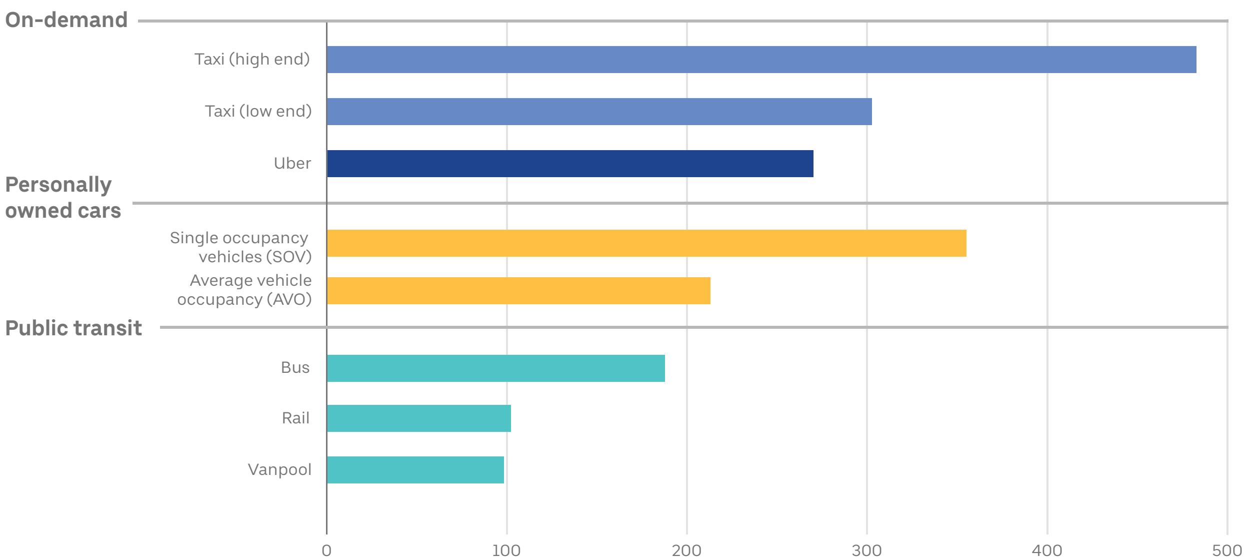


Figure: Carbon intensities for popular transportation modes in the Los Angeles metropolitan area, based on 2018 or most recent data. Chart data compiled by World Resources Institute from: U.S. Department of Transportation; National Transit Database (LA Metro PMT); Los Angeles 2019 Energy and Resources Report (2018 GHG Emissions); Los Angeles Department of Transportation (Fleet Fuel Economy); National Household Travel Survey (Passenger Vehicle Occupancy); California Air Resources Board, EMFAC (Passenger Fuel Economy); National Bureau of Economic Research (Taxi Trip Data); and U.S. Environmental Protection Agency (Mobile Fuel Combustion Factors).

Note: The carbon intensities estimated by the WRI team for personal cars—both average-occupancy personally owned vehicles (AVO) and single-occupancy vehicles (SOV)—are slightly higher than those reported elsewhere in our report. This is because WRI used 2017 data from CARB's EMFAC model and included both light-duty passenger vehicles and medium-duty passenger vehicles. Go to WRI for more on their method for computing the figures shown. Go to *Metrics* for more on how Uber estimated carbon intensity benchmarks for personal cars.

We make 3 observations from WRI's results about how rides taken using Uber fit in with the broader LA transportation ecosystem from a carbon-intensity perspective.

First, the findings show that Uber offers a more efficient option than comparable, traditional on-demand services. The average carbon intensity of rides taken using Uber is lower than that of traditional taxi rides—10.7% compared to 44.1%.[5] This finding is particularly significant given the larger scale of Uber's services in Los Angeles and greater coverage of underserved neighborhoods compared to traditional taxi fleets.

Second, why riders chose a given mode over other modes matters, especially when assessing their carbon intensity. As the results clearly show, public transit services offer the lowest-carbon option. But according to the mode split figures, Angelenos choose transit for less than 4% of passenger miles. For a variety of different reasons, riders may choose more carbon-intensive modes, perhaps because that specific trip requires more space, time, or flexibility. The vast majority of riders using Uber rely on the app to serve a tiny fraction of their trips (in Seattle, for example, *84% of riders take one trip per week or less*). Moreover, using Uber or taxi enables a rider to link trips across multiple modes. For example, they might take one trip using Uber, then link to transit or shared micromobility options—or even walk—for the next parts of their journey. By comparison, someone making a trip in their own car almost always guarantees that the next or future trip will be in the same car, either to bring it home or because it's always immediately available. We look forward to continuing to work with transit agencies and other mass transit providers to make their low-carbon mobility offerings easier for riders to find, connect with, and pay for on the Uber platform.

Finally, the analysis shows that Uber's on-demand options are starting to compete, on a carbon-intensity basis, with personal car use, even in a city like Los Angeles with a vast transportation infrastructure predominantly built to support private car ownership. Average carbon intensity for Uber trips outperforms single-occupancy driving by 24%. We have more progress to make, however; carbon intensity of on-demand rides with Uber lags that of average-occupancy personal driving (which is 1.66 passengers, according to government surveys of LA drivers) by about 26%.

We look forward to continuing to work with WRI and organizations like NUMO to promote the use of common performance metrics such as carbon intensity and travel efficiency to evaluate the ecosystem of mobility options available to riders everywhere. Uber's platform offers a greater number of lower-carbon mobility options (including transit and micromobility) than higher-occupancy personal car driving offers. We'll continue nonetheless to employ carbon-reducing strategies across the platform to ensure that we outperform the carbon intensity of personal car use. We also strongly encourage other companies developing products for the transportation sector, transit agencies, cities, and governments to support the sharing of real-world performance metrics, like carbon intensity, to make analyses like these possible more regularly in more cities.

[5] The team at WRI could not identify definitive, publicly available seat-occupancy data from Los Angeles taxi services, but they did find several studies that indicated a range of average occupancy between 1.10 and 1.755; this occupancy range accounts for the final carbon intensity range shown.

Case study 2:

Network growth and efficiency improvements in San Francisco, 2013-2019

Although Uber remains a young company with just about a decade of experience, our presence is more established in the greater San Francisco Bay Area (SF) than anywhere else we operate globally. In 2019, more than 1.5 million unique riders moved with Uber in SF every month. Examining our history of performance in SF helps us understand the impact of growth and key improvement drivers.

We estimated travel efficiency and carbon intensity for all rides enabled by Uber in SF from 2013 (the first full year with our peer-to-peer rideshare service, UberX) to 2016 (see *FAQ* for more detail on estimation methods) and joined that data with the data reported here (see *Performance*) to complete a 7-year picture. From 2013 through 2019, the average number of active monthly riders on the Uber platform in SF multiplied by a factor of about 15. Over the same period, travel efficiency increased by 54% and carbon intensity decreased by 56%. We attribute these efficiency gains to network growth and innovations explained more in the 5 innovation pillars (see the *Commitments* section):

Deadhead reduction: Over the case-study time period, the proportion of online vehicle miles traveled without passengers decreased by an estimated 40%. We believe this decrease can be attributed to network effects that result from an increase in the number of drivers and riders and matching technology improvements.

Occupancy: Although this case study applies the same average-occupancy assumptions to non-Pool trips that are used throughout the report as constants, the launch of UberXL in 2014, Uber Pool in 2014, and Express Pool in 2018 in SF all contributed to increased vehicle utilization and shares of higher-occupancy trips.

Platform greening: Over the duration of the case study, we estimate that average (miles-weighted) network-wide fuel economy increased 48% due to an increasing share of trips served by drivers with more fuel-efficient cars such as hybrid vehicles.

Travel efficiency in Bay Area

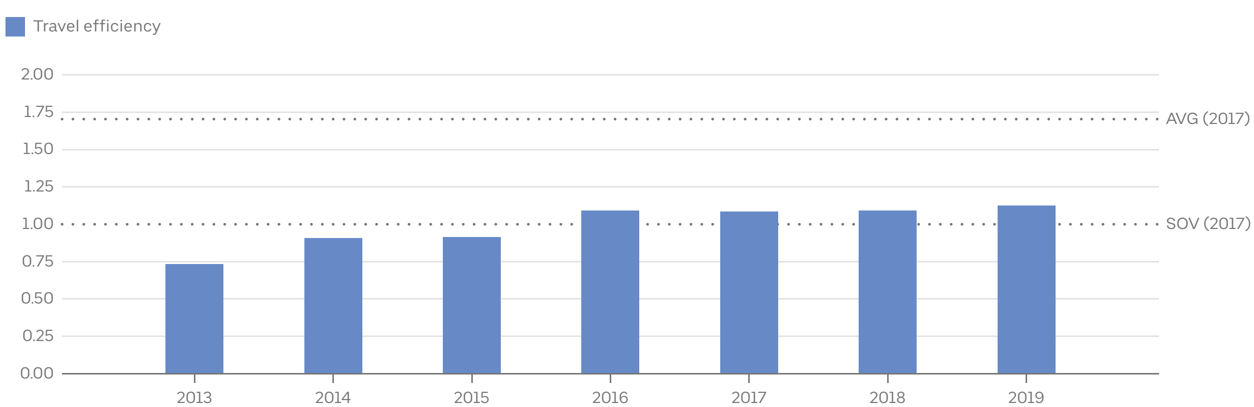


Figure: Estimated travel efficiency for all trips completed using Uber in the greater San Francisco Bay Area metro from 2013 through 2019, compared with personal car use

Carbon intensity in Bay Area (gCO_2/PMT)

Grams CO_2 emitted per passenger mile traveled

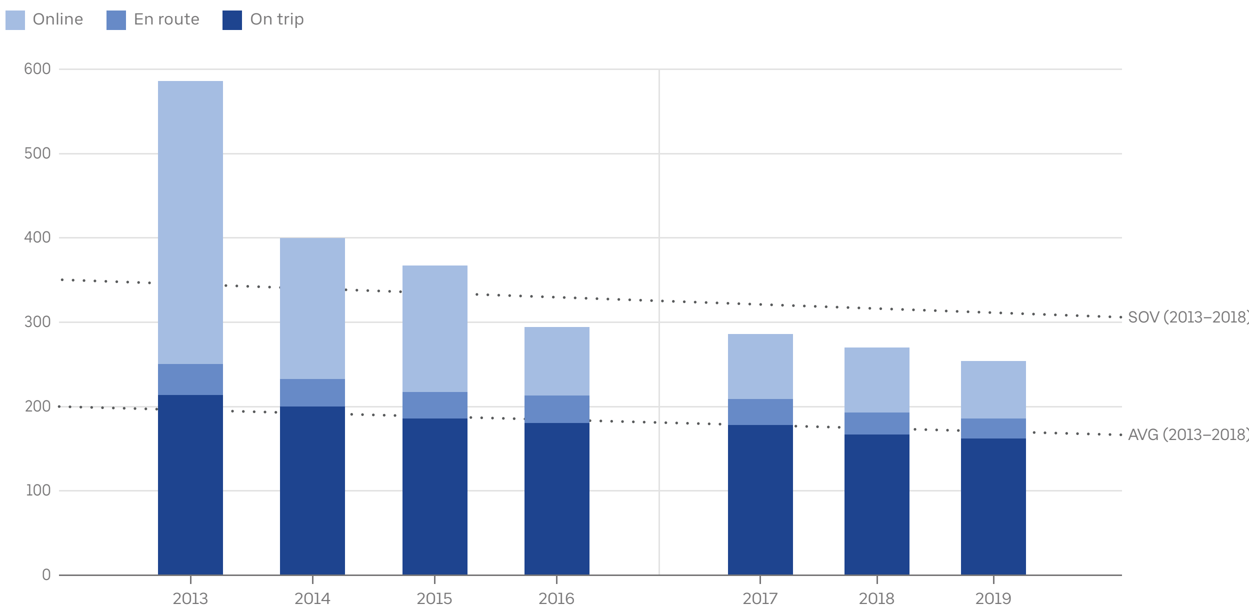


Figure: Estimated carbon intensity for all trips completed using Uber in the greater San Francisco Bay Area metro from 2013 through 2019, broken out by trip status, compared with personal car use

Notably, this data does not fully reflect the impact of multimodal options such as shared micromobility and transit journey planning. We did not include data from non-car trips taken with these modes for the impact metric computations in this case study. However, we believe micromobility and transit product options will have a significant and positive impact on the overall carbon intensity of trips users take on Uber's platform.

Case study 3:

Urban area zoom-in: impact metrics from trips in Los Angeles and San Francisco

As highlighted in the *Performance* section of this report, impact metric results for trips taken with Uber in major metro areas can outperform those for the entire country as a whole. This makes sense intuitively: our platform can operate more efficiently in denser, better connected areas with larger, more established user markets, more multimodal transport options, more support for greener and electric cars, and less reliance on personal car ownership. Until now, however, we didn't have the data to examine these differences or their levels of magnitude. The advent of the Clean Miles Standard policy, under development by the California Air Resources Board (CARB) and California Public Utilities Commission (CPUC), gives a unique opportunity to explore, at a deeper level, the impact of rides taken with Uber in metro areas.

In accordance with the Clean Miles Standard, CARB released a *Base-year Emissions Inventory* and calculated an average carbon intensity for the rideshare industry of 301 grams of CO_2 per passenger mile. This calculation was based on real-world trip data collected from the largest transportation network companies in California in 2018. As points of comparison, this case study includes impact performance metrics for Uber's 2 largest metro markets in California—Los Angeles (LA) and San Francisco (SF)—which capture more than 75% of trips completed on Uber's platform across the state over the reporting time period. While the calculation method for carbon intensity used throughout this report includes only a few small but notable differences from that used by CARB (see *FAQ*), we believe the metrics below are comparable to those provided in the Inventory report. For reference, the carbon intensity of trips completed in California with Uber in 2018 was 282 grams of CO_2 per passenger mile, 6% lower than the industry average.

We adjusted the personally owned car benchmark metrics to account for the specific Los Angeles and San Francisco market conditions. According to the latest available government data, both markets observe higher average car occupancy and vehicle fuel economy compared to the same metrics for the entire US (see *FAQ* for more on data sources and benchmarking methods). The table below summarizes the metrics for personal car benchmarks in each market.

City	Personally owned vehicle benchmarks		
	Carbon intensity[6] (AVO / SOV)	**Travel efficiency** (AVO / SOV)	**Engine type**[7] (hybrid / plug-in hybrid / battery EV)
	grams CO_2 / passenger mile	passenger miles / vehicle mile	% of on-road vehicle miles
Los Angeles	198.28 / 329.14	1.66 / 1	4.99% / 0.91% / 0.70%
San Francisco	192.48 / 329.14	1.71 / 1	6.68% / 0.69% / 1.40%

[6]The carbon intensity benchmarks for personal car use listed here are slightly different (<5%) from those used by CARB for their *Inventory* report due to the differences in data sources and target regions (see *FAQ* for more details).

[7]California hosts one of the largest markets for hydrogen-powered fuel cell vehicles, with more than 8,000 vehicles sold and leased according to the California Fuel Cell Partnership. However, these represent 0% share of the more than 15 million on-road vehicles in California, if rounding within 2 decimal places. On Uber's platform, we recorded several hydrogen fuel cell vehicles completing trips for about 700 riders in 2018 and 2019. Due to these de minimis values, we did not include hydrogen fuel cell vehicles in the engine type category for this case study.

Finally, as is apparent in the maps below, the "metro" areas Uber uses to define the LA and SF markets—as is the case for most of our metro markets globally—are geographically broader than the municipal or even typical population area (i.e., "greater Los Angeles area" or "greater Bay Area") boundaries. Uber's metro market boundaries include substantial areas that could be defined as ex-urban, suburban, or rural on a population-density basis.

Los Angeles metro region

Figure: Geofence bounding Uber's Los Angeles metro market

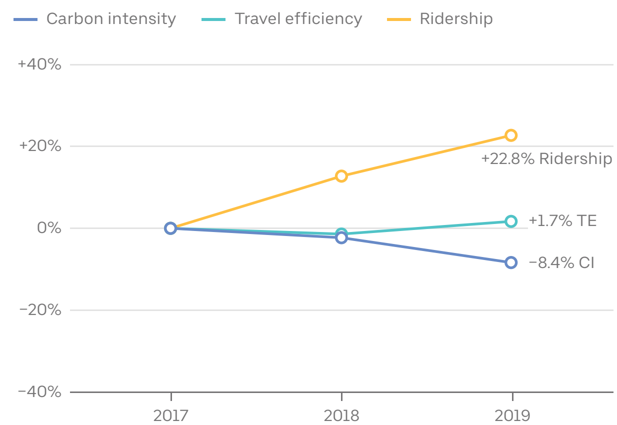
- As of 2019, rides taken on the Uber platform in the Los Angeles metro region (LA) resulted in 257 grams of CO2 per passenger mile and 1.19 passenger miles per vehicle mile
- From 2017 to 2019, carbon intensity decreased more than 8%, and travel efficiency increased nearly 2%, while average active monthly ridership increased nearly 23%
- Throughout the reporting period, carbon intensity of rides completed in LA was more than 22% lower than that of all rides in the US and Canada
- Rides taken on the Uber platform in LA in 2018 resulted in nearly 9% lower CO2 emissions per passenger mile than the California state industry-wide average carbon intensity reported in CARB's Inventory for that year
- Vehicle mileage accrued by drivers during Uber-routed periods (en route and on trip) in LA in 2019 showed nearly 1% lower carbon intensity than average vehicle use in California; vehicle mileage incurred by drivers while online, before accepting trips, accounts for the remaining emissions
- Drivers on the Uber platform in LA completed nearly 1 in 4 Uber trips in hybrids, plug-in hybrids, or battery EVs in 2019, which means they drove greener and electric vehicles about 3.7 times more than the average Southern California car owner, and 10 times more than the average US car owner
- As of 2019, battery EV use by drivers on the Uber platform in LA fell behind local personal car owner adoption levels, at 0.37% of trip miles compared to 0.70% of on-road vehicle miles (for more on battery EVs, see our case study *Electrifying trips on Uber: progress and challenges*)

Ridership growth and key metric trends in Los Angeles

Percentage change in carbon intensity, travel efficiency, and average active monthly riders

+22.8%

Average active monthly riders, 2017–19

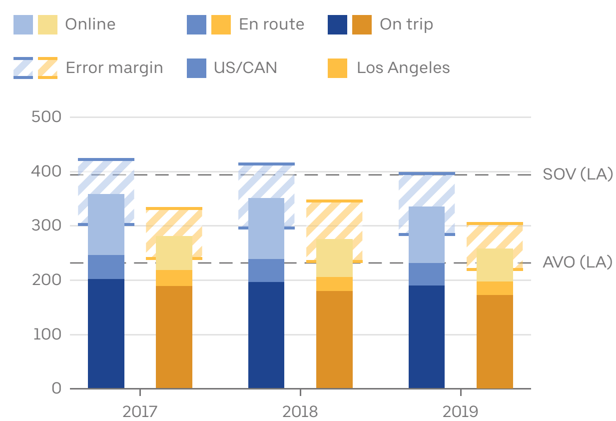


Carbon intensity in US/CAN and Los Angeles

Grams CO_2 emitted per passenger mile traveled

22.4%

Lower carbon intensity in Los Angeles than in US/CAN on average annual basis

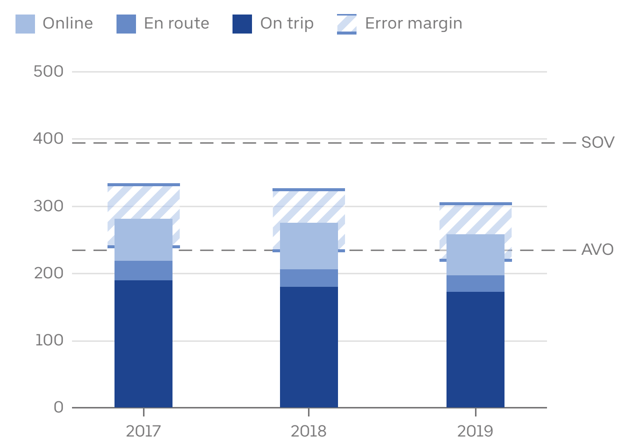


Carbon intensity in Los Angeles

Grams CO_2 emitted per passenger mile traveled

-8.4%

Carbon intensity 2017–19

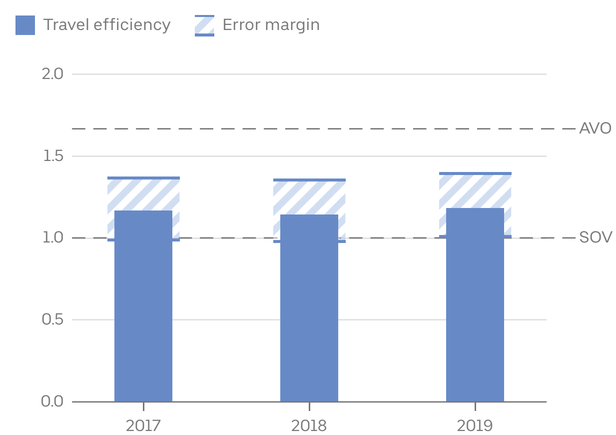


Travel efficiency in Los Angeles

Passenger miles enabled per vehicle mile

+1.7%

Travel efficiency 2017–19

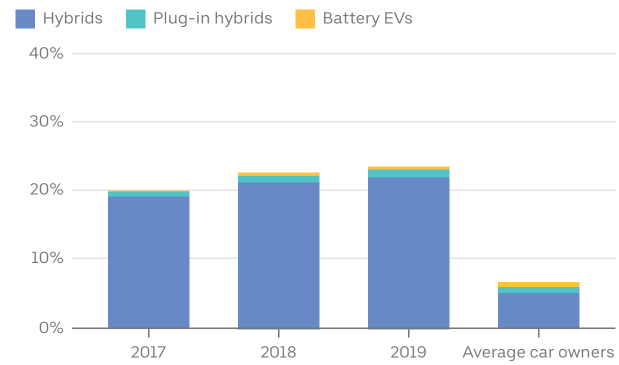


Engine type: green and electric vehicle use in Los Angeles

Grams CO_2 emitted per passenger mile traveled

3.6x

More green and electric vehicle use by drivers using Uber than by average car owners, 2019



San Francisco metro region

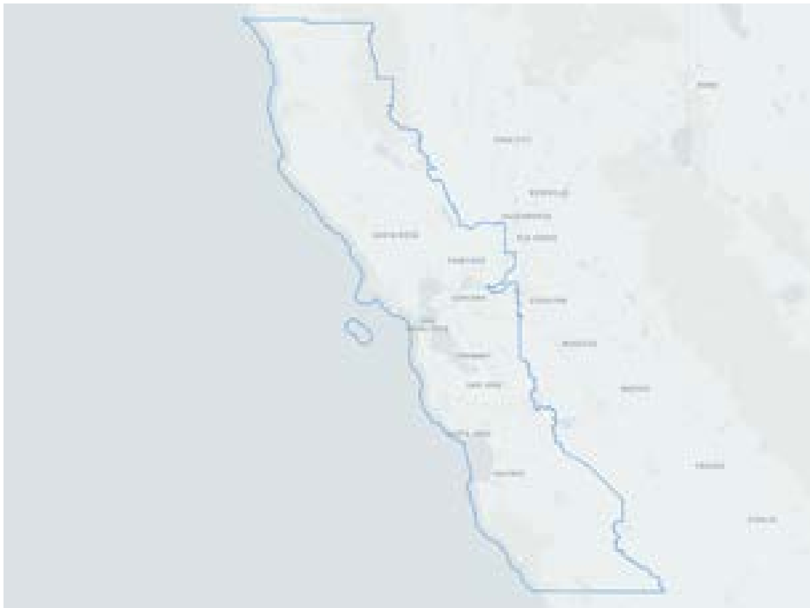


Figure: Geofence bounding Uber's San Francisco metro market

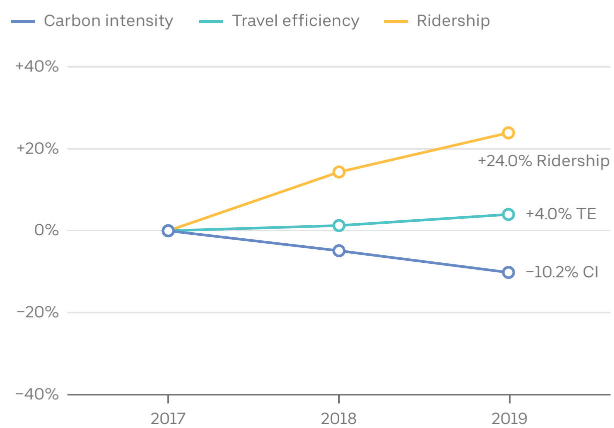
- As of 2019, rides taken with Uber in the San Francisco metro area resulted in 255 grams of CO_2 per passenger mile and 1.12 passenger miles per vehicle mile.
- From 2017 to 2019, carbon intensity decreased more than 10% and travel efficiency increased 4%, while average active monthly ridership grew almost 24%.
- Throughout the reporting period, carbon intensity of rides completed in SF was almost 23% lower than that of all rides in the US and Canada.
- Uber trips in SF in 2018 resulted in 10% lower CO_2 emissions per passenger mile than the California state industry-wide average carbon intensity reported in CARB's Inventory for that year.
- Vehicle mileage accrued by drivers during Uber-routed periods (en route and on trip) in SF in 2019 showed nearly 3% lower carbon intensity than average vehicle use in California; vehicle mileage incurred by drivers while online, before accepting trips, accounts for the remaining emissions.
- Drivers on the Uber platform in SF completed nearly 1 in 3 Uber trips in hybrids, plug-in hybrids, or battery EVs in 2019, which means they drove greener and electric vehicles about 1.4 times more than drivers using Uber in LA, about 3.7 times more than the average Bay Area car owner, and nearly 14 times more than the average US car owner.
- As was the case in LA, drivers on the Uber platform in SF in 2019 used battery EVs less than average Bay Area car owners did. Battery EV drivers using Uber completed 0.48% of SF trip miles. By comparison, government estimates show that battery EVs account for 1.40% of on-road vehicle miles traveled by car owners in California (for more on battery EVs, see our case study on *Electrifying trips on Uber: progress and challenges*).

Ridership growth and key metric trends in San Francisco

Percentage change in carbon intensity, travel efficiency, and average active monthly riders

+24.0%

Average active monthly riders, 2017–19

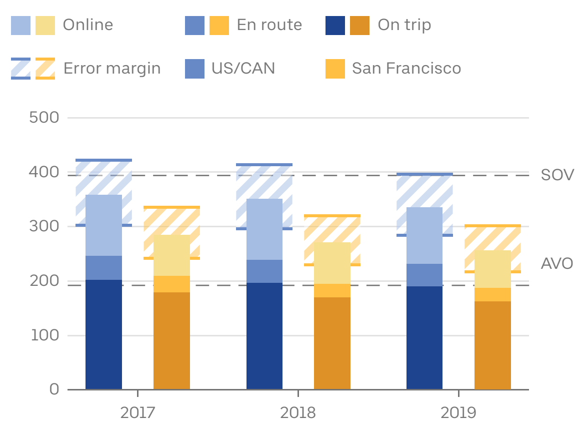


Carbon intensity in US/CAN and San Francisco

Percentage change in carbon intensity, travel efficiency, and average active monthly riders

22.7%

Lower carbon intensity in San Francisco than in US/CAN on average annual basis

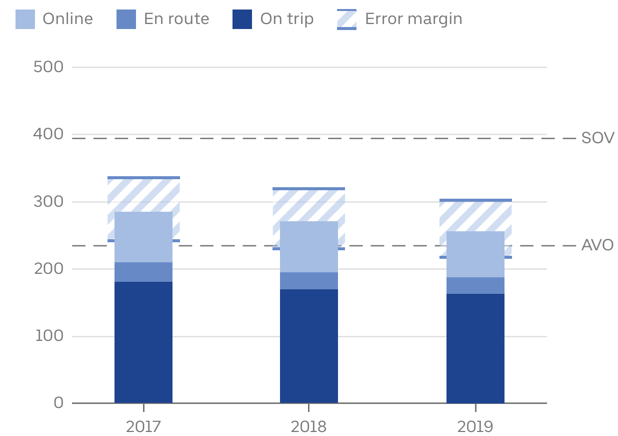


Carbon intensity in San Francisco

Grams CO_2 emitted per passenger mile traveled

-10.2%

Carbon intensity 2017–19

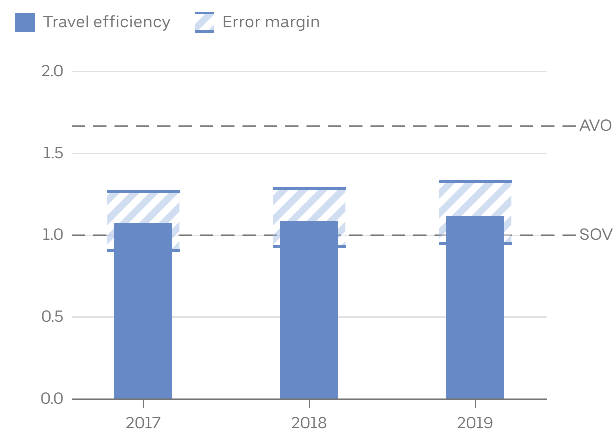


Travel efficiency in San Francisco

Passenger miles enabled per vehicle mile

+4.0%

Travel efficiency 2017–19

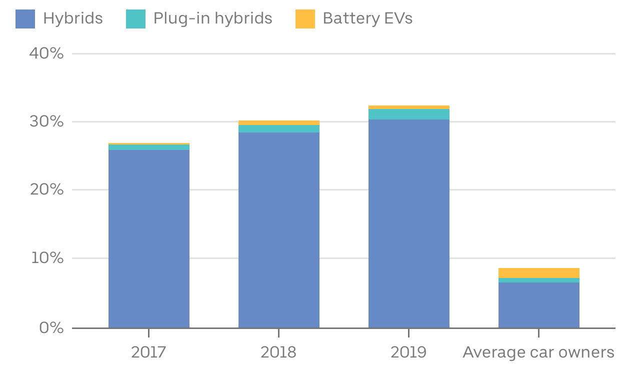


Engine type: green and electric vehicle use in San Francisco

Trip-miles weighted average share

3.7x

More green and electric vehicle use by drivers using Uber than by average car owners, 2019



Case study 4:

Fuel efficiency of vehicles serving trips on Uber

The carbon intensity metrics shared in this report depend heavily on the fuel consumption characteristics of vehicles used by drivers to move riders. We examined the average fuel economy of the cars used by drivers on Uber's platform.

Drivers' use of our platform varies greatly. Some drivers complete just one trip per year and others serve more than a hundred per week. To take a neutral approach, we calculated the trip-miles-weighted average by multiplying each participating vehicle's fuel economy by the total number of on-trip miles completed by the vehicle's driver in a given year, summing the result for all drivers, then dividing by the total annual on-trip miles of all drivers. For more on how we determined each vehicle's fuel economy, see *FAQ*.

We compared the result to the average fuel economy of on-road, light-duty passenger vehicles in the US based on the latest available government data. In evaluating the 3 years' worth of trip data, we found that drivers using the Uber platform drove vehicles with more than 14% better fuel economy than that of the average car owner's vehicle. By 2019, drivers using Uber drove vehicles with nearly 17% better fuel economy than the on-road vehicle average in the US. The result corroborates anecdotal feedback from drivers—especially those who do a lot of trips—that using a more fuel-efficient vehicle helps save on fuel costs.

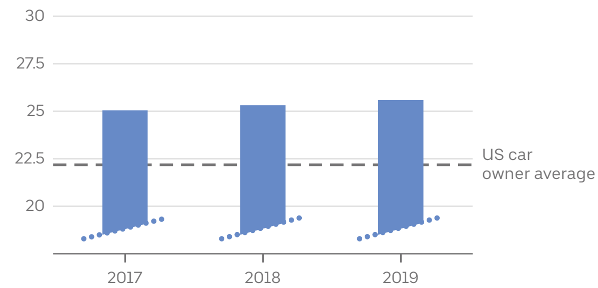
The US government reports average fuel economy for on-road vehicles on a sales-weighted basis only. While not completely a direct match with our miles-weighted average computed from real-world trip data, these government figures represent the best available. We encourage government agencies to cultivate more fuel-consumption datasets based on real-world trip measurements. For more on key data sources, see *FAQ*.

Average fuel efficiency: US/CAN

Trip miles weighted, average miles per gallon

14%

Higher average fuel efficiency among drivers using Uber than among the average US vehicle population



Drivers on Uber's platform appear to more strongly support adoption of more fuel-efficient vehicles. The result holds true even in California, where the average fuel economy of vehicles sold in the consumer market is higher than those elsewhere on the continent. The state's clean-vehicle policies and consumer demand have cultivated a markedly more efficient passenger-vehicle market than is found in the rest of the US. Leadership from regulators like the California Air Resources Board (CARB) helped form the greenest consumer vehicle markets in North America. In fact, the California fuel economy benchmark for personally owned cars is 17% higher than that for the US (which includes California, accounting for over 13% of the US vehicle market).

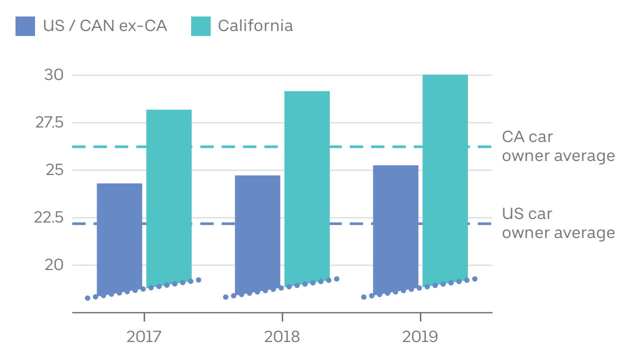
Rides data from 2019 shows that drivers on the Uber platform in California used vehicles that had almost 17% and nearly 35% better fuel economy than that of the average car owners in California and those in the US, respectively. Moreover, the trip-miles weighted-average fuel economy for California drivers using Uber was 18% higher than those in the rest of the US and Canada, and rose by nearly 7% between 2017 and 2019. By comparison, drivers using Uber in the rest of the US and Canada saw improvement of just above 4% from 2017 to 2019.

Average fuel efficiency: California and US/CAN

Trip miles weighted, average miles per gallon

18%

Higher average fuel efficiency among drivers using Uber in CA than those in the rest of the US and Canada



Case study 5:

Electrifying trips on Uber: progress and challenges

Electrification is a critical strategy for driving more sustainable urban mobility. Cities that can significantly increase battery electric vehicle (EV) use can lower carbon emissions by 40-70% by 2050. In fact, a growing body of research (from ITF, UC Davis ITS, and LBNL, for example) shows that combining electric mobility with sharing and automation technologies can reduce on-road vehicles by 90% or more and cut transportation's climate impact by as much as 80%.

Using rides data from the 2017–2019 period, we evaluated the use of battery EV technology[8] by drivers using Uber in the US and Canada. In 2017, battery EV drivers served just 0.07% of on-trip miles. By 2019, the rate doubled to 0.15%, putting battery EV use by drivers using Uber about level with that of average US car owners, according to the latest government estimates (NHTS, 2017). By contrast, drivers on the Uber platform appear to use hybrids—both plug-in hybrids and conventional, non-plug-in hybrids—about 5.5 times more than do average car owners.

Battery electric vehicles and riders in US/CAN

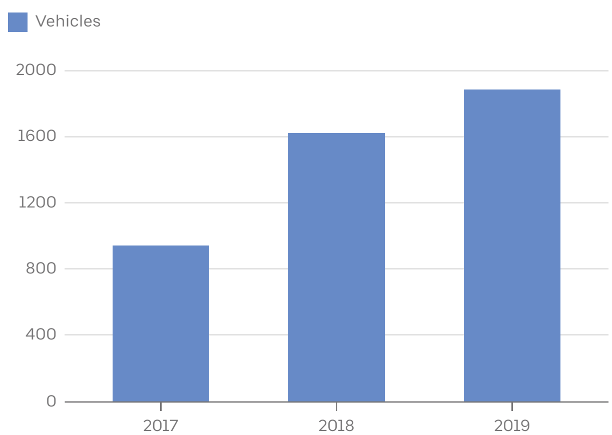
Average active monthly

188k

Unique riders took trips in

1.8k

Battery EVs in 2019



Similar to the fuel-economy case study, we see contrasting results on battery EV uptake in California compared to everywhere else. In 2019, battery EV on-trip-mileage share was highest in California markets, averaging 0.42%. Although this is slightly below the 0.64% battery EV use by average car owners in the state (as reported by NHTS, 2017), it's nearly 2.5 times more than the use of battery EVs by average US drivers.

For the 2018–2019 period, we see battery EV use by drivers on the Uber platform level out throughout the US and Canada and fall slightly in California compared to the 2017–2018 period. While we did not fully assess all of the prospective causes for these outcomes, we attribute a portion of the annual rate decrease to reduced battery EV supply from short-term rental and carshare companies in 2019. Many of these companies throughout the US and Canada were forced to reduce inventories and trim their businesses in 2019 due to a variety of business challenges.

[8]As also noted in the case study on performance metrics in Los Angeles and San Francisco, we recorded only a small amount of hydrogen fuel cell vehicles used to complete trips for about 700 riders on the Uber platform across the US and Canada in 2018 and 2019. Due to these de minimis values, we did not include hydrogen fuel cell vehicles in the engine-type category for this case study.

Though this may have only had marginal impact for drivers on the Uber platform, these short-term solutions can offer lower-income drivers one of the few affordable options for accessing vehicles that are suitable for frequent use on rideshare platforms. In the case of battery EVs in particular, short-term rental and carshare services, especially when bundled with adequate charging solutions, can provide a unique opportunity for many drivers to try out the technology for the first time without taking on the added obligation and expense of buying a battery EV or leasing it over a longer term.

Battery electric vehicles and riders in California

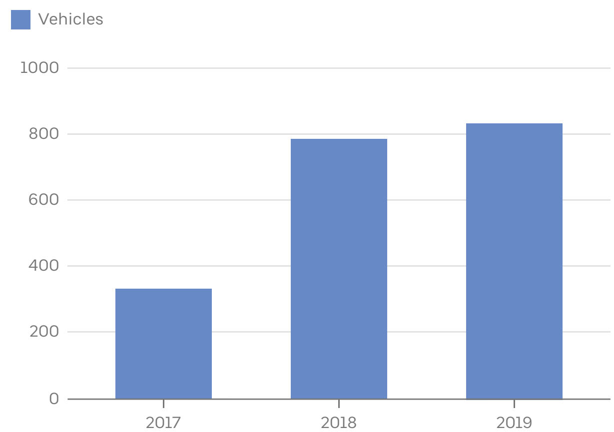
Average active monthly

99k

Unique riders took trips in

800+

Battery EVs in 2019

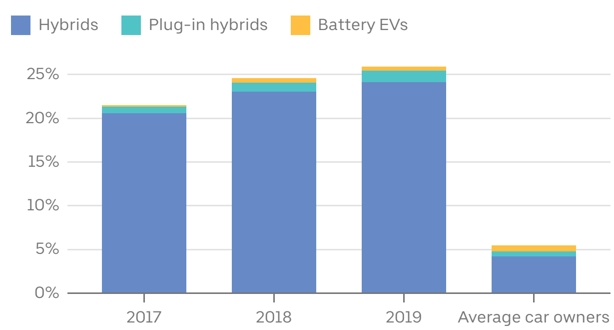


Engine type: green and electric vehicle use in California

Trip miles weighted average share

4.8x

More green and electric vehicle use than average car owners, 2019



Some of the latest research on rideshare drivers' adoption of green vehicle technologies by the International Clean Council on Transportation (ICCT) shows that most drivers are worse off today in a battery EV compared to more conventional internal combustion options, especially hybrids. The report estimates that, given current battery EV acquisition cost and infrastructure development, most rideshare drivers will face significant economic barriers to shifting to full battery EVs—rather than to hybrids—until at least 2023-2025. Key barriers include high vehicle acquisition costs, inadequate charging infrastructure, and lost earnings potential from increased vehicle downtime due to charging needs.

Rideshare drivers—and any drivers or fleets offering commercial, revenue-generating mobility services—face a unique cost factor when switching from conventional internal combustion vehicles to battery EVs: opportunity cost of charging. As a simple illustration of this phenomenon, consider 2 drivers: Driver A in a conventional internal combustion engine (ICE) vehicle and Driver B in a battery EV. Driver A can replenish 300 miles in 5 to 10 minutes at a ubiquitous network of gasoline refueling stations available within a few blocks in major urban areas; 600 miles if they're driving a high-mileage hybrid. Driver B, on the other hand, has to spend time searching for and accessing scarce EV charging infrastructure and then, once they can plug in, hopes to gain 150 to 200 miles in 45 to 60 minutes if they're lucky enough to find a fast charger. Driver A can get back on the road quickly to earn more fares. By comparison, Driver B must forgo fares while taking time to replenish range. A study by UC Davis that surveyed nearly 800 plug-in EV drivers on Uber found that the total opportunity cost of searching for, accessing, recharging, and returning to fare-generating service can take anywhere from about 1.5 to more than 4 hours.

Understanding and learning from EV drivers on our platform

In 2019, we helped researchers at UC Davis's Institute of Transportation Studies (UCD-ITS) access thousands of plug-in EV drivers on Uber (both those with plug-in hybrids, PHEVs, and battery EVs) across the US and Canada. They received responses from 780 EV drivers in the largest academic study of EV rideshare drivers to date. Professor Ken Kurani, a long-time expert on consumer EV awareness and adoption, led the study and in March 2020 released the first of what will be a series of papers. We're proud to collaborate with UCD-ITS to make more research on EV rideshare drivers (a remarkable group of people pioneering shared zero-emission mobility in the communities they serve) available to the public. Learning from drivers about what works for them and what barriers they face in accessing greener and electric vehicles is crucial to our work to reduce emissions and increase electrification across our global portfolio of on-demand mobility solutions.

Market and policy contexts also matter. The fact that drivers using the Uber platform in California use battery EVs more than others outside of the state throughout the US and Canada likely reflects the significant investment California government agencies and cities have made in pursuit of electrification over the last couple decades. Although rideshare drivers everywhere, including those in California, continue to face critical economic and policy barriers to electrification, the state's strong support for EVs clearly has a positive impact on EV adoption by drivers on our platform.

Although the adoption of battery EVs by drivers on the Uber platform across the US and Canada remains at or below consumer levels, we see encouraging signs in the trip-level data. Across the US and Canada mega-region, each month in 2019, an average 1,880 active battery EV drivers served nearly 190,000 riders with zero-emission mobility on the Uber platform. From 2017 to 2019, the average number of monthly battery EV drivers almost doubled, and the average number of monthly EV riders nearly tripled.

> **From 2017 to 2019, the average number of monthly battery EV drivers almost doubled, and the average number of monthly EV riders nearly tripled.**

In the California market, EV use appears even higher. More than 800 active EVs in California moved almost 100,000 riders every month in 2019, more than 1.3 times more riders per EV than in all other markets in the US and Canada outside of California. Additionally, active monthly EVs in California almost doubled, and active monthly riders more than doubled between 2017 and 2019. With the proper policy and industry enablers, we believe shared mobility technology platforms like Uber's can make electric mobility accessible to millions of people—with far fewer and more highly utilized vehicles on the road than would be found in scenarios heavily reliant upon car ownership.