

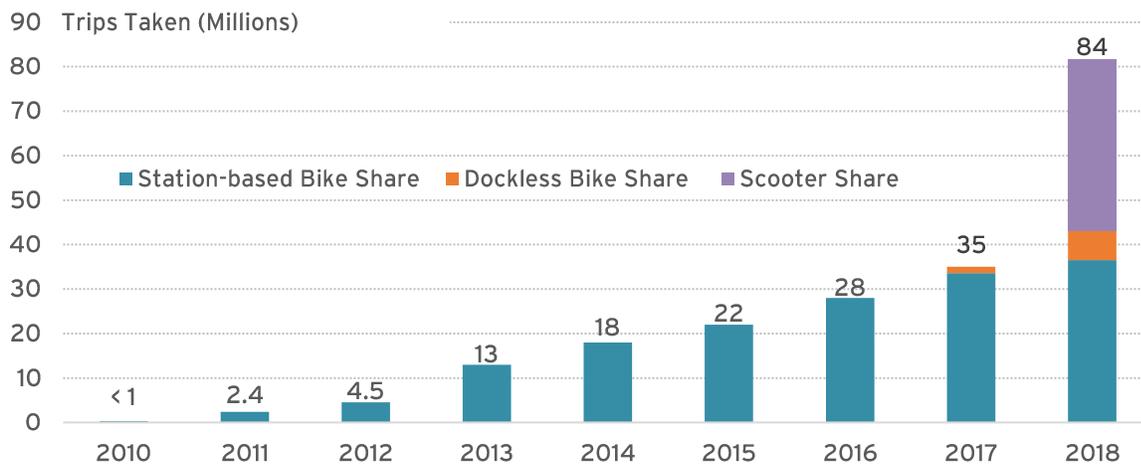


Micromobility: Revolutionizing Personal Transportation

The use of lightweight, shared, and electric vehicles such as scooters, bikes, and mopeds—known as micromobility—has emerged as a popular and affordable transportation option in cities across the country. According to the National Association of City Transportation Officials (NACTO), 84 million micromobility trips were taken in 2018—more than twice as many as the year before.

Electric scooters have also begun to replace congestion-inducing car trips. A survey of 75,000 scooter riders in Portland, Oregon, found 34 percent would have otherwise used a car, taxi, or ride-hailing service in place of their last electric scooter trip. In addition, the survey showed that 6 percent of scooter riders reported reducing the number of cars in their household because of the availability of electric scooters, and another 16 percent have considered it. INRIX, a mobility intelligence firm, estimated that shared bikes and scooters could eventually replace nearly 50 percent of downtown vehicle trips. Increasing the use of micromobility for trips taken within urban cores holds the potential to not only improve road congestion and livability in our cities by making trips more efficient, but also cut petroleum fuel use.

Growth of Micromobility in the United States, 2010 - 2018



Source: NACTO

More than 100 billion car trips in the United States are for a distance of less than five miles, and supplementing urban travelers' choices with micromobility options can displace oil consumption tied to short trips in automobiles. In addition, micromobility presents a solution to the longstanding first-mile, last-mile issue in transportation by providing valuable connections to transit, allowing individuals to reach their destination with less logistical planning.

Micromobility—and the broader movement to create and deploy small form factor, electrified vehicles—is in the early phases of consumer acceptance. Over time, and with greater maturity, more urban dwellers will gravitate to micromobility options, especially as innovations such as covers for inclement weather and seats with storage are integrated in new models. As micromobility continues to proliferate in cities, there is the potential to remove a meaningful number of cars and delivery vehicles

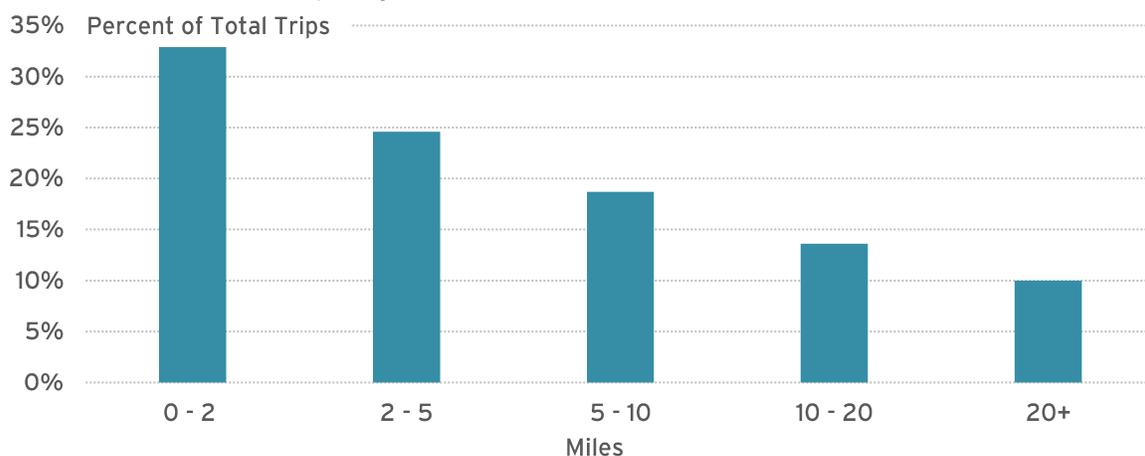
from city streets. Safety is an important consideration: A Centers for Disease Control and Prevention [study](#) found that out of every 100,000 trips taken, 20 individuals were injured – with infrastructure and rider inexperience as major factors. Policymakers should consider how to adapt and reconfigure existing infrastructure to facilitate greater use of micromobility while taking speed and rider safety into account.

SAFE encourages policymakers to consider opportunities to further support the growth of electric transportation options for Americans that are affordable, convenient, and readily-scalable. Consumers have demonstrated strong demand for this emerging form of transportation, and micromobility should be offered every opportunity to succeed. Policymakers should avoid placing unnecessary burdens on micromobility providers that wish to introduce new vehicle form factors or rules on their use.

Energy Security

- Approximately 70 percent of oil use in the United States is used for transportation—a sector that is 92 percent dependent on petroleum-based fuels.
- Greater urbanization in the coming decades portends greater traffic and congestion. Current driving habits support this assertion: Car trips of less than one mile add up to approximately [10 billion miles per year](#), and 59 percent of vehicle trips taken [are less than six miles](#).
- The EPA estimated that eliminating half of the U.S. car trips of less than one mile annually would save approximately [\\$575 million per year in fuel costs](#). Taking into account further savings on maintenance and tire replacement, that figure rises to \$900 million.

Personal Vehicle Trips by Distance



Source: NHTS

Unlocking Tremendous Economic Value

- On-demand transportation as a whole is projected to be worth [more than \\$300 billion by 2025](#), with micromobility as the fastest growing sector—even higher than ride-hailing services.
- It is estimated that more than [150 types of micromobility models](#) will be launched by 2020, with automakers such as General Motors and Volkswagen developing their own models.
- Electric scooters alone, such as those available through Bird or Lime, are poised to grow from an \$18 billion global market in 2018 to more than \$24 billion in 2022.
- With an [average cost](#) of \$1 to unlock and 24 - 39 cents per mile, micromobility provides travelers with an alternative transportation option that has a significantly lower financial barrier to entry—especially when compared to the [\\$9,282](#) spent by the average American car owner annually on financing costs, maintenance, and fuel.

Policy Recommendations

Adapt local infrastructure to enhance safety: As micromobility use increases, policymakers should fund the creation of micromobility corridors—protected lanes that shield riders and cyclists alike from vehicular traffic.

Harmonize local policies to reduce regulatory barriers for micromobility: The U.S. Department of Transportation (USDOT) should develop model guidance on how cities implement rules and regulations affecting micromobility.

Study the oil displacement potential of micromobility and reforms to fuel efficiency standards: The U.S. Department of Energy should research how micromobility can contribute to reductions of fuel consumption in congested urban areas. Based on this research, USDOT and the Environmental Protection Agency (EPA) can identify opportunities to align vehicle fuel efficiency incentives with micromobility services.

Modernize transportation tax benefits to consider new mobility services: In 2016, Congress looked at the possibility of treating bikeshare and ride-sharing services as eligible for tax-excludable transportation fringe benefits. The surge in micromobility popularity over the past two years presents the opportunity for Congress to again examine allowing the use of ride-sharing services, bikeshare, and micromobility for transportation benefits.

Expand eligibility for federal grant programs to include micromobility projects: Congress should instruct USDOT and other federal agencies to make micromobility-related projects eligible for urban infrastructure grants. Micromobility-related projects that supplement other transportation modes by increasing rider safety and the expansion of charging infrastructure should be prioritized.

Research broader social and economic benefits of micromobility: In July 2019, the Senate Environment and Public Works Committee passed S. 2302, the America's Transportation Infrastructure Act (ATIA). SAFE is supportive of Sec. 3005, which would establish a Center of Excellence on New Mobility and Automated Vehicles that would research the impacts of emerging transportation technologies (including micromobility) on land use, urban design, transportation, real estate, equity, and municipal budgets.

Prioritize Complete Streets initiatives: Ensuring that communities are safe and accessible for all road users, including micromobility, is critical to improving the nation's transportation infrastructure. Sec. 1208 of ATIA would require states and metropolitan planning organizations to dedicate planning and research funds to active transportation infrastructure that enhances safety across every mode and complements existing travel options.