

**N A B S A**

NORTH AMERICAN BIKESHARE & SCOOTERSHARE ASSOCIATION

5TH ANNUAL

# Shared Micromobility

State of the  
Industry Report

2023



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NABSA is pleased to present our fifth annual Shared Micromobility State of the Industry Report. With fifteen years since its inception and constant evolution, 2023 saw a new stage of development for the industry, with record highs for trip-making and the number of cities with shared micromobility systems. Climate, transportation equity, connections to transit, and financial sustainability continue to be key themes for the industry as electrification of shared micromobility devices and of operational vehicles expands. This report tracks the progress and presents new research demonstrating the impact of the industry across North America.

To inform this report, we have collected data across a wide variety of topics. Our data sources include surveys sent to shared micromobility operators and public agencies across North America, academic research on shared micromobility, census data, and other data that is tracked by NABSA.

The 2023 State of the Industry report shows a snapshot in time and tracks trends with previous years. It marks successes and challenges as the industry continues to evolve.

See page 18 for detailed notes on methodology.

## The Report includes:



### Shared Micromobility in North America pg 1

### Shared Micromobility by the Numbers pg 7

- Comparison of Trip Trends
- Comparison of Vehicle Trends
- Country-by-Country Breakdown of Trips and Vehicles
- System Statistics by City Size
- Who Uses Shared Micromobility?

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- Benefits of Shared Micromobility
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# Shared Micromobility in North America

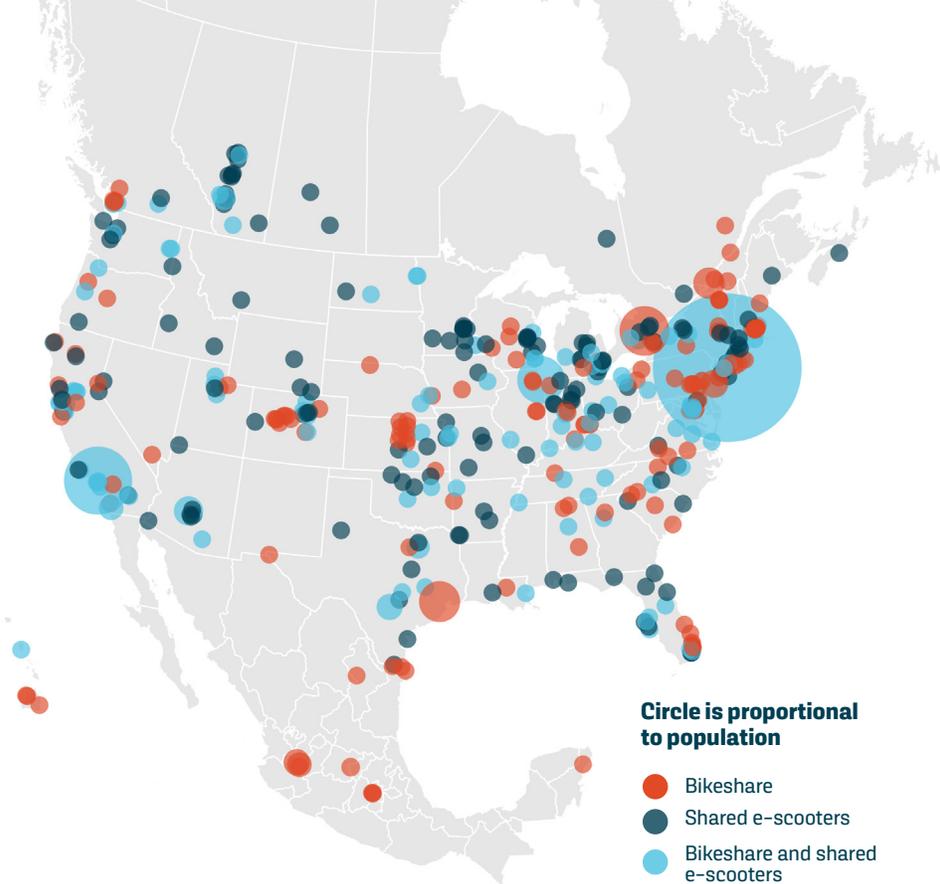
North American Cities with Shared Micromobility Systems, Shown by Population Size

In 2023, an estimated 421 cities\* had at least one bikeshare or scootershare system\*, and 115 cities had both. This is 5% more than 2022, and includes:

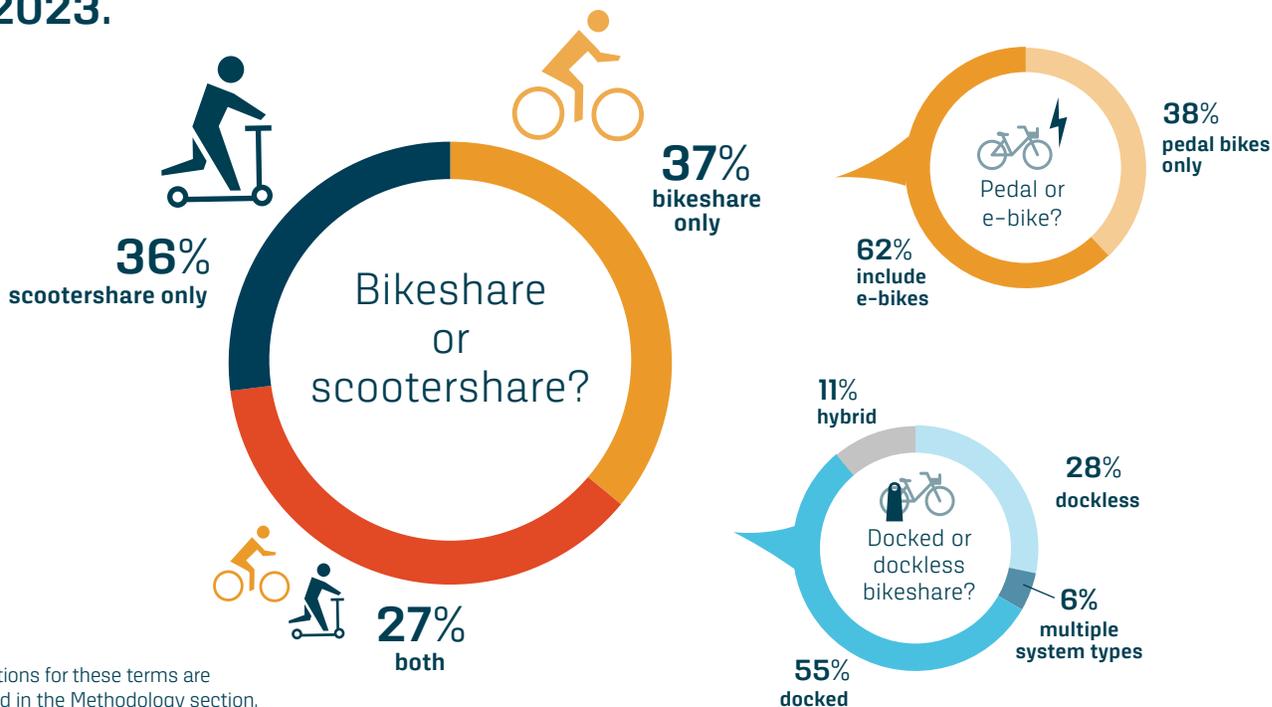
- 371 cities in the United States
- 41 cities in Canada
- 9 cities in Mexico

These numbers reflect all cities that had shared micromobility systems for at least part of the year. Operator consolidation trends and closures that occurred in 2023 will be reflected in the 2024 report.

Approximately 62% of bikeshare systems include e-bikes, and 82% of all systems include e-devices.



At least **421** cities in North America had a **scootershare or bikeshare** system in 2023.

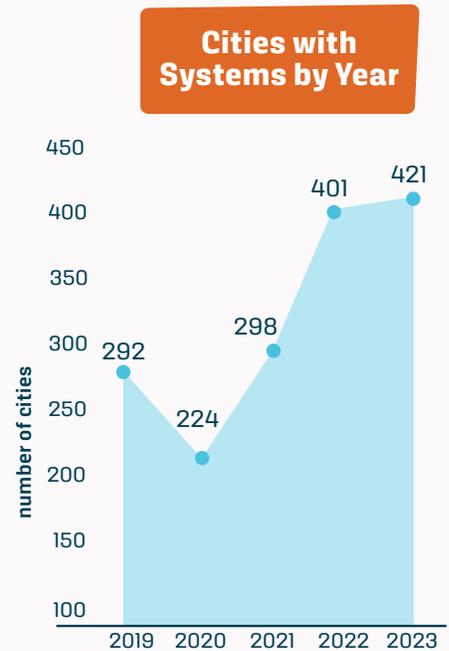
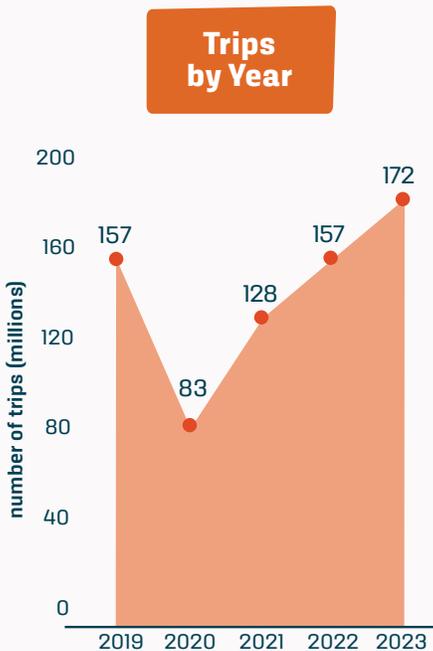
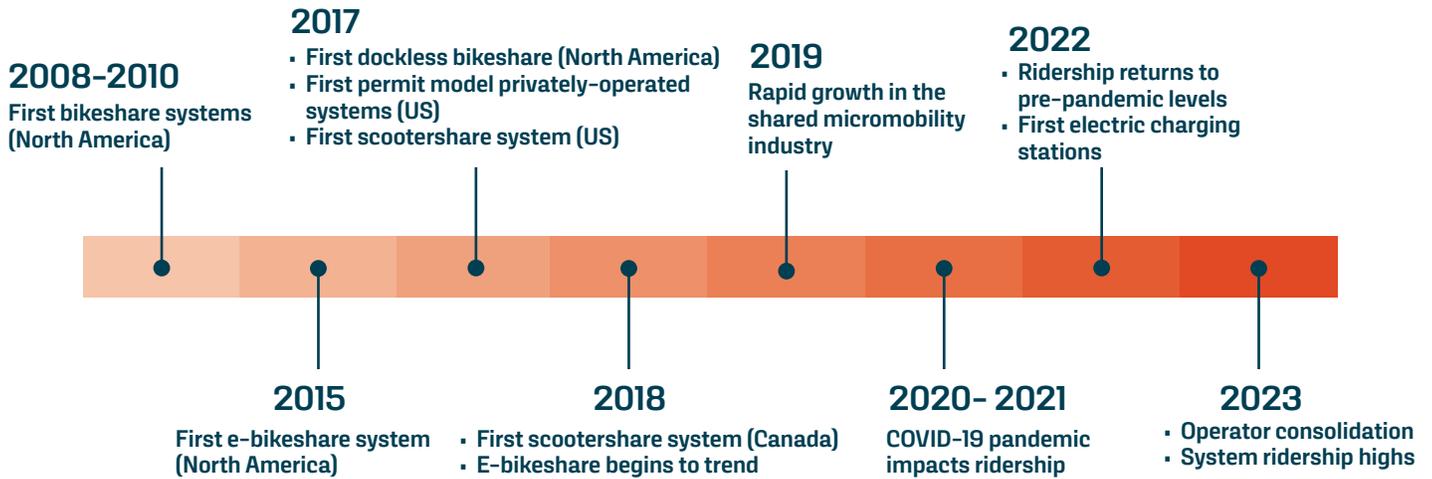


\*Definitions for these terms are included in the Methodology section.

# Year Over Year Trends

Over the last fifteen years, shared micromobility has grown, evolved, and strengthened as an industry. Shared micromobility trips and the number of cities with shared micromobility systems are at the highest levels to date. While the total number of shared micromobility vehicles has slightly decreased since 2022, the vehicles are being ridden more.

## Shared Micromobility Timeline



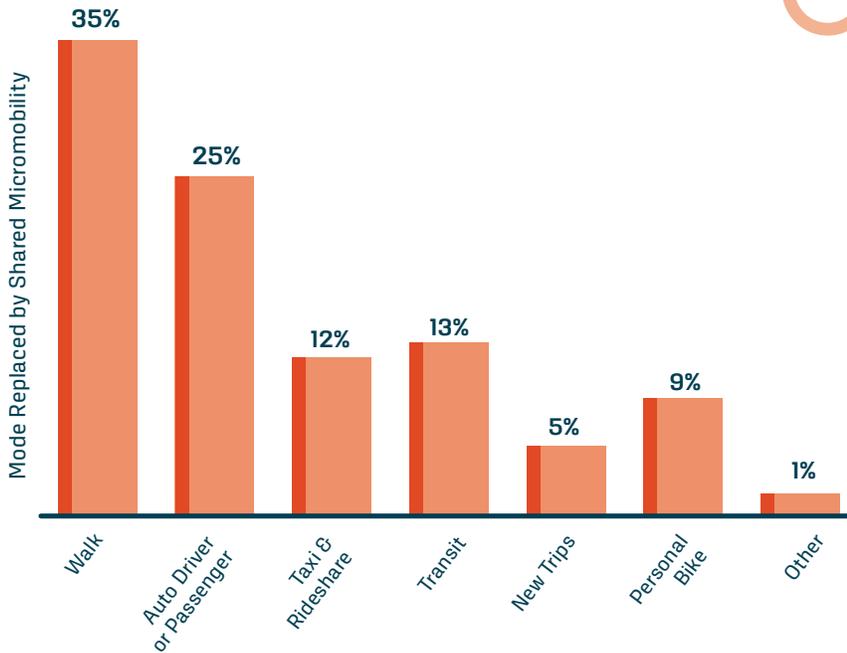


# Why Shared Micromobility?

# Shared Micromobility for Climate Action

## Transportation Options

User surveys show that shared micromobility is used in place of a variety of modes and that 5% of trips are new trips that would not have been taken otherwise.



**10% of bikeshare users** stated that access to bikeshare influenced them to **delay the purchase of a household vehicle; 3% of bikeshare users** reported **selling or getting rid of their household vehicle** due in part or whole to their use of bikeshare.\*



## Reduced Greenhouse Gas Emissions

Riding shared micromobility produces considerably fewer greenhouse gas emissions than driving an automobile.

By combining mode shift data with life cycle emissions (vehicle manufacturing, fuel use, operational services, and infrastructure), a study of six global cities found that **shared micromobility modes reduce the carbon emissions of cities' transportation systems.\***

Since 2019, shared micromobility trips have offset **303 million lbs of CO<sub>2</sub> emissions (137 million kg).**



In 2023, shared micromobility trips offset approximately **81 million pounds of CO<sub>2</sub> emissions (37 million kg)** by replacing auto trips.†

\* See Methodology page for study information.

† These reduction factors do not take into account operations, externalities, or life-cycle costs for shared micromobility or for driving, as data for these calculations was unavailable.

# Benefits of Shared Micromobility

Shared micromobility continues to provide a variety of benefits, employing thousands of people and increasing physical activity and local spending. This is supported by trip purpose data compiled from user surveys in cities with shared micromobility.

## Benefits to the Community



Environmental benefits



Personal health / exercise benefits

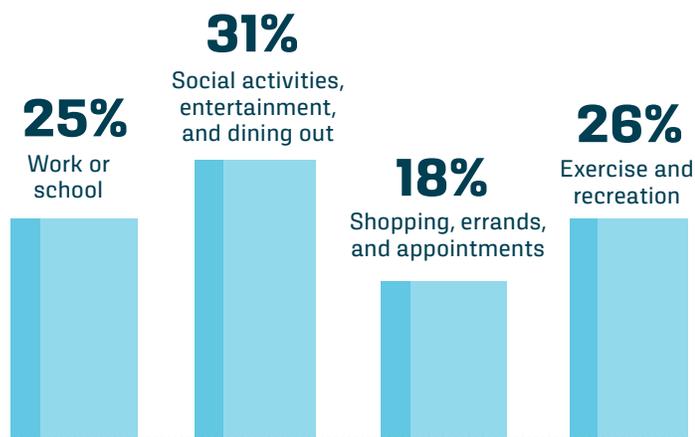


Increased travel options



Reduced traffic or time driving

## Why People Ride



## Economic Impact

An updated study of 98 U.S. cities found that the introduction of e-scooters in a city significantly impacts the amount of money spent at restaurants.

Spending by e-scooter users **increased by approximately 5.2%**, which would represent incremental spending of **\$97.1 million USD annually** for the 421 North American cities operating shared micromobility in 2023.\*

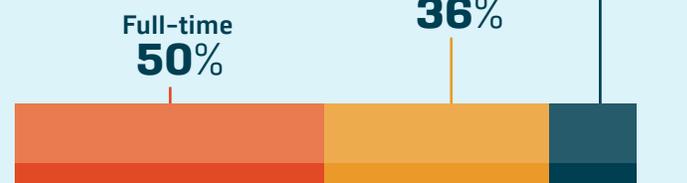
## Physical Activity & Exercise



North Americans gained almost **24 million hours** of additional physical activity through shared micromobility creating new trips and replacing motorized trips.

## It is estimated that shared micromobility employs at least:

**9,600 people**

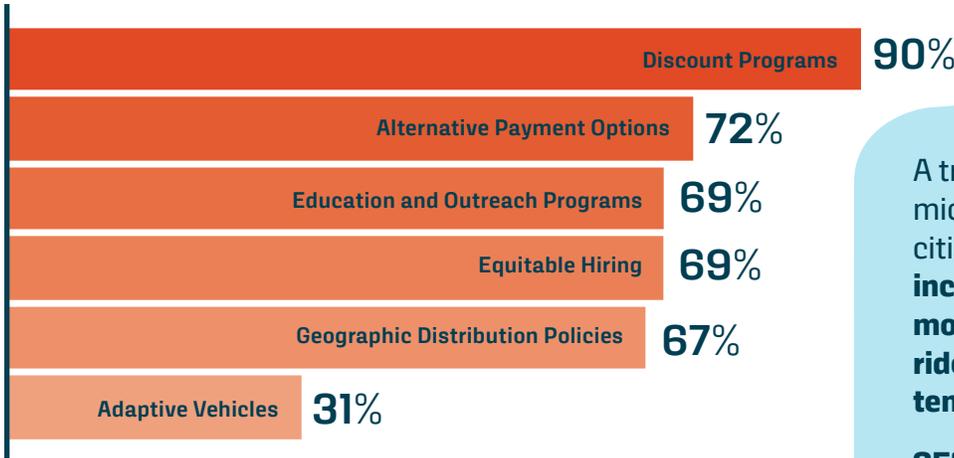


This represents about **1 job for every 29 vehicles**

\* See Methodology page for study information.

# Transportation Equity

Shared micromobility systems continued to provide a range of programs to advance equity. The programs offered were consistent between 2022 and 2023, with the exception of adaptive vehicle offerings, which increased from 21% of systems in 2022 to 31% in 2023.



A travel diary survey of 2,000 shared micromobility users across 48 U.S. cities found that **users with household incomes under \$50,000 USD were more likely to be “super users” who ride shared micromobility more than ten times a week.**

**25%** of users in households with incomes under \$50,000 used shared micromobility at least five times a week, compared to 18% of users with household incomes between \$50,000–\$100,000 USD and 16% of users with household incomes between \$100,000–\$150,000 USD.\*

A study of Lime Access riders (income-qualified recipients of subsidized rides) found that Access users ride more often than other riders and were more likely to be locals who use shared micromobility for utilitarian purposes.\*

## Overall, agencies and operators reported slightly lower participation in NABSA’s Workplace Diversity, Equity, Inclusion, and Belonging initiatives than in prior years:

- 75%** stated that diversity is part of every hiring conversation.
- 60%** reported that staff is representative of the populations being served.
- 59%** reported that their staff have completed cultural competency or diversity training.
- 71%** reported that women and people of color are represented at all levels of their organization.
- 32%** of leaders of companies or departments overseeing shared micromobility identify as Black or Indigenous, or as a person of color;
- 45%** of leaders identify as female or non-binary.

**Leadership diversity increased substantially between 2022 and 2023.**



\* See Methodology page for study information.

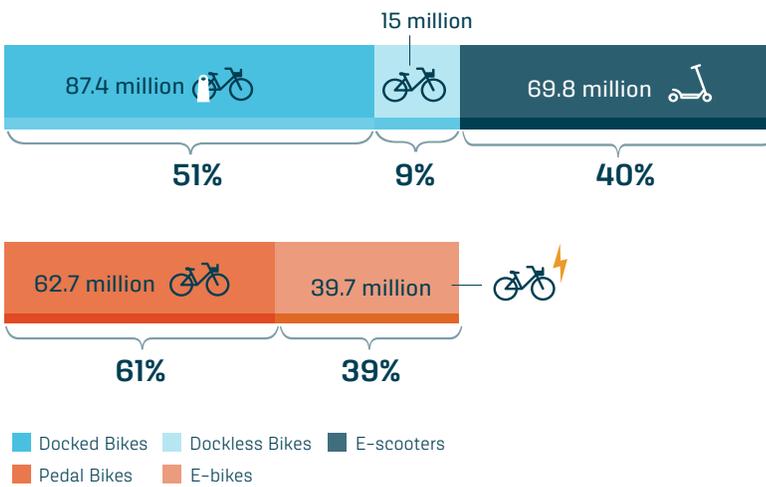


# Shared Micromobility by the Numbers

# Comparison of Trip Trends

North Americans took an estimated 172 million trips on shared micromobility vehicles in 2023. This is approximately 10% more trips than were taken in 2022 and is the highest number of annual trips recorded to date. Bike trips accounted for 60% of all trips and e-scooters accounted for 40% of all trips, with e-bike trips growing by 26% compared to 2022.

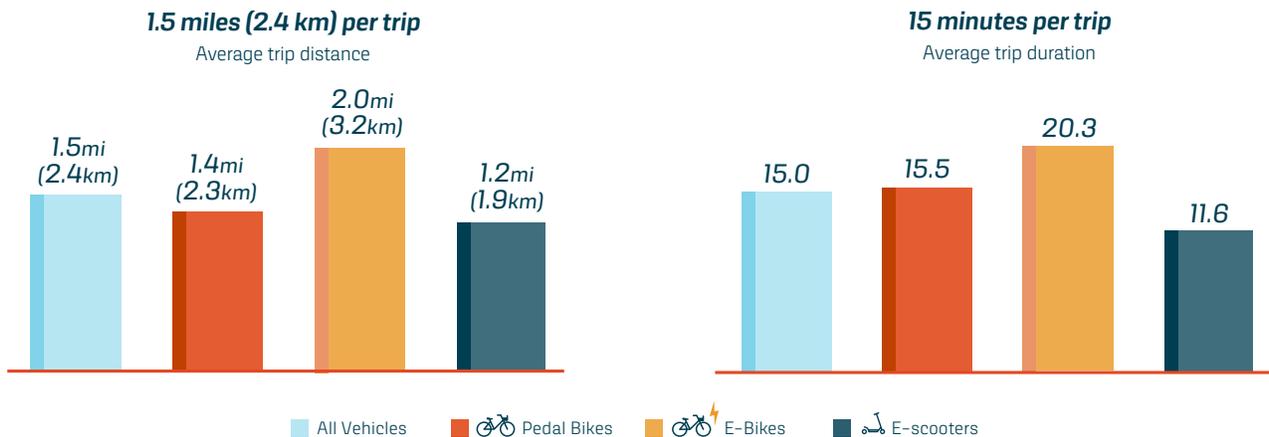
## 172 Million Trips Across North America in 2023



## Country-by-Country Shared Micromobility Trip Breakdown



The average trip length was 1.5 miles (2.4 kilometers) long, 0.1 miles longer than 2022. The average trip duration was also slightly longer than in 2022, increasing from 14.1 to 15 minutes. These numbers are based on aggregate data; individual cities will have variation based on local conditions.

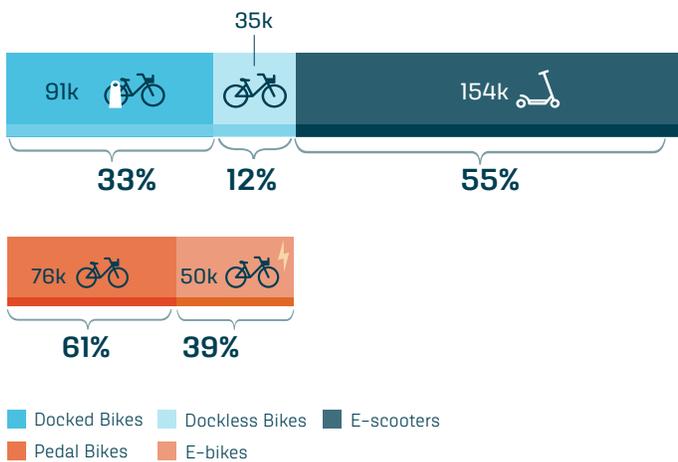


# Comparison of Vehicle Trends

North Americans had access to an estimated 280 thousand shared micromobility vehicles in 2023. This is approximately 3% lower than in 2022. The share of e-bikes continued to grow since 2022 and now makes up 39% of the overall bikeshare fleet. E-scooters make up 55% of total shared micromobility vehicles deployed in 2023.

## 280 Thousand Vehicles

Deployed Across North America on an average day in 2023



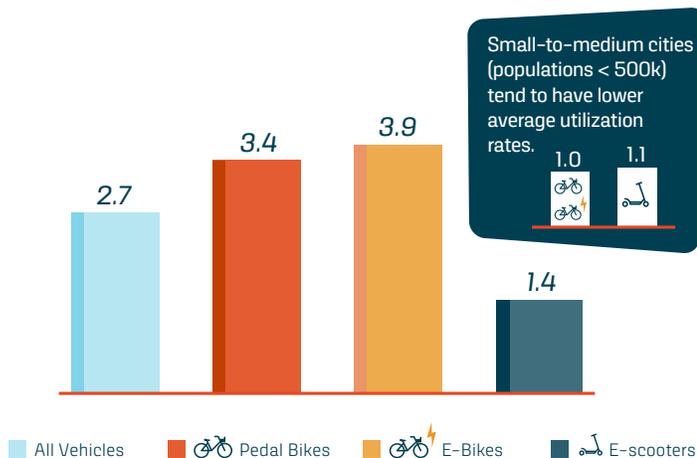
## Country-by-Country Shared Micromobility Vehicle Breakdown



The average shared micromobility vehicle was used for 2.7 trips per vehicle per service day, an 80% increase from 2022. Utilization rates have varied since 2019, but a higher utilization rate generally indicates that a fleet of vehicles is being used efficiently and effectively.

### 2023 Utilization Rates

Average utilization (trips/vehicle/service day)

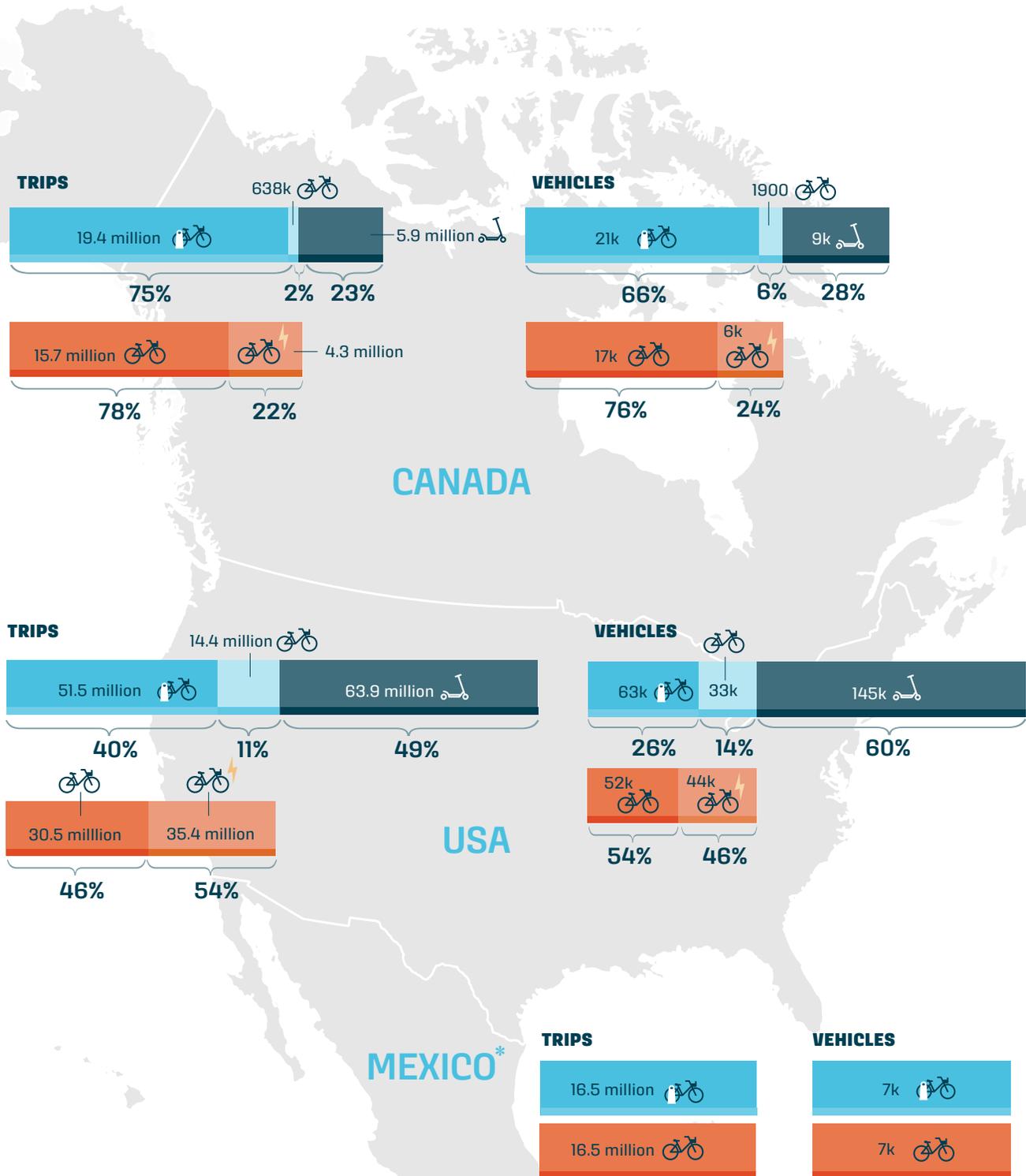


### Average Utilization Rate by Year



# Country-by-Country Breakdown of Trips and Vehicles

This page provides a detailed breakdown of trips and vehicles in Canada, the United States, and Mexico.

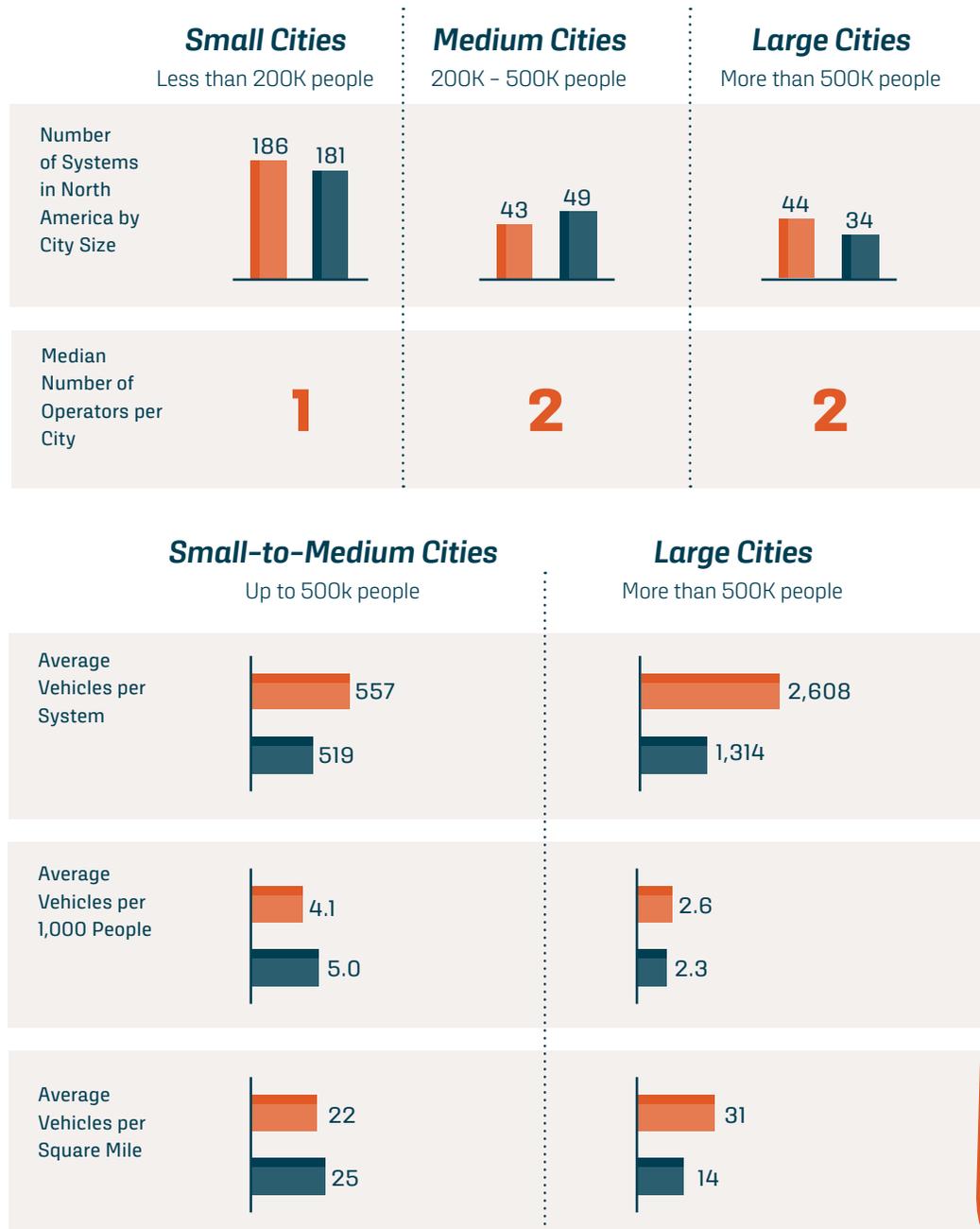


\* All known systems in Mexico are docked fleets of pedal bikes.

- Docked Bikes
- Dockless Bikes
- E-scooters
- Pedal Bikes
- E-bikes

# System Statistics by City Size

Shared micromobility systems have different operating characteristics in cities of different sizes. The number of systems, average vehicle counts, system densities, and the median number of operators for small-, medium-, and large-sized cities are shown below.



■  Bikes
 ■  E-scooters

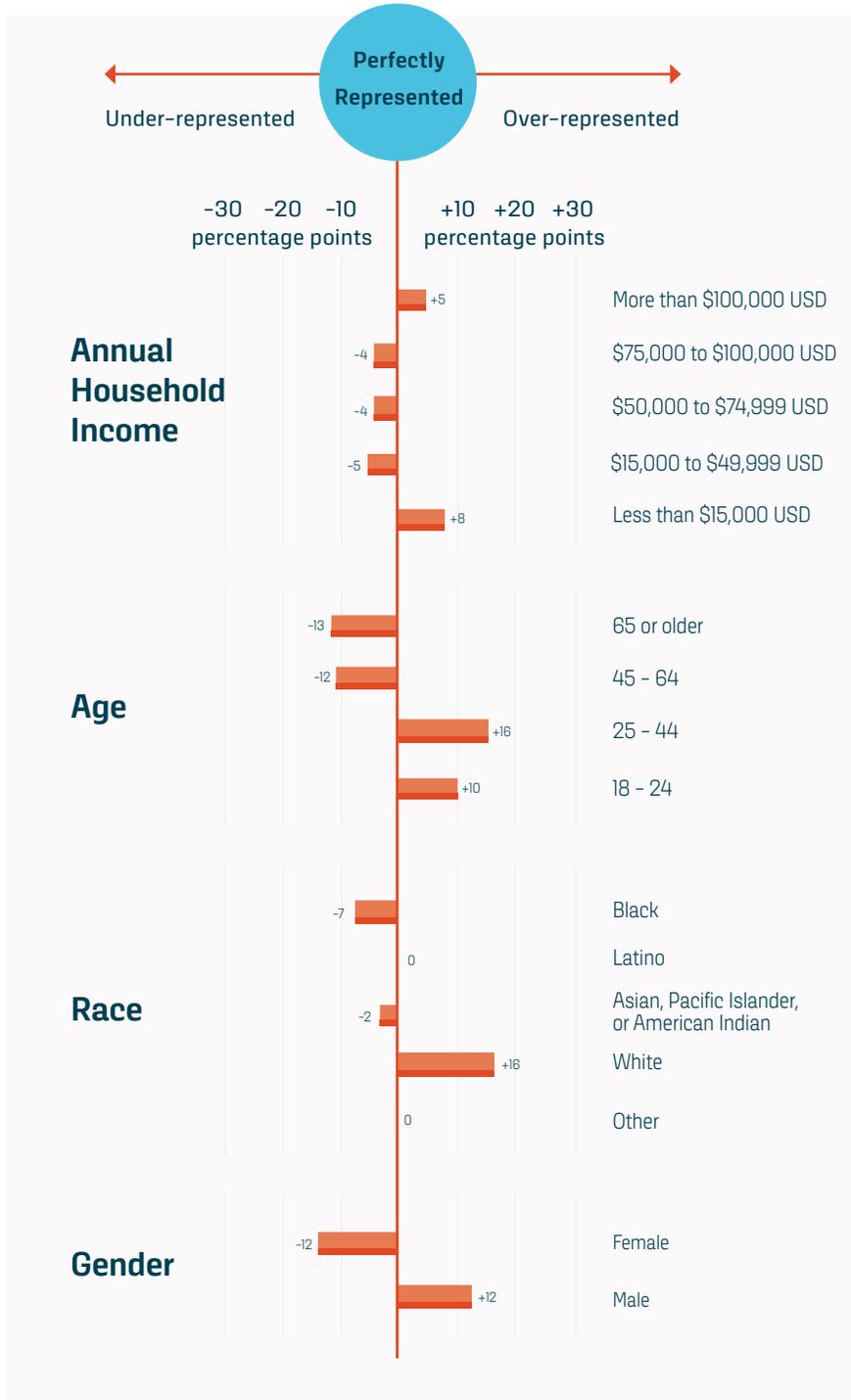
Small cities saw an increase in bikeshare systems, while medium and large cities stayed relatively stable.

Small cities had fewer operators than medium and large cities.

Like in 2022, larger cities in 2023 had more vehicles per system but less vehicles per capita.

Larger cities had more bikeshare vehicles per square mile, but small-to-medium cities had higher e-scooter vehicle density.

# Who Uses Shared Micromobility?



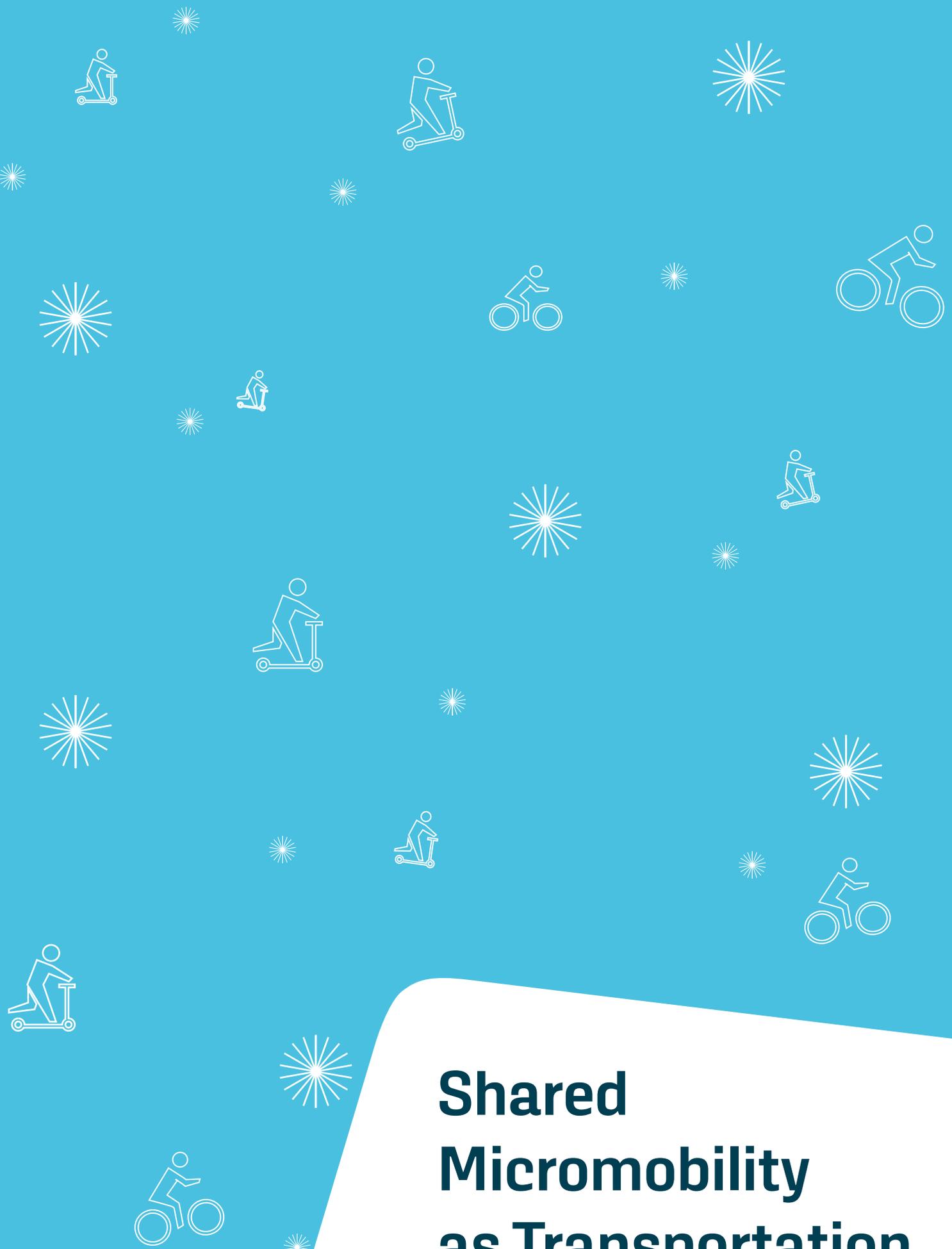
\*Since data was unavailable, people under 18 years old were omitted from the analysis, as were nonbinary and other genders not counted in the Census.

The chart shows the average number of percentage points by which shared micromobility users over- or under-represent local demographics. For example, if women represent 50% of the population of a particular city, but they represent only 40% of that city's shared micromobility users, then women are under-represented by 10 percentage points.

The following trends are noted:

- **Income:** the highest income earners continued to be highly over-represented in 2023, although to a lesser extent than in 2022. The lowest earners were also over-represented; low-to-middle incomes were the most under-represented in 2023.
- **Age:** the 18-24 and 25-44 year age brackets continued to be over-represented. Adults 45 and older were still under-represented.
- **Race:** People of Color were better represented in 2023, with Latino and Other populations well-represented. White populations were still substantially over-represented in 2023.
- **Gender:** female participation continued to be under-represented.

**Shared micromobility user demographics in 2023 were consistent with 2022.**



# Shared Micromobility as Transportation

# Connections to Transit

Shared micromobility is part of the public transportation ecosystem. As a flexible transportation option with comparatively low overhead and operations costs, shared micromobility can complement higher-volume fixed-route transit services by offering mobility services for many trips at a lower per-traveler cost. Below is a summary of shared micromobility's effectiveness as a public transportation option and how it complements other public transportation modes.

**70% of riders** reported that they use shared micromobility to connect to transit; **20%** say they use it weekly to connect to transit.

AND

**16% of all shared micromobility trips** were for the purpose of connecting to transit.



A study of shared micromobility users found that a significant portion of shared micromobility trips connecting to transit were induced by micromobility availability:

**7% of riders would not have made a connected trip in the absence of shared micromobility.\***

A meta-analysis of 30 studies of shared micromobility ridership found that **as the number of nearby transit stations and/or bus stops increases, so does shared micromobility ridership.\***

## Average Monthly Costs



**Does your agency require GBFS feeds from operators?**



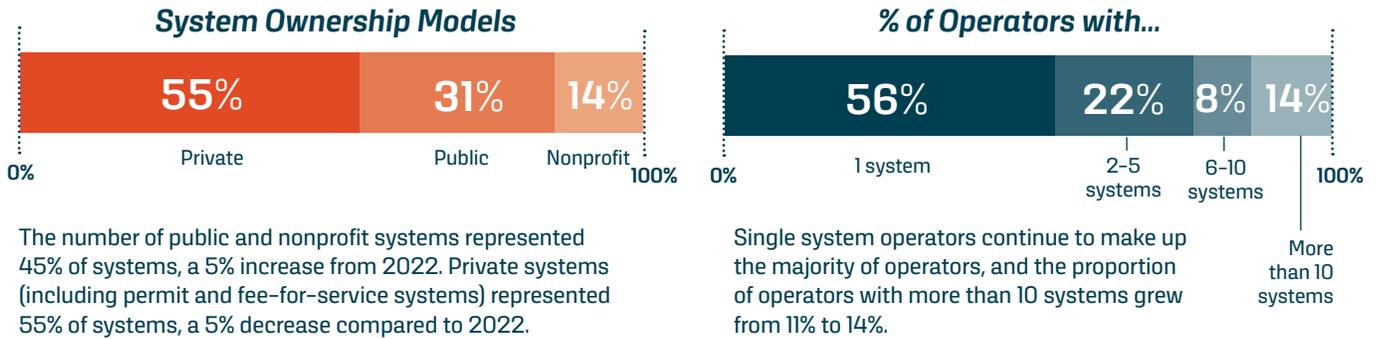
\* See Methodology page for study information.

# Operating Characteristics

The way that shared micromobility operates continues to evolve. This page shows a 2023 snapshot of system ownership models, the range of sizes of operators, as well as an overview of agency-related shared micromobility fees, financial support for operators, and operator costs based on responses to NABSA's survey.

There were **59** active operators in 2023, a 7% increase from 2022.

2023 saw multiple operators consolidate or close, which will be reflected in the 2024 report.



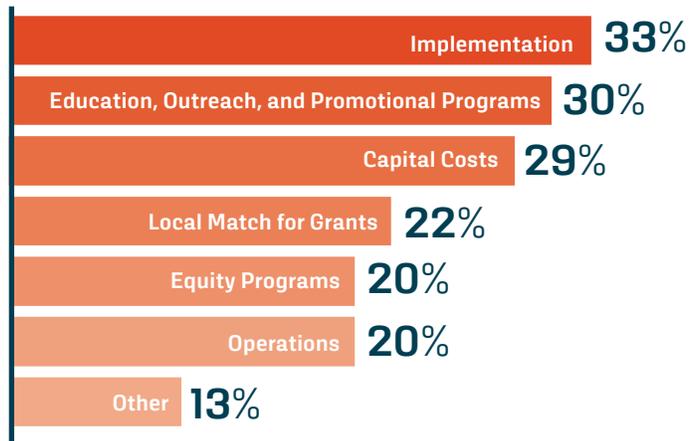
The number of public and nonprofit systems represented 45% of systems, a 5% increase from 2022. Private systems (including permit and fee-for-service systems) represented 55% of systems, a 5% decrease compared to 2022.

Single system operators continue to make up the majority of operators, and the proportion of operators with more than 10 systems grew from 11% to 14%.

## Operators identified their Top 3 program costs as:

- 1 Rebalancing and recharging
- 2 Vehicle maintenance and repair
- 3 Other overhead (insurance, credit card processing fees, etc.)

Public funding for shared micromobility can support system sustainability and longevity. Agencies provided financial support in the following categories across North America:



## Agencies charge a variety of fees as part of shared micromobility permits\*:

Permit-based systems have grown in popularity in recent years. The information below shows a snapshot of the fees assessed for permit-based operations.

Fee Type (all fees in USD)	Min	Avg	Max
Per vehicle per day	\$0.75	\$0.88	\$1
Per vehicle per month	\$10	\$15	\$20
Per vehicle per year	\$1	\$63	\$150
Application fee	\$25	\$3,554	\$20,000
One-time permit fee	\$50	\$11,937	\$100,000
Per-trip fee	\$0.10	\$0.17	\$0.35

### Number of fee types assessed:

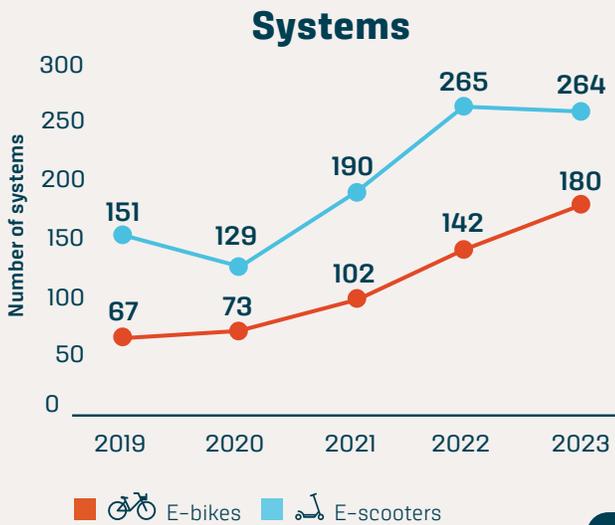
Number of fees	Number of cities
0	4
1	12
2	9
3	11
4	5
5	2

\* Fee ranges do not include agencies that do not charge fees.

# Electrification in Shared Micromobility

Electrification trends continue to grow, as electrified shared micromobility fleets gain in popularity and usage – the number of systems with e-bikes grew 27% since 2022, and the number of systems with e-scooters remained relatively consistent. Operators are increasingly moving to electrify their fleets, as well as to improve the sustainability of their operations by using electric vehicles (EVs) for rebalancing and renewable energy for charging.

## Year-over-Year E-Device Trends



In 2023, **82%** of shared micromobility systems included e-devices and **64%** of shared micromobility trips were taken on e-devices.

### Fleet Charging

Although the number of operators using charging stations is relatively small, **26%** of surveyed operators report using **solar-powered stations** to charge their fleets.

**22%** of operators reported that they purchase **renewable grid energy** for fleet charging.

### Fleet Rebalancing

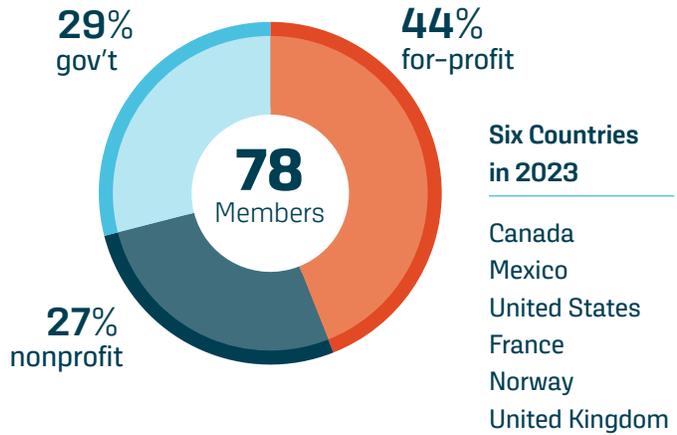
**67%** of operators use e-bikes and **46%** use EVs or hybrid vehicles to rebalance their shared micromobility fleets.

**17%** of all electric shared fleets are rebalanced using e-vehicles (e-bikes or EVs).



# How NABSA Supports the Industry

The North American Bikeshare & Scootershare Association (NABSA) collaborates across sectors to grow shared micromobility and its benefits to communities, creating a more equitable and sustainable transportation ecosystem. NABSA is a nonprofit organization dedicated to providing resources, education, and advocacy for the shared micromobility industry, and to creating spaces for the industry's public, private, and nonprofit sectors to convene and empower each other. In 2023, NABSA had 78 members from six countries.



## NABSA Highlights for 2023



**236**

NABSA Annual Conference attendees



**612**

Webinar registrants



**245**

Bills tracked affecting the industry



**330**

Knowledge Share and Member Center users



**2,650**

Website sessions per month by 1,875 average unique users per month



**4,695**

Followers and subscribers

# Methodology

## Survey Tools

Primary data for this report was collected through two surveys: an Operator Survey and an Agency Survey. The Surveys were distributed to all known shared micromobility operators and agencies and included questions about the attributes of shared micromobility systems operating within those agency jurisdictions and operator markets.

The word operator refers to a company or organization responsible for day-to-day operations of one or more shared micromobility systems. The word agency refers to a public agency responsible for oversight of one or more shared micromobility systems in their jurisdiction.

## Page 1 – Shared Micromobility in North America

Population data sources for the map include:

- The US American Community Survey 5-Year Estimates, 2018–2022
- The 2021 Canadian Census of Population
- Mexico's Population and Housing Census 2020

System data was derived from an internal database of all known shared micromobility systems in North America that is maintained and updated by NABSA.

The word “cities” is used to denote local jurisdictions or municipalities throughout this report. On occasion, the word cities is used as a catch-all that may include metro regions or counties in which shared micromobility systems operate; when this happens, the geography will be specified in the text and/or the methodology section.

A “system” is defined as at least 3 stations or 20 dockless devices that are not on a closed campus. In addition, systems are automated with a back-end management software.

A “hybrid system” is defined as a system that uses branded stations or hubs and that also allows some degree of free-floating use of devices outside of branded stations.

## Page 2 – Year-over-Year Trends

Year-over-year trend data was based on data collected from the Agency and Operator Surveys from 2019–2023.

## Page 4 – Shared Micromobility for Climate Action

### Mode Replacement

Mode replacement statistics (for all modes) were calculated as averages of published survey data collected in 22 systems or cities between 2020 and 2023: Arlington, Arvada, Boulder, Calgary, Chicago, Lincoln, Los Angeles, Milwaukee, Norfolk, North Vancouver, Pittsburgh, Philadelphia, Phoenix, Quebec City, Red Deer, Santa Monica, Seattle, Somerville, St. Petersburg, Tucson, Washington D.C., and Veotide (national data). “Other” modes include other shared micromobility, personal e-scooters, and non-identified “other” options.

The statistics on delaying purchase and selling household vehicles is reported directly from *American Micromobility Panel: Part 1*. (Fitch-Polse, Dillon T., et al, 2023). Available at <https://doi.org/10.7922/G2F47MG3>.

### Reduced Greenhouse Gas Emissions

Reduction in total Greenhouse Gas (GHG) emissions was calculated based on taxi, rideshare, and auto driver/passenger trip replacement; an estimate of total trips taken on shared micromobility modes; and average trip distance calculated from responses to the Operator and Agency Surveys. Reduction factors do not take into account externalities, operations, or lifecycle costs for shared micromobility or for driving.

The information on combining mode shift data with life cycle emissions is based on data from *The Net Sustainability Impact of Shared Micromobility in Six Global Cities* (Thigpen et al, 2022). Available at: [https://www.isi.fraunhofer.de/content/dam/isi/dokumente/ccn/2022/the\\_net\\_sustainability\\_impact\\_of\\_shared\\_micromobility\\_in\\_six\\_global\\_cities.pdf](https://www.isi.fraunhofer.de/content/dam/isi/dokumente/ccn/2022/the_net_sustainability_impact_of_shared_micromobility_in_six_global_cities.pdf)

By replacing auto trips, shared micromobility trips reduced GHG emissions from vehicles by 100% for pedal bikes, 97% for e-bikes, and 98% for e-scooters. The GHG emission factors for e-bikes and e-scooters were calculated based on energy factors from the following sources: *Electric Two-Wheelers in China: Analysis of Environmental, Safety, and Mobility Impacts* (Cherry 2007) and *The Environmental Impacts of Shared Dockless Electric Scooters* (Hollingsworth et al 2019); and average US Grid emission factors were obtained from the *US EPA eGrid2018 Database* (EPA, 2020). The automobile emission factor was taken from the *US EPA Memorandum on GHG Emissions from a Typical Passenger Vehicle* (EPA, 2018).

## Page 5 – Benefits of Shared Micromobility

### Why People Ride

Trip purpose statistics (for all modes) were calculated as averages of published survey data collected in 16 systems or cities between 2020 and 2023: Arlington, Baltimore, Boston, Calgary, Chicago, Honolulu, Lincoln, Milwaukee, New York, Pittsburgh, Portland, Quebec City, Somerville, Tucson, Washington D.C., and Veotide (national data).

### Health Benefits

This information was based on data from the following research: *Health Impacts of Bike-Sharing Systems in the U.S.* (Clockstone and Rojas-Rueda, 2021). Available at <https://doi.org/10.1016/j.envres.2021.111709>

### Economic Impact

This information was based on data from the report *Wheels to Meals: Measuring the Impact of Micromobility on Restaurant Demand* (Kyeongbin and McCarthy, 2023). Available at: <http://dx.doi.org/10.2139/ssrn.3802082>.

### Shared Micromobility Job Estimates

Employment statistics were calculated from responses to the Agency and Operator Surveys. However, the sample was limited in size and coverage. Industry employment was estimated from the aggregate number of vehicles and applying average employment rates observed in the sample.

### Physical Activity

Reported physical activity statistics were calculated from shared micromobility trips replacing taxi, rideshare, auto driver or auto passenger, transit, and new trips and applying the average trip duration calculated from responses to the Operator and Agency Surveys.

Research citations for the benefits of light physical activity include: *Association of Light Physical Activity Measured by Accelerometry and Incidence of Coronary Heart Disease and Cardiovascular Disease in Older Women* (LaCroix et al 2019), and *Dose-Response Associations Between Accelerometry Measured Physical Activity and Sedentary Time and All Cause Mortality: Systematic Review and Harmonised Meta-Analysis* (Ekelund et al 2019).

E-bike riders use about 76 percent of the energy expenditure of pedal-bike riders. Riding an e-bike provides moderate metabolic activity on flat segments (metabolic equivalent of task [MET] of 3) and vigorous activity on uphill (MET of 6). This is based on the research in *Comparing Physical Activity of Pedal-Assist Electric Bikes with Walking and Conventional Bicycles* (Langford et al 2017).

E-scooters provide light physical activity (MET of 2.5). This is based on the research in *Evaluating the Physical Activity Impacts of Riding Electric Kick Scooters* (poster session presented at the 2019 Conference on Health and Active Transportation, Washington D.C; Wen et al 2019).

## Page 6 – Transportation Equity

The distribution and median number of equity programs were calculated from responses to the Agency and Operator Surveys. Equity program categories are adapted from *Evaluating Efforts to Improve the Equity of Bikeshare Systems* (McNeil, MacArthur, Dill, and Broach, 2019).

The statistics on super users of shared micromobility were directly reported from *American Micromobility Panel: Part 1* (Fitch-Polse, Dillon T., et al, 2023). Available at <https://doi.org/10.7922/G2F47MG3>.

Information on Lime Access users was reported directly from *Who uses subsidized micromobility, and why? Understanding low-income riders in three countries*. (Delbosch and Thigpen, 2024). Available at <https://doi.org/10.1016/j.jcmmr.2024.100016>.

Monthly costs were calculated as averages based on publicly available data for the percentage discounts offered for eligible shared micromobility users in the following cities: Ann Arbor, Arlington, Austin, Alexandria, Boston, Boulder, Buffalo, Chicago, Cincinnati, Colorado Springs, Detroit, Eugene, Fort Worth, Hamilton, Honolulu, Indianapolis, Las Vegas, Milwaukee, New York, Okotoks, Philadelphia, Pittsburgh, Portland, Salt Lake City, San Diego, San Francisco, Seattle, Spokane, Vancouver, and Washington D.C. This data was also supplemented by publicly available data on discounts listed as part of the following operator programs: Bird Community Pricing, Lime Access, Spin Access, and Veo Access.

All other statistics were calculated from responses to the Agency and Operator Surveys.

## Page 8 – Comparison of Trip Trends

Trip data was obtained from responses to the Agency and Operator Surveys and supplemented by online data. Some data for smaller systems was unavailable and supplemented by online data.

## Page 9– Comparison of Vehicle Trends

Vehicle data was obtained from responses to the Agency and Operator Surveys and supplemented by online data. Unavailable and missing data was estimated based on that system's number of trips and the calculated utilization rate and average number of service days for the technology type as estimated from the Agency Survey responses. Systems reported as hybrid systems were classified into either docked or dockless systems based on their technology type and operating characteristics.

Reported overall utilization rates were calculated from aggregate industry-level data. Duration and distance statistics were calculated from trip-weighted Operator Survey responses. It is noted that docked bikeshare and bikeshare not fitted with GPS uses only point-to-point data and may result in data showing shorter trip lengths. The e-bike and pedal bike system statistics were calculated from NABSA's shared micromobility system database and utilization comparisons were calculated from system average utilization rates.

## Page 10 – County-by-Country Breakdown of Trips and Vehicles

Vehicle and trip data is a subset and calculated using the same methodology described for pages 8 and 9.

## Page 11 – System Statistics by City Size

The number of systems was derived from NABSA's shared micromobility system database. All other statistics were calculated as averages of system data collected from the Agency and Operator Surveys; city population and size were drawn from the 2018–2022 American Community Survey 5-Year Estimates, the U.S. Census Bureau, Mexico's Population and Housing Census 2020, and Canada's 2021 Census of Population.

## Page 12 – Who Uses Shared Micromobility

These statistics were calculated based on a comparison of the demographics of shared micromobility users (as reported by a selection of cities conducting their own user surveys) and the equivalent demographic data for those cities from the 2022 American Community Survey (ACS). User survey data from 2020 to 2023 collected in the following cities was used in this analysis: Arvada, Aspen, Baltimore, Boston, Cambridge, Chicago, Denver, Honolulu, Jersey City, Lincoln, Los Angeles, Miami, Milwaukee, Minneapolis, New York, Norfolk, Ottawa, Philadelphia, Phoenix, Pittsburgh, Portland, Quebec City, Salt Lake City, San Antonio, San Diego, San Francisco, San Jose, Seattle, Somerville, St. Petersburg, Tampa, Toronto, Vancouver, and Washington D.C. Not all cities reported in all categories. Over-/under-representation for each demographic is an average of the over-/under-representation for each city. People under 18 years old were omitted from the analysis, as were non-binary and other genders not counted in the Census since data was unavailable.

## Page 14 – Connections to Transit

Usage and connection to transit statistics were calculated from publicly available survey data as well as responses to the Operator and Agency Surveys.

The relationship between shared micromobility and rail was reported directly from *American Micromobility Panel: Part 1* (Fitch-Polse, Dillon T., et al, 2023). Available at <https://doi.org/10.7922/G2F47MG3>.

Transit agency role and integration statistics were calculated from responses to the Agency Survey.

Information on the relationship between transit stations/bus stops and shared micromobility ridership was based on Meta-analysis of Shared Micromobility Ridership Determinants (Ghaffar et al, 2023). Available at <https://doi.org/10.1016/j.trd.2023.103847>.

Reported agency data requirements were calculated from Agency Survey responses.

Monthly user costs were calculated as an average of publicly available data on the cost of monthly passes for bikeshare and transit systems in the following cities: Austin, Boston, Boulder, Buffalo, Chicago, Cincinnati, Colorado Springs, Detroit, Eugene, Fort Worth, Hamilton, Honolulu, Indianapolis, Las Vegas, Milwaukee, New York, Philadelphia, Pittsburgh, Portland, Salt Lake City, San Francisco, Vancouver, and Washington D.C..

## Page 15 – Operating Characteristics

Ownership model statistics and the reported number of systems per operator is based on an internal database of all known shared micromobility systems in North America that is maintained and updated by NABSA.

Agency fees were calculated based on 43 Agency Survey responses. The project team also referenced the report *Taxing Shared Micromobility: Assessing the Global Landscape of Fees and Taxes and their Implications for Cities, Riders, and Operators* (MacArthur, Fang, and Thigpen, 2024). Available at <https://trec.pdx.edu/news/taxing-shared-micromobility-how-cities-respond-emerging-modes-and-whats-next>. Agency funding support for shared micromobility operators was calculated based on 46 Agency Survey responses.

## Page 16 – Electrification

Year-over-year trend data was based on data collected from the Agency and Operator Surveys from 2019–2023, as well as an internal database of all known shared micromobility systems in North America that is maintained and updated by NABSA.

Fleet charging and rebalancing information was obtained from responses to the Operator Surveys.

## Page 18 – How NABSA Supports the Industry

These statistics were drawn from data recorded by NABSA.

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# Acknowledgments

The North American Bikeshare & Scootershare Association (NABSA) collaborates across sectors to grow shared micromobility and its benefits to communities, creating a more equitable and sustainable transportation ecosystem. NABSA is a nonprofit organization dedicated to providing resources, education, and advocacy for the shared micromobility industry, and to creating spaces for the industry's public, private, and nonprofit sectors to convene and empower each other.

North American Bikeshare and Scootershare Association (NABSA) (2024):  
*5th Annual Shared Micromobility State of the Industry Report.*  
<https://doi.org/10.7922/G2DF6PKP>

# N A B S A

NORTH AMERICAN BIKESHARE & SCOOTERSHARE ASSOCIATION

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