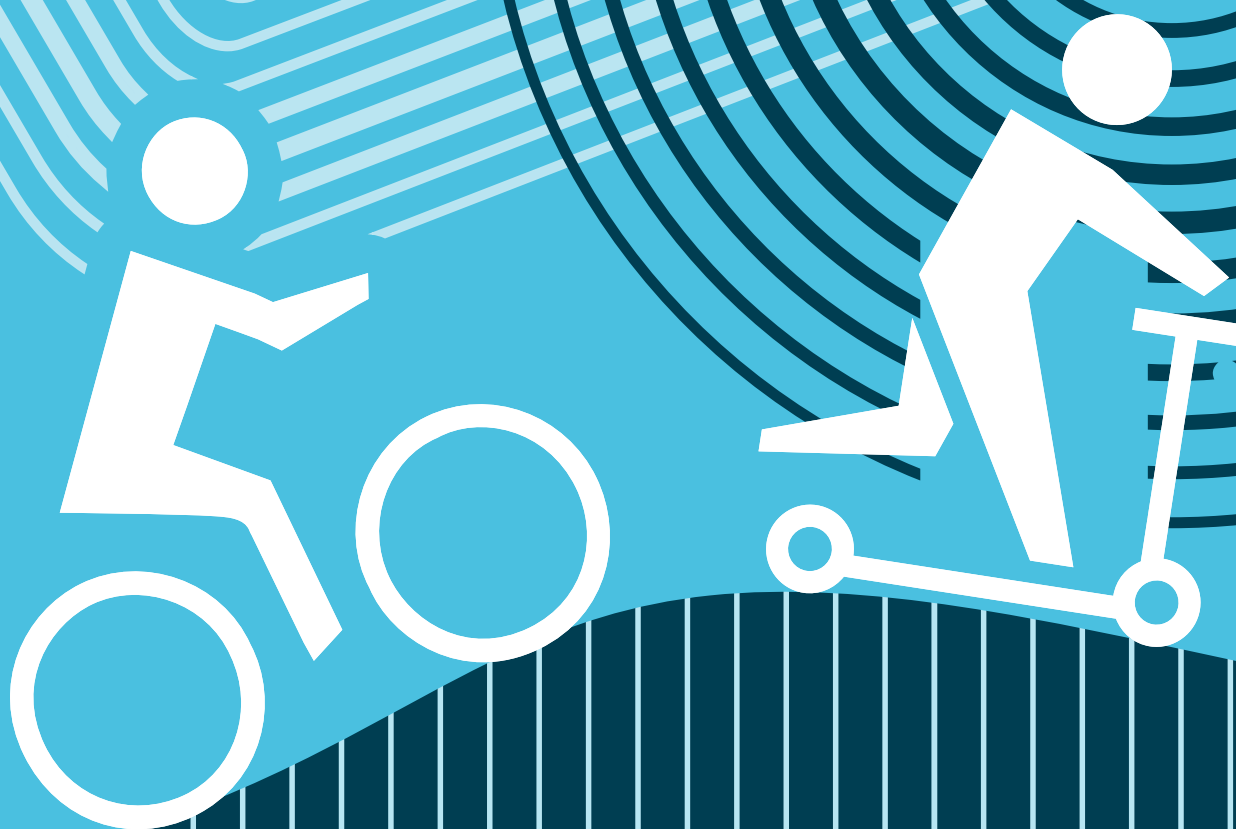# NABSA

NORTH AMERICAN BIKESHARE & SCOOTERSHARE ASSOCIATION

6TH ANNUAL

Shared Micromobility

State of the Industry Report

2024

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NABSA is pleased to present our sixth annual Shared Micromobility State of the Industry Report. In 2024, the industry continued to evolve and grow, with another year of record-breaking ridership and a substantial 31% increase in trip-making compared to 2023. That robust growth spans cities and towns across North America, proving that shared micromobility works, and communities value it. With the industry now firmly established, aligning public funding and policy support with its growing scale and success is key to sustainable operations. This report tracks industry 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 2024 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 19 for detailed notes on methodology.

The Report includes:

Shared Micromobility in North America pg 1

Year over Year Trends pg 2

Why Shared Micromobility? pg 3
- Shared Micromobility for Climate Action
- Benefits of Shared Micromobility
- Transportation Equity

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?

Shared Micromobility as Transportation pg 13
- Connections to Transit
- Operating Characteristics
- Parking Management
- Electrification
- How NABSA Supports the Industry

Methodology pg 19
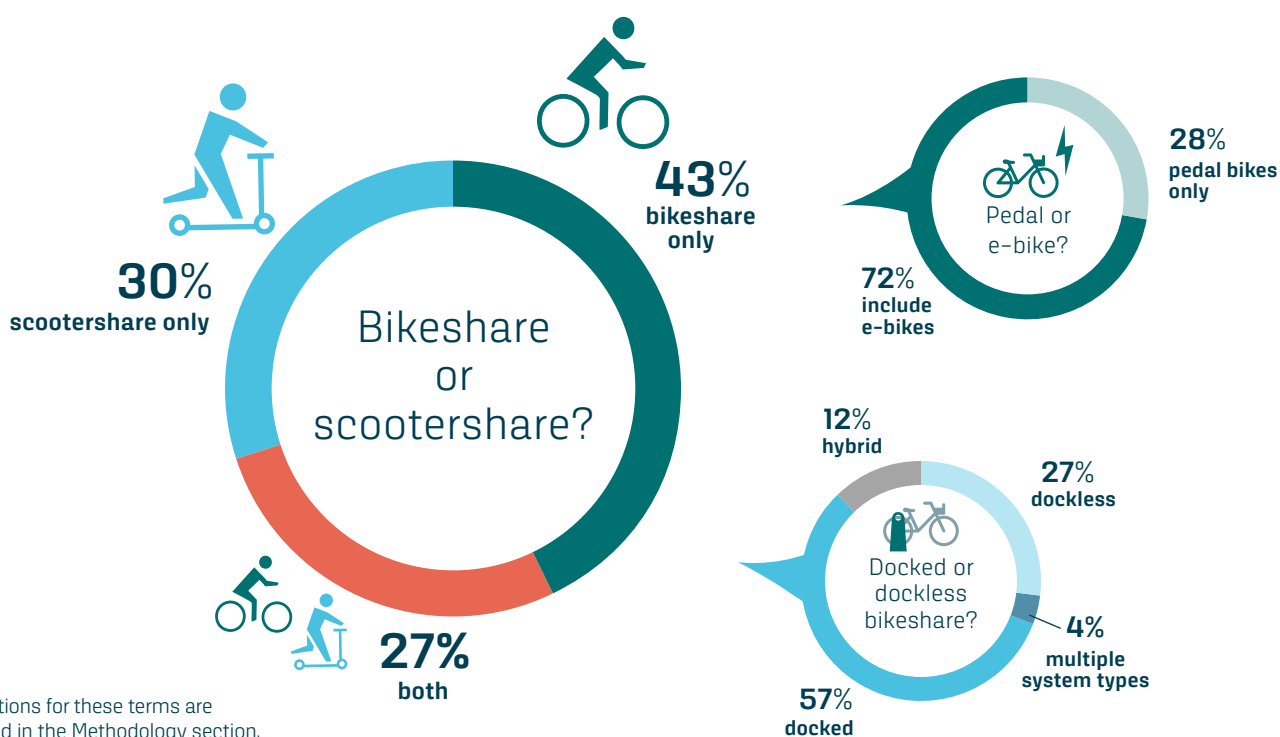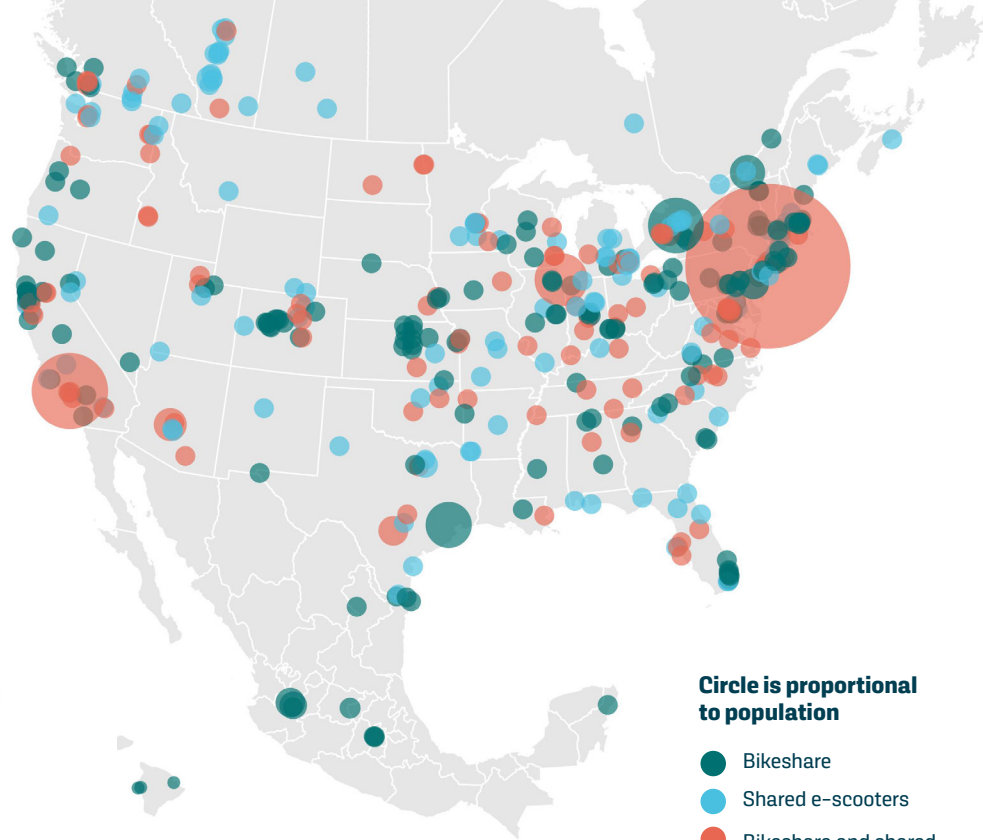
Shared Micromobility in North America

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

In 2024, an estimated 415 cities* had at least one bikeshare or scootershare system* for at least part of the year, and 111 cities had both. This is approximately 1% less than 2023, and includes:

- **354 cities in the United States**
- **52 cities in Canada**
- **9 cities in Mexico**

Approximately 79% of all systems include e-devices. Approximately 72% of bikeshare systems include e-bikes – an increase from 66% in 2023.

At least **415** cities in North America had a **scootershare** or **bikeshare** system in 2024.

Circle is proportional to population

- Bikeshare
- Shared e-scooters
- Bikeshare and shared e-scooters

Bikeshare or scootershare?

- **30%** scootershare only
- **43%** bikeshare only
- **27%** both

Pedal or e-bike?

- **28%** pedal bikes only
- **72%** include e-bikes

Docked or dockless bikeshare?

- **12%** hybrid
- **27%** dockless
- **4%** multiple system types
- **57%** docked

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

Year Over Year Trends
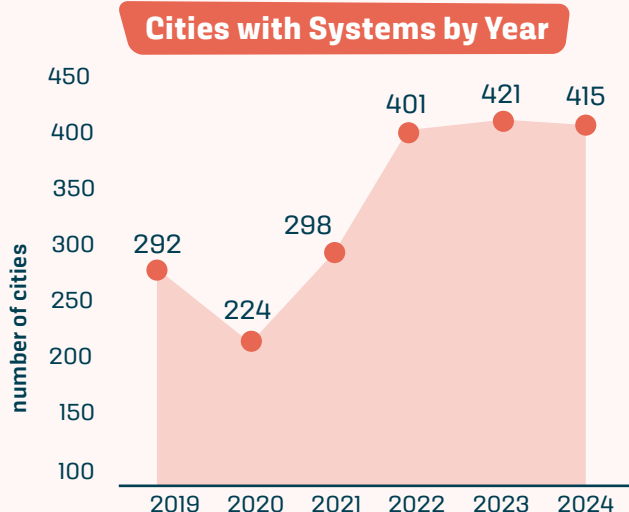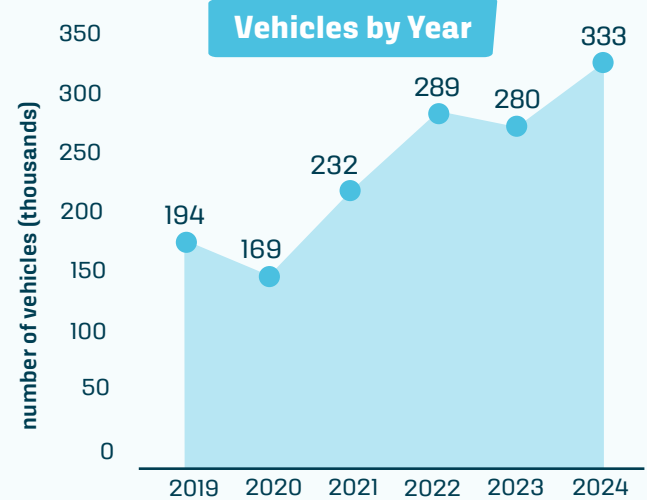
Shared micromobility continues to grow and evolve. Although the total number of cities with shared micromobility slightly decreased from 2023 (~1%), trips and vehicles are at all-time highs.

Trips by Year

number of trips (millions)

Year	Trips
2019	157
2020	83
2021	128
2022	157
2023	172
2024	225
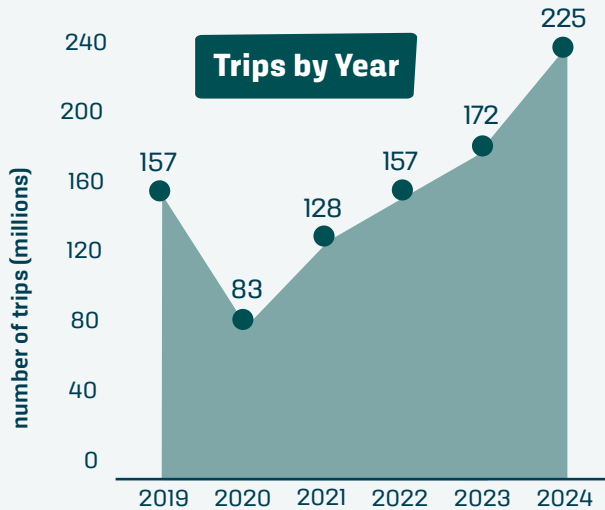
Trips increased by 31% compared to 2023.

Vehicles by Year

number of vehicles (thousands)

Year	Vehicles
2019	194
2020	169
2021	232
2022	289
2023	280
2024	333

Vehicles increased by 19% compared to 2023.

Cities with Systems by Year

number of cities

Year	Cities
2019	292
2020	224
2021	298
2022	401
2023	421
2024	415

Cities with systems decreased by 1% compared to 2023.
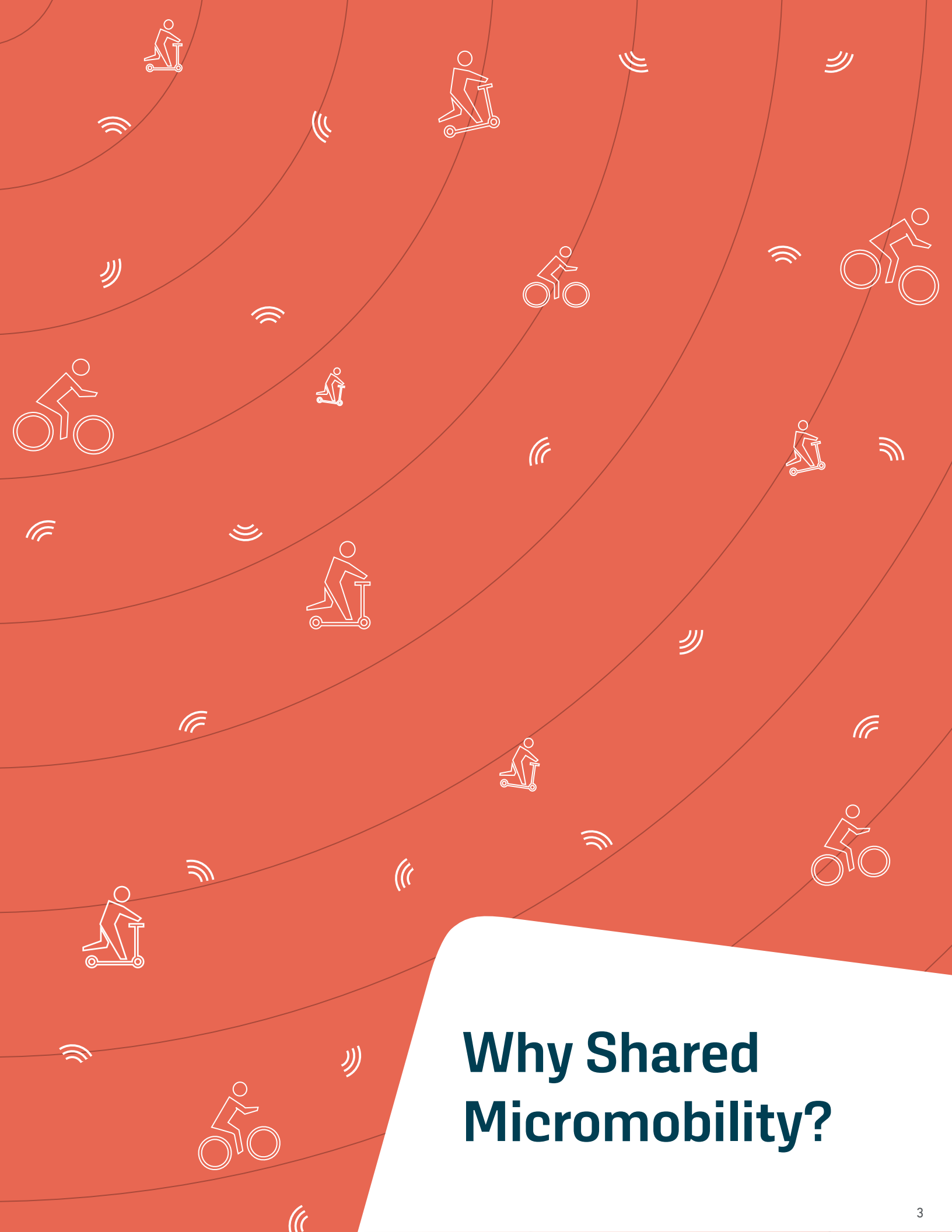
Why Shared
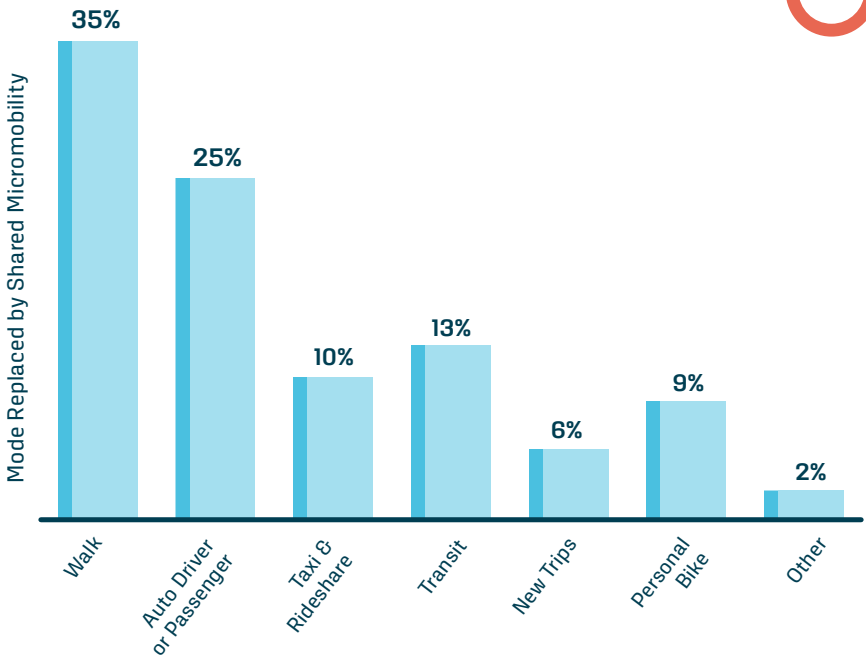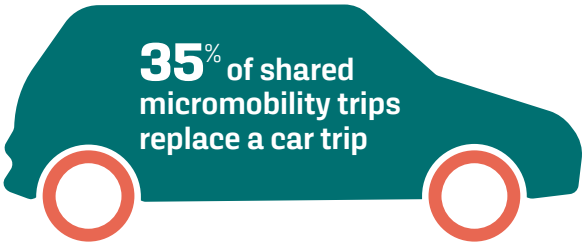# Micromobility?

Shared Micromobility for Climate Action

Transportation Options

User surveys show that shared micromobility is used in place of a variety of modes, and that 6% of trips are new trips that would not have been taken otherwise.

Mode Replaced by Shared Micromobility

Mode	Percentage
Walk	35%
Auto Driver or Passenger	25%
Taxi & Rideshare	10%
Transit	13%
New Trips	6%
Personal Bike	9%
Other	2%

35% of shared micromobility trips replace a car trip

A review of shared micromobility users across 48 U.S cities found that shared micromobility can enable **longer and more complex trip chains**, reducing the use of private vehicles and enabling a car-light lifestyle.*

Reduced Greenhouse Gas Emissions

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

In the last five years, shared micromobility trips have offset approximately **403 million lbs (183 million kg) of CO_2 emissions.**

In 2024, shared micromobility trips offset approximately **101 million pounds (46 million kg) of CO_2 emissions** by replacing auto trips.†
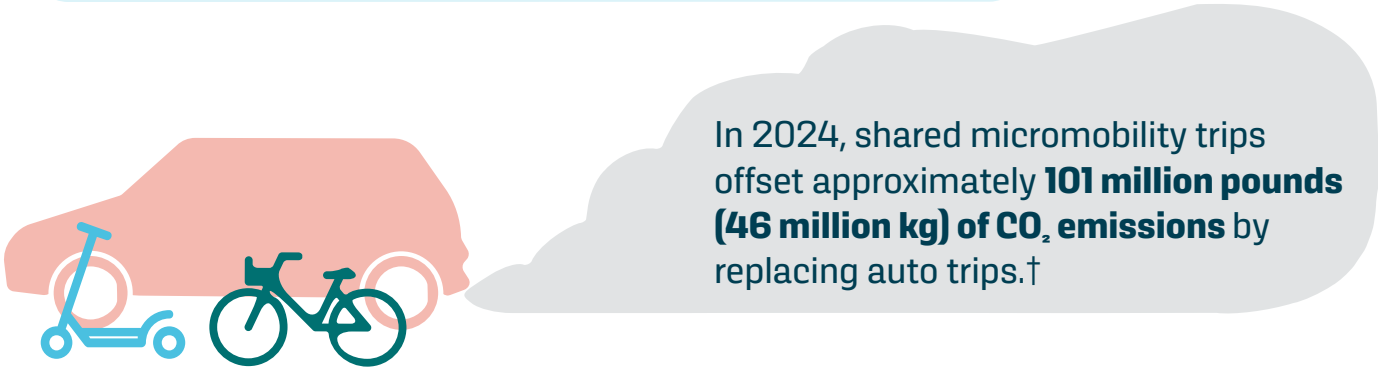
* See Methodology page for study information.

†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. This is supported by trip purpose data compiled from user surveys in cities with shared micromobility.

Benefits to the Community

Environmental benefits
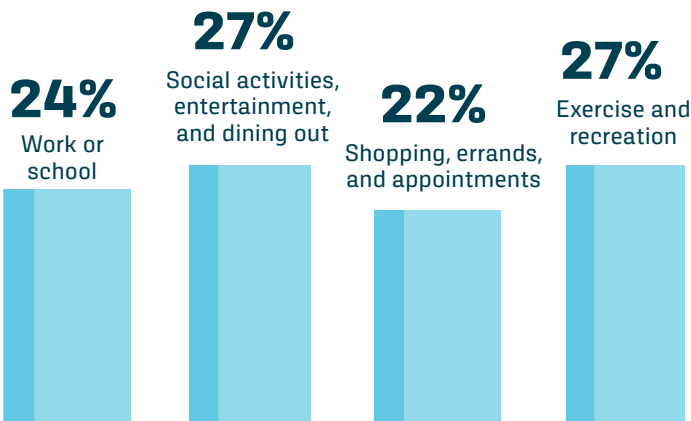
Personal health / exercise benefits

Increased travel options

Reduced traffic or time driving

Why People Ride

24%
Work or school

27%
Social activities, entertainment, and dining out

22%
Shopping, errands, and appointments

27%
Exercise and recreation

It is estimated that shared micromobility employs at least:

8,200 people

Full–time
56%

Part–time
36%

Contractors
8%

This represents about:

1 job for every **41 vehicles**
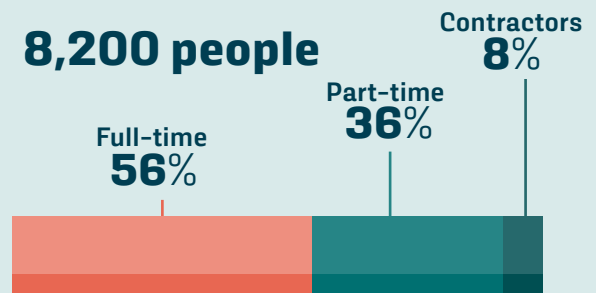
Physical Activity & Exercise
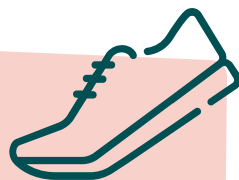
North Americans gained almost

49.5 million hours

of additional physical activity

through shared micromobility creating new trips and replacing motorized trips.

Transportation Equity Programs

Shared micromobility systems continued to provide a range of programs to advance equity. Programs offered were consistent between 2023 and 2024, with a slight increase in discount programs, alternative payment options, education and outreach programs, and geographic distribution policies. Adaptive vehicle offerings continue to increase year over year, rising from 31% of systems in 2023 to 46% in 2024.

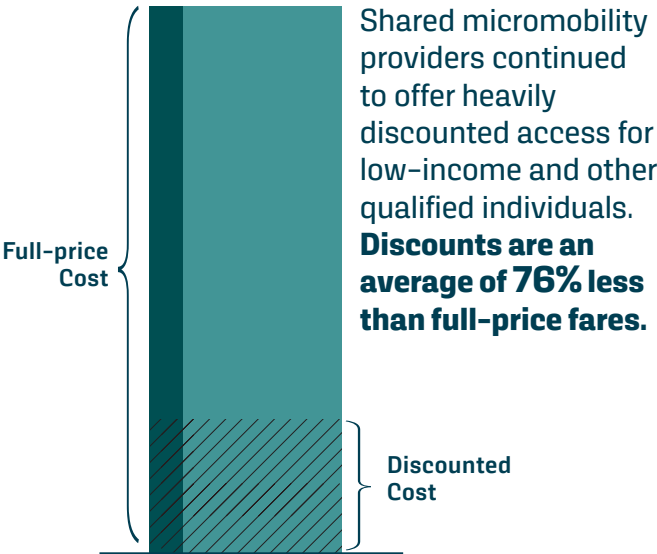| Program	
Discount Programs	**92**%
Alternative Payment Options	**78**%
Education and Outreach Programs	**75**%
Geographic Distribution Policies	**75**%
Equitable Hiring	**61**%
Adaptive Vehicles	**46**%
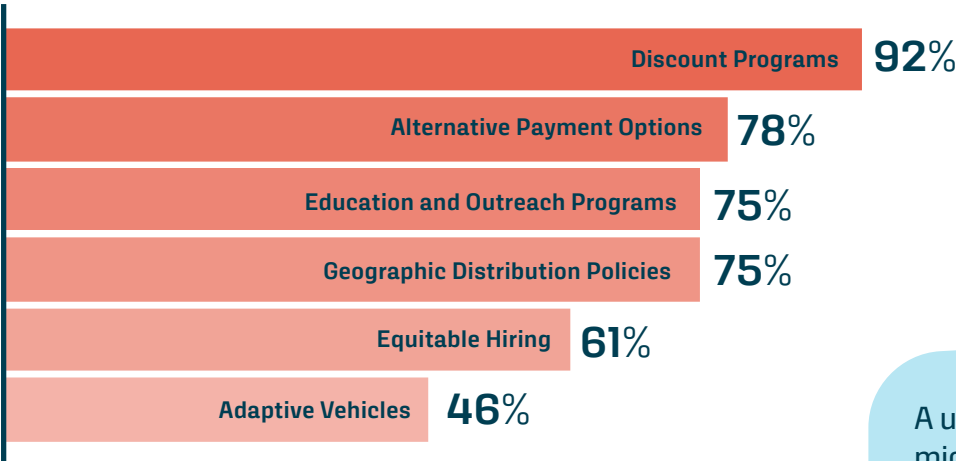
A updated study of 243 shared micromobility programs in the U.S. from 2023–2024 found that **70%** of programs include at least one equity requirement.

The most common requirements include **discounted rides, smartphone alternatives, cash payments, targeted outreach,** and **equitable vehicle distribution**.*

Overall, agencies and operators reported similar participation in NABSA's Workplace Diversity, Equity, Inclusion, and Belonging initiatives to previous years:

76% stated that diversity is part of every hiring conversation.

58% reported that staff is representative of the populations being served.

69% reported that their staff have completed cultural competency or diversity training.

69% reported that women and people of color are represented at all levels of their organization.

24% of leaders of companies or departments overseeing shared micromobility identify as Black or Indigenous, or as a person of color;

39% of leaders identify as female or non-binary.

Shared micromobility providers continued to offer heavily discounted access for low-income and other qualified individuals. **Discounts are an average of 76% less than full-price fares.**

Full-price Cost

Discounted Cost

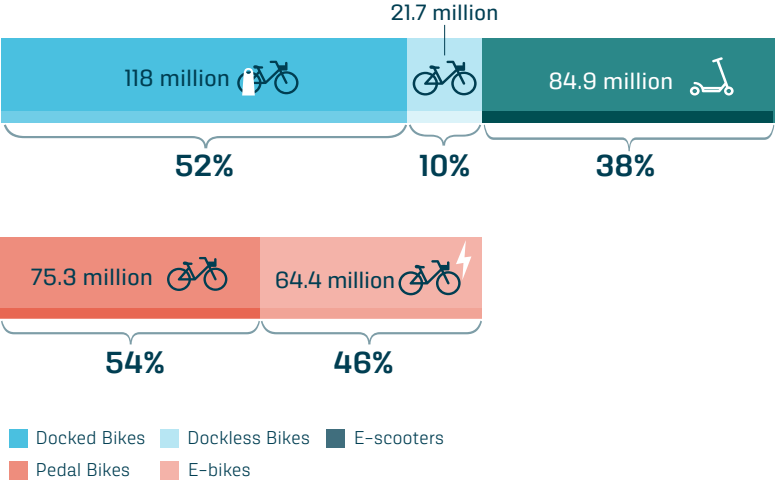* See Methodology page for study information.

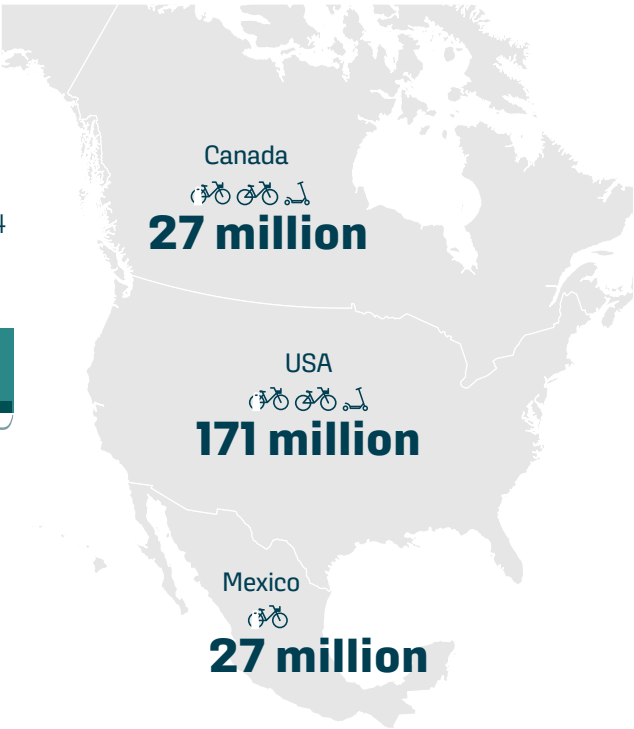# Shared Micromobility by the Numbers

Comparison of Trip Trends

North Americans took an estimated 225 million trips on shared micromobility vehicles in 2024. This is approximately 31% more trips than were taken in 2023, marking the second consecutive year of record-breaking ridership. Bike trips accounted for 62% of all trips and e-scooters accounted for 38%. E-bike ridership saw substantial growth, increasing by 62% compared to 2023.
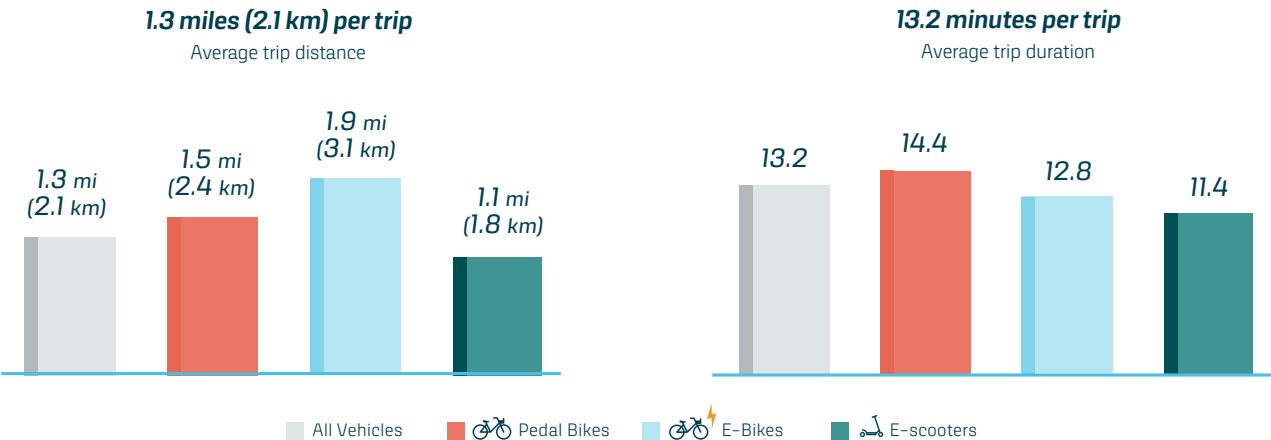
225 Million Trips across North America in 2024

21.7 million

118 million 🚲	🚲	84.9 million 🛴
52%	**10%**	**38%**

75.3 million 🚲	64.4 million 🚲⚡
54%	**46%**

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

Country-by-Country Shared Micromobility Trip Breakdown

Canada
🚲🛴
27 million

USA
🚲🛴
171 million

Mexico
🚲
27 million

The average trip in 2024 covered 1.3 miles (2.1 km), about 0.2 miles less than in 2023. Ride time also decreased slightly, dropping from 15 minutes to 13.2 minutes. E-bike trips on average were shorter in time than pedal bike trips, but were ridden longer distances. These numbers are based on aggregate data; individual cities will have variation based on local conditions.

1.3 miles (2.1 km) per trip
Average trip distance

- 1.3 mi (2.1 km)
- 1.5 mi (2.4 km)
- 1.9 mi (3.1 km)
- 1.1 mi (1.8 km)

13.2 minutes per trip
Average trip duration

- 13.2
- 14.4
- 12.8
- 11.4

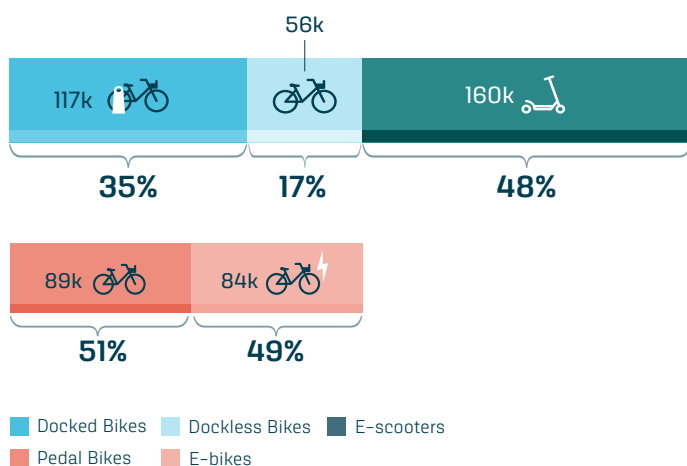🟦 All Vehicles 🟥 Pedal Bikes 🟦 E-Bikes 🟩 E-scooters

Comparison of Vehicle Trends

In 2024, North Americans had access to an estimated 333,000 shared micromobility vehicles, an increase of approximately 19% compared to 2023. E-scooters represent 48% of the total shared micromobility vehicles deployed. E-bikes now make up 49% of the overall bikeshare fleet, reflecting significant growth.

333,000 Vehicles

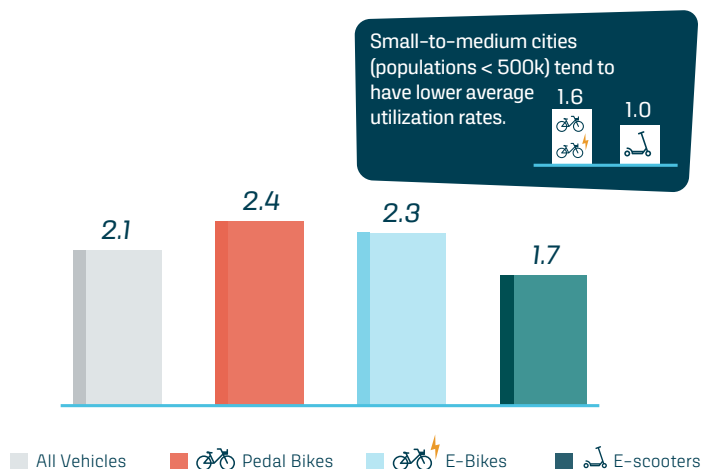Deployed across North America on an average day in 2024

117k	56k	160k
35%	**17%**	**48%**

89k	84k
51%	**49%**

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

Country-by-Country Shared Micromobility Vehicle Breakdown

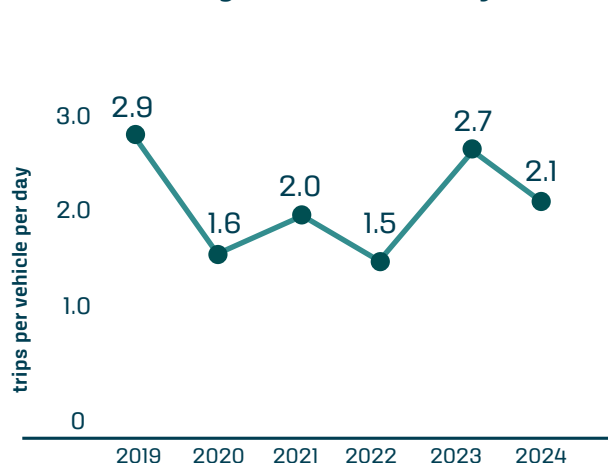Canada
37k

USA
285k

Mexico
11k

The average shared micromobility vehicle was used for 2.1 trips per vehicle per service day in 2024, a 22% decrease from 2023. The decline in 2024 occurred alongside a significant increase in the total number of deployed vehicles, which may have contributed to the lower utilization rate. Because utilization rates are aggregated across all systems, larger systems have a greater influence on the overall average.

2024 Utilization Rates

Average utilization (trips/vehicle/service day)

Small-to-medium cities (populations < 500k) tend to have lower average utilization rates. 1.6 / 1.0

All Vehicles	Pedal Bikes	E-Bikes	E-scooters
2.1	2.4	2.3	1.7

Average Utilization Rate by Year

trips per vehicle per day

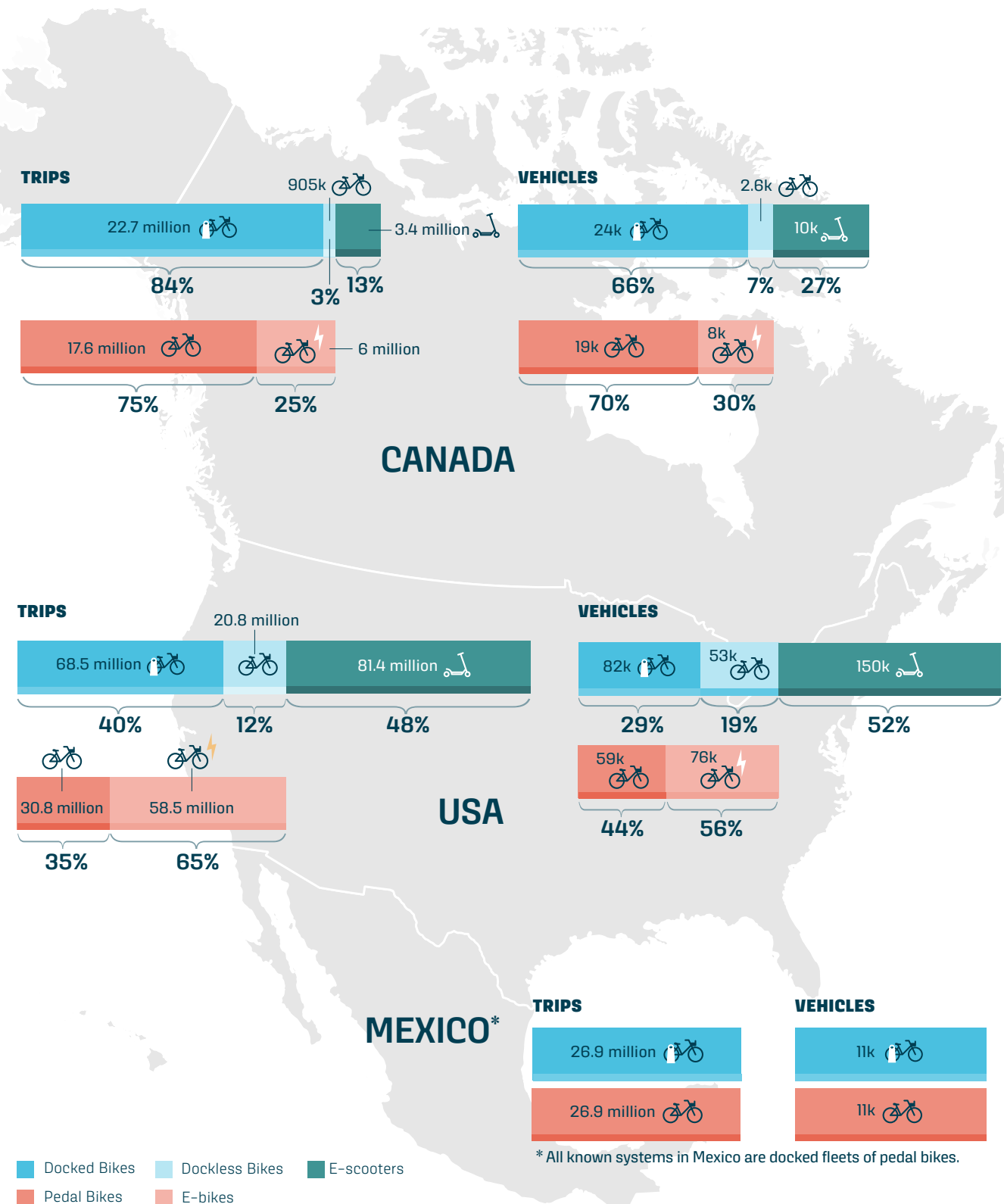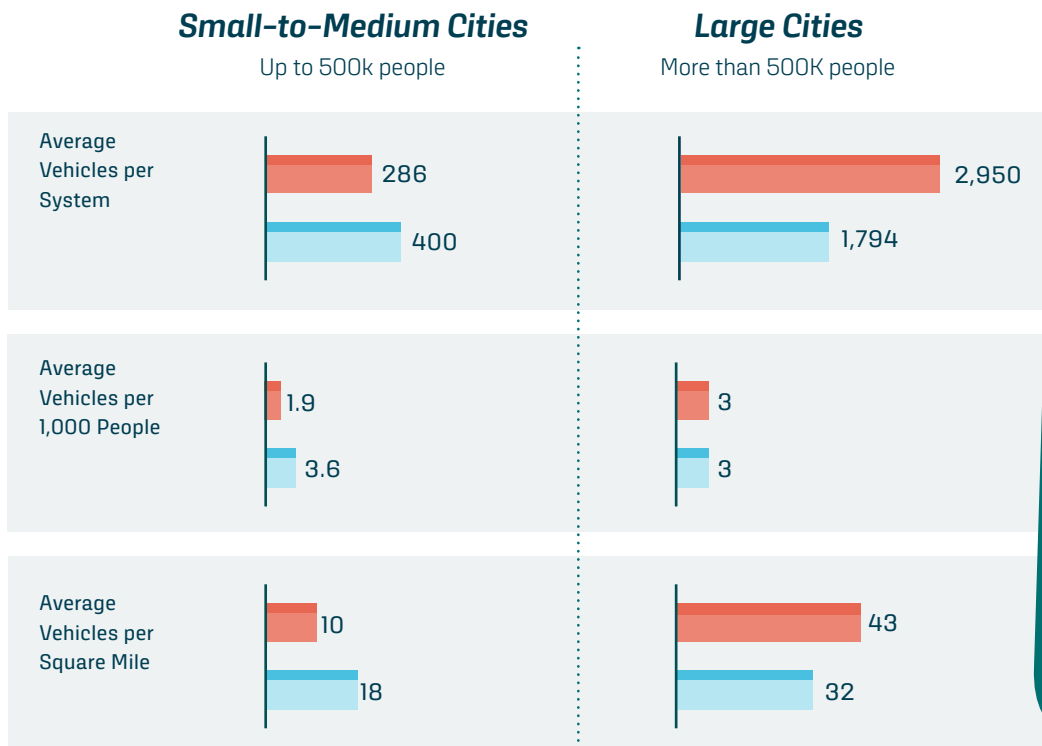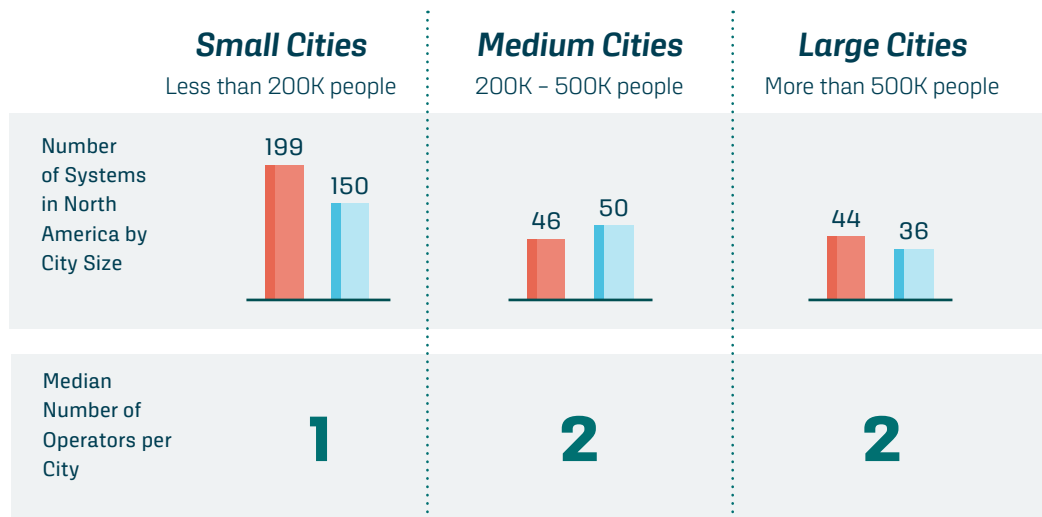| 2019	2020	2021	2022	2023	2024
2.9	1.6	2.0	1.5	2.7	2.1

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. In Canada, trips grew by 4% and vehicles increase by 16% compared to 2023. In the United States, trips grew by 32% and vehicles increased by 18%. In Mexico, trips grew by 63% and vehicles increased by 57%.

CANADA

TRIPS

22.7 million	905k	3.4 million
84%	3%	13%

17.6 million	6 million
75%	25%

VEHICLES

24k	2.6k	10k
66%	7%	27%

19k	8k
70%	30%

USA

TRIPS

68.5 million	20.8 million	81.4 million
40%	12%	48%

30.8 million	58.5 million
35%	65%

VEHICLES

82k	53k	150k
29%	19%	52%

59k	76k
44%	56%

MEXICO*

TRIPS

26.9 million
26.9 million

VEHICLES

11k
11k

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

Legend:
- 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.

	Small Cities Less than 200K people	*Medium Cities* 200K – 500K people	*Large Cities* More than 500K people
Number of Systems in North America by City Size	199 / 150	46 / 50	44 / 36
Median Number of Operators per City	**1**	**2**	**2**

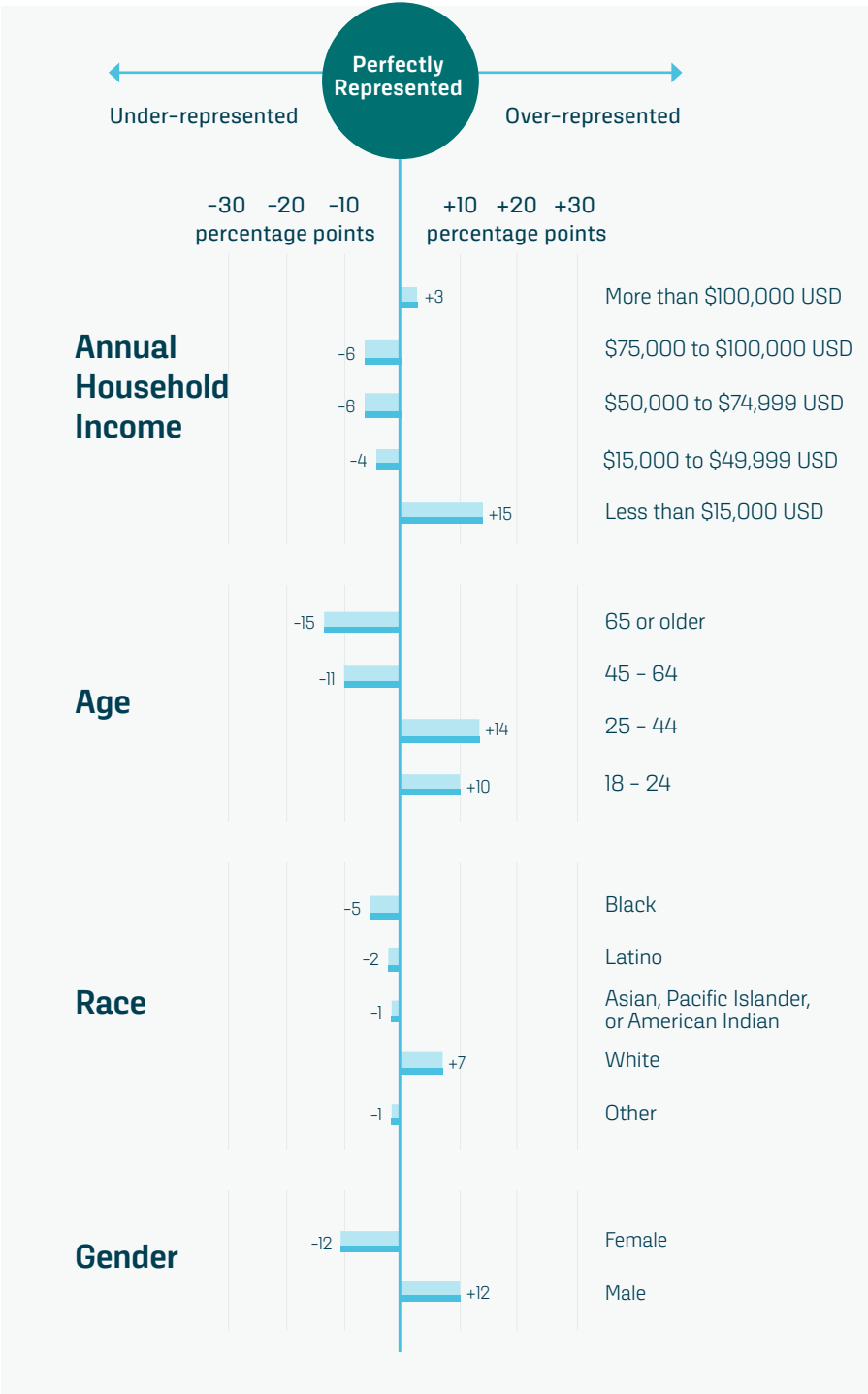|	*Small-to-Medium Cities* Up to 500k people	*Large Cities* More than 500K people
Average Vehicles per System	286 / 400	2,950 / 1,794
Average Vehicles per 1,000 People	1.9 / 3.6	3 / 3
Average Vehicles per Square Mile	10 / 18	43 / 32

🚲 Bikes   🛴 E-scooters

The total number of systems was similar to 2023; small cities saw fluctuations with an increase in bikeshare systems and decrease in scootershare systems. Systems in medium and large cities stayed relatively stable.

Consistent with previous years, small cities had fewer operators than medium and large cities.

Large cities saw an increase in vehicles per capita, per system, and per square mile, while small-to-medium cities saw a decrease compared to 2023.

Who Uses Shared Micromobility?

Perfectly Represented

Under-represented ← → Over-represented

−30 −20 −10
percentage points

+10 +20 +30
percentage points

Annual Household Income

+3	More than $100,000 USD
−6	$75,000 to $100,000 USD
−6	$50,000 to $74,999 USD
−4	$15,000 to $49,999 USD
+15	Less than $15,000 USD

Age

−15	65 or older
−11	45 – 64
+14	25 – 44
+10	18 – 24

Race

−5	Black
−2	Latino
−1	Asian, Pacific Islander, or American Indian
+7	White
−1	Other

Gender

−12	Female
+12	Male

The chart shows the average number of percentage points by which shared micromobility users over- or under-represent local demographics based on the results of user surveys.

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 lowest-income earners were greatly over-represented again in 2024, while middle-income groups were the most under-represented.

- **Age:** overall representation improved compared to 2023, with the exception of those aged 65 and older. People aged 25–44 remain the core user group.

- **Race:** White populations were still over-represented in 2024, but the gap narrowed. Black populations remained the most under-represented in 2024.

- **Gender:** female participation continued to be under-represented in 2024.

*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.

Shared Micromobility as Transportation

Connections to Transit

Shared micromobility is part of the public transportation ecosystem. By providing flexible, on-demand travel options, it complements higher-volume fixed-route transit services, especially for first- and last-mile connections. Below is a summary of shared micromobility's effectiveness as a public transportation option and how it supports other public transportation modes.

74% of riders reported that they use shared micromobility to connect to transit; **22%** said they use it weekly to connect to transit.

AND

18% of all shared micromobility trips were for the purpose of connecting to transit.

In 2024, examples of transit integration included digital integration, incentive programs, and first-last mile partnerships.

Mobility-as-a service: Mobile apps like RideLink (Metro Vancouver) and Michigan Mobility Wallet integrate transit and shared modes, letting users plan, book, and pay for multimodal trips.

Incentivizing multimodal trips: Seattle, WA and Redding, CA launched rewards for transit-linked shared micromobility trips. Seattle offers points for ending rides at rail stations, and Redding provides 24/7 e-bikeshare access with a transit pass.

Does your agency require GBFS feeds from operators?

YES **68%**

NO **32%**
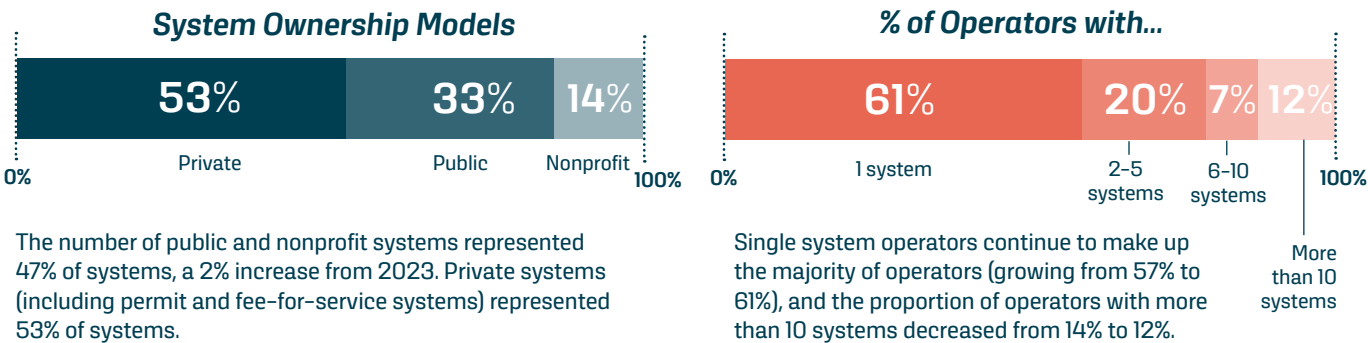
Average Monthly Costs

$**19** USD
Bikeshare Membership

$**81** USD
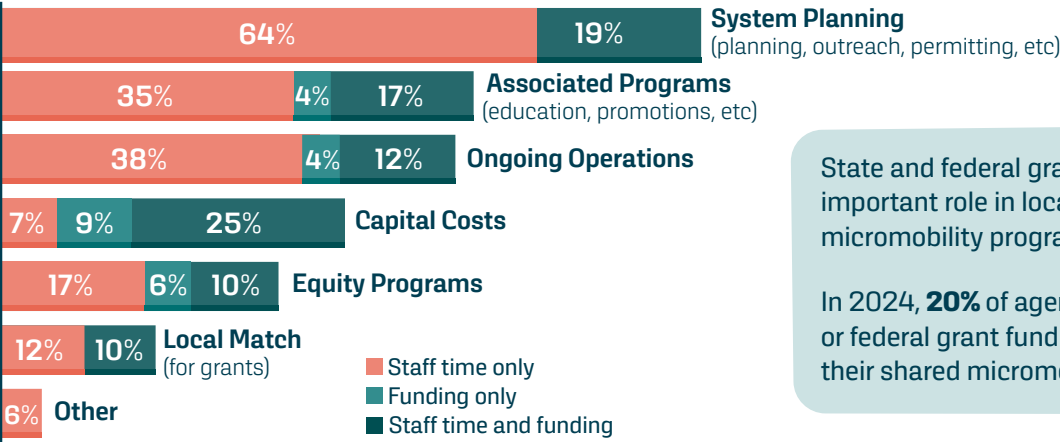Transit Pass

Operating Characteristics

The way that shared micromobility operates continues to evolve. This page shows a 2024 snapshot of system ownership models, the range of sizes of operators, as well as an overview of agency support for shared micromobility and agency–related shared micromobility fees.

There were **57** active operators in 2024, a 3% decrease from 2023.

System Ownership Models

53%	33%	14%
Private	Public	Nonprofit

0% — 100%

The number of public and nonprofit systems represented 47% of systems, a 2% increase from 2023. Private systems (including permit and fee–for–service systems) represented 53% of systems.

% of Operators with...

61%	20%	7%	12%
1 system	2–5 systems	6–10 systems	More than 10 systems

0% — 100%

Single system operators continue to make up the majority of operators (growing from 57% to 61%), and the proportion of operators with more than 10 systems decreased from 14% to 12%.

Public Agency Support for Shared Micromobility

Public agency staff time or funding can support system sustainability and longevity. The graph below shows the percentage of agencies that provided each type of support, whether through staff time, funding, or both. Staff time was a significant portion of agency support across all categories.

- **System Planning** (planning, outreach, permitting, etc): 64% / 19%
- **Associated Programs** (education, promotions, etc): 35% / 4% / 17%
- **Ongoing Operations**: 38% / 4% / 12%
- **Capital Costs**: 7% / 9% / 25%
- **Equity Programs**: 17% / 6% / 10%
- **Local Match** (for grants): 12% / 10%
- **Other**: 6%

- Staff time only
- Funding only
- Staff time and funding

State and federal grants play an important role in local shared micromobility programs.

In 2024, **20%** of agencies used state or federal grant funding to support their shared micromobility programs.

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

Cities manage shared micromobility fees in a variety of ways. The information below shows a snapshot of the diverse range of fee types and amounts assessed for permit–based operations from Agency survey responses.

Fee Type (all fees in USD)	Min	Avg	Max
Per vehicle per day	$0.42	$0.62	$0.83
Per vehicle per month	$5	$10	$16
Per vehicle per year	$5	$79	$250
Application fee	$50	$926	$4,000
One-time permit fee	$250	$25,870	$250,000
Per-trip fee	$0.01	$0.18	$0.40

Number of fee types assessed:

Number of fees	Number of cities
1	7
2	13
3	10
4	15
5+	10

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

Parking Management

Effective parking management is essential for shared micromobility to maintain sidewalk accessibility, reduce clutter, and support safe, reliable use of public space. Public agencies are using multiple strategies to organize shared micromobility and encourage responsible rider behavior.

What strategies do cities use to support organized parking?

Docks that affix and lock the bike or scooter:

47% use bike parking docks

6% use scooter parking docks

Racks that allow bikes or scooters to be locked or leaned against them:

37% use bike racks

14% use scooter racks

Designated parking areas:

63% use physical areas (including signs, flex posts, striping)

69% use virtual areas (geofencing)

73% of cities use parking education materials to help promote compliant parking behavior.

18% of cities have "lock–to" rules, requiring users to lock their shared bike or scooter to a fixed object like a bike rack at the end of their ride.

A global study of cities with mandatory parking zones found that the **density of parking corrals is the most significant predictor for non-compliant parking behavior.** Parking compliance improves steeply when corrals are within **90 seconds walking distance**, which is a corral every 200 m (~656 ft).*
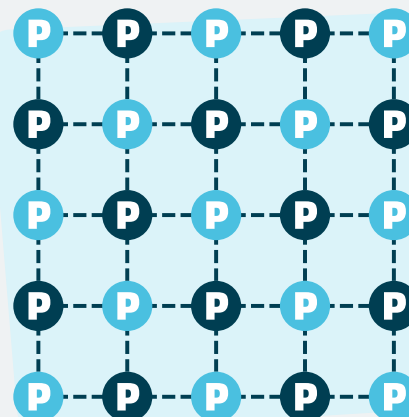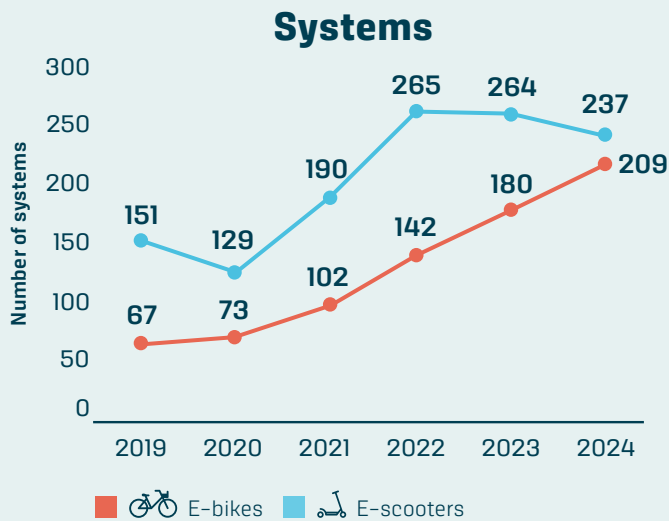
*Corral capacity will vary dependent on fleet size and neighborhood land use. See Methodology page for study information.

Electrification

Electrified shared micromobility fleets continued to grow in popularity and usage – the number of systems with e-bikes grew 16% since 2023. Operators are increasingly moving to electrify their fleets, using a variety of charging methods and improving the sustainability of their operations by using electric vehicles (EVs) for rebalancing and renewable energy for charging.

Year-over-Year E-Device Trends

Systems

Number of systems

Year	E-bikes	E-scooters
2019	67	151
2020	73	129
2021	102	190
2022	142	265
2023	180	264
2024	209	237

■ E-bikes ■ E-scooters

Trips

Trips (millions)

Year	E-bikes	E-scooters
2019	7	88
2020	10	31
2021	19	62
2022	31	72
2023	40	70
2024	64	85

In 2024, **79%** of shared micromobility systems included e-devices and **66%** of shared micromobility trips were taken on e-devices.
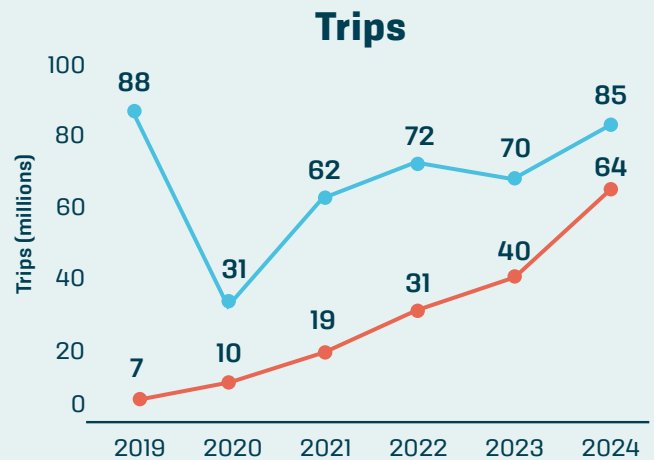
How do operators charge their shared electric fleets?

All surveyed operators currently use battery swapping

71% collect bikes/scooters for charging

43% use charging docks for e-bikes, **7%** use charging docks for e-scooters

57% use solar powered stations*
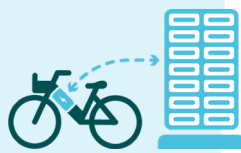
57% use battery charging cabinets†

36% purchase renewable grid energy

Fleet Rebalancing

72% of operators use e-bikes, and **39%** use EVs or hybrid vehicles to rebalance their shared micromobility fleets.
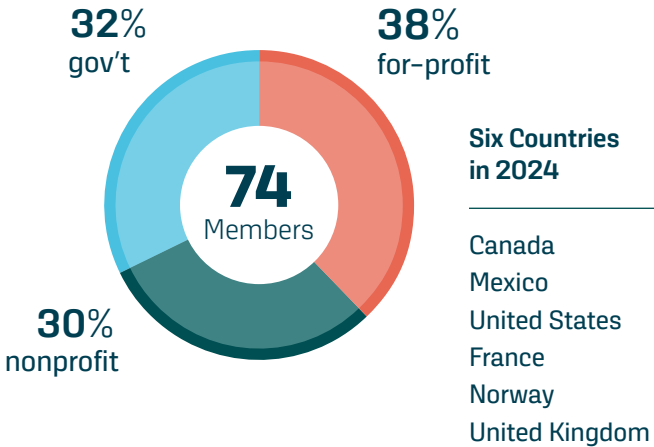
*Solar powered stations include stations that charge devices and those that only charge other station functions.

†Battery charging cabinets can be located in the public right-of-way or in operator warehouses.

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 2024, NABSA had 74 members from six countries.

32% gov't

38% for-profit

74 Members

30% nonprofit

Six Countries in 2024

Canada
Mexico
United States
France
Norway
United Kingdom

NABSA Highlights for 2024

239
NABSA Annual Conference attendees

810
Webinar registrants

371
Bills tracked affecting the industry

268
Knowledge Share and Member Center users

3,144
Website sessions per month by 2,240 average unique users per month

4,779
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, 2020-2024
- 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 and internal system database from 2019-2024.

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 2021 and 2024: Arvada, Boulder, Cincinnati, Eugene, Fort Collins, Hamilton, Leduc, Lincoln, Los Angeles, Milwaukee, North Vancouver, Philadelphia, Phoenix, Pittsburgh, Quebec City, Red Deer, Santa Monica, Seattle, Somerville, St. Petersburg, Washington D.C., and Veoride (national data). "Other" modes include other shared micromobility, personal e-scooters, and non-identified "other" options.

The information on shared micromobility enabling car-light lifestyles is reported directly from *American Micromobility Panel: Part 2.* (Fukushige and Fitch-Polse, 2024). Available at https://doi.org/10.7922/G2CF9NF9.

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.

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 24 systems or cities between 2021 and 2024: Boston, Boulder, Cambridge, Chicago, Columbus, Denver, Fort Collins, Honolulu, Milwaukee, New York, North Vancouver, Okotoks, Ottawa, Pittsburgh, Portland, Quebec City, San Diego, San Francisco, Santa Monica, Seattle, Somerville, Vancouver, Washington D.C. and Veoride (national data).

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 uphills (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 equity studies reviewed during 2023-2024 were directly reported from *Equity Requirements in the US Micromobility Programs are on the Rise.* (Brown et al, 2024). Available at https://doi.org/10.32866/001c.124480.

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: Arlington, Ann Arbor, Austin, Boston, Boulder, Buffalo, Cincinnati, Chicago, Colorado Springs, Denver, Detroit, Eugene, Fort Worth, Hamilton, Honolulu, Indianapolis, Las Vegas, Milwaukee, New York, Okotoks, Philadelphia, Pittsburgh, Portland, Salt Lake City, San Antonio, 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 – Country-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 2020-2024 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.

Agencies that have consistently responded to the survey are included in an index of cities that are used to calculated localized metrics of performance. The collection of agencies within the index is designed to improve sample consistency and year-over-year comparisons. The mix of agencies included in the index can shift given consistency of response over time.

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 2023 American Community Survey (ACS).

User survey data from 2021 to 2024 was collected in the following cities was used in this analysis: Arvada, Aspen, Boston, Cambridge, Chicago, Cincinnati, Columbus, Denver, Eugene, Fort Collins, Hamilton, Honolulu, Jersey City, Kelowna, Leduc, Lincoln, Los Angeles, Miami, Milwaukee, Minneapolis, New York City, Norfolk, North Vancouver, Ottawa, Philadelphia, Phoenix, Pittsburgh, Portland, Quebec City, Salt Lake City, San Antonio, San Diego, San Francisco, Santa Monica, Seattle, Somerville, St Petersburg, Tampa, Toronto, Vancouver, Washington D.C., West Hollywood. 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.

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, Buffalo, Cincinnati, Chicago, 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 NABSA's shared micromobility system database.

Agency fees were calculated based on 55 Agency Survey responses. Agency funding and staff time support for shared micromobility operators was calculated based on 69 Agency Survey responses.

Page 16 – Parking Management

Strategies for organized parking were calculated based on 49 Agency Survey responses.

Statistics on the recommended density of parking corrals were reported directly from *Shared Scooter Parking: The Role of Parking Density and Land Use in Compliance and Demand.* (Meng et al, 2024). Available at https://www.urbanismnext.org/resources/shared-scooter-parking.

Page 17 – Electrification

Year-over-year trend data was based on data collected from the Agency and Operator Surveys from 2019-2024, as well as NABSA's shared micromobility system database.

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.

N A B S A

NORTH AMERICAN BIKESHARE & SCOOTERSHARE ASSOCIATION

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