Audit Report

Electric Scooter Enforcement Program:
The City needs better data to ensure program decisions are based on reliable information from all parts of the community.

August 2024

Shared electric scooters (e-scooters) are a fairly new mobility option meant to help people get where they need to go. We compared e-scooter programs in Austin and eight other cities. All the programs appear to share a similar rules framework.

In Austin, the City's ability to make informed decisions about e-scooters is limited by a lack of complete and reliable data. This includes decisions about e-scooter safety. However, this issue is not unique to Austin. Staff in other cities also noted data is not collected or reported in a consistent way.

Also, inadequate coordination could slow the City's enforcement efforts. For example, Austin could improve its process to address reported violations. This could help speed response times for identified issues, including blocked sidewalks. In addition, the City needs to include more parties in key decisions to make sure e-scooter rules are meeting and balancing community needs.

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Cover: Office of the City Auditor

Objective

Does the City effectively enforce its regulatory framework for electric scooters and how does that framework compare to peer city practices?

Background

Shared electric scooters (e-scooters) have gained rapid popularity in recent years. These e-scooters are owned by companies that place them around cities, generally in the downtown areas. The companies, or providers, rent them to members of the public for short-term use. In Austin, you may have seen them being ridden or parked – or sometimes laying down – in different parts of the city. Cities around the world, including the City of Austin, have established e-scooter enforcement programs to manage their use. Through these programs, cities make rules to address safety and other concerns like:

- who can ride e-scooters

- how fast they can go

- where and when they can be ridden

- where they can be parked

According to various reports, e-scooters could be a solution to transportation issues like congestion, air pollution, and accessibility. These reports note e-scooters do not cost a lot and have low emissions compared to other options such as gas-powered vehicles. Also, e-scooters can reduce the public's reliance on cars and solve the "last-mile problem." For example, people who do not live or work within walking distance of public transportation are not likely to use it. However, those same people may be able to get to and from public transportation using an e-scooter. This enables people to visit the places they need to go without a car.

Exhibit 1: Over the last five calendar years, users took almost 18 million e-scooter trips in Austin

Year	Trips
2023	2.9M
2022	3.7M
2021	3.8M
2020	1.9M
2019	5.5M
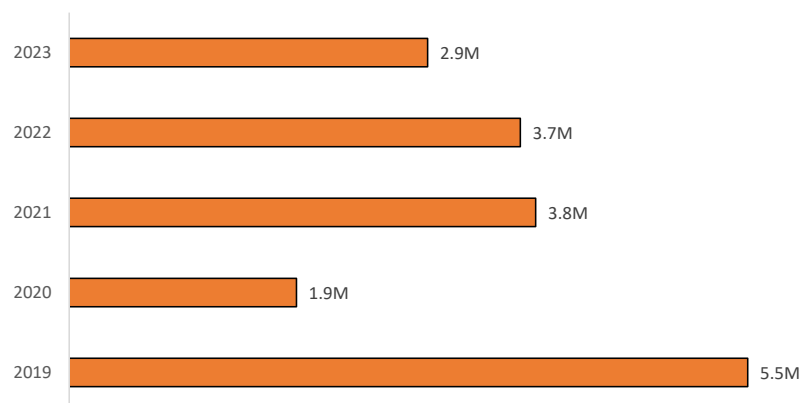
Source: Office of the City Auditor (OCA) analysis of the City's e-scooter trip data reports, April 2024

E-scooters can help cities achieve some of their mobility goals. However, they can have unintended effects related to safety, accessibility, and the environment. For example, collisions involving e-scooters can result in injuries and death. Improperly parked e-scooters can clutter or block the public's access to sidewalks and ramps and disrupt traffic flow. Also, even when users park their e-scooters correctly, they can be pushed over or thrown into waterways by others. In addition, the e-scooter rental business is fairly new and continues to evolve. Because of these factors, many cities have struggled to find enforcement rules that work.

One way to think about this is comparing e-scooter rules to rules for cars. Cars were around a long time before common safety and efficiency standards were put in place. These and other standards continue to be updated based on better information and technology advances. Similarly, rules for e-scooters should improve when cities know what areas need to be changed to make them a safe and efficient option for users.

In Austin, shared e-scooters first arrived in April 2018. Multiple providers placed thousands of these devices in the city. At the time, the City did not have any formal rules to manage their use. In response, the City impounded devices and adopted emergency rules for providers. Later, the City formalized these rules. Currently, the City's Transportation and Public Works Department (TPW) regulates several areas related to e-scooters. These include permitting, number of devices, speed limits, usage and parking, user requirements, and data sharing.

What We Found

Summary

Shared electric scooters (e-scooters) are a fairly new mobility option meant to help people get where they need to go. We compared e-scooter programs in Austin and eight other cities. All the programs appear to share a similar rules framework.

In Austin, the City's ability to make informed decisions about e-scooters is limited by a lack of complete and reliable data. This includes decisions about e-scooter safety. However, this issue is not unique to Austin. Staff in other cities also noted data is not collected or reported in a consistent way.

Also, inadequate coordination could slow the City's enforcement efforts. For example, Austin could improve its process to address reported violations. This could help speed response times for identified issues, including blocked sidewalks. In addition, the City needs to include more parties in key decisions to make sure e-scooter rules are meeting and balancing community needs.

Finding 1

The City's ability to make informed decisions about e-scooter safety rules is limited due to a lack of complete and reliable e-scooter data.

Implementing an effective e-scooter enforcement program requires good, reliable data. Reliable data leads to better decision-making about all e-scooter operations, including safety. Better data helps rule-makers understand the unique risks associated with vulnerable road users such as pedestrians and e-scooter users.

The City established rules that require providers to share data about e-scooters. For example, the City gets e-scooter trip data from providers each month. The City also uses a third-party tool to view some e-scooter data. For example, TPW staff can track the location, usage, and maintenance of e-scooters in real time. Also, this tool helps the City know if providers are complying with certain rules.

The public is also able to view e-scooter trip data through a public dashboard. We noted some discrepancies in the number of trips reported by providers and those shown on the dashboard. TPW staff said that they use the provider-submitted reports to determine user fees. Staff also said the different trip numbers are due to cases where an e-scooter user does not take an actual ride. For example, a user who books an e-scooter and decides to cancel it at the last minute is counted as a "Ride" in the provider reports, but not on the dashboard.

In addition, the City does not have a good system for tracking e-scooter collisions. Staff in peer cities noted they also face challenges getting complete and reliable e-scooter collision data. Without reliable data, the City does not have the information needed to:

- know the number of collisions that have occurred
- know how bad people are hurt in collisions
- identify patterns or trends to know where to focus safety improvements
- compare e-scooter safety among providers or with other mobility modes
- educate the public
- inform rule changes to address safety issues

E-scooter collision data reported by the providers is not complete.

The City requires e-scooter providers to submit monthly collision reports to TPW. The reports must list the number, location, time, and severity of e-scooter collisions. We noted the City does not require providers to report a cause for collisions. City staff said the data they receive from providers appears unreliable. Based on our review of e-scooter collision reports from calendar years 2022 and 2023, it appears unlikely that all collision data was reported to the City. For example, two of four providers reported zero collisions across the entire period. By contrast, one of the other providers reported 342 collisions and the other provider reported 21.

Exhibit 2: Collisions reported by providers do not appear to be accurate for 2022 and 2023

Provider	A	B	C	D
Number of Trips	3,757,109	2,329,408	333,456	166,665
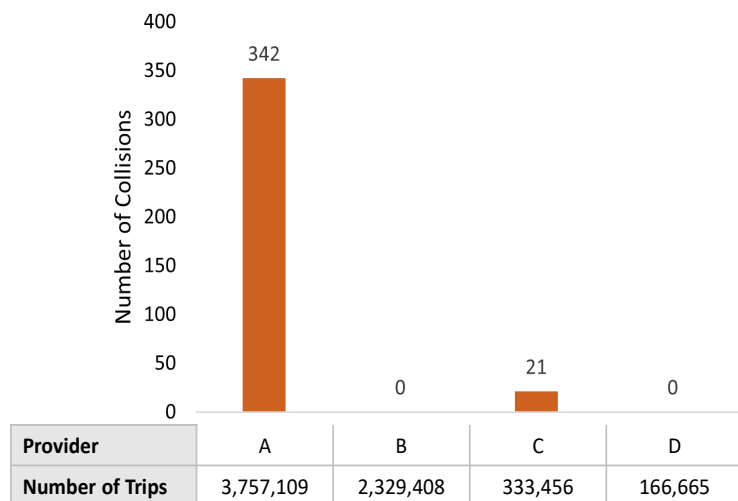
Source: OCA analysis of e-scooter provider collision reports and trip data, June 2024

Also, TPW staff said some e-scooter users may not report an injury or collision to the provider. In these cases, a provider will not know about all the collisions that happen because they rely on users to self-report collisions. Staff also cited concerns about personally identifiable information as a factor limiting providers reporting collision information.

There do not appear to be standard definitions or coding for key terms.

The City rules for e-scooters do not define key terms such as "collision" or "crash." City staff noted the e-scooter providers do not have a common definition for these terms, either. This limits the usefulness of collision data and how it can be compared among providers and with other mobility modes.

However, we noted other entities collect information about e-scooter collisions. This includes City health and public safety departments, hospitals, private doctor offices, and urgent care centers. Staff said these entities also do not use standard definitions. For example, public safety departments may not code all scooter collisions consistently. Staff reported getting information about "scooter" incidents that turned out to include the rentable e-scooters, personal scooters, and even Vespa-style motorized scooters.

Based on national and international research, it appears many cities face these same challenges collecting e-scooter collision data. In 2021, a National Transportation Safety Board (NTSB) study found data challenges include:

- a lack of complete, consistent, and reliable data
- inadequate data coding that makes it hard to correctly identify e-scooter collisions
- poor quality trip data that makes it hard to assess e-scooter operations

The NTSB study highlighted a need for cities to add specific police codes for e-scooter collisions as well as collecting e-scooter trip data to assess injury and fatality risks.

City e-scooter staff do not have a process to collect e-scooter data from other stakeholders.

As noted above, there are various entities that collect data about e-scooter collisions. Some mainly gather information on collisions that require emergency care. The City's Vision Zero staff told us they have made efforts to collect data from these entities. However, TPW's e-scooter staff said they do not have a process to collect this data. Also, the City's e-scooter staff noted there have been six e-scooter-related deaths in Austin since 2018. Vision Zero staff estimated two to three deaths per year, which would be at least fourteen.

Also, the City has not reached out to users to collect feedback on e-scooter safety since a 2018 survey issued shortly after e-scooters were first introduced. We noted TPW issued a community e-scooter survey in June 2024, but questions about safety were limited. Without reliable e-scooter collision data, feedback from users could help guide City decision-making on key issues, including needed e-scooter safety changes.

Vision Zero is the Austin community's goal to reduce people hurt or killed by crashes to zero. It is part of TPW where staff work to achieve this goal through street improvements, policy changes, enforcement, and education.

Finding 2

The City's inadequate coordination could slow its enforcement efforts and negatively impact relationships among e-scooter stakeholders.

Several key parties share responsibility for the safe operation of e-scooters in the City. These include Austin Police Department (APD) traffic enforcement staff, TPW field enforcement staff, the providers, and e-scooter users. APD is responsible for enforcing e-scooter moving violations. However, staff said they are unable to proactively enforce violations due to APD's staffing challenges and other competing priorities such as responding to 911 calls.

In TPW, multiple groups are involved in managing e-scooters. Two are office-based groups and a third is responsible for enforcement in the field:

- Shared Mobility Services – oversees the e-scooter program, coordinating with other groups and providers as their point-of-contact

- Permitting Office – reviews license applications

- Field Enforcement – enforces e-scooter violations in the right-of-way

TPW's process for identifying and reporting e-scooter violations involves the field enforcement group and the point-of-contact group. When a field staff member spots a violation, such as an improperly parked e-scooter, they can do two things. If the violation is an immediate safety issue, field staff can impound the device. If the violation is less serious, they enter a customer service request in the 311 system. The provider is notified of the request by e-mail. When a provider has resolved the issue, the provider then sends an email to City staff indicating that the issue has been resolved. Also, field staff do not communicate directly with the e-scooter providers. Instead, the providers communicate directly with TPW's office-based group. City staff noted this process has some delays. Delays can affect how fast a provider can address a violation, including those that may be impacting members of the public.

Exhibit 3: Examples of e-scooter parking violations and action to be taken by TPW staff according to their training manual

Violations eligible for immediate impounding	*Violations where the provider is given two hours to resolve the issue*

Blocking ADA ramp

Partially blocking mobility


Obstructing sidewalk

Fallen but not blocking access to mobility

Source: TPW Guidelines for Identifying Micromobility Impounds document, June 2024

TPW's field enforcement staff are responsible for enforcing all mobility-related rules in the right-of-way, including e-scooter rules. Staff noted spending about 10% of their time enforcing e-scooter rules and 90% enforcing all other right-of-way issues. Staff said they do not always have the time to make sure that violations have been cleared in a timely way. Our staff observed some examples of e-scooter violations. For example, the pictures below show e-scooters blocking sidewalks. We do not know if these instances were reported.
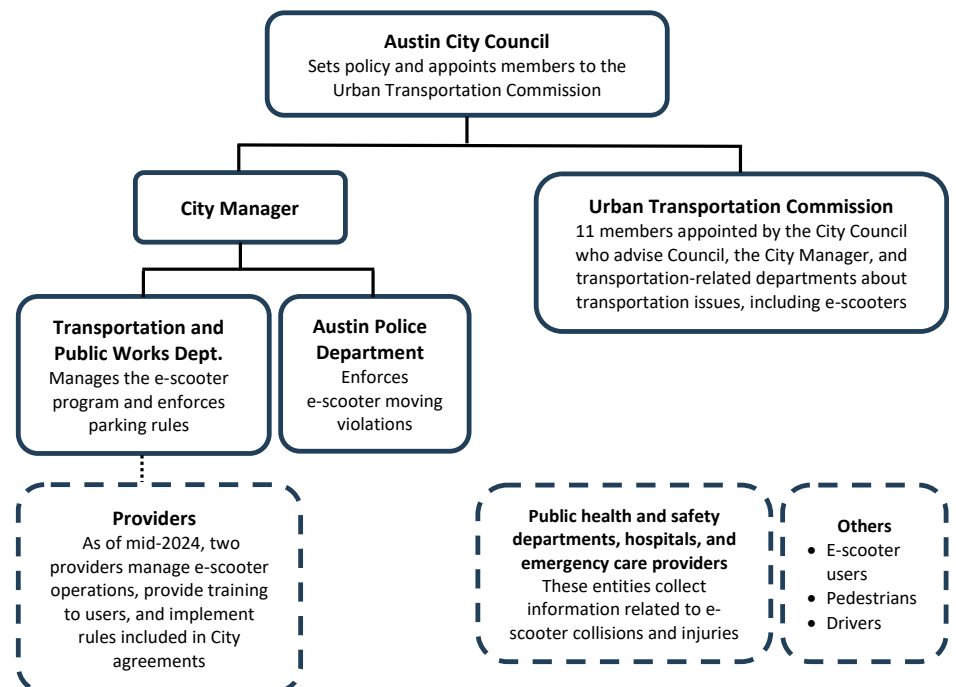
**Exhibit 4: E-scooters parked or laying in sidewalks
can block access for other people**
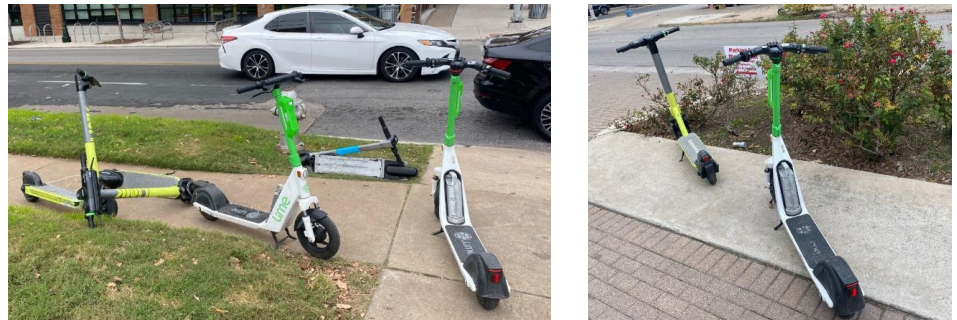
Source: Observation by OCA staff, June 2024

Other parties also play a direct or indirect role in the City's e-scooter program. While the City defined clear responsibilities for e-scooter issues, there appears to be inadequate coordination among all parties. This impacts the City's ability to make e-scooter program changes in a collaborative and timely manner. It could also result in stakeholder dissatisfaction with the way the City manages the program.

**Exhibit 5: Multiple City departments and external parties are involved in
e-scooter activities**

Austin City Council
Sets policy and appoints members to the Urban Transportation Commission

City Manager

Urban Transportation Commission
11 members appointed by the City Council who advise Council, the City Manager, and transportation-related departments about transportation issues, including e-scooters

Transportation and Public Works Dept.
Manages the e-scooter program and enforces parking rules

Austin Police Department
Enforces e-scooter moving violations

Providers
As of mid-2024, two providers manage e-scooter operations, provide training to users, and implement rules included in City agreements

Public health and safety departments, hospitals, and emergency care providers
These entities collect information related to e-scooter collisions and injuries

Others
- E-scooter users
- Pedestrians
- Drivers

Source: OCA review of reports and documents related to e-scooter management and operations, April 2024

Inconsistent communication among e-scooter stakeholders and the changing nature of e-scooter operations led to delays in updating e-scooter rules and dissatisfaction with the process.

In February 2021, TPW staff reviewed their e-scooter program and noted a need to update the rules. Proposed updates included standardizing collision data reporting, clarifying program terms, and updating the process for evaluating providers. Staff reported discussing these changes with providers. In April 2024, the City made some operational changes. TPW staff said they are planning to make formal changes to their Director's Rules later in 2024.

TPW staff said the changing nature of e-scooter operations and direction from City management are two reasons for delays in making identified program changes. Staff noted the City started in reactive mode when e-scooters were introduced, and it has been hard to catch up. Also, TPW staff said their department was ready to make changes in October 2023, but were delayed because the City Manager's Office wanted input on the proposed rules. In addition, during the same period, two providers discontinued their services in the City for business reasons. Some of the 2024 changes were different from what staff discussed with the providers.

Currently, the City charges the providers a device permit fee of $80 per device every year and a trip fee of $0.15 per trip.

Good coordination helps get buy-in from all parties. It also promotes participation and collaboration. However, the City's 2024 changes did not go through a public process to gather feedback and buy-in. Providers noted the City did not reach out to them to address concerns about key changes to their business. For example, the changes limited the number of providers to two and reduced the number of permitted e-scooters from 8,200 to 6,700 total devices. Fewer providers and devices reduces revenue for the City. Also, members of the City's Urban Transportation Commission said there was inadequate coordination and communication about these changes.

In May 2024, the Urban Transportation Commission made several recommendations in response to these changes. For example, the Commission noted the City should not limit the number of providers to two. They also noted the number of devices allowed should be 3,700 per provider. In addition, the Commission noted providers were not formally notified of these changes until ten days after the new rules became effective. The Commission recommended that the City rulemaking process on dockless vehicles should prioritize "robust public engagement, notification of stakeholders, board & commission review, [and] City Council feedback" when future changes are considered. This would help foster adequate coordination, engagement, and buy-in from all parties.

Until recently, the City has not reached out to e-scooter users and other members of the public to gather feedback since e-scooters were introduced. This feedback is key in knowing what issues are important to the community and where enforcement is most needed. As noted earlier, this could include gathering safety information and identifying areas where e-scooters are blocking pathways or otherwise creating a nuisance. It

can also help the City understand whether e-scooters are meeting user needs as well as larger community needs. Involving all parties in the City's e-scooter program could help inform City decisions and balance needs across the community.

Finding 3

Overall, the City of Austin's e-scooter rules framework is similar to the frameworks of other cities.

We surveyed eight cities with shared e-scooter programs. The cities were Dallas and San Antonio in Texas, as well as Denver, Nashville, Portland, San Francisco, Seattle, and Washington, DC. We compared the City of Austin's e-scooter rules framework to the surveyed cities in the following areas:

- governance
- number of providers and devices
- hours of operation
- equity and access
- safety-related requirements

Austin and all of the cities we reviewed generally appear to have similar e-scooter rules frameworks. However, some cities have differences in specific rules. Appendix A shows the detailed requirements for each city.

Governance is done through permits or contracts.

Austin and all of the cities we reviewed oversee their e-scooter permitting, contracting, and compliance monitoring. Austin and five other cities use short-term permits to manage their programs while three cities use long-term contracts. Contract terms range between one to five years.

The number of providers and fleet sizes varied among the cities.

Austin and all the cities we reviewed limit the number of e-scooter providers and fleet size. However, the actual number of allowed providers and e-scooter devices differed among the cities. The number of providers ranged from two and five.

There are bigger differences in the number of e-scooters placed in the cities, ranging between 1,475 to 9,750. Seattle allows the highest number (9,750) followed by Austin (6,700). Staff in San Francisco said the number of devices varies at the discretion of their Director of Transportation and their current number is 5,500. Dallas and Nashville allow the lowest number of devices (1,475 and 1,500, respectively).

Most cities do not limit the hours e-scooters can operate.

Austin and five cities do not restrict e-scooter hours of operation. Dallas restricts e-scooters from operating between 9:00 p.m. and 5:00 a.m. Nashville restricts e-scooters from operating between 10:30 p.m. and 5:00 a.m. Portland limits e-scooter hours of operation on specific streets between 10:00 p.m. and 7:00 a.m.

Cities use facctors such as income, percentage of minority population, and access to vehicles to help identify underserved areas.

Cities have made some rules to reduce barriers to participation, but only four cities have measurable goals that can be used to determine success.

Austin and all of the cities we reviewed have rules designed to promote equity and reduce barriers to participation. These include requiring the providers to place e-scooters in historically underserved areas, offer diverse payment options, and provide fare discounts to target populations. For example, Austin, San Antonio, and Seattle require e-scooter providers to provide diverse payment options and fare discounts. Austin also requires e-scooter providers to share marketing plans to reach underserved communities. Four cities have measurable goals that require a minimum percentage of providers' e-scooters to be placed in underserved areas.

All cities have implemented rules to enhance the safety of e-scooter operations.

Austin and all of the cities we reviewed have rules about:

- <u>E-scooter speed limits</u>: Speed limits range from 10 to 20 miles per hour
- <u>No-ride areas</u>: Examples where e-scooters cannot be ridden include public parks, plazas, and trails
- <u>Parking</u>: Examples where e-scooters cannot be parked include sidewalks, road intersections, bridges, public parks, benches, parking pay stations, and private property. Also, parked e-scooters cannot block building doors, dumpsters, or recycling and garbage bins.

Some, but not all, of the cities we reviewed have rules about:

- <u>Rider age</u>: Four cities require a user to be 16 years and older while Nashville requires a user to be 18 years and older. Austin and Seattle do not have an age rule, but said the providers limit a user's age.
- <u>Driver's license</u>: Only San Francisco requires an e-scooter user to have a driver's license or instruction permit
- <u>Helmet use</u>: Austin and two other cities require children to wear a helmet, two cities require all users to wear a helmet, and four cities do not have a helmet rule

Appendix A: Austin and all of the cities we reviewed generally appear to have similar e-scooter rules

City	Austin	Dallas	San Antonio	Denver	Nashville	Portland	San Francisco	Seattle	Washighton DC
Does the City use permits or contracts for e-scooter providers?	Permits	Permits	Contracts	Contracts	Contracts	Permits	Permits	Permits	Permits
Number of providers allowed to operate	2	3	2	2	3	2	2	2	Up to 5
Total number of e-scooters citywide	6,700	1,475	2,000	3,000	1,500	3,400	5,500	9,750	3,600
E-scooter operating hours	No limit	Only from 5:00 a.m to 9:00 p.m	No limit	[No information]	Only from 5:00 a.m. to 10:30 p.m.	*Limits operation between 10:00 p.m. and 7:00 a.m.	No limit	No limit	No limit
Maximum speed limit (in miles per hour)	15	20	15	15	15	15	15	15	10
Does the City have slow zones that lowers the speed limit?	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No
Minimum age limit	None (but providers do)	16 years and older	16 years and older	[No information]	18 years and older	16 years and older	[No information]	None (but providers do)	16 years and older
Is a driver's license required?	No	No	No	No	No	No	Yes	No	No
Areas where e-scooters are not allowed to be ridden?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Areas where e-scooters are not allowed to be parked?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Requirements to reduce barriers to participation?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Examples of reducing barriers to participate	Providers to offer diverse payment options, fare discounts, and have plans to reach underserved areas	Providers to place 15% of the fleet in "Equity Opportunity Zones"	Providers to offer cash and non-smartphone payment options and low-income and equity zone discounts	Providers to place 30% of the fleet in underserved areas	Providers to provide equitable access to e-scooters	[No information]	Promotes use of e-scooters among low-income communities and people with disabilities	Providers to offer diverse payment options and place 15% of the fleet in "Equity Opportunity Zones"	Providers to place 3% of the fleet in underserved areas and offer free rides to people at 200% below federal poverty guidelines

* Limited operation on specific streets and respondent noted that it is unclear if this requirement applies to e-scooters, or just purely human-powered scooters.
Source: OCA analysis of the results from a survey of e-scooter rules in other cities, April 2024

Recommendations and Management Response

1 The Director of the Transportation and Public Works Department should work with e-scooter providers, City departments, and other involved stakeholders to establish a process to ensure the City has e-scooter data available to guide operational and policy decisions. At a minimum, this process should ensure:

   a) E-scooter providers collect and report complete, accurate, and reliable e-scooter data

   b) Key terms, including e-scooter, collision, and crash, have standardized definitions

   c) Codes exist to identify e-scooter incidents, such as collisions and crashes, and these incidents are coded consistently

   d) Relevant information is shared with key stakeholders

Management Response: Agree

Proposed Implementation Plan: Transportation and Public Works (TPW) will plan to:

1) Define and codify key terms such as e-scooter, collision, and crash in the Directors Rules.

2) Collaborate with Austin Police Department (APD) and Emergency Medical Services (EMS) to establish standardized coding for e-scooter crashes, with the goal to enhance safety related data.

3) Continue to integrate crash data into the Vizion Zero Viewer (visionzero.austin.gov/viewer), including any updates to crash coding.

4) Update vendors on the modified Director's Rules, the definitions, and expectations through monthly working group meetings comprised of TPW staff and e-scooter vendors.

Proposed Implementation Date: March 2025

Recommendations and Management Response

2 │ The Director of the Transportation and Public Works Department should regularly engage with e-scooter stakeholders, including e-scooter providers, City staff, relevant commissions, and members of the public, to ensure the program meets the needs of the community. At a minimum, the Director should:

a) Work with e-scooter stakeholders to identify existing and emerging issues

b) Collaborate with e-scooter stakeholders to identify possible solutions to identified issues

c) Ensure identified changes are communicated to interested parties and implemented in a timely manner

d) Update regulatory and guidance documents to reflect the changes

Management Response: Agree

Proposed Implementation Plan: Transportation and Public Works (TPW) will plan to:

1) Continue monthly working group meetings comprised of TPW staff and e-scooter vendors to:

   - collaboratively identify existing and emerging issues,

   - identify possible solutions to those issues,

   - ensure communication to vendors on solutions and operations or rules changes.

2) Changes that have a significant impact to vendors or the public will be communicated through commission updates and existing TPW newsletter resources.

3) Regulatory and guidance documents will be reviewed annually and updated as needed.

Proposed Implementation Date: March 2025

Scope

The audit scope included the City's current shared e-scooter operations and enforcement activities.

Methodology

To complete this audit, we performed the following steps:

- Reviewed policies, procedures, and other documents related to the City's shared e-scooter program
- Researched best practices for managing shared e-scooters
- Interviewed City staff in the Transportation and Public Works Department
- Interviewed staff from the shared e-scooter providers
- Analyzed reports from shared e-scooter providers
- Reviewed background historical information, reports, City Council resolutions, and media reports about the shared e-scooter program
- Reviewed City Council and Urban Transportation Commission meeting records
- Surveyed staff in eight cities regarding their e-scooter enforcement frameworks and compared the City's e-scooter enforcement framework to those of the other cities
- Evaluated internal controls related to the City's shared e-scooter program
- Evaluated the risk of fraud, waste, and abuse for the City's shared e-scooter program

Audit Standards

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The Office of the City Auditor was created by the Austin City Charter as an independent office reporting to City Council to help establish accountability and improve City services. We conduct performance audits to review aspects of a City service or program and provide recommendations for improvement.

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