

CITY OF CHARLOTTESVILLE, VIRGINIA  
CITY COUNCIL AGENDA



Agenda Date:	November 18 , 2019
Action Required:	Approval of Bicycle & E-Scooter Sharing System Ordinance and Permit Program
Presenter:	Jason Ness, Office of Economic Development Amanda Poncy, Neighborhood Development Services
Staff Contacts:	Jason Ness, Office of Economic Development Amanda Poncy, Neighborhood Development Services
Title:	<b>Bicycle &amp; E-Scooter Sharing System (aka “Dockless Mobility”) Ordinance and Permit Program</b>

**Background:**

In November 2018, the City approved a temporary pilot program to provide structure to the operation and use of Shared Electric Bicycles (e-bikes) and Electric Scooters (e-scooters) (collectively referred to as Dockless Mobility) in the public right of way. Interested companies were required to complete and obtain approval of a Permit Application for their fleet and agree to the approved Permit Program Regulations. The City received and approved applications from two operators: Lime (100 scooters and 40 electric bikes) and Bird (100 scooters). Lime began operation in December 2018 and Bird began in January 2019. After permit approval of these two operators, the City also received inquiries from Spin, Gotcha, Jump, and VeoRide.

In March 2019, the General Assembly passed HB 2752, which gives localities the authority to establish regulations regarding e-scooters and e-bicycles. However, the new law allows the companies to operate free from regulation starting January 1, 2020 in the absence of any local ordinance or administrative action.

In June 2019, City Council approved an extension of the pilot program through Dec. 18, 2019 to provide for additional outreach and education, as well as the development of recommendations for ordinance changes in response to new State legislation. Around that time, Bird stopped operations in the City.

Key takeaways from the pilot program include:

1. Deployment and utilization of e-scooters in Charlottesville has surpassed expectations with more than 200,000 scooter rides and 30,000 users with approximately 200,000 miles traveled and with a generally positive response from Charlottesville residents (users and non-users). This

indicates that dockless mobility provides a viable complement to the City's transportation network increasing mobility options and possibly providing sustainability benefits.

2. There are specific challenges with the integration of dockless mobility devices with other street and sidewalk users that should be addressed in any permanent program. These include safety concerns from the standpoint of riders, pedestrians and drivers in Charlottesville, as well as concerns about parking impacts on sidewalk users, both of which point to the pressing need for public investment in more appropriate infrastructure (e.g. protected bike lanes for users of wheeled devices and wider, accessible sidewalks for pedestrians).

It is likely that the technology will endure and continue to evolve as businesses try to provide a product that responds to this transportation demand. This emerging means of transportation could become even more prevalent in the future and local measures will be needed to address the identified concerns. In light of the reality that dockless mobility devices are here to stay, staff proposes revisions to the City Code to respond to the recent changes in the Virginia Code and to incorporate the results of the Pilot evaluation. These revisions would amend existing provisions of the City Code regarding safe riding and parking of vehicles and would establish a new permit program for dockless mobility devices for hire to be administered by the City Manager.

### **Discussion:**

In 2018, a number of communities across the US experienced private companies placing electric scooters on their streets and rights-of-way with no public notice and without authorization. In this service model, dockless mobility devices are owned and maintained by a private company offering short-term rentals of the devices for personal transportation. The rentals are controlled by smart phone app, and the devices may be picked up and dropped off anywhere in the service area defined by the company. These device rentals are part of an emerging transportation innovation, known as micro-mobility, that utilizes small, battery powered, low-speed devices for personal travel.

In an effort to get ahead of this trend, staff initiated a pilot project to test out a regulatory and operational framework for these new mobility options. City Council authorized the pilot at its November 5, 2018 meeting. Interested companies were required to complete and obtain approval of a Permit Application for their fleet (bicycles, electric bicycles (e-bikes), and electric scooters (e-scooters) are considered different modes) and agree to certain operating parameters including, but not limited to the following:

1. Up-front payment of a one-time pilot permit fee of \$500 per mode per company, regardless of fleet size, plus \$1/day/device for the duration of the program.
2. A fleet limited to a cumulative total of 200 vehicles between all permittees with an opportunity to expand the fleet by 25% based on performance standards. Electric bicycles were exempt from this maximum.
3. Safety features for all devices consistent with state regulations and standard practice.
4. Maximum speed limit of 15 mph for e-scooters and e- bikes.
5. Minimum age of eighteen (18) for riders of e-scooters and e-bikes.
6. Contact information and operations management from each company.

7. Outreach to low-income communities and reduced cost payment plans.
8. Provide device parking and use regulations to all users and require users to abide by those regulations.
9. Respond to customer and community complaints/issues in a timely fashion.
10. Provide monthly data to the City for staff analysis.

The City received and approved applications from two operators: Lime (100 scooters and 40 electric bikes) and Bird (100 scooters). Lime began operation in December 2018 and Bird began in January 2019. After permit approval of these two operators, the City also received inquiries from Spin, Gotcha, Jump, and VeoRide. Lime pulled their fleet of bikes in February and Bird left the Charlottesville area in June. Bird is not currently allowed to operate in Charlottesville, but staff recently approved a permit for VeoRide to operate 150 scooters and 50 e-bikes. To date, the City has operated with an average fleet size of 125 scooters (not including VeoRide's operations).

In March 2019, Governor Northam signed legislation amending various provisions regarding e-scooters and e-bikes and making explicit a local governments' ability to regulate services offered by private companies. The State's legislation specifically requires municipalities to adopt an ordinance by January 1, 2020 if the municipality desires to prohibit sidewalk riding by motorized skateboards or scooters.

More than 200,000 trips were taken on for-hire scooters in Charlottesville during the first nine months of the Pilot (December 2018 through October 2019) on an average fleet of 125 scooters. Nearly 80,000 of these were taken between August and October 2019, demonstrating the growth potential for these devices. An unknown number of trips are currently being made on personally owned scooters, skateboards and other forms of micro-mobility as data on their use is not available. This growth in use and ownership offers new opportunities for local travel, potentially replacing daily automobile trips.

The initial intent of this program was to decide *whether* dockless mobility devices, such as scooters and electric bikes, should have a place within the City's transportation context. However, the 2019 General Assembly actions require staff to reframe the question and ask *how* these devices can fit within the City.

During the initial consideration of this new form of mobility, staff identified a number of potential concerns. The following section outlines the initial concerns relayed in the Nov. 5, 2018 Council Memo, as well as data collected relative to those concerns, actions taken, lessons learned during the pilot program and recommendations for a future program:

***Concern #1: Riding on sidewalks*** – *As mentioned, they are battery powered (silent motor) and can go fast, especially for unsuspecting pedestrians. In 2019, the General Assembly updated Virginia Code Sec. § 46.2-903, to allow e-scooters on sidewalks unless prohibited from local ordinance. This is a change from when the pilot started. City Code Sec. 15-246, prohibits scooters from riding on the Downtown (DT) Mall only.*

Pilot Findings -Despite regulations and technology in place to curb riding in places where it's not allowed, sidewalk and DT mall riding is an issue. It is difficult to assess the exact rate of sidewalk riding due to the accuracy of the GPS on the devices. However, in an observational study conducted by City staff and UVA student researchers in spring 2019, nearly 30% of observed scooter rides were on sidewalks. In addition, 13% of survey respondents reported riding on the sidewalk as their preferred riding location. Users indicated that riding on the street feels unsafe, and that they switch to riding on the sidewalk when they feel blind corners, fast drivers, or other conditions that make it feel unsafe to share the road.

Data from the companies shows that 5.5% of trips passed through the DT mall and 1.5% stopped/started in the DT mall no-go zone. Sidewalk/DT mall riding accounted for 8 % and 11% of complaints received respectively. To address this issue, staff worked with the companies to develop in-app messaging emphasizing the no-go zones, proper riding in bike lanes, and has installed temporary signage on the mall reminding users to “walk your wheels.” If the goal is to have 100% compliance, additional signage and enforcement resources will be needed, including fines for violation.

Program Recommendations: Revisions to the State Code Sec. § 46.2-903 as part of the 2019 General Assembly now allow the operation of scooters on motor vehicle travel lanes on local streets, as well as sidewalks and trails. Unless local ordinances with different rules are adopted beforehand, on January 1, 2020, scooters will be allowed unrestricted access to sidewalks under State law. Staff recommends updating City Code Sec. 15-246 to prohibit scooters from riding on the sidewalk.

***Concern #2: Safety** – Users must acknowledge they will abide by all traffic laws and wear helmets. Of course this doesn't always happen. There is anecdotal evidence that head injuries are increasing in the communities where scooter systems are employed.*

Pilot Findings - A number of communities have been evaluating the safety implications of scooters. A recent report by the Public Health and Transportation departments in Austin, Texas (in partnership with the Centers for Disease Control) reported nearly half of those hurt in e-scooter crashes sustained head injuries. The implication is that e-scooter head injuries are preventable with helmet use.

Of the complaints received, 11% had to do with lack of helmets. To evaluate helmet use, City staff and UVA student researchers observed 121 scooter riders during the spring of 2019. None of the riders wore helmets. An additional, 63% of survey respondents e-scooters users reported never wearing a helmet when riding, most of which stems from the spontaneous nature of most e-scooter trips. Despite the safety concerns, there is a clear distaste for mandatory helmet use from a large portion of those who submitted written responses. State law does not require helmet use for scooter or bicycle riders over the age of 14.

In Charlottesville, approximately 50 people have visited the UVA Emergency Department for scooter related injuries (data reported through October 15, 2019). This represents an injury rate of approximately 25 per 100,000 scooter trips taken (or .0025%). This is consistent with the

Austin (TX) Public Health Department Study conducted in association with the CDC that was published in April 2019, which noted an injury rate of 20 per 100,000 scooter trips. Of these local emergency department visits, approximately 10-15 of local injuries were considered severe and involved head injuries, reiterating the need for helmets on these devices. Results of the user survey indicated less than 5% of users reported to have had a crash on a scooter and 10% responded that they've had close calls.

Visibility and lighting have also been raised as a common safety concern, as well as the previously discussed issue of scooters riding on sidewalks and observed unsafe scooter riding (such as wearing headphones and double riding).

To address these concerns, City staff published rules, etiquette on a dedicated website, promoted proper scooting via social and news media and worked with the companies to communicate laws/rules/etiquette via in-app messaging. Despite these efforts, 20% of users responded that they did not know the laws or regulations in Charlottesville for e-scooter use. This fall, UVA created a video that was shared on social media to promote safe riding behavior and City staff worked with companies to promote in-app messages and install hang tags on the devices reminding users of the rules.

Program Recommendations: On-going safety messaging and development of appropriate infrastructure is critical to the safety of all roadway users. Staff will work with operators to improve customer communication about safety and ordinance changes. Staff will also ensure that the Dockless Mobility webpage is current to any new regulations. In addition, Staff will weave these concepts into safety and other messaging campaigns to raise public awareness about safe and proper use of Micro-Mobility Devices.

In response to stakeholder concerns about the safety of using Micro-Mobility Devices during evening hours or in certain locations where there may be a higher potential for conflict, staff proposes the ordinance provide the City Manager authority to address those concerns if necessary.

Speed limits are another issue that affect the safety of people using micro-mobility devices. Staff proposes that the City establish permit requirements to address the need for Micro-Mobility Devices to be operated at safe speeds that are consistent with the nature of the infrastructure being used and the other travelers sharing that space. Staff recommends setting the maximum speed to 15 mph for motorized skateboards or e-scooters while operating on streets or shared use paths. Electric power-assisted bicycles would be permitted to operate at up to 20 mph on streets and shared use paths.

In response to concerns about unsafe riding, the proposed ordinance clarifies where scooters can ride in the roadway, prohibits double riding, and headphone use.

***Concern #3: Scooters improperly parked*** – *Since this is a dockless system, scooters are required to follow certain parking restrictions, prohibiting parking near fire hydrants, curb ramps, and building entrances. However, they can be knocked over, moved or just incorrectly parked by the rider.*

Pilot Findings -The nature of a dockless system has proven to increase ridership, both by using data to respond to demand and providing riders with the flexibility to leave their device at their destination. However, lack of designated parking areas creates concerns about visual clutter and the impacts on sidewalks which create barriers particularly for people with disabilities. Based on observational studies, 39% of scooters blocked pedestrian access and 4% were tipped over. Bird scooters tip more frequently than Lime. Among non-user survey respondents, blocking pedestrian access was a top concern (26%). In addition, blocking access represented 37% of complaints received by staff.

City staff published parking etiquette on a dedicated website, promoted a proper scooter parking video via social and news media and worked with the companies to communicate etiquette via in-app messaging.

Over the summer, staff installed designated scooter parking locations along the Water Street/West Main Street/University Ave corridor to encourage better parking in high demand locations. Lime has used these corrals consistently as deployment zones, but there is not sufficient data to assess whether the corrals are improving parking behavior.

To date, neither the City nor UVA have impounded vehicles that are damaged or improperly parked, though that could be a technique that is used if a dedicated staff person is hired.

Program Recommendations: Staff proposes that a new Code section is added to address the need for clear and enforceable guidance on the appropriate manner to park micro-mobility devices in a way that minimizes conflicts with other roadway and sidewalk users. The enforcement provision includes a \$50 civil penalty for inappropriate parking consistent with state code.

In addition, staff will continue to work with operators to offer incentives for good parking and require that repeat bad parking offenders be penalized. City will continue to identify and act on opportunity areas for corral installation using revenues generated from the permit fees.

***Concern #4: Workload on local government employees*** – *Not surprisingly, the public addresses their concerns to local government officials. From our discussions with other localities, there is a flurry of complaints and questions within the first two weeks but as riders understand their responsibilities and residents understand how to contact the participating company directly, calls and complaints decline after the initial few weeks.*

Pilot Findings – To date the City has received 220 complaints from 90 individual users. Additional complaints were sent directly to the companies. To date, we have not received the

exact number reported directly to the companies. While the volume of daily complaints directed to City staff has tapered off, dedicated staff time is needed to coordinate with the companies and regional partners, promote safety and low-income ridership programs, implement scooter parking areas, enforce riding/parking behavior, and further evaluate the program. Trying to shoehorn these responsibilities into current full-time staff workload has taken away from other daily responsibilities, including the development of safe infrastructure.

A large percentage of scooter trips start or end in the vicinity of UVA and a growing number of trips start/end in the urban areas of the County. City staff has worked closely with UVA to develop and monitor the program and worked with the County to establish no ride zones. However, each jurisdiction separately has spent considerable time adapting to this new form of technology and working individually with the operators to manage the program. This is a drain on staff time collectively. Recent conversations with the County have indicated that they will not be adopting an ordinance to regulate a program at this time. However, in order for dockless mobility to achieve shared goals of reducing single occupancy vehicle use and promoting more sustainable transportation options, the program should operate on a regional level and program staff could be used for this purpose.

Program Recommendations: Staff recommends hiring a full time employee that can work across jurisdictional boundaries to oversee this initiative (using the funds collected from permit fees). A dedicated staff person would help achieve the following:

1. Hold the providers accountable for their operational agreements, making the most of the providers' reporting capabilities, and analyzing data to identify infrastructure, communication, and enforcement initiatives that could move the program toward the program goals.
2. Spend more time in the field, identifying and addressing improperly parked devices.
3. Focus the time invested by City and UVA staff to a single person dedicated to moving the program toward the program goals.

### *Lessons Learned*

#### Technology

At the start of the pilot program, scooter companies assured staff that they had technology that could address some of the problems identified by local governments – such as “no go” geofencing (a virtual “fence” created around designated areas) that prohibits riding and parking in designated areas, ‘slow-go’ zones that can lower the speed of the scooter, and other technology. Staff quickly realized that these these technologies were evolving, but they are not guarantees and have required other interventions – such as signage and in-app messaging to communicate riding and parking areas. Additional encouragement and enforcement in key areas is needed if micro-mobility devices are to be excluded from designated areas.

In addition, staff understands that there are a number of tools under development by fleet operators to address issues such as helmet use, double riding, tip over technology, and driving under the influence. Staff supports the development and use of these innovative ways to address some of the concerns with scooter riding.

Program Recommendations: Staff recommends that geofences are created for “slow-go zones” in areas designated by the City and UVA with restricted speeds less than 5 mph. In addition, staff recommends creating “no parking” geofences. Staff also suggests that the operators maintain records of repeat offenders and ultimately deactivate accounts for such users.

### **Outreach**

A successful program relies on the coordination between City staff, regional partners and individual companies to promote safe riding and encourage an equitable distribution of the fleet as well as a diverse user base. While regulations required that the companies undertake these initiatives, without the City leading the charge, companies do not appear to take the initiative to engage with local stakeholders to promote safety or their programs that promote diverse ridership.

Program Recommendations: Staff recommends hiring a full time employee that can work across jurisdictional boundaries to oversee this initiative (using the funds collected from permit fees).

### **Fleet Size**

While the providers were approved for 250 devices in the City as part of the pilot extension, on any given day the fleet operates on average at about half that capacity. Limiting the fleet size has allowed staff to better understand the pros and cons of this new form of mobility, while trying to respond to the demands on the City’s limited right of ways. However, the limited fleet size has limited the level of service the City receives from providers and does not meet the current demand and equity goals of the program. Having a larger fleet would allow the City more flexibility to require that the companies have a certain percentage within designated areas without affecting the fleet resources needed to serve the areas with greatest demand.

In addition, the University of Virginia will be phasing out the U-bike Bike Share Program in May 2020, which will provide an opportunity for the region to think more holistically about micro-mobility transportation options. Increasing fleet size with a requirement to include electric bikes, will provide an opportunity for a more robust regional transportation system.

Program Recommendations: Staff understands that the right of way resources are limited and recommends that the City Manager have the authority to establish a maximum fleet size so as not to overwhelm City streets and sidewalks, but provide the opportunity to increase the fleet if performance standards are met. Staff also recommends continuing current incentives, such as providing a scooter “bonus” and waiving the per device permit fee, to encourage the operators to provide electric bikes.

### **Infrastructure**

An overwhelming majority of survey respondents, 77%, indicated that their preferred riding location would be bike lanes in the street. Only 13% indicated they preferred riding on the

sidewalks. These findings suggest that, if there was better bicycle infrastructure, such as protected/separated bike lanes or shared use paths, e-scooter users would use it appropriately.

Program Recommendations: Staff recommends on-going data collection and analysis to help inform the infrastructure investments needed to create a safe system, while continuing to implement the recommendations contained in Bicycle and Pedestrian Master Plan (2015) and Streets that Work (2016).

## **Data**

While both companies provide user dashboards that allow staff to monitor program trends consistent with the permit requirements, it took considerable effort for staff to access to the level of detail from both companies that would allow staff to conduct our own analysis of transportation trends for the program as a whole. This is due, in part, to concerns from the companies about providing staff with data that could divulge proprietary information. Finding a balance between the City's commitment to providing open data that does not jeopardize proprietary information has proven challenging.

Program Recommendations: In the interest of monitoring and compliance, Staff proposes that an element of the Permit program specifically address the provision of data by Permit-holders to the City.

## **Additional Concerns Not Previously Addressed**

- The life cycle and disposal of the devices
- As micro-mobility has evolved, there have been many questions about the environmental impact of the devices. Micro-mobility providers tout the reduction in carbon emissions. However, it's clear that the process of making, charging, and transporting them is not emission-free. One study by NC State found that most scooters last only a month or two on the street. As part of the pilot extension, applicants were required to submit a description of the vehicle end of life process and sustainability plan (including battery disposal and recycling." Current operators in Charlottesville reuse any salvageable parts and dispose of the batteries according to best practices.
- Affordability and comparison to parking/transit prices
- At current prices (which range between .15-.25/minute), the cost of the average micro mobility trip (5 minutes) is \$2. This more expensive than a transit fare (\$.75), but less than the cost of 2 hours of parking (\$3.00) or an Uber for the same distance (approx. \$8.00). Reliability appears to play an important role in the choice to use e-scooters with nearly 30% of survey respondents noting the primary reason for using an e-scooter was because it was the "fastest and most reliable." About 15% of respondents claimed it was "less expensive" than other modes.

## **Alignment with City Council's Vision and Strategic Plan:**

This program supports City Council's Vision to be "A leader in innovation, environmental sustainability, and social and economic justice, and healthy race relations" through the following

vision statements “Economic Sustainability,” “Green City,” “America’s Healthiest City” and “Connected Community.” It can contribute to Goal 3 of the Strategic Plan, to be a beautiful and sustainable natural and built environment, and objective 3.3 to provide a variety of transportation and mobility options. The program also aligns with the goals of the Bicycle and Pedestrian Master Plan (to explore bike share) as well as on-going discussions with the 2018 Comprehensive Plan to evaluate emerging technologies in transportation.

### **Community Engagement:**

Staff has met with representatives from a variety of City departments, City schools, as well as with representatives from UVA Parking and Transportation and Office of the Architect to coordinate an approach that would effectively manage this new technology. In addition, staff has sought input from the Bicycle and Pedestrian Advisory Committee throughout the pilot program.

City staff created a website with program and safety information, an email address to collect feedback on the program, and worked to integrate scooters in the myCville reporting tool. To date we have received nearly 220 comments (via phone, email and myCville) and more than 4,500 visits to the website. Staff has also worked with the companies to coordinate opportunities to table at a variety of popular events.

In addition, as part of the outreach during the first phase of the pilot program, staff, in collaboration with a representatives from Lime and Bird, and a University of Virginia Master’s Planning Practicum (UVA DMG), developed and distributed an online survey targeted at users and non-users alike. The survey collection period ran from March 20 to May 1, 2019, and generated more than 3,100 responses.

The survey was distributed through the City of Charlottesville’s website, social media, and email lists, Bird and Lime’s mobile apps, the UVA DMG’s personal, professional, and academic networks, and through various tabling events in collaboration with Bird, Lime, and UVA Parking and Transportation.

### **Budgetary Impact:**

One benefit of this program is that all capital equipment costs are covered by private vendors, with no public funds required, and the program provides a revenue stream via vendor permit fees to administer the program and improve infrastructure. During the first phase of the Pilot, permit fees generated \$50,575. By the time the program ends in December, staff anticipates collecting a total of \$72,750 in permit fees. Staff estimates that the 2019 Scooter Pilot Program Cost the City approximately \$68,000 which includes over 2,000 staff hours to set up and administer the program, evaluation and data management costs, installation of scooter corrals and “Walk Your Wheels Signs,” and encouragement activities. This figure does not include staff time to administer or enforce this pilot program at UVA.

Staff recommends creating a position (using the funds collected from the permit fees) to administer the program for the region. This is needed to maintain lines of communication with the operators, implement a region-wide safety and outreach campaign (including outreach to

underserved neighborhoods), and on-going evaluation of the program. It is anticipated that this staff member would work with both the City and UVA to better manage the program across jurisdictions. Staff recommends establishing a permit fee that covers the costs to fully administer the program.

**Recommendation:**

Staff recommends that Council enact both of the proposed ordinances included as attachments. Attachment A would revise existing City Code provisions to address safe riding and parking of vehicles, including motorized scooters. Attachment B would establish a permit program for dockless mobility devices for hire and authorize the City Manager to administer the permit program.

**Alternatives:**

Council could refuse to adopt an ordinance, thereby allowing companies to operate in a largely unregulated manner within Charlottesville and in accordance with state code.

**Attachments:**

Attachment A. Proposed Ordinance Amending, Reenacting, and Recodifying Article VI of Chapter 15 (Motor Vehicles and Traffic) of the Code of the City of Charlottesville With Respect to the Use of Bicycles, Electric Power-Assisted Bicycles, and Motorized Skateboards or Scooters

Attachment B. Proposed Ordinance Amending Chapter 15 (Motor Vehicles and Traffic) of the Code of the City of Charlottesville to add Article X regarding a permit program for dockless mobility Devices for hire

Attachment C. June 17, 2019 Council Presentation – Update on Dockless Mobility

ATTACHMENT A.

AN ORDINANCE AMENDING, REENACTING, AND RECODIFYING SECTIONS OF ARTICLE VI OF CHAPTER 15 (MOTOR VEHICLES AND TRAFFIC) OF THE CODE OF THE CITY OF CHARLOTTESVILLE WITH RESPECT TO THE USE OF BICYCLES, ELECTRIC POWER-ASSISTED BICYCLES, AND MOTORIZED SKATEBOARDS OR SCOOTERS

BE IT ORDAINED by the Council of the City of Charlottesville, Virginia that Article VI of Chapter 15 (Motor Vehicles and Traffic) of the Code of the City of Charlottesville is hereby amended and reordained as follows:

**ARTICLE VI. — BICYCLES, ELECTRIC POWER-ASSISTED BICYCLES, MOTORIZED SKATEBOARDS OR SCOOTERS, AND MOPEDS**

Sec. 15-240. - Riders subject to traffic laws, etc.

Every person riding a bicycle, electric power-assisted bicycle, motorized skateboard or scooter, or moped upon a street, roadway or other public vehicular area ~~shall~~will be subject to the provisions of this Code and the provisions of Code of Virginia, Chapter 8 (Section 46.2-800 et seq.) of Title 46.2, applicable to drivers of motor vehicles, unless the context of any such provision clearly indicates otherwise.

Sec. 15-241. - Required equipment for bicycles, electric power-assisted bicycles, and motorized skateboards or scooters.

- (a) Every bicycle, electric power-assisted bicycle, and motorized skateboard or scooter, when in use between sunset and sunrise, ~~shall~~must be equipped with a lamp on the front which ~~shall~~must emit a white light visible in clear weather from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved for use on the highways of this state by the superintendent of state police, which ~~shall~~must be visible in clear weather from all distances from ~~fifty (50) feet to three~~ six hundred (~~6300~~) feet to the rear, when directly in front of lawful ~~upper~~lower beams of ~~headlamps~~headlights on a motor vehicle. ~~A lamp emitting a red light visible in clear weather from a distance of five hundred (500) feet to the rear may be used in lieu of or in addition to the red reflector.~~
- (b) Every bicycle, electric power-assisted bicycle, and motorized skateboard or scooter, when in use between sunset and sunrise, must be equipped with a taillight on the rear emitting a red light plainly visible in clear weather from a distance of at least 500 feet to the rear. Any such taillight must be of a type approved by the superintendent of state police.

(c) Every bicycle, electric power-assisted bicycle, and motorized skateboard or scooter, when operated upon a street or highway, ~~shall~~ must be equipped with a brake ~~which~~ that will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Sec. 15-243. - Riding on roadways generally.

(a) Any person operating a bicycle, electric power-assisted bicycle, motorized skateboard or scooter, or moped on a roadway ~~shall~~ must ride as close as practicable to the right curb or edge of the roadway, except under any of the following circumstances:

- (1) When overtaking and passing another vehicle proceeding in the same direction;
- (2) When preparing for a left turn at an intersection or into a private road or driveway; and
- (3) When reasonably necessary to avoid conditions including, but not limited to, fixed or moving objects, parked or moving vehicles, pedestrians, animals, surface hazards, or substandard width lanes that make it unsafe to continue along the right curb or edge.

(b) For the purposes of this section, a "substandard width lane" is a lane too narrow for a bicycle, electric power-assisted bicycle, motorized skateboard or scooter, or moped and another vehicle to pass safely side by side within the lane.

(c) Bicycles, electric power-assisted bicycles, and motorized skateboards or scooters may use bicycle lanes when operating in the intended direction of travel, and may use any shared use path in the City.

Sec. 15-246. - Riding and skating on sidewalks and the downtown mall.

(a) No person ~~may~~ ~~shall~~ ride a bicycle, an electric power-assisted bicycle, a motorized skateboard or scooter, or a moped on any sidewalk or other area designated exclusively for pedestrian traffic including, without limitation, the pedestrian mall area on Main Street between the Ninth Street bridge and Ridge-McIntire Road; provided however, that this prohibition ~~shall~~ does not apply to on-duty police officers and other uniformed emergency services personnel using the pedestrian mall. ~~For the purposes of this section the terms electric power-assisted bicycle and moped shall have the meanings set forth within § 46.2-100 of the Virginia Code.~~

(b) No person ~~shall~~ may ride or use rollerskates, rollerblades, skateboards, scooters, or similar devices on wheels or runners on the above-described pedestrian mall area on Main Street.

(c) Violations of this section will be subject to a civil penalty of not more than fifty dollars (\$50.00).

Sec. 15-246.1 – Parking for bicycles, electric-power assisted bicycles, and motorized skateboards or scooters.

(a) No person may stand or park a bicycle, electric power-assisted bicycle, or motorized skateboard or scooter:

1. upon the street, other than upon the roadway against the curb, or in a corral marked and designated for the purpose;
2. upon the sidewalk, other than in a rack to support the vehicle, or attached to a street sign or light post, or at the curb or the back edge of the sidewalk;
3. where they would obstruct curb ramps, pedestrian access within bus stops, or fire access;
4. in, or upon, any public right-of-way, other than a street or sidewalk, except in a location specifically designated through signage or provision of racks.

(b) Bicycles, electric power-assisted bicycles, and motorized skateboards or scooters must be parked upright, in such a manner as to afford the least obstruction to pedestrian and vehicular traffic.

(c) Violations of this section will be subject to a civil penalty of not more than fifty dollars (\$50.00).

Sec. 15-248. - Rider not to attach vehicle or himself to another vehicle.

No person riding upon any bicycle, electric power-assisted bicycle, motorized skateboard or scooter, or moped ~~shall~~may attach the same or himself to any other vehicle on the roadway.

Sec. 15-249. - Riding on handlebars.

No person riding a bicycle, electric power-assisted bicycle, motorized skateboard or scooter, or moped on a street, highway, or other public vehicular area ~~shall~~may permit any person to ride on the handlebars.

Sec. 15-249.1 – Riding with more than one person on a motorized skateboard or scooter.

Motorized skateboards or scooters may not be used on a street, highway, or other public vehicular area by more than one person at a time.

Sec. 15-250. - Report of ~~bicycle~~certain vehicle accidents.

It ~~shall~~will be the responsibility of the rider to report any bicycle, electric power-assisted bicycle, and motorized skateboard or scooter accident involving bodily injury or damage of fifty dollars (\$50.00) or more to the chief of police within forty-eight (48) hours of such accident. The chief of police ~~shall~~must keep complete and retrievable records of all such accidents involving these vehicles~~bicycles~~. Such records ~~shall~~must include the location and nature of the accident.

Sec. 15-251. - Disposition of unclaimed bicycles, mopeds, etc.

~~(a)~~—Where any bicycle, electric personal assistive mobility device, electric power-assisted bicycle, motorized skateboard or scooter, or moped has been found or delivered to the police department, and has thereafter remained in the possession of the police department, unclaimed, for more than thirty (30) days, and the property is not owned by a Dockless Mobility Business operating under a permit issued pursuant to Article X of this Chapter, such property may be disposed of as follows:

~~(a1)~~ In cases where a private person found and delivered the property to the police department, and requested to receive the property if it should remain unclaimed: if the location and a description of the property has been published at least once a week for two (2) successive weeks in a newspaper of general circulation within the city (and, in the case of an electric personal assistive mobility device, electric power-assisted bicycle, motorized skateboard or scooter, or moped for which a license plate, tag or decal has been issued pursuant to section 15-39 of the City Code, if the record owner has been notified by mail at the address provided in the license application) then the property may be released to the finder;

~~(b2)~~ In all other cases the property ~~shall~~must be sold pursuant to section 20-59 of the City Code, or, at the option of the city, donated to a charitable organization.

~~(b)~~—~~For the purposes of this section the terms moped, electric personal assistive mobility device, and electric power assisted bicycle shall mean and refer to the vehicles defined by those terms within § 46.2-100 of the Virginia Code.~~

~~Sec.s. 15-253. Unlawful to ride motorized skateboard or scooter while using earphones.—15-270.—Reserved.~~

No person may ride a motorized skateboard or scooter while using earphones on or in both ears. For the purposes of this section, “earphones” will have the meaning set forth in Va. Code § 46.2-1078.

## **ATTACHMENT B.**

### **AN ORDINANCE AMENDING AND REORDAINING CHAPTER 15 (MOTOR VEHICLES AND TRAFFIC) OF THE CODE OF THE CITY OF CHARLOTTESVILLE BY ADDING A NEW ARTICLE X ESTABLISHING A PERMIT PROGRAM FOR DOCKLESS MOBILITY DEVICES FOR HIRE**

**BE IT ORDAINED** by the Council of the City of Charlottesville, Virginia that Chapter 15 (Motor Vehicles and Traffic) of the Code of the City of Charlottesville is hereby amended and reordained by adding a new Article X entitled “Permit Program for Dockless Mobility Devices for Hire,” which article will read as follows:

#### **ARTICLE X. PERMIT PROGRAM FOR DOCKLESS MOBILITY DEVICES FOR HIRE**

##### **Sec. 15-445. Purpose and Persons Covered.**

- (a) Purpose. The purpose of this section is to establish a permit program to regulate the operation of Dockless Mobility Services for-hire within the City of Charlottesville, as defined below. The aims of the permit program shall be:
- (1) to ensure that Dockless Mobility Services for-hire are carried on in a manner that is consistent with the health, safety, and welfare of the public, as well as consistent with the accessibility of public right-of-way for bicyclists, pedestrians, and people with disabilities;
  - (2) to reduce single occupancy vehicle use; and,
  - (3) to improve the overall mobility, safety, and equity of the City’s transportation network.
- (b) Persons Covered. Any person who provides, or applies to provide, Dockless Mobility Service for-hire, as defined below, within the City of Charlottesville will be governed by the provisions of this Article.

##### **Sec. 15-446. Definitions.**

The following words and terms, when used in this section, will have the following meaning, unless context clearly indicates otherwise:

“Dockless Mobility Device” means a bicycle, electric power-assisted bicycle, or motorized skateboard or scooter, as those terms are defined in the Code of Virginia.

“Dockless Mobility Business” means any person that offers, or applies to offer, Dockless Mobility Devices for-hire by relying on the public right-of-way to store the Dockless Mobility Devices for customer access and use. Dockless Mobility Business does not include any transportation service operated by the City or any other political subdivision or agency of the Commonwealth of Virginia.

“Dockless Mobility Service” means the service provided by a Dockless Mobility Business.

Sec. 15-447. Permit Requirement.

No person may provide Dockless Mobility Services for public hire within the City of Charlottesville without obtaining a permit from the City Manager pursuant to this Article.

Sec. 15-448. City Manager Authorized to Promulgate Regulations.

The City Manager, or the City Manager’s designee, will administer the permit program and will have the authority to promulgate regulations setting forth the requirements applicable to all persons applying for, or operating under, a permit issued pursuant to this Article. The City Manager, or the City Manager’s designee, may establish reasonable fees, charges, and penalties in connection with the permit program, including, but not limited to, requirements for insurance coverage, bond payment, and indemnification.

Sec. 15-449. Maximum Fleet Size.

The City Manager, or the City Manager’s designee, will have the authority to establish, modify, or eliminate a cap on the total number of Dockless Mobility Devices allowed to operate under this permit program.

Sec. 15-450. Review of Permit Applications.

- (a) The City Manager, or the City Manager’s designee, must evaluate each application for a permit under this program and notify the applicant in writing regarding the decision to approve or deny the application. In making such an approval or denial, the City Manager, or the City Manager’s designee, may consider any established cap on the total number of Dockless Mobility Devices, aggregate demand for services, and any goal articulated in the City’s Comprehensive Plan or Strategic Plan.
- (b) An applicant for a permit must request an initial allocation of Dockless Mobility Devices. The City Manager, or the City Manager’s designee, may determine the initial number of Dockless Mobility Devices approved under the permit. The City Manager, or the City Manager’s designee, may subsequently increase or decrease the number of approved devices under a permit for any of the reasons mentioned in Sec. 15-450(a) or in connection with the enforcement of any regulations promulgated pursuant to this Article.

15-451. Suspension or Revocation of Permits.

The City Manager, or the City Manager’s designee, may revoke or suspend a permit for any violation of this Article or regulations promulgated pursuant to this Article.

#### 15-452. Appeals.

The City Manager, or the City Manager's designee, must establish an administrative process for any Dockless Mobility Business to appeal the denial of a permit application, the suspension or revocation of a permit, or any change in the number of approved devices under a permit.

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# SHARED DOCKLESS MOBILITY DEVICES

**REPORT TO CITY COUNCIL**

June 17<sup>th</sup>, 2019

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# Background

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- In November 2018, Council approved **temporary pilot** program to evaluate dockless devices in Charlottesville
- Pilot is scheduled end on **July 31st, 2019**
- 2 companies applied and were granted permits: **Lime** and **Bird**
- Lime began operations on **December 10th**, Bird began on **January 10th**
- Both companies are allowed **100 scooters** (Lime + 40 bikes - no longer deployed)
- *HB 2752 – 2019 General Assembly Legislation*

# Program Regulations

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- **200** maximum dockless scooters
- Public Data Access
- Partnership with **UVa**
- **No Go** and **Slow Go** zones for the Mall and UVA
- Fee Structure - **\$500**/permit, **\$1**/day per device
- Low Income Program and Outreach

# Key Findings

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- People are engaged regarding the public right of way
- Pilot allowed for administrative changes and improvements
- Ridership is high and these devices seem to be filling a gap in short distance trips
- Bird and Lime are two distinct companies in many ways

# Key Statistics

## City & UVa

**>115,000** rides

≈ **700** rides per day

≈ **20,000** unique riders

**1M+** minutes of riding

## Rides & Parking

**17%** of rides ended on corners

**20%** of rides ended in commercial corridor

**5%** of rides through DTM No-Go Zone

**50%** of rides ended in near UVa

## Travel & Safety

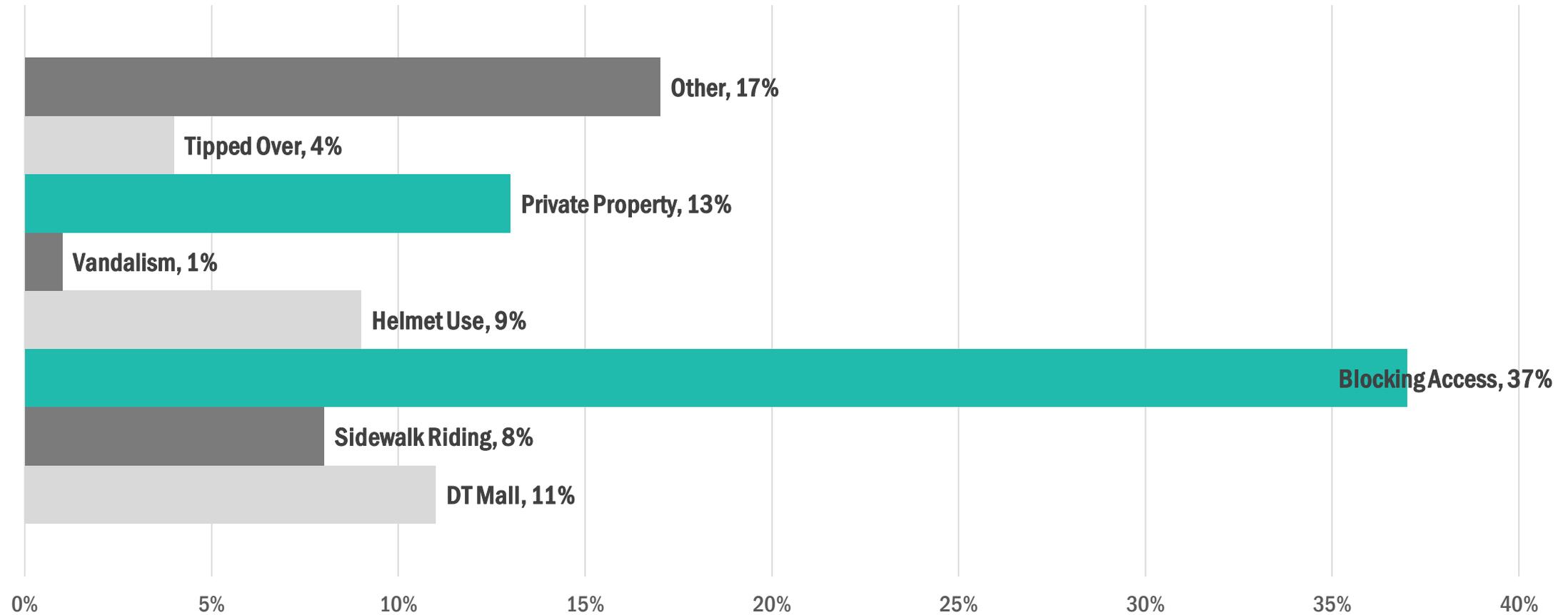
**5pm** busiest time of day

**8am** slowest time of day

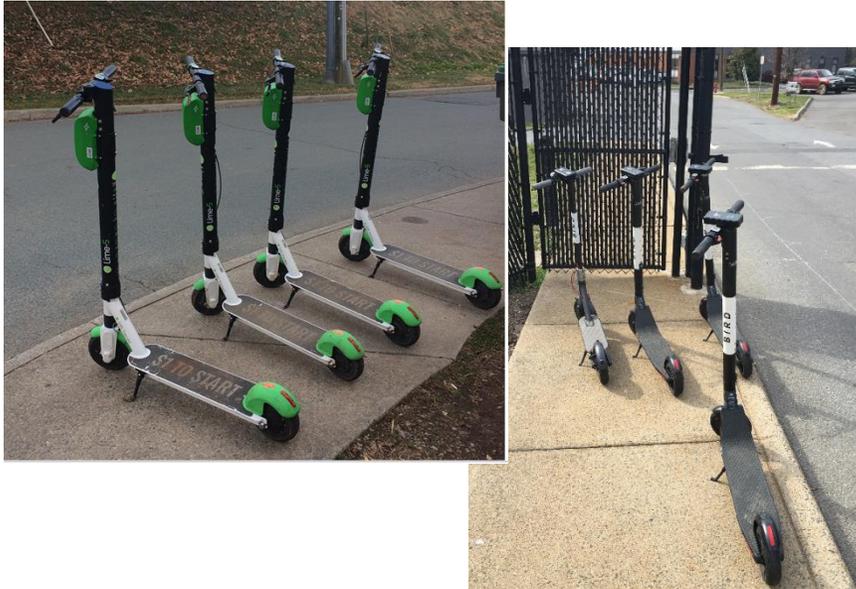
**1/2** mile is trip avg.

**32** ER visits reported

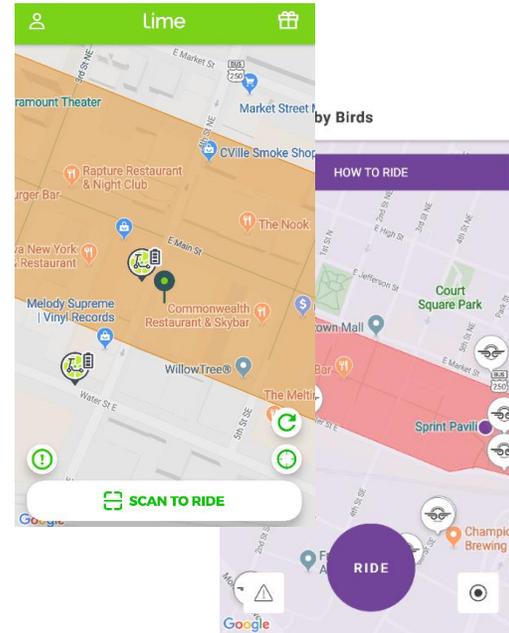
# Complaints



# Challenges



Initial Deployments



Technology

## Others:

- Small Market
- Rider Education
- Equitable Deployment

# City Efforts

- Permit Regulations
- Increased Signage
- Social Media/Communications
- In-app messaging
- Strong Collaboration with UVa
- User/Non-User survey



and electric scooters in Charlottesville

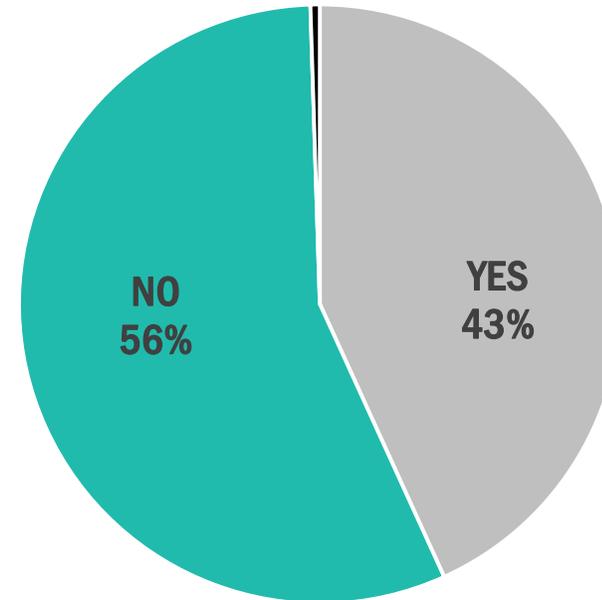
CHARLOTTESVILLE, Va. (WVIR) - Charlottesville officials say drivers need to pay attention when they are sharing the road. People have been getting around the city on two wheels thanks to a pilot program that is bringing in dockless electric scooters and bicycles.

Electric scooters were dropped off all around Charlottesville early Thursday, January 10. They, along with bicycles, are available to rent via smartphone. Both companies offer scooters for \$1 to start, and have a fee for every minute used after that.

# Survey Results

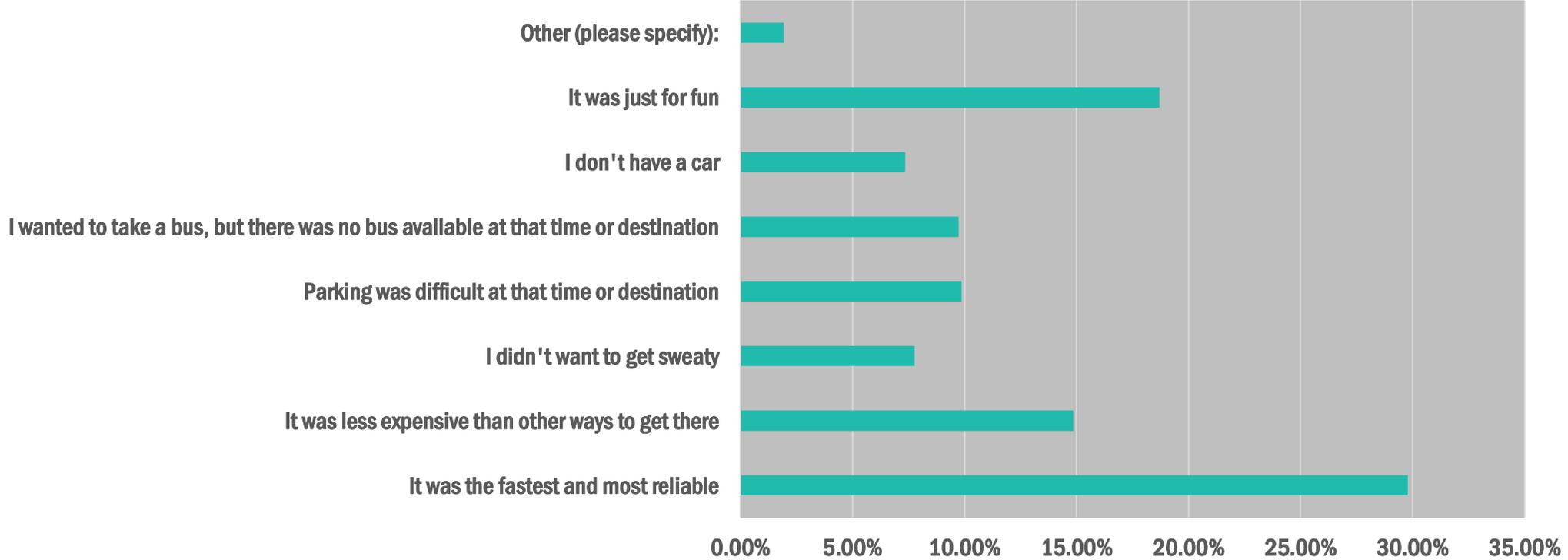
- Joint effort with UVA's School of Architecture - Planning Practicum
- Nearly **3,000** responses (3/19-5/19)

Have you ridden an e-scooter?



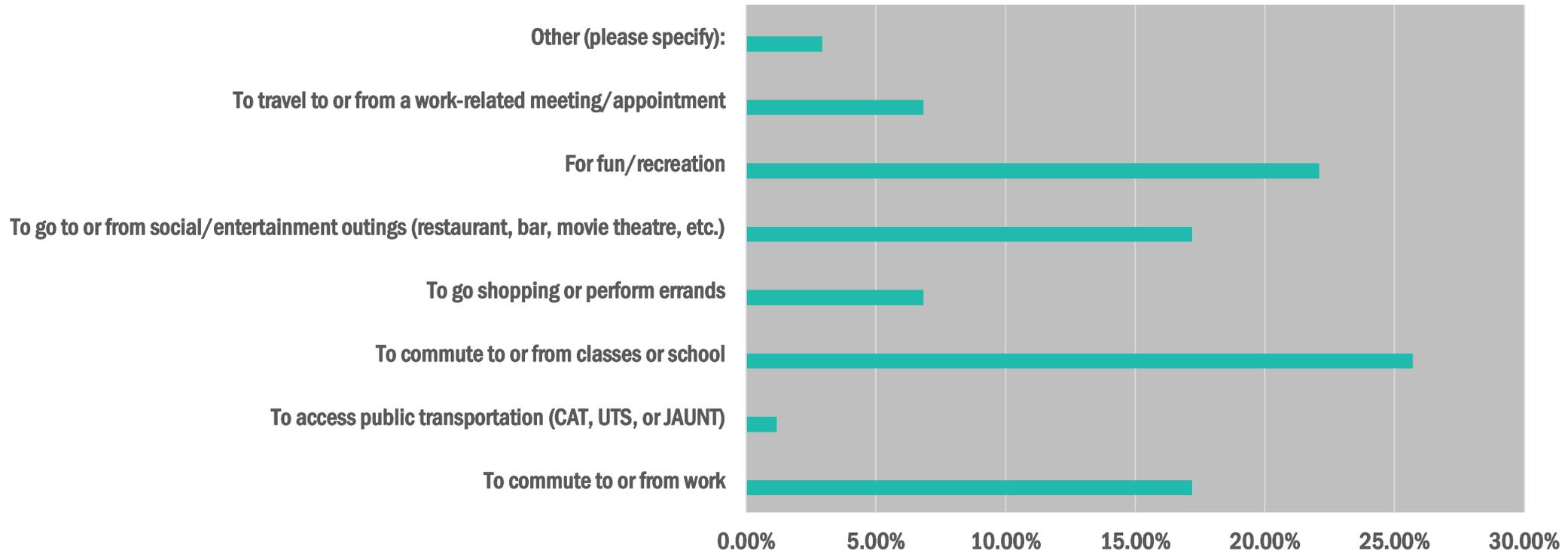
# Survey Results

## Why e-scooters?



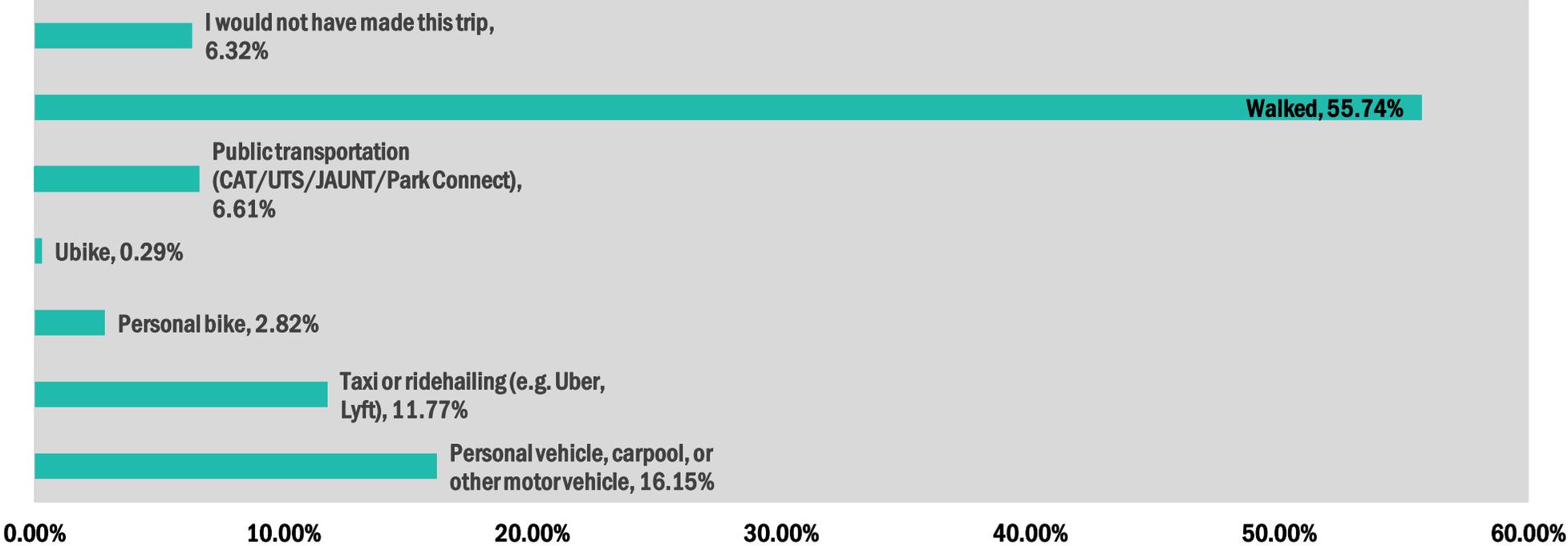
# Survey Results

## Primary Trip Purpose



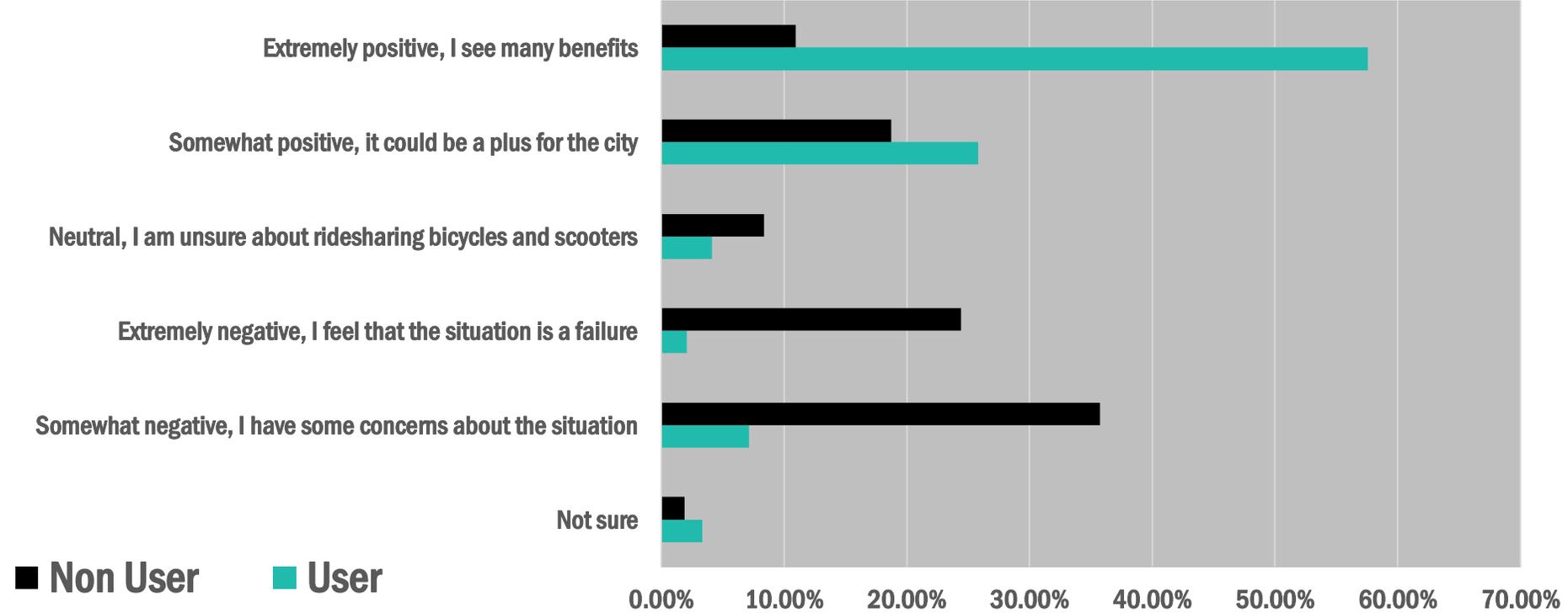
# Survey Results

## Mode If Scooter Not Available?



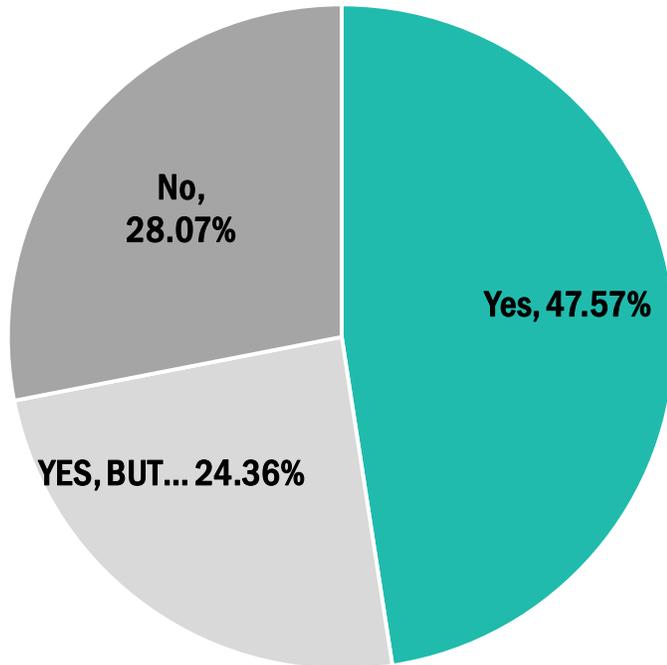
# Survey Results

## Comparing Non User vs User Perceptions



# Survey Results

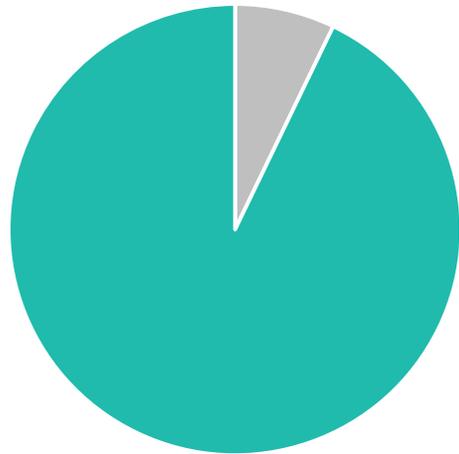
Do you want the program to continue?



**3/4** of respondents want the dockless program to continue

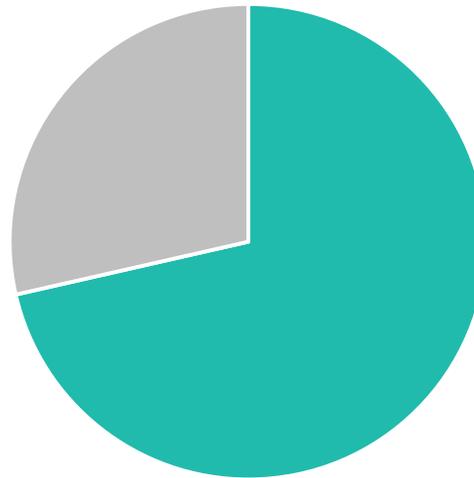
# Observational Studies

Device Provider



■ Bird ■ Lime

Observed Gender



■ Male ■ Female

**21%** Rode on Sidewalks

**15%** Wore headphones

**ZERO** Wore Helmets

# Opportunities + Lessons Learned

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- Active Program Management is needed
  - Increase **data** access
  - **Outreach** to UVA/users/community groups
  - **Reduce barriers** for low-income riders
  - **Distribute fleet** more equitably throughout the city
  - **Technology + Infrastructure**

# Recommendations

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- **Extend Pilot** through December 18, 2019 to plan for newly enabled state legislation
- **Increase fleet** (no more than 300 total scooters) to help with equity and distribution goals
- **Hire P/T staff** to...
  - Implement outreach campaign
  - On-going coordination with UVA
  - Refine regulations based on lessons learned
  - Evaluate program based on Comprehensive Plan goals

# Questions? More Info?

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[www.charlottesville.org/dockless](http://www.charlottesville.org/dockless)

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scoot  SAFE

