



DETROIT IN MOTION:

Impacts of Community-Centered Bike Programs on Detroiters



**A Summary Report of Detroit's E-Bike Leasing
Program, Bike Challenge, and Bike Summit**

Acknowledgements

The Office of Mobility Innovation (OMI) works with mobility stakeholders to design, develop, and implement innovative mobility solutions within the City of Detroit. OMI exists to help the City navigate the rapidly changing transportation and mobility industries.

Transportation and mobility are essential for both people and businesses. Detroit's automotive heritage provides an unparalleled opportunity to work with industry to innovate and define the future of transportation and mobility. OMI leads this effort on behalf of the City and collaborates with industry, academia, philanthropy, community organizations, residents, and local, state and federal government.

We want to recognize our project team at OMI, the New Urban Mobility Alliance (NUMO), and NextEnergy for their leading roles in the development, design, and delivery of the City's first e-bike leasing program, bike challenge, and bike summit. We would like to thank the following partners for their contributions to the design, implementation, and evaluation of the 2021 E-Bike Leasing Pilot, Detroit Bike Challenge, and Detroit Bike Summit, MoGo, the Southeastern Michigan Council of Governments (SEMCOG), Detroit Greenways Coalition, City of Detroit Safe Routes Ambassador Program (SRAP), Love to Ride, and JFM Consulting Group. Their individual expertise allowed OMI to deliver new mobility solutions and programs to City residents.

Most importantly, we would like to express our sincere gratitude to Detroiters and Detroit bike clubs and organizations (please see full list of clubs and organizations in the appendix) for their participation and advocacy in Detroit's bike culture. Their contributions are invaluable, and OMI will continue to work to foster relationships with members of the community to support and strengthen biking in the City.

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Introduction

Community-Centered Bike Programs Program Summary

In response to the COVID-19 global pandemic, OMI partnered with the New Urban Mobility alliance (NUMO) and NextEnergy to launch the 2020 Essential Workers Micromobility Pilot; a six-month program that provided close to 60 essential workers with electrically powered bikes for a subsidized rate. [Keep Detroit Moving: Lessons from the 2020 Essential Workers E-Bike Pilot](#) report, brings important insights of a city-led scalable employer-based micromobility program with stories of essential workers from communities in Detroit navigating the impacts of a pandemic while seeking safe and reliable transportation.

Due to the increasing demand for e-bikes as a reliable form of transport for commuting and daily needs, the city was compelled to continue exploring opportunities to make biking more accessible to residents. Building on the success of the first micromobility pilot, OMI along with local community partners, MoGo Bikeshare, People to Educate all Cyclists, Henry Ford Health System, and NextEnergy, participated in a Behavioral Science & Equitable Mode Shift Virtual Retreat organized by NUMO. What resulted helped shape a public-private-philanthropic approach in addressing mode shifts in Detroit and the city establishing its first behavior change framework for bike commuting.

Detroit's Behavior Change Framework focused on gathering a better understanding of existing bike programs, current challenges and barriers facing the biking community, and launching small-scale interventions to support a behavior shift from replacing short car trips with bikes and/or e-bikes.

Goals of the Behavior Change Framework:

1. Affect behavior change by increasing access to e-bikes and incentivizing biking through month-long and weekly challenges
2. Shift employers' interest in funding commuter options such as Transportation Benefits
3. Identify motivations, barriers, and support needed to grow Detroit's bike and bike to work culture
4. Align city departments on programming and future infrastructure investments that support job access

Together with partner and stakeholder input, the city used this framework to set goals for the next phase of interventions with community-centered bike programs and initiatives.

Community-Centered Bike Programs

- 1. E-Bike Leasing Pilot:** Provide more than 100 e-bikes to Detroit-based employees and continue to support front-line workers Program participants will have access to greater mobility choices by leasing e-bikes to meet transportation needs and results in increasing the use of biking for commutes and recreational cycling.
- 2. Detroit Bike Challenge:** Develop avenues to lift up, spotlight, and capture residents and community voices and stories that help shape sustainable long-lasting behavior change along with city-wide adoption of biking more widely in communities across Detroit. The Detroit Bike Challenge compliments an existing online platform, Love to Ride, where residents can connect with each other and encourage by logging rides, uploading pictures, and sharing stories about their biking experiences.
- 3. Detroit Bike Summit:** Create a three-part engagement strategy where the city can better understand and quantify barriers and enablers to biking, specifically from the perspective of Detroit bike clubs and advocacy organizations. The summit includes a bike culture survey, two virtual conversations with bike club and organization leaders, and a celebratory event located in Detroit's North End neighborhood.

Program Summary

OMI launched the city's next phase in advancing a communities-first approach to biking over the course of a 6 month period with three key initiatives. The 2021 E-Bike Leasing Program and Detroit Bike Challenge were both launched in May of 2021 and operated until October 2021. Under the leasing program, Detroit-based employees were able to lease electrically assisted bikes for \$15 per month. The Bike Challenge was hosted on Love to Ride, a biking encouragement platform, where Detroit residents and employees were able to register and participate for free. On Love to Ride, participants could set goals, log rides, post images and stories, engage with the biking community, and participate in two, month-long challenges in May and October and three weekly challenges between June and September.

Evolving from the relationships that OMI built with local bike clubs and organizations throughout the Detroit Bike Challenge, the Office launched the City's first Bike Summit in August of 2021. The Bike Summit was dedicated to capturing feedback from bike club and organization leaders. It consisted of a survey, virtual conversations, and a celebratory event. These three initiatives collectively helped shape OMI's first bike program and guided the City and key partners to develop and implement a Behavior Change Framework focused on increasing bike commuting in Detroit.

The outcomes of these initiatives are reflected in the evaluation results section of this report.

Evaluation Strategy

In response to demand and interest for e-bike rentals received during the 2020 COVID-19 Response Pilot, the City of Detroit's Office of Mobility Innovation (OMI) launched the E-Bike Leasing Pilot Program, established the Detroit Bike Challenge and organized the City's first annual Bike Summit.

The E-Bike Leasing Program and Detroit Bike Challenge were both launched in May of 2021 and operated until October 2021. Under the leasing program, Detroit-based employees were able to lease electrically assisted bikes for \$15 per month. The bike challenge was hosted on Love to Ride, a biking encouragement platform, where Detroit residents and employees were able to register and participate for free. On Love to Ride, participants could set goals, log rides, post images and stories, engage with the biking community, and participate in two, month-long challenges in May and October and three weekly challenges between June and September.

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These three initiatives collectively helped shape OMI's first bike program and guided the City and key partners to develop and implement a Behavior Change Framework focused on increasing bike commuting in Detroit.

The goals of this program were to:

- 1. Affect behavior change by increasing access to e-bikes and incentivizing biking through month-long and weekly challenges**
- 2. Shift employers' interest in funding commuter options such as Transportation Benefits**
- 3. Identify motivations, barriers, and support needed to grow Detroit's bike and bike to work culture**
- 4. Align city departments on programming and future infrastructure investments that support job access**

The outcomes of these goals are reflected in the evaluation results section of this report.

A mixed-methods approach was taken to evaluate OMI’s biking initiatives, applying both qualitative and quantitative techniques. Using the aforementioned goals to guide the work, the research team at JFM developed an evaluation plan to capture participant behaviors and perceptions. The tables below display the various data collection methods used to obtain supporting information for the E-Bike Leasing Program, Detroit Bike Challenge, and the Detroit Bike Summit.

▼ **Tables 01-03: Evaluation Methods**

E-Bike Leasing Evaluation Methods	n=	Timeframe
E-Bike Pre-Survey	63	June - August 2021
E-bike Mid-Survey	59	September 2021
E-Bike Post-Survey	53	November 2021
E-bike Early Exit Survey	9	September - October 2021
Employer Partner Interviews*	5	December 2021 - January 2022

Detroit Bike Challenge Evaluation Methods	n=	Timeframe
Baseline Survey	509	April - October 2021
3-Week Survey	54	June 2021
4-Month Survey	35	September 2021
Final Survey	66	November - December 2021
Employer Partner Interviews*	5	December 2021 - January 2022
Mini-Challenge Focus Group	6	July 2021

Bike Summit Evaluation Methods	n=	Timeframe
Bike Culture Survey	68	August 2021
Virtual Discussion with Bike Club Leaders/ Organizers (2)	8	September 2021

**During the Employer Partner Interviews, participants were asked about perceptions and future plans pertaining to both the Bike Challenge and E-Bike Leasing Program.*

A descriptive analysis was conducted to measure the quantitative outcomes of the initiatives, and a thematic analysis was administered to draw out parallel topics and areas of consensus. When examining behavioral changes (on-time arrival, commute time, amount spent on commute, and frequency of use), only responses that were able to be matched from pre-survey to post-survey responses were included in the analysis. While this diminishes the power of some results, it strengthens the homogeneity of the group thus increasing the reliability of the evaluation design. The matched analysis is representative of 27% (17 cases) of the total number of individuals surveyed at the beginning of the program.

Evaluation Results

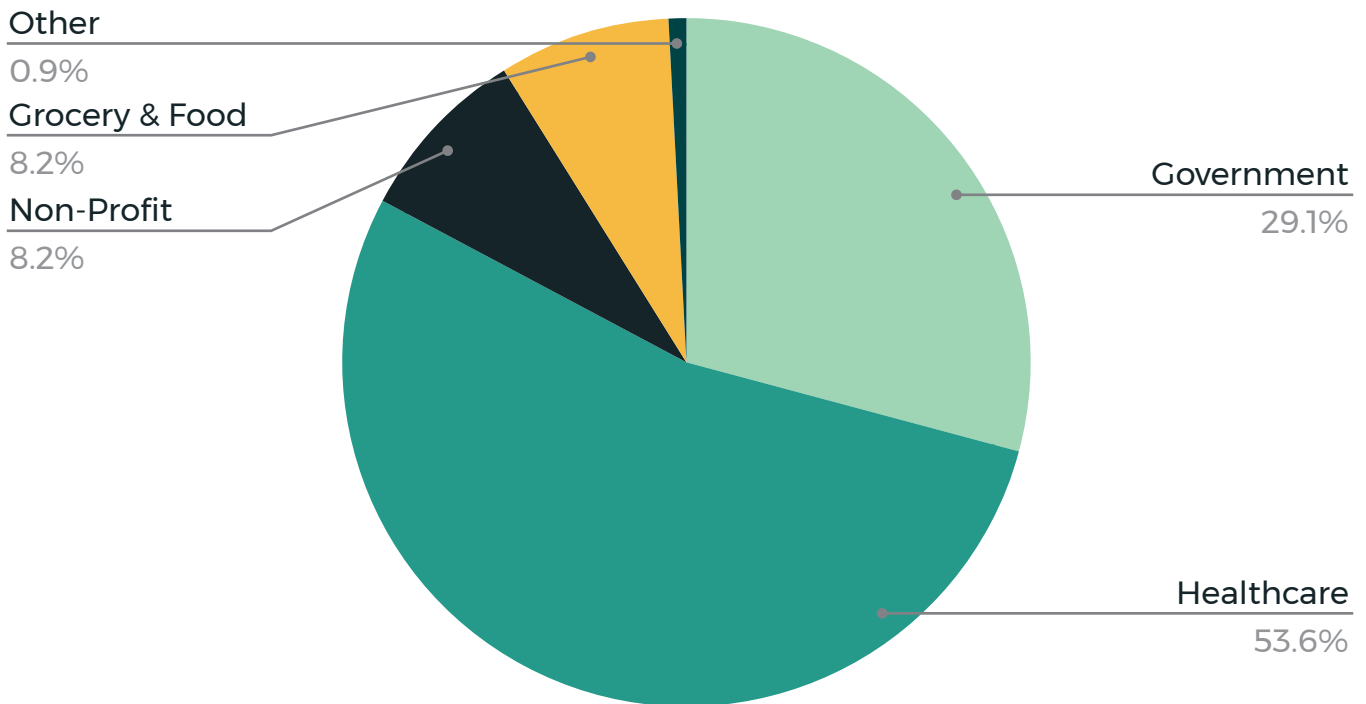
E-Bike Leasing Program

Participation

Program Retention

110 Detroit-based employees, representing 10 employers, participated in the E-Bike Leasing Program. Employer organizations included 5 non-profit organizations, 2 grocery stores, 1 local bakery, 1 healthcare facility, the City of Detroit and 1 quasi-governmental agency.¹ Approximately 84% of employees were healthcare professionals or worked for the government. 16% worked within the food service industry or a non-profit organization.

▼ **Chart 01: Distribution of Employee Participants Across Industries**



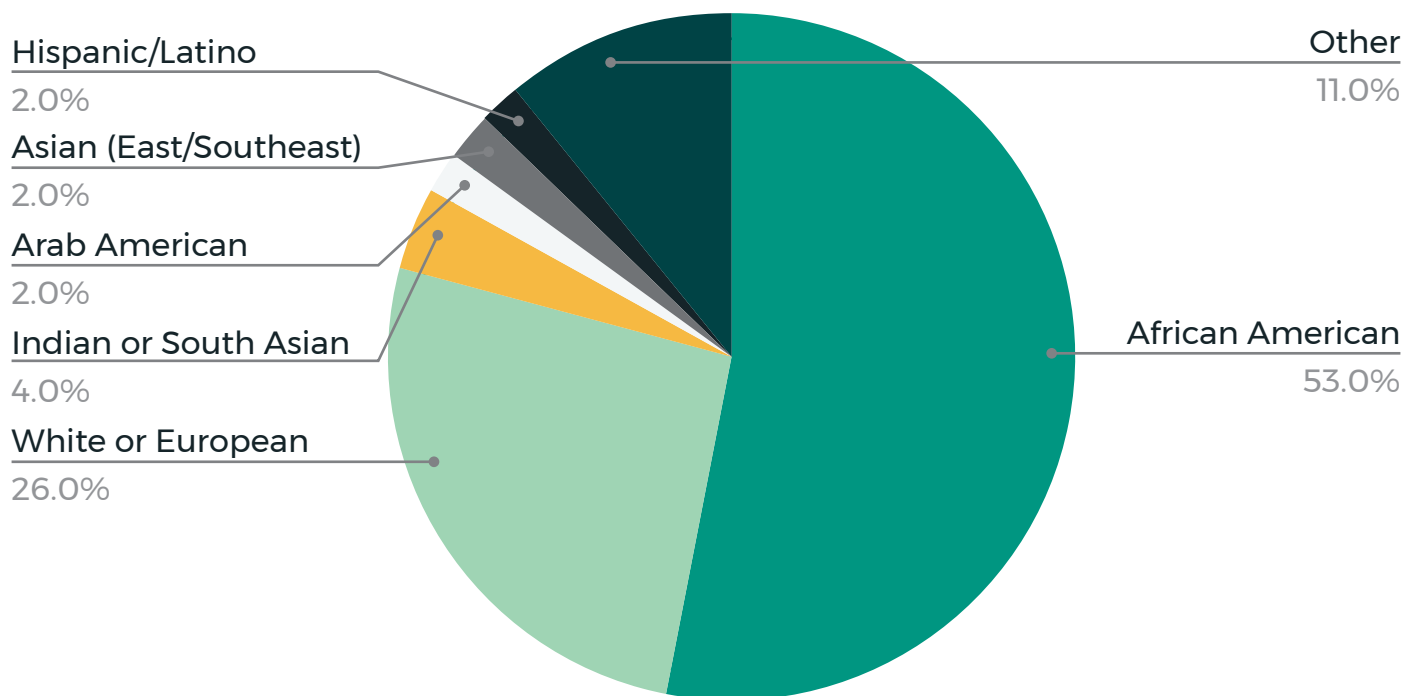
By the end of the pilot period, the program retained a total of 97 employees (88% retention rate) participants across all of the represented industries.

¹ OMI worked directly with 5 of the 9 employers to promote the program to their employee-base. Participants outside of these organizations learned about the program by word of mouth.

Participant Demographics

The E-Bike Leasing Program was able to successfully outreach to a wide audience, allowing a diverse set of individuals to participate. While the program intended to capture the demographic features of the participants at the onset, a technical issue rendered the data unusable. Instead, demographic data was pulled from the post-survey analysis. Just over ½ of program respondents identified as African-American or Black, whereas about ¼ identified as White or European. Additionally, about 10% of respondents identified themselves as Indian or South Asian, Arab American or Middle Eastern, Asian, or Hispanic/Latino. The remaining 11% of respondents selected 2 or more ethnicities and/or otherwise self-identified.

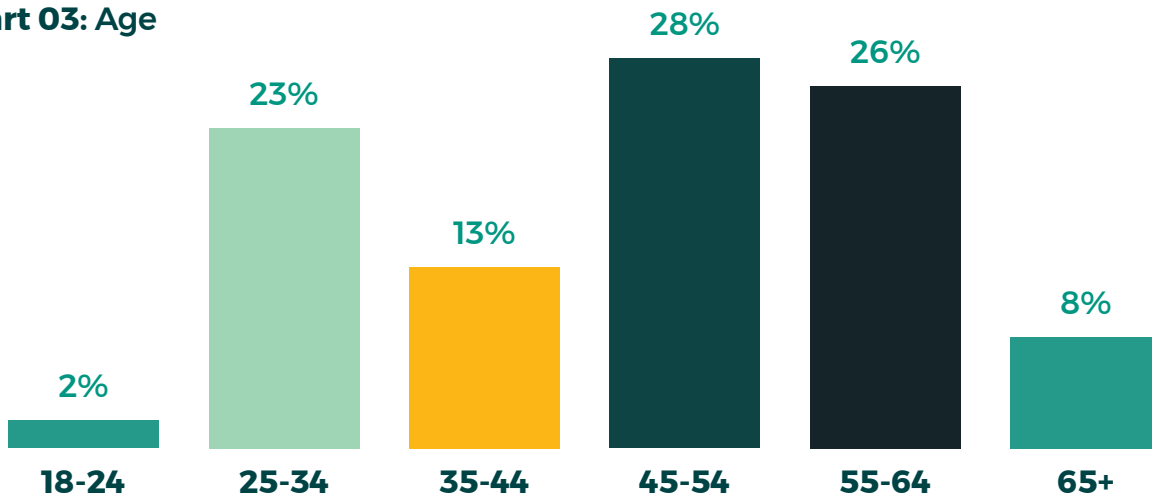
▼ **Chart 02: Race/Ethnicity**



Participant Demographics

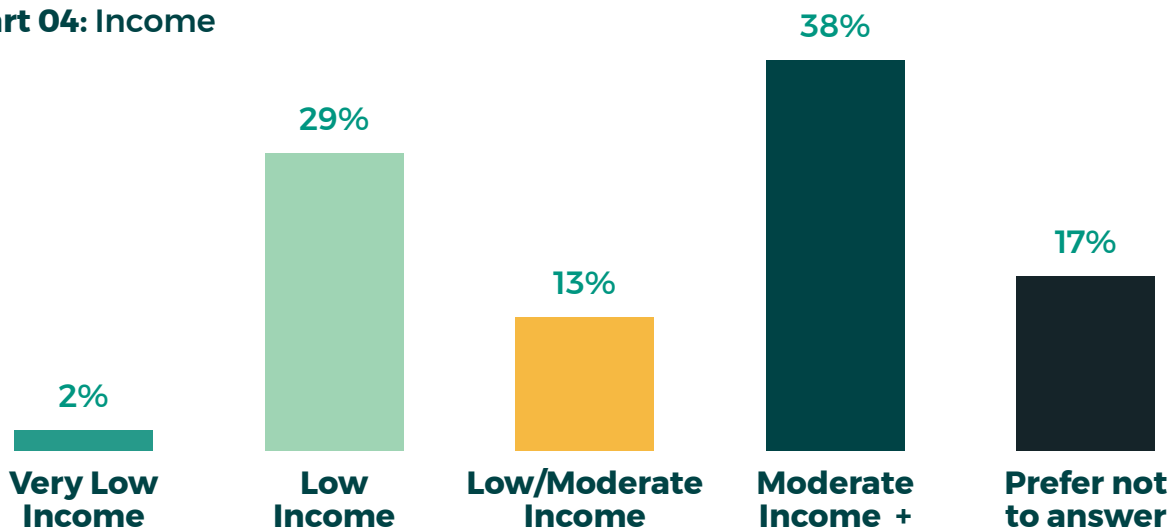
Looking at reported age data, 3 out of every 5 respondents were 45 years or older. Furthermore, over a quarter of respondents (26%) were 55 years or older, showcasing the ability to utilize an e-bike, even after reaching “older adult” “senior citizen” status. Given that only about 1/3 of participants fell between the ages of 18-44 (38%), suggests that there is also room for growth in this age range.

▼ Chart 03: Age



Adding to the evidence that the program reached a diverse set of individuals, reported income levels varied widely. The figure below demonstrates that the program reached both low-income and moderate-income households nearly as well. The income categories were developed by comparing family household size with relevant poverty thresholds.

▼ Chart 04: Income

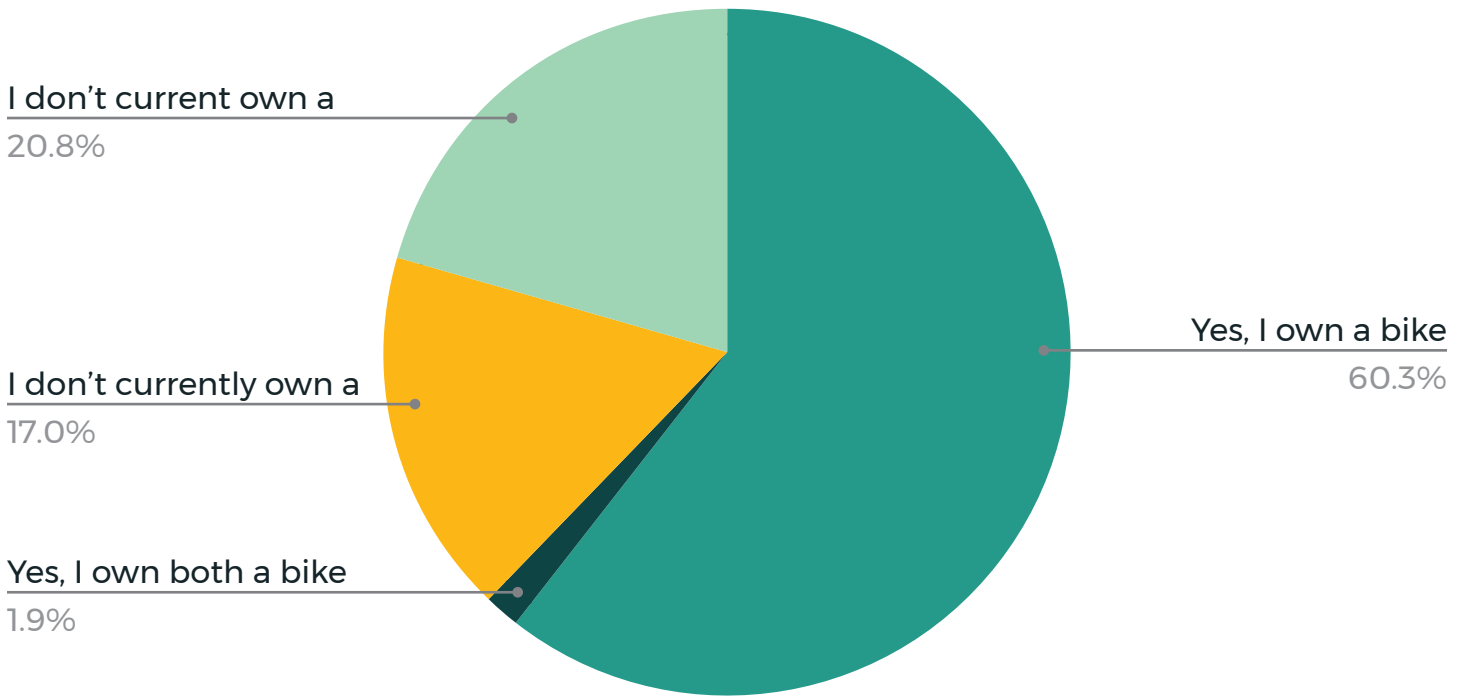


(For a family of one, Very Low Income is defined as less than \$17,000 annually, Low Income, up to \$45,000, Low/Moderate, up to \$56,000, and beyond that is classified as “Moderate Income +.” Similarly, for a family of 4, this would be less than \$24,000, less than \$64,000, less than \$80,000, and more than \$80,000, respectively.)

Participant Demographics

In addition to standard demographic information, the post-survey asked participants about current bike ownership. While the majority of respondents (62%) own a bike outside of the leased bike, an additional 29% indicated that they plan to purchase one in the next year.

▼ **Chart 05: Bike Ownership**

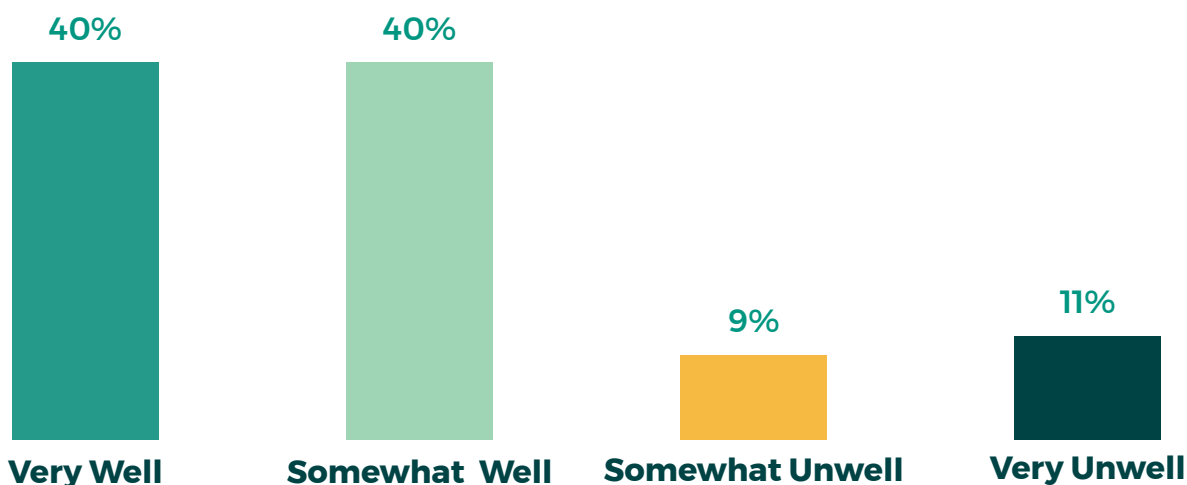


General Outcome & Results

Participant Satisfaction

The E-Bike Lease Program saw some positive outcomes as a result of the initiative. Participants were generally satisfied with the bike and the program, with 79% reporting that the e-bike served their transportation needs well, although to varying degrees as displayed in the chart below. As further evidence of participants viewing the e-bike as a reasonable mode of conveyance, 77% responded that they were either satisfied or very satisfied with the use of e-bike as a mode of transportation. Participants also expressed a desire to see the program run year-round, with 66% indicating they would have an interest in leasing the bike for 12 months.

▼ **Chart 06: How well E-Bike served transportation needs?**



Not all of the feedback on the e-bikes was favorable. In addition to several comments about the size of the e-bike being too small, respondents provided the following select feedback about the e-bikes:

“Wished it was sturdier. Wished tires were bigger. I’m a big person, so I feel nervous going over bumps on the road”

“My commute would be a straight shot down woodward from berkley but i just didn’t feel safe, commuting hours are very congested with cars and there are not designated bike lanes on woodward”

“Every bike I received had an issue so I didn’t really get the full advantage until the very end of the program”

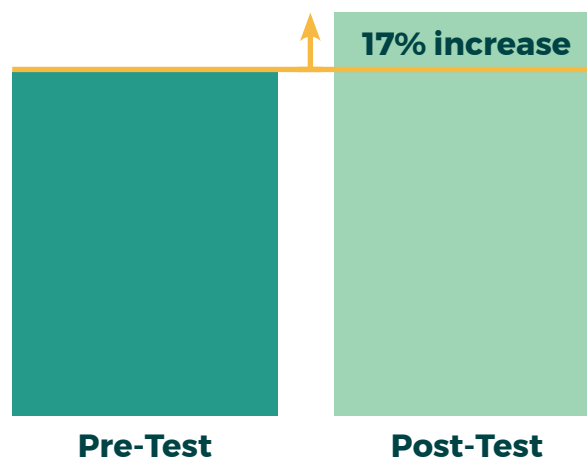
“I wouldn’t categorize the e-bike as commuter friendly-just too small for a long commute and carrying laptop, water, coffee, etc.”

Only two participants (>4%) reported that they were involved in a crash or accident while riding the e-bike. In both situations, the participant was the sole party involved.

Commuting to Work

The 2021 E-Bike Leasing Program model was highly dependent on the partnership with local employers. As such, understanding the extent to which the e-bike lessees used the equipment to commute to and from work is paramount. It is important to note, however, that the COVID-19 public health crisis had a major impact on commuting generally. It resulted in large portions of the workforce making the switch to telecommuting and remote working. Given this context, the analysis found that among the 16 matched cases, there was a 17% increase in riding to work.

▼ Chart 07: Change in Commute to Work

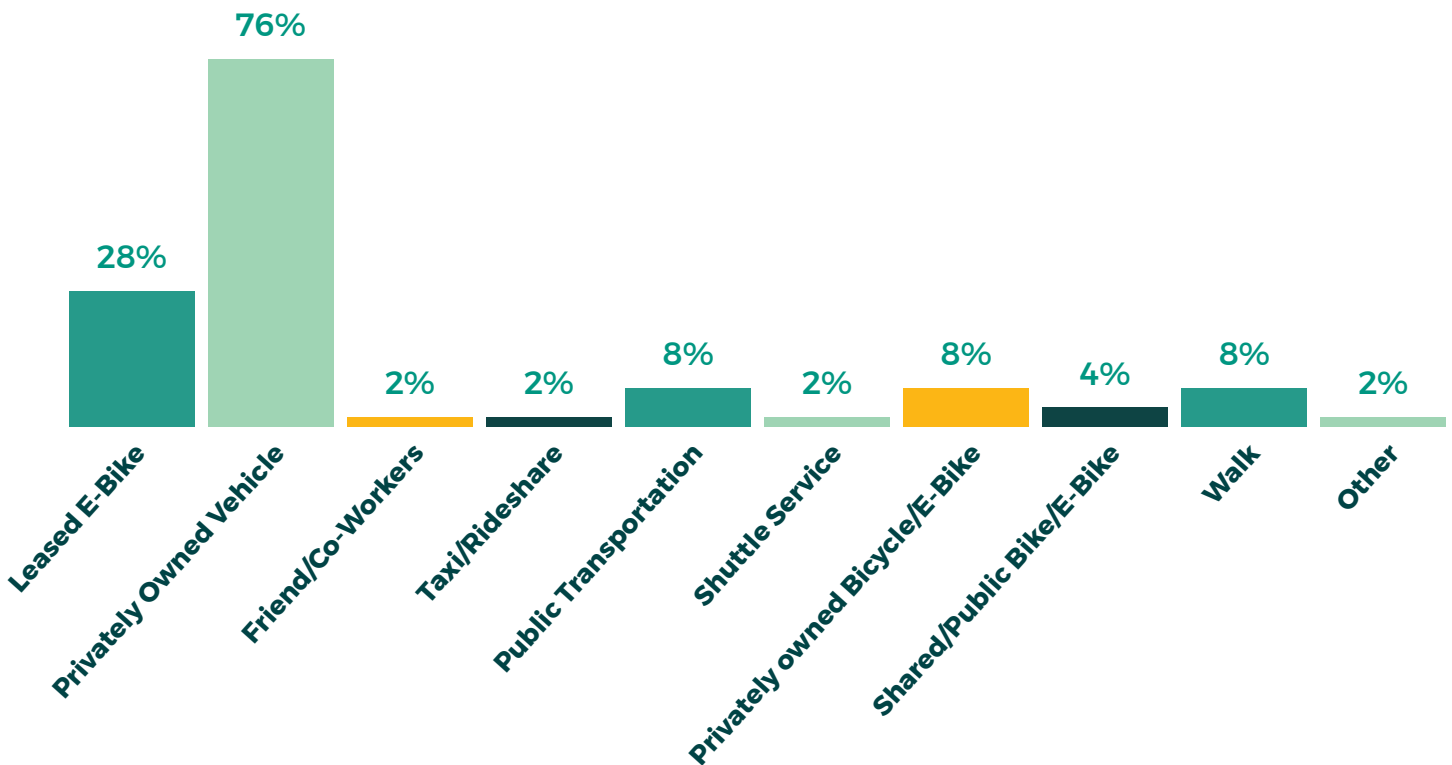


At the end of the program just over 1/4 (28%) of all respondents reported that they usually use their leased e-bike to get to/from work. The use of a private vehicle remains the most common method of commuting, with 76% of e-bike post-survey respondents reporting they usually use a private conveyance.

Commute Modes

The 2021 E-Bike Leasing Program model was highly dependent on the partnership with local employers. As such, understanding the extent to which the e-bike lessees used the equipment to commute to and from work is paramount. It is important to note, however, that the COVID-19 public health crisis had a major impact on commuting generally. It resulted in large portions of the workforce making the switch to telecommuting and remote working. Given this context, the analysis found that among the 16 matched cases, there was a 17% increase in riding to work.

▼ **Chart 08: Commute Modes Post Pilot**

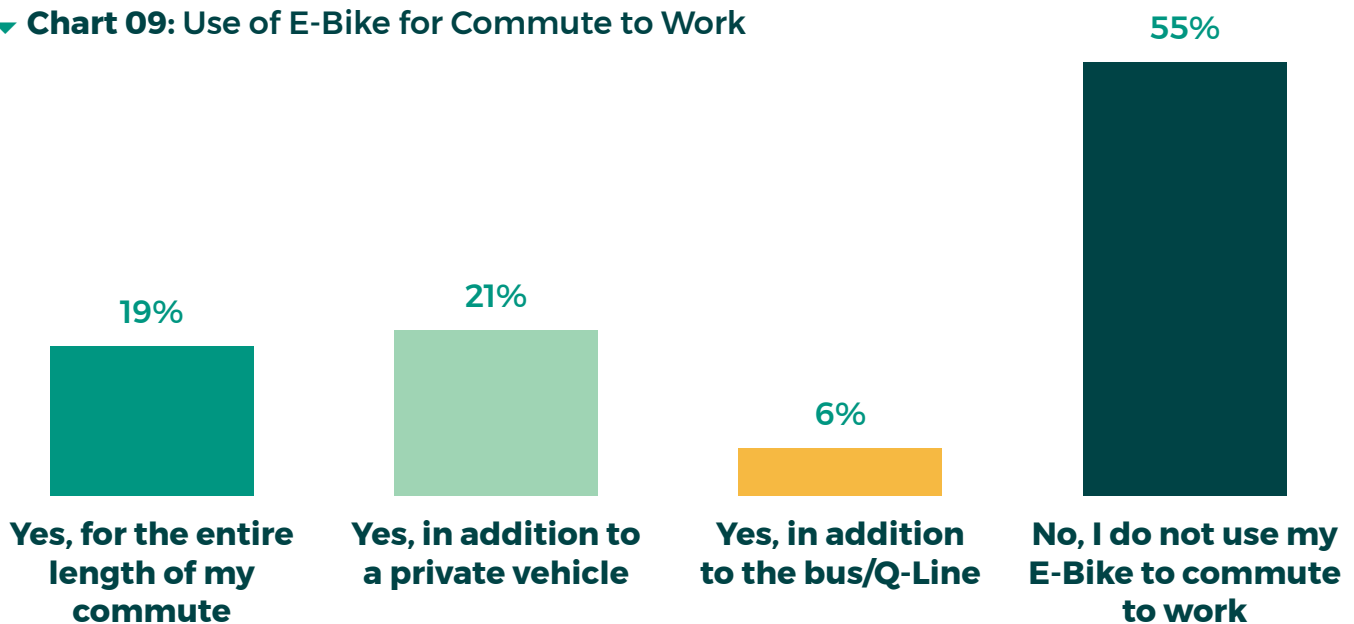


The data suggests that there were also some additional, albeit less-frequent e-bike commuters, as 45% report using their E-bike either alone or in conjunction with another mode of transportation for commuting. Out of all the respondents, over 2 in 10 report using the E-Bike along with their private vehicle. Very few participants used the E-bike in conjunction with public transit.

Commuter E-Bike Usage

In addition to the increase in frequency of use of the E-bike for commuting, the evaluation also sought to better understand any changes related to the length of time it takes to commute. On average among the matched cases, there was a 3% increase in the amount of time it took to commute; however, considering a number of factors, including the way in which the analysis was conducted, the observed change is negligible. For the vast majority of participants (67%), their reported commute time was about 20min or less. Similarly, the program team sought to understand whether or not there was increased on-time arrival to work while enrolled in the E-bike Leasing program. Again, the matched analysis showed no difference in on-time arrival from the beginning of the program to the end. Generally speaking, however, 90% of those surveyed at post-test arrived on time “always” or “usually.”

▼ **Chart 09: Use of E-Bike for Commute to Work**



Although not asked about barriers to commuting to work explicitly, program participants expressed a number of challenges related to the use of their E-bike. Some noteworthy responses include:

“I was hopeful to ride, it is dark when I leave for work, hot in the summer, not for necessity, for enjoyment”

“The e-bike was sketchy to ride 9.5 miles one way”

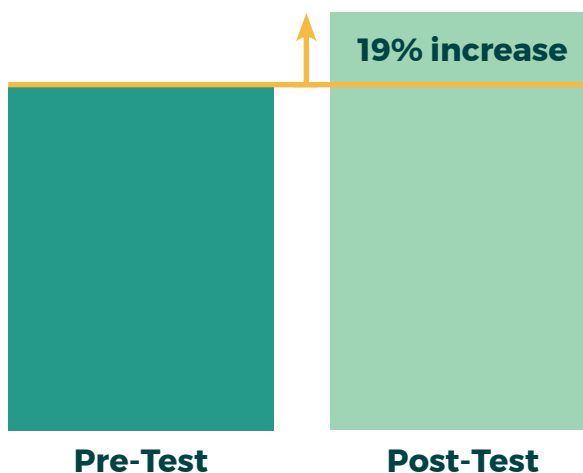
“I get off at 10pm and that one of [the main reasons] I didn’t used the e-bike out of safety to go to work”

“Home to work was too far distance for me to feel comfortable and able to bike”

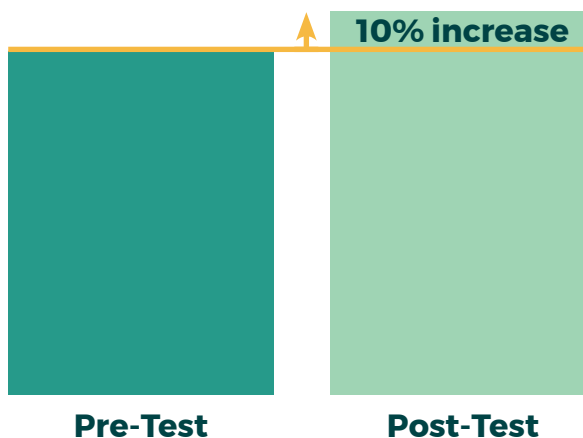
Behavioral Changes

Several behavioral changes were tracked to understand the impact of the E-bike Lease program on participants. In addition to tracking the degree to which the E-bike participants increased the frequency of commuting to work as discussed above, riding rates for other purposes were also studied. Analysis of matched pre/post survey data shows increases in both biking to run errands, as well as an increase in biking for recreation. Among those participants that completed both the baseline and end of program survey, there was a 19% increase in bike use to run errands and a 10% increase in recreational rides.

▶ **Chart 10: E-Bike Use, Running Errands**

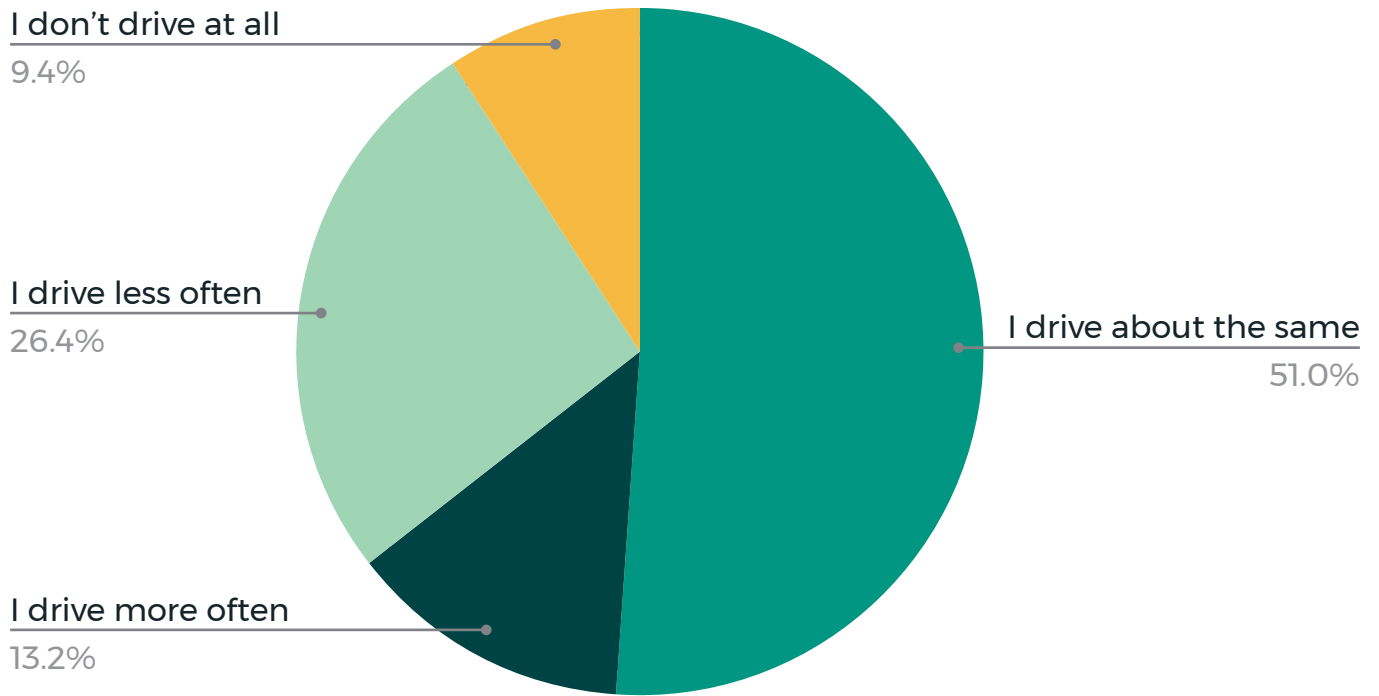


▶ **Chart 11: E-Bike Use, Recreational Riding**



Overall, participants indicate that they are riding a bike more often since beginning their e-bike lease. Nearly half (47%) of respondents are riding more often, and 32% ride about the same. Surprisingly, 11% rode less frequently than before and 9% didn't ride at all. Those that rode less frequently or not at all likely encountered some barriers, as discussed below. While there was a significant reported increase in bike riding since beginning the lease, there was little to no effect on the use of a private vehicle. At the post-survey, 51% said they drive about the same, and an additional 13% indicated they drove more often. Just over ¼ (26%) report driving less frequently than before their bike lease.

▼ **Chart 12: Change in Use of Private Vehicle**



E-Bike Barriers

At baseline, participants were asked about which barriers they anticipate encountering as they use the e-bike during the season. Weather, inadequate biking infrastructure along their route, and storage limitations came in as top responses at 84%, 29%, and 27%, respectively. Participants were provided the same list of options at the end of the season and asked to identify which barriers they encountered during their lease. While weather and inadequate infrastructure were still among top responses at 34% and 23%, there were major differences between the perceived challenges and those they actually encountered. Notably, inadequate safety while commuting also ascended to a top 3 response at the end of the season.

▼ **Table 04: Potential Barriers vs Encountered Barriers**

	PRE	POST
Health or physical limitations	3.2%	9.4%
Inadequate safety while commuting	15.5%	22.6%
Inadequate safety while running errands	4.8%	3.8%
Storage limitations	27.4%	18.9%
Weather	83.9%	34.0%
Inadequate biking infrastructure along route(s)	29.0%	22.6%
Need for a vehicle for work	6.5%	11.3%
Time constraints	19.4%	15.1%
Lack of appropriate bike to work attire	12.9%	11.3%
Lack of charging facilities at work	24.2%	18.9%
Limited daylight hours for biking	11.3%	11.3%

Participants were also asked about what might motivate them to use their bikes more often. At the end of the program, the most frequent responses were:

1. Reinforcing/understanding the physical fitness benefits (60%)
2. Having a good quality bike (55%)
3. Employer incentives/benefits for biking to work (42%)

Price Point

Understanding desirable pricing for the e-bike lease among participants is key to providing effective recommendations for sustainability. When asked about this at the end of the program survey, a large majority (68%) indicated that a \$15/month lease would be the maximum amount they would be willing to spend. This signifies that an employer, or other subsidy would play a major role in funding the project in the future.

Employers who partnered with the Office of Mobility Innovation for the E-Bike Leasing Program were asked to participate in a brief evaluation interview to help to frame discussions around sustainability. Generally, employers were happy with the program and were willing to have discussions around future support. One employer noted that these decisions for these types of benefits are finalized in the quarter before the new year. This means that employers should be engaged no later than November of the prior year to ensure participation for the spring/summer season.

Furthermore, employers were reluctant to provide a specific subsidy amount they were willing to fund in future iterations of the initiative. One employer even suggested that they may be willing to support their employee's lease using a tiered system based on salary. For the most part, the employers that partnered with OMI already have transportation benefits sponsored by their organization. This includes bus passes, free use of MoGo bikes, and employee shuttles.

Evaluation Results

Detroit Bike Challenge

Participants

644 Detroit residents and employees registered for the Detroit Bike Challenge. 193 participated in Bike Month in May and 165 people participated in Biketober in October. There were three additional mini-challenges hosted in partnership with local bike clubs, but participation was not tracked.

In order to register for the Challenge, hosted on Love to Ride, participants were required to complete a baseline survey where they were asked about their bike experience. Each participant had the option to indicate their experience level as a **new rider** (not biked at all or only a few times in the year before the Challenge), **occasional rider** (biked one to three times a month or once a week before the Challenge) or **regular rider** (biked two days or more each week before the Challenge).

Image 01: Love to Ride - Detroit Homepage and Social Tab

The image shows a collage of screenshots from the Love to Ride - Detroit website and social media. The website homepage features a navigation bar with links for HOME, ME, LEARN, SOCIAL, PRIZES, RESULTS, and INFO. A main banner encourages users to "Let's get more people riding bikes!" and provides instructions on how to use the platform. Below the banner are four numbered steps: 1. REGISTER IT'S FREE, 2. RIDE FOR 10 MINUTES OR MORE, 3. RECRUIT FRIENDS & COLLEAGUES, and 4. WIN GREAT PRIZES. The page also includes an ACTIVITY feed, a PHOTO GALLERY, and a section for REASONS WE RIDE. A sidebar displays "DETROIT ALL TIME STATS" including 47 WORKPLACES, 653 PEOPLE, 171 NEW RIDERS, 209,767 MILES, 13,237 RIDES, and 18,992 LB CO2. Social media posts from Facebook and Twitter are also included, such as a "Thank you, Detroit!" post, an "E-Bikes for Beginners" article, a "Biking Downtown Is Great For Pictures!" post, a "Police unity tour 2021" announcement, and a "WHAT'S BIKING IN THE D THIS WEEKEND?" post.

Participants Experience

Of those who participated in Bike Month and Biketober (165 people), 40% identified as an occasional rider, 35% identified as a regular rider, and 25% identified as a new rider.

Of those participants classified as regular riders, only 27% participated in both the Bike Month and Biketober events. By comparison, 85% and 83% of new riders and occasional riders, respectively, participated in both challenge months.

▼ **Table 05: Participants Experience Level**

Experience Level	Bike Month	Biketober	Combined
New	27	22	41
Occasional	34	44	67
Regular	107	99	57

During Bike Month and Biketober, participants logged a combined 3,140 trips and 41,245 miles traveled. The chart below illustrates percentages of trip purposes.

▼ **Table 06: Trip purposes in Bike Month and Biketober**

Trip Purpose	Bike Month	Biketober	Combined
Recreation	71%	52%	62%
Commuting	17%	21%	19%
Other Destinations	8%	22%	17%

62% of participants logged rides for recreation and 38% logged rides for transportation (e.g., commuting, running errands). The percentage of people biking for transportation increased by 18% between Bike Month and Biketober.

Behavior Change

The Challenge influenced the behavior of the key target groups (new and occasional riders, and non-commuter riders) and achieved the aims set out at the start of the Challenge. The analysis of Bike Challenge surveys found that 49% of Bike Month participants intended to ride more often for recreation than they did before taking part in Bike Month, 45% intended to ride more often for transport and 34% for work.

▼ **Table 07: How did the Bike Month Challenge Impact the Amount You Biked?**

Participant Segment	n=	I biked a lot less often than I would normally	I biked less often than I would normally	I biked about the same as I would normally	I biked more often than I would normally	I biked a lot more often than I would normally
New Rider	11	0%	0%	45%	55%	0%
Occasional Rider	8	0%	0%	38%	50%	13%
Regular Rider	20	0%	0%	55%	45%	0%
All Riders	39	0%	0%	49%	49%	3%

Although commuting behavior has been impacted by COVID-19, the results demonstrate that the Biketober Challenge has encouraged new commuter riders. In fact, 63% of those who didn't ride to work at all before the challenges, reported riding to work at least once a week after taking part. Furthermore, 21% of all respondents increased their commutes to work by bike. Of those who did not ride for transportation purposes (e.g. to the store, the bank, or other destinations) at baseline, 67% reported riding at least once after the Detroit Bike Challenge program. Additionally, 17% of riders increased how often they biked for transportation purposes.

Other key outcomes recorded after the Challenge include:

1. 22% of occasional riders and 15% of all riders reported riding more regularly after the Challenges.
2. 17% of existing riders increased how often they biked for transport after the Challenges
3. 32% of respondents noted an increase in the number of days they were physically active after the Challenge.

General Feedback

While the outcomes from the Bike Challenge events were encouraging, feedback from participant interviews highlighted some noteworthy limitations. Most interviewees expressed that the timing of the events was an issue for them, as Wednesday bike rides often conflicted with their work schedules. Some individuals also expressed that they had forgotten to log their rides on the platform and suggested that a reminder feature be integrated within the application. Other opportunities for improvement are summed up from the following verbatim responses directly from Challenge participants:

“When I came across this platform, it felt very “ride to work” focused, which is great. And that’s something we should all be doing more. But it wasn’t till I started using this - I realized I can just log rides for fun.”

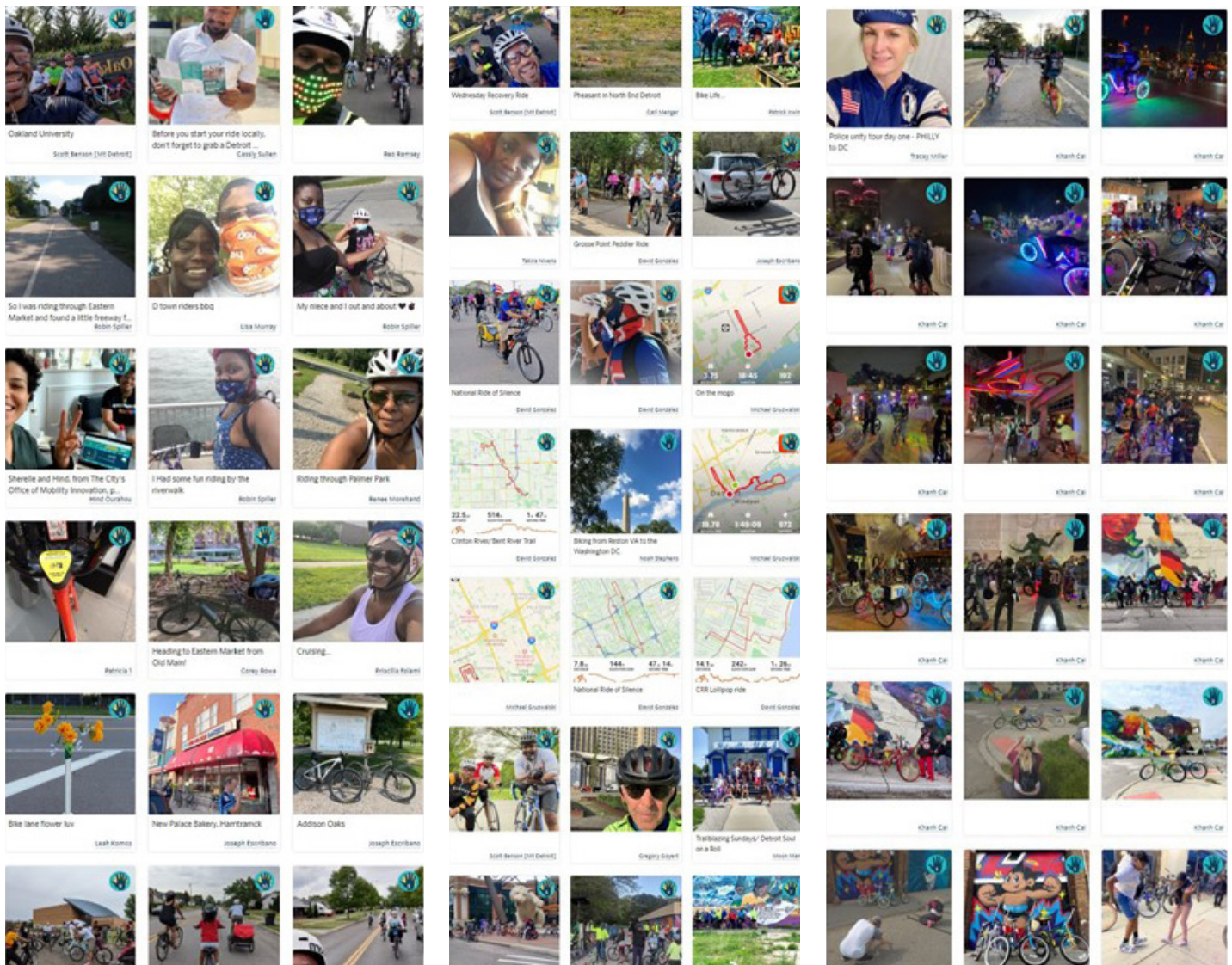
“It would be nice if [the challenge time and date] varied a little bit more. Maybe instead of the only option being Wednesday rides, maybe have one group on Wednesday and the other groups on Friday or something just so to work with people’s schedules...”

“Find a way to hook bike riders up with each other, whether one-on-one or a group ride. And so that kind of people could have some comradery and participating in this challenge.”

“Focus on health and fitness and long-term health and fitness, and not only transportation from point A to point B but extending your health and some of the benefits for heart, and joints and things of that nature.”

Not all of the qualitative feedback was critical. Those who participated in focus groups and interviews expressed generally positive experiences with the Challenges. Some of these positive comments included enjoying tracking how much they’ve ridden throughout the week, the variety of the challenges, the ability to win prizes, and the expansion of bike riding in the City of Detroit. Notably, one participant expressed their enjoyment in using the Challenges as bonding moments with their family and friends.

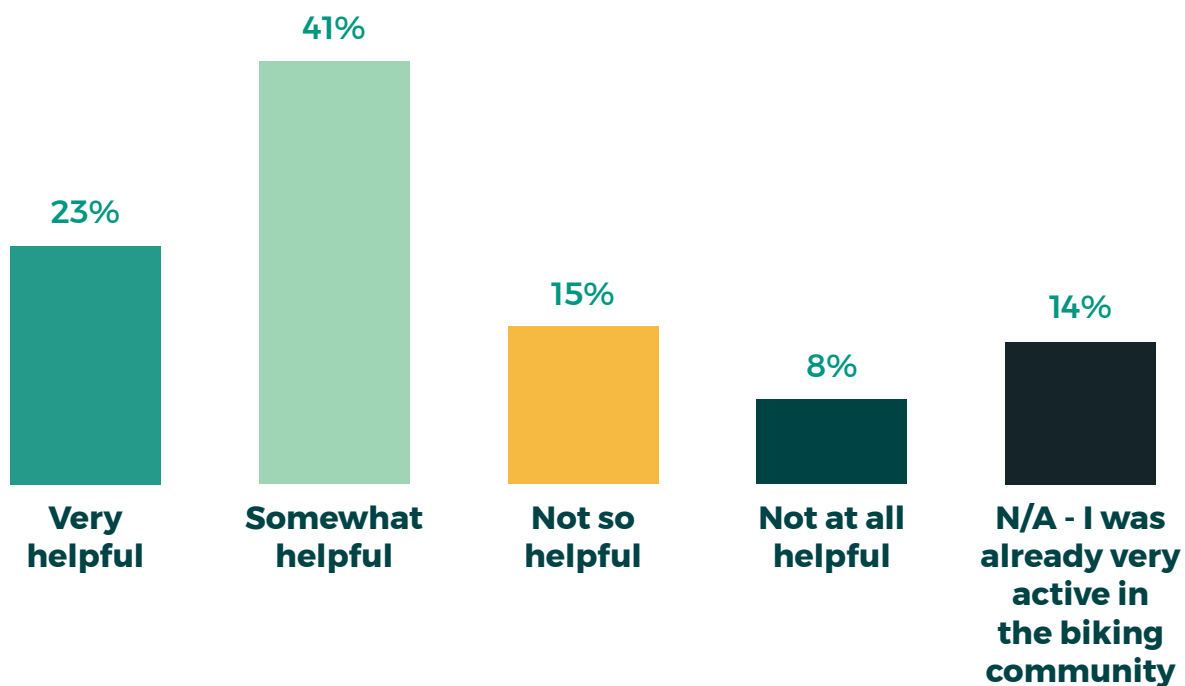
▼ Image 02: Pictures posted by participants on Love to Ride-Detroit



Overall, the results show that the challenges have positively influenced the riding behavior of participants. The Challenges were successful in encouraging people who were not riding to start riding, encouraging occasional riders to ride more regularly and encouraging people who were not currently riding to work, or for transport purposes, to travel by bike. Despite COVID-19 disrupting normal routines and riding habits, the program has elicited excellent behavior change results.

The Detroit Bike Challenge, Bike Month, and Biketober, were successful in engaging businesses and people to take part to encourage riding. The challenges helped to foster a sense of teamwork and a riding culture within participating organizations by motivating existing riders to seek out and encourage their non-riding co-workers to get involved. A large majority (64%) of respondents noted the Love to Ride platform was helpful in connecting them with others in the biking community, with 23% indicating it was very helpful.

▼ **Chart 13:** To what extent was the Love to Ride platform helpful in connecting you to others in the biking community?



Evaluation Results

Detroit Bike Summit

The Detroit Bike Summit was an initiative that evolved from the Detroit Bike Challenge as an opportunity for the Office of Mobility Innovation to continue to build relationships with local bike clubs and organizations. The Summit captured bike leaders' (founders and volunteers) opinions on assets and barriers to biking (and biking to work) in Detroit in addition to celebrating these club members for their contributions to the City's growing bike culture.

The Bike Summit consisted of three parts:

- 1. One Bike Culture Survey**
- 2. Two Virtual Discussions**
- 3. One Celebratory Event**

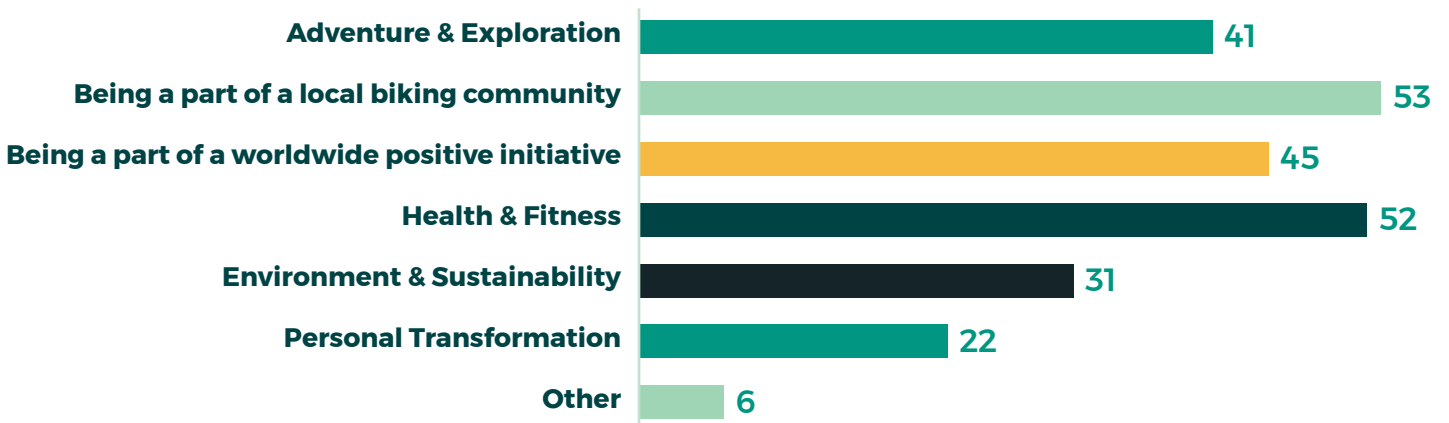
Bike Culture Survey

The Bike Culture Survey was distributed to bike clubs and organizations through social media, including Facebook and Twitter, and the Detroit Greenways Coalition’s newsletter. The survey consisted of 15 questions (11 general and 4 additional questions for club and organization leaders).

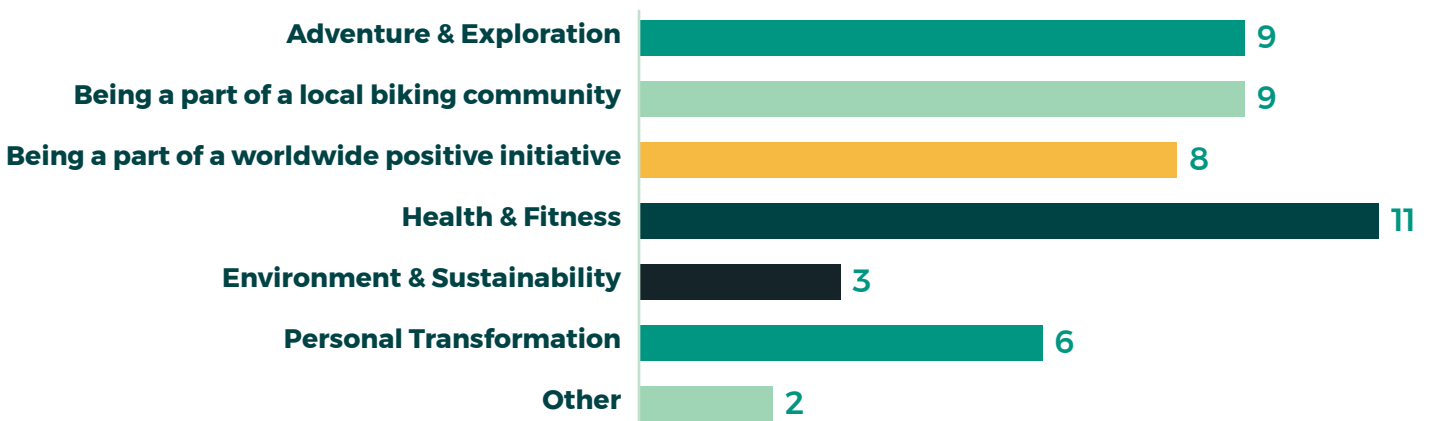
A total of 68 people, representing 37 clubs and organizations, responded to the survey. This included 46 club or organization members, 9 volunteers or organizers, and 14 founders.

Survey respondents were first asked about what motivates them to bike. 78% of the total number of respondents indicated being a part of a local biking community as primary incentive, followed by health and fitness (76%), and being a part of a worldwide initiative (66%). 39% of club and organization leaders identified adventure and exploration as an additional incentive.

▼ **Chart 14: Motivations for Biking (All Respondents)**



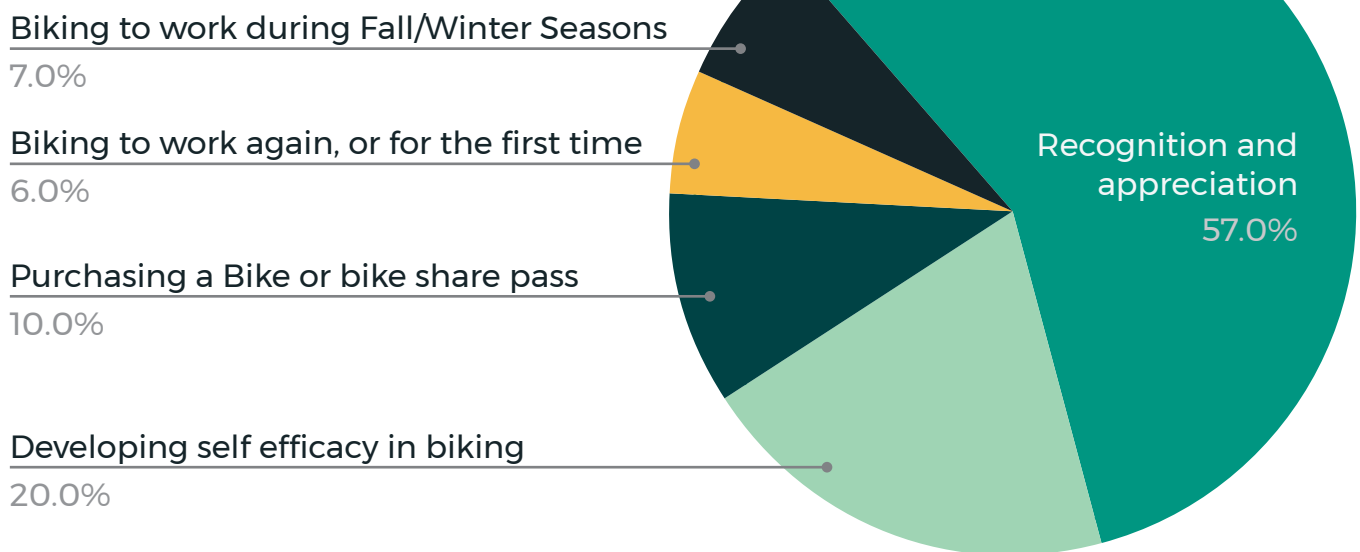
▼ **Chart 15: Motivations for Biking (Founders and Volunteers)**



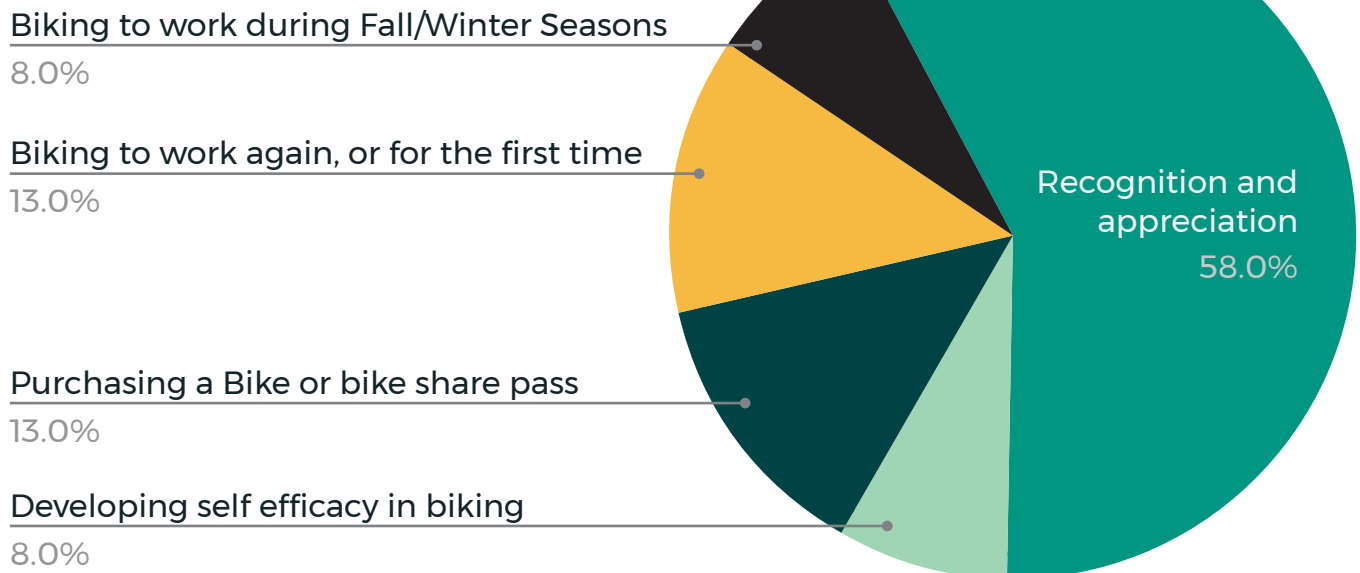
Barriers to Biking to Work

The next series of questions asked participants to indicate what they perceived as the greatest barrier to biking to work experienced by the general population. 57% indicated “recognizing and appreciating bikes as a valid form of transportation,” followed by 20% who indicated “developing self efficacy in biking.” Founders and volunteers additionally identified “purchasing a bike or bike share pass” and “biking to work again or for the first time” as significant barriers.

▼ **Chart 16: Barriers to Biking to Work (All Respondents)**



▼ **Chart 17: Barriers to Biking to Work (Founders and Volunteers)**



Virtual Discussions

Survey responses from bike club and organization leaders were followed up with invitations to participate in two 1.5 hour virtual sessions to discuss and further develop a behavior change framework for biking and biking to work.

Over the course of two virtual sessions, OMI engaged a total 8 club and organization leaders. As a part of the conversation, participants were asked to identify barriers and enablers to recreational biking and biking for transportation. Tables X and X summarize their responses.

► **Image 03: First Day of Virtual Discussions with Bike Club and Organization Leaders (Shafaq Choudry, New Urban Mobility Alliance)**

Typical Biking to work Journey

The diagram illustrates a five-step process for biking to work:

- Recognize & appreciate (14%)
- Self-efficacy (30%)
- Purchase/ repair bike
- Try again or first time
- Bike Spring/ Summer
- Bike Fall/ Winter (30%)

Participants in the virtual session include: Thomas Page, John Erpelding, Hefa - Marcus, Denise Seruga, and wellsma.

Office of Mobility Innovation

► **Table 08: Barriers to Biking**

Barrier	Discussion Responses
Education	<ul style="list-style-type: none"> • Not knowing what bike to purchase • Not knowing how to use a bike (i.e., gear shifting) • Lack of education on driver responsibilities and sharing road with cyclists
Infrastructure	<ul style="list-style-type: none"> • Inadequate bike lane design • Quality of bike lanes on major roadways • Infrequent bike lane maintenance • Spatial mismatch between work and home • Discontinuity of bike infrastructure across metropolitan region • Lack of workplace infrastructure (i.e., bike parking)
Tools/Technology	<ul style="list-style-type: none"> • Trip planning tools don't provide real-time update on roadway construction • Trip planning tools can distract cyclists and lead to incidence
Other	<ul style="list-style-type: none"> • Unbalanced, bad press about biking • Gender-related issues (i.e., bike seating capacity can't accommodate working mothers or people with children)

► **Table 09: Enablers to Biking**

Enabler	Discussion Responses
Education	<ul style="list-style-type: none"> • Targeted messaging about the benefits of biking • A resource to field questions about biking • Updated digital and print maps of bike infrastructure • Know where to report bike infrastructure maintenance requests • Promotion of biking events • Promotion of type of group rides and different rules for the rides
Infrastructure	<ul style="list-style-type: none"> • A plan for bike parking when developing parking garages • Maintenance friendly bike lanes (i.e., cycle tracks) • Keep bike lanes clear of parking • A complete streets program as encouraged and programmed by the State • Increased bike repair stands/stations • Adoption of a city repair station • City support/encouragement of workplace infrastructure (i.e., providing incentives) • Designated meet-up areas for group riders or rides to work
Tools/Technology	<ul style="list-style-type: none"> • A Detroit-specific biking app

Celebratory Event

To close out the Bike Summit, OMI, in partnership with MoGo and HAP, held a celebratory event for bike club and organization leaders at Delores Bennett Park in Detroit's North End neighborhood. The event consisted of a group bike ride, free food, activities, a presentation of recognition to local clubs and organizations. It was additionally an opportunity for city departments to engage with bike leaders and organizers, share bike resources, and encourage participation in the Detroit Bike Challenge.

Over 30 leaders and organizers representing 8 clubs and organizations took part in the group ride led by Todd Scott, Director of the Detroit Greenways Coalition. Following the ride, participants received certificates, patches and other keepsakes in thanks for their contributions to the City's bike culture. Images 1 through 3 show bikers on the group ride stopping at the "Problack" mural painted by Chicago artist Max Sansing and OMI with the North End Bandits bike club and the North End Youth Improvement Council (NEYIC), founded by Activist Deloress Bennett.

- ▶ **Image 04: Bike Club Members at the "Problack" Mural by Max Sansing (Todd Scott, Detroit Greenways Coalition)**



► **Image 05: OMI with members of the North End Bandits bike club**



Photo Credit: Michal Helman, WSP

► **Image 06: OMI Staff with Leaders of NEYIC**



Photo Credit: Michal Helman, WSP

To see more pictures captured at this year's event, visit facebook.com/MobilityDetroit/photos

Conclusion

Lessons Learned

Implementation of the Model

Resources Required

Community Buy-In

All three initiatives played an important role in understanding and building upon the existing and growing bike culture in Detroit. With the support of residents, community-based organizations, and local institutions, the city was presented with an opportunity to apply a community-first approach to increasing greater access to biking throughout the course of a global pandemic. The city was able to respond to community needs and lead on greater and more thoughtful forms of engagement with a collaborative group of stakeholders and locally-based partnerships. It is the city's hope that these efforts will continue to offer opportunities for growth and engagement within Detroit's bike community and make biking more accessible to all residents.

Lessons Learned

The E-Bike Leasing Program, Bike Challenge, and Bike Summit each played an important role in understanding and building upon the existing bike culture in the City of Detroit. Core to the lessons learned is the idea that biking is viewed as a communal activity. People enjoy biking with one another, whether it be for commuting or for recreational purposes. The camaraderie built through this shared experience is highly desirable among Detroiters. As such, interpersonal relationships need to be built among various segments of the community, including employers and community members alike. Outlined below are some recommendations based on lessons learned from the implementation of the initiatives. These recommendations can be helpful in guiding future iterations of the work and can be used to build the body of knowledge around micro-mobility solutions.

E-Bike Leasing Program	Detroit Bike Challenge	Detroit Bike Summit
Implementation of the Model		
<p>Target employees, not just employers. Consider outreach through community organizations or alternative or supplemental ways to connect directly with city-based employees</p>	<p>Reconsider participation in Biketober as cold weather negatively impacts ridership</p>	<p>Planning process should begin 4 to 5 months prior to the event. Within these months, the project team should develop a communication plan, identify location, and reach out to partner organizations.</p>
<p>Develop strong policies and procedures to ensure that participants are eligible and are knowledgeable about the terms of the lease</p>	<p>Detroit Bike Challenge should be held in combination or synergy with the Detroit Bike Summit</p>	<p>There should be a follow-up survey after the event to get feedback for future planning.</p>
<p>Allow quick turnaround between registration and bike pickup, especially for purposes of payment. Charges should begin on the first day of possessing a bike</p>	<p>Allow a quick turnaround on incentive delivery</p>	<p>Host celebratory event in late Summer or early Fall</p>
<p>Collect baseline information at registration/bike pick-up</p>	<p>Schedule events on a variety of days and times to ensure maximum participation</p>	
<p>Develop a post-pilot plan to ensure forward-thinking decision making.</p>		

E-Bike Leasing Program	Detroit Bike Challenge	Detroit Bike Summit
Resources Required		
<p>Different methods of outreach are required for different scales of employment. Small-scale employers may require in-person outreach and for the program to facilitate or lead outreach to employees (program to employee, instead of employer to employee)</p>	<p>Third-party distributor for gift card incentives</p>	
<p>Subsidy for the entire program or employee has to pay full amount (or if employer subsidized, a small fee)</p>	<p>Custom-made outreach campaigns/ marketing materials for employers of different sizes</p>	
<p>Operator for administration, distribution, maintenance, etc.</p>	<p>Hire a dedicated outreach and engagement coordinator</p>	
<p>E-bikes that meet the needs of Detroiters in terms of size, utility, practicality</p>	<p>Use of online social platform(s) that meets the needs of Detroiters</p>	

E-Bike Leasing Program	Detroit Bike Challenge	Detroit Bike Summit
Community Buy-In		
Engage partners EARLY! Some employers need to get approvals up the chain of command or otherwise make budget decisions in Q4 of the previous year.	Design and implement smaller-scale events & group rides	There should be a planning committee that includes a combination of city departments, organizations (i.e., Detroit Greenways Coalition), and community stakeholders (i.e., bike clubs).
Outreach to regional employers (including Hamtramck & Highland Park) that employ Detroit Residents but are within 8 miles of the City and/or City bus line	Coordinate with existing clubs and organizations, especially those who have a history of leadership in the field/community	
Education on e-bike use along with training. Ensure a strong understanding of what the e-bike is and can be used for. Review resource guides	Leverage social media more effectively	
	Piggyback on regular/standing meetings for outreach	
	Identify champions to lead within workplaces	
	In-person events to supplement outreach (cannot do outreach solely online)	
	Meeting the needs of those with low tech literacy/ or otherwise don't have the means to participate. Make the program more inclusive!	

Bike Clubs and Organizations

- Back Alley Bikes
- Beat The Train
- Bikerz Wit Attitudez
- Biking Belle Isle
- Black Girls Do Bike - Detroit
- Chain Gang
- Clinton River Area Mountain Bike Association
- Cruise Detroit
- D-Town Riders
- Dearborn Cycling Crew
- Dearborn Walk and Roll
- Detroit Diva Cruisers
- Detroit EZ Riders
- Detroit Lane Bangerz
- Detroit Milliker Cycling Club
- Detroit RollOut Crew
- Downey Brewery Cycling Club
- Every Day Riders
- Face Mob Riderz
- Family and Friends Bike Squad
- Green Mountain Haze Club
- Grosse Pointe Pedelers
- Handsome Boy
- Hazel Park Casual Biking Club
- Heart&soul
- HotSpotRollers
- Krank it Up Ryders
- Motor City Mountain Biking Association
- Motown Trailblazerz
- No Limit Riders
- North End Bandits
- Oakpark EZ Roll
- Orange Krush Cycling Club
- Pedal Up Riderz
- Phitty Roll
- Racing Greyhounds
- Wheels in Motion
- River Rouge Revolution
- Saints Through Fire
- Slow Roll Detroit
- Tour de Troit
- Unity Tha Movement
- We Bike Detroit
- Western Michigan University Cycling Club
- Wolfpack of Ypsi

