



## FHWA E-bike Case Study Series

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### ***Using E-bikes to Expand Access and Mobility for Essential Workers in Detroit, Michigan***

The onset of the COVID-19 pandemic in the spring of 2020 led to significant changes in travel and mobility patterns across the United States. Public transportation providers imposed service cuts and many shared bikes and electric scooters (e-scooters) were temporarily removed from the streets in response to public health mandates. In Detroit, these limitations on mobility were felt most acutely by frontline workers who lacked safe, affordable, and dependable transportation services to reach their jobs. Detroit's [Office of Mobility Innovation \(OMI\)](#) recognized the mobility challenges facing essential workers and devised a pilot program to provide electric bicycles (e-bikes) and e-scooters to essential workers to expand access to equitable and affordable mobility across the city.

#### **Program Overview**

In June 2020, Detroit [launched a pilot](#) program to provide select frontline employees with e-bikes and e-scooters for reliable and safe transportation to and from their place of employment. The program emerged from a partnership between OMI and the [New Urban Mobility Alliance \(NUMO\)](#) and [Next Energy](#), who both provided technical assistance and resources in support of the pilot program.

City staff identified several local grocery stores and hospitals as partner employers to participate in the pilot program. Detroit developed and distributed an enrollment form to assess the mobility needs of individuals at these select employers. The enrollment form provided a benchmark of individual commuting habits and helped OMI arrange mobility solutions that would best fit these employees' needs.

The e-bike and e-scooter pilot program targeted city residents living up to six miles away from their workplace, as the limitations of device battery life would complicate longer commutes.<sup>1</sup> After reviewing

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<sup>1</sup> Detroit led an additional pilot targeted for residents living more than six miles away from their workplace that offered essential workers discounted access to public transit to meet their mobility needs.

Creating more livable communities through transportation choices



the enrollment forms, the city reached out to qualified employees at the participating grocery stores and hospitals to collect more information on individual commutes and identify what resources would be necessary to implement and support an effective program. This outreach process consisted of 180 phone calls with residents and was critical for alleviating concerns, answering applicants' questions, and explaining what technical assistance would be available through the program.

In addition, the city reached out to the facility managers at participating employers to ensure that pilot program participants would have access to electric charging stations and a safe place to park their e-bike or e-scooter during work. The employers were receptive to the program, interested in identifying strategies to ease the commute for their employees, and willing to provide the necessary infrastructure to support the pilot program.

### Pilot Implementation

Beginning in June, the city distributed 59 e-bikes and four e-scooters to qualified residents living up to six miles away from their workplace. Program participants also received helmets, locks, route planning tips, and maintenance services. These tools were integrated into the program to ensure that residents would have the necessary resources to safely move throughout the area and that participants who had limited experience riding bicycles would be comfortable with the program.

A large company with a strong philanthropic presence in Detroit donated the e-bikes for the pilot program and [MoGo](#), a nonprofit organization that runs Detroit's docked bikeshare system, provided the operations and maintenance services. Meanwhile, the e-scooters were purchased from a private company. NUMO and Next Energy provided financial backing and additional technical resources. The structure of the partnership allowed pilot program participants to pay a one-time \$10 fee for the 16-week long program.

Throughout the pilot program, staff arranged several ways for participants to provide anonymous feedback to assess the effectiveness of the program and to determine if there was a need to make any changes. City staff distributed surveys at the one-month and two-month marks, as well as a final evaluation survey at the conclusion of the pilot program. These surveys provided the city with insight into how the pilot was going and yielded a number of [key findings](#):

- 42 percent of respondents reported more on-time arrivals by using an e-bike for commuting.
- Pilot participants typically used the e-bike 3-6 times per week.
- Over 50 percent of respondents were able to access their jobs within 30 minutes.
- 90 percent of respondents felt safe when riding an e-bike.

The positive feedback received through the survey was a contributing factor to extend the pilot program for an additional month. In addition, the successful reception of the e-bike pilot program led to a second 2021 e-bike leasing pilot program, conducted from May 2021 to October 2021, that supported Detroit-based employees and front-line workers, allowing them to lease e-bikes for \$15 per month. Overall, 110 Detroit-based employees, representing 10 employers, participated in this second program.<sup>2</sup> About 80 percent of participants reported that the leased e-bikes served their transportation needs. The program

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<sup>2</sup> [Detroit in Motion: Impacts of Community-Centered Bike Programs on Detroiters. 2022](#)



saw a 17 percent increase in participants riding to work. The program assessed differences between participants' anticipated barriers to e-biking before the lease period and barriers encountered during the lease period, finding that inclement weather was more of a perceived than actual challenge.

### Key Takeaways

The pilot program's evaluation process yielded a number of lessons learned and key considerations for the future.

**Develop strong and trusting relationships with residents.** In the development of the pilot program, staff made it a focus to meet people where they are and to be responsive to residents' needs and potential barriers. The significant upfront investment in outreach ensured that the city understood the concerns of residents and allowed them to design a program and solution that would fit the community's needs.

**Establish channels for clear and consistent communication.** Staff at OMI were available by phone, text message, and email and were willing to adapt the program based on feedback from the public. This included recognizing the impact that the COVID-19 pandemic had on overall mobility and structuring the pilot program to provide participants with the freedom to use e-bikes to access recreational opportunities, complete errands, or visit family, and not just commute to and from work.

#### Noteworthy Practice

Colorado's Can Do Colorado E-Bike spring 2021 pilot program awarded \$700,000 in grants to help expand e-bike access for low-income and essential workers across the State. The program seeks to improve access and mobility for traditionally underserved populations, while maximizing air quality benefits.

**Recognize the vulnerability wrought by the COVID-19 pandemic.** The pandemic has disproportionately burdened essential workers and low income households. Staff at the city were acutely aware of these impacts and integrated empathy and patience throughout the pilot to best serve and accommodate individual needs. While the pilot program formally ended on October 31, 2020, OMI has actively looked into future funding opportunities and partnerships to continue the program and prioritize the needs of essential workers throughout the COVID-19 recovery process. Staff in Detroit have also considered the effectiveness of working through employers to reach traditionally underserved residents as a potential outreach strategy for future pilot projects.

Federal Highway Administration: [www.fhwa.dot.gov/livability](http://www.fhwa.dot.gov/livability)

