



9.26.2023

## E-Bike Incentive Pilot Program

### Interim Report

1. About the Pilot
  - a. Program Design
  - b. Audience & Eligibility
  - c. Outreach Methods
2. Program Evaluation
  - a. Current Status of Incentives & Redemptions
  - b. Early Learnings & Insights
3. Recommendations & Next Steps



# About the Pilot Program

**Smart Columbus, on behalf of Columbus City Council, designed and deployed a financial incentive pilot program to increase the adoption of e-bikes among Columbus residents, with a goal of reducing of GhG emissions and increasing access to opportunity.**

## Objectives

Program objectives include:

- Co-creating the pilot program with the community to anticipate barriers, needs and desires and design the program accordingly
- Deploying a tiered incentive structure based on household income
- Leveraging multimodal transit stations and other existing transportation initiatives in the City of Columbus
- Gathering insights on program effectiveness, gauge market desire, and inform recommendations for funding the program more broadly.

## Purpose

The purpose of this E-bike Incentive Pilot Program is to gain insights on program effectiveness, gauge market desire, and inform recommendations for funding the program more broadly.

# Program Design

# Pilot Program Design

Smart Columbus has designed the e-bike incentive pilot program using human-centered design principles and insights gained from primary and secondary research. The program development process included ideation sessions with bicycle retailers, enthusiasts, advocates, and city officials.

Through early research, stakeholder interviews and ideation sessions, we identified the following components that are key to a successful e-bike incentive program:

1. Incorporating **education about e-bike safety** and providing additional funding to residents for safety gear (helmets, lights, etc).
2. **Working with local retailers** that can guide a resident through their purchase based on the use cases the resident will use the ebike for (i.e., leisure vs commuting)
3. Requiring that all **e-bikes sold by retailers meet minimum safety and quality requirements**
4. Employing **community-based organizations** (CBOs) to raise awareness of the program and encourage person-to-person invitations, with flyers that include information on the price range of bikes with incentives.

# Audience & Eligibility

In order to reach participants that would benefit most, we identified the following **primary audiences**:

- Individuals of ethnic/racial minority groups whose household incomes are less than \$60,000 per year and may participate in a qualifying program (public benefits).
- Pedal bike commuters who frequent bike shops and could use an e-bike to make traveling easier.
- Individuals in the workforce that commute via the bus, car or walking but could use an e-bike as an affordable and reliable option.
- Families that could replace car trips with using a cargo e-bike for taking children to school and running errands.
- Recreational cyclists that could use an e-bike for transportation or as an easier way to exercise.

**Eligibility was determined by the following criteria:**

1. City of Columbus Resident
2. Age 18 and older
3. Income under \$150,000, distributed according to the table to the right ➔

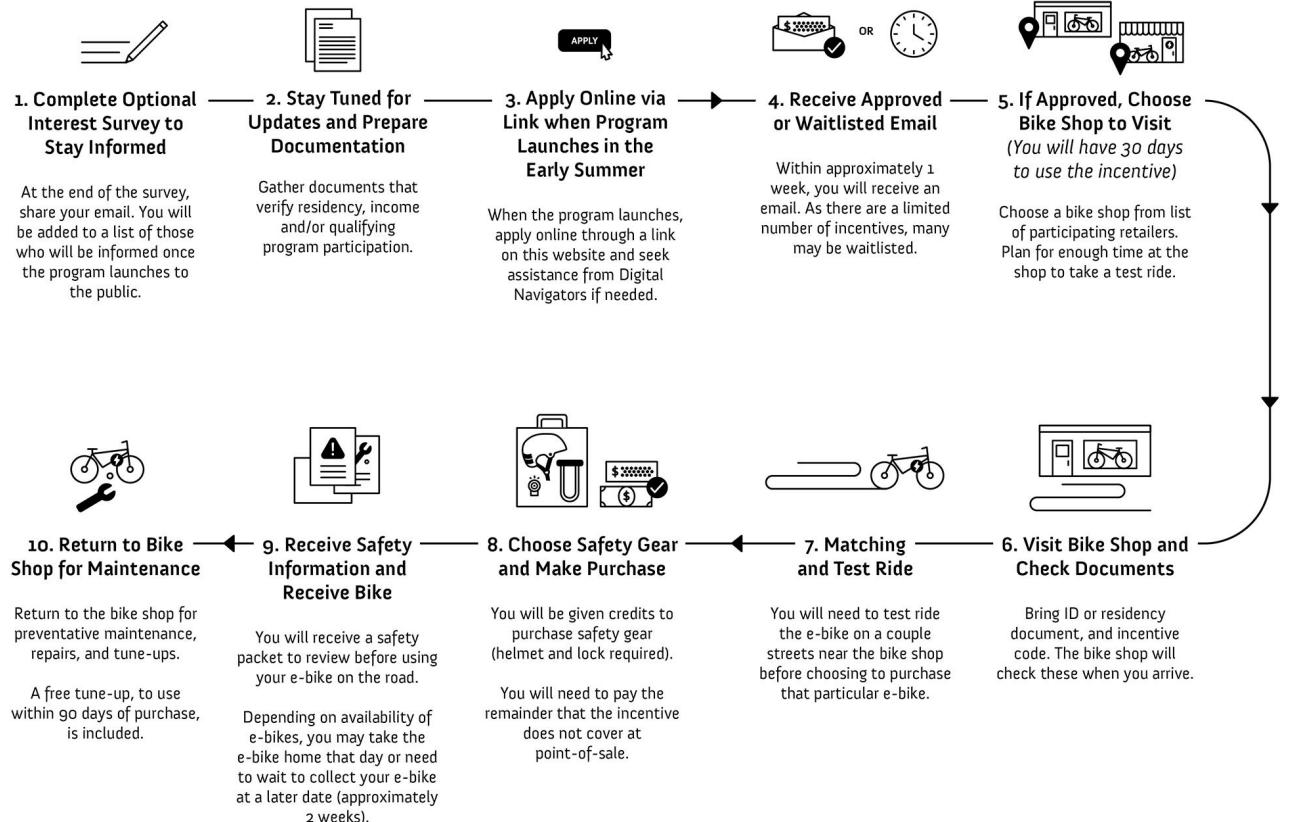
Eligibility by Income	Type of Bike	Incentive Amount	Additional Incentives Included with an E-bike Purchase
Participates in a qualifying program* (public benefits)	Standard E-Bike	\$1,200	+\$200 for safety gear + 90 day tune-up
Household income under \$60,000 and not currently receiving public benefits	Standard E-Bike	\$900	+\$200 for safety gear + 90 day tune-up
Household income between \$60,000 - \$150,000	Standard E-Bike	\$500	+\$200 for safety gear + 90 day tune-up
Household income under \$100,000	Cargo Bike <i>For families with children &amp; work-related uses.</i>	\$2,500	+\$200 for safety gear + 90 day tune-up

# Retailer & Customer Experience

We incorporated insights from early ideation and research into a retailer and customer journey as demonstrated in the **graphic to the left.** →

In order to make the retailer and customer experience as frictionless as possible, we contracted with **Best Payment Solutions** to build out a **portal** to house resident applications, eligibility verification, retailer reimbursements, and stores key documentation (i.e., purchase receipts, records of safety gear, dates of redemptions and real-time data).

In addition, we developed a website ([columbusbikes.com](http://columbusbikes.com)) as a tool to market the program by collecting email addresses through an interest form, provide answers to frequently asked questions, and allow residents to provide feedback.



## PROGRAM DESIGN

# Outreach Methods

We identified the importance of grassroots communications & outreach early in the program design process. To meet our intended audience where they are at, we completed the following:

- Attended **three** Rise Up Events and spoke with **150+** individuals, collecting contact information from interested residents and engaging residents in a sticker **survey**
- **Deployed an interest form and received 3,900+** submissions to date
- **Sent four** email updates to stakeholders
- **Published website** with key information and FAQs
- Disbursed **posters and flyers** to community organizations and retailers
- **Completed a trial run** to test the system with 4 early applicants to identify and adjust issues prior to broad deployment

Additionally, the program received organic coverage from **two** news outlets.



# Program Evaluation

The following data, impact measures and resident sentiments reflect feedback to date. As additional incentives are redeemed and recipients use their e-bikes over time, we anticipate that some information may change.

# Initial Public Perception & Sentiments



Overall, public sentiments towards the program are positive, with broad interest throughout the community, vocal excitement and optimism.

- Over 1,200 applications received within 48 hours of program launch on July 10, 2023.
- Over 3,900 Interest Form submissions to date.

## QUOTES FROM RESIDENTS

*"So glad to see our city leading again."*

*"I love that Columbus is offering this incentive! No matter who gets accepted, it benefits us all."*

*"Wonderful program! I hope it reaches its goal to reduce emissions and give people access to more mobility."*

*"This is a really exciting opportunity for the city of Columbus. Hopefully with incentives and programs such as this, as well as expanding bike lanes, we can make this city a safer and more accessible place for bikers!"*

# Current Redemption Status

As of 9/25/2023

<b>Incentives Redeemed</b>	<b>103</b>
<ul style="list-style-type: none"><li>• <b>43</b> (42%) in Qualifying Benefit tier Includes 2 cargo e-bikes, 1 electric trike</li><li>• <b>47</b> (45%) less than \$60,000 tier Includes 1 cargo e-bike</li><li>• <b>13</b> (13%) \$60,000 - \$150,000 tier</li></ul>	
<b>Sale Currently in Progress</b>	<b>3</b>
<ul style="list-style-type: none"><li>• <b>1</b> (33%) less than \$60,000 tier</li><li>• <b>2</b> (66%) \$60,000 - \$150,000 tier</li></ul>	
<b>Incentives Approved but Not Yet Redeemed</b>	<b>34</b>
<ul style="list-style-type: none"><li>• <b>3</b> (9%) in Qualifying Benefit tier (1 cargo e-bike)</li><li>• <b>14</b> (41%) less than \$60,000 tier</li><li>• <b>17</b> (50%) \$60,000 - \$150,000 tier</li></ul>	
<b>Total</b>	<b>140</b>

Of Columbus City Council's \$250,000 investment, **\$160,000** funded direct e-bike incentives to residents.

*In total, 140 applications have been approved to date and ~70% of recipients redeemed their incentive within 30 days.*



## Retail Sales Distribution

Franklin Cycleworks: 48  
Johnny Velo Bikes: 46  
Orbit City eBikes: 4  
Paradise Garage: 3  
Beechwold Bicycles: 1

# Current Demographic Overview

Of the 103 Redeemed & Funded as of 9/25/23:

**By Incentive Tier:**

40 (39%) \$1,200  
46 (44%) \$900  
13 (13%) \$500  
4 (4%) \$2,500

**By Gender:**

44 (43%) Male  
53 (51%) Female  
6 (6%) Other

**By Race/Ethnicity:**

4 (4%) Asian or Pacific Islander  
37 (36%) Black or African American  
9 (9%) Hispanic or Latino  
5 (5%) Multiracial or Biracial  
1 (1%) A race/ethnicity not listed here  
47 (45%) White/Caucasian

Of the 41 Expired Incentives as of 9/11/23:

**By Incentive Tier:**

5 (12%) \$1,200  
18 (44%) \$900  
18 (44%) \$500

**By Gender:**

25 (61%) Male  
12 (29%) Female  
4 (10%) Other

**By Race/Ethnicity:**

33 (80%) Non-white or mixed race  
8 (20%) White/Caucasian

The majority of the incentive recipients who did not complete an e-bike purchase were those in higher income tiers that received a smaller incentive amount, males, and non-white individuals. ~80% of survey respondents said the reason they did not purchase an e-bike was because the price after the discount was higher than expected.



# Impact Measures from Survey Responses



**88%** of those who redeemed their incentives indicated they would not have purchased an e-bike without the Pilot Program.



**86%** of those who redeemed their incentives found that the amount paid out-of-pocket was an affordable amount.



**59%** of those who redeemed their incentives answered “yes” or “somewhat” when asked if owning their e-bike made it easier to access work opportunities.



**88%** of those who redeemed their incentives found the safety gear provided by the program to be useful.

**78%** of those who redeemed their incentives replace car trips (including taxi and rideshare) with e-bike trips. **60%** of these individuals replaced either 3-4 or 5-6 car trips per week.



# Resident Sentiments on the Program

"It was great. It was really thorough. It seemed like a normal application to fill out. And then the email conversations and the email correspondence was sufficient and thorough enough. **There was hardly any confusion, throughout the process.**"

**"It's been a blessing. Thank you!"**

"This is an amazing program. I **would not have been able to get an e-bike right now if it wasn't for this program.** I really appreciate it."

**"I am so thankful for the program.** I feel like this was a blessing and I am very appreciative."

**"Great and easy program"**

**"Offer it to more people - whenever I explain to someone how I got my ebike, they say, 'let me know if they ever offer that again'."**



# Resident Sentiments on Benefits of E-Bike Use

**"I don't have to wait for a bus. I have more access to freely go wherever I want."**

**"Easy and free parking. I don't have a car so my only other option would be an expensive taxi which is expensive, or a bus which can be slow/inconsistent.** The bike is also good for exercise compared to a car."

**"Using the ebike is fun and costs less to operate."**

**"Saving on gas, ability to ride with other people on regular bikes who are faster, knowing I have transportation whether or not someone else is using the family car."**

**"I work at OSU hospitals and my e-bike has cut down on my commute time because I no longer have to sit in traffic."**

**"It makes me so much happier! It's more affordable, of course, but it's just the best part of each day.** And if I don't need to get groceries, go to the library, etc. I'll take it out around the neighborhood after my partner is home and the baby is tucked into bed. It's the best."

**"I can save my physical energy for my job and get to locations without tiring myself out.** It enables me to use vehicles less, and I am able to go farther via bike than I can on a regular bike."

**"The physical exercise really helps my mental health...The benefits of affordability and sustainability are equally as important. And my toddler loves riding in the bike trailer that I pull behind the bike so much that he starts crying if I turn towards the car instead of the bike when we leave the house."**



# Early Insights

The following insights are based on data collected to date through surveys, interviews and open feedback. As additional incentives are redeemed and recipients use their e-bikes over time, we anticipate that some insights may change.

# 1. Positive Feedback

Overall, incentive recipients had a positive experience with the program, citing general ease with the application and purchasing process. The following insights share areas of improvement for the future to allow for greater access to attaining an e-bike and utilizing it for transportation needs around Columbus.

- 91% of incentive recipients shared that the application process was “very easy” or “easy.” 1% found it to be difficult.
- 87% of incentive recipients understood the program details after going through the program website.
- 95% of incentive recipients did not have trouble traveling to the bike shops. Those who faced difficulty had to ask a friend for a ride or take time off work to visit during the shop’s opening hours.
- 73% of incentive recipients were “Extremely Satisfied” with their purchasing experiences at the bike shops. 25% were moderately satisfied.
- 85% of incentive recipients shared that the out-of-pocket costs was an affordable amount to them.

***“Everything about this program was a delight! It was incredibly straightforward from the beginning; easy to prepare for and apply to; timelines were clear and accurate; and the actual purchasing process (redeeming the incentive) at the bike shop was a breeze!”***

– Incentive Recipient



## 2. Affordability

**Cost and ability to invest in an e-bike are the biggest cited barriers: further research and iterations on the incentive amounts, tiers and program structure are needed.**

- Being in a higher income tier does not necessarily mean someone is willing or able to pay more out of pocket to purchase an e-bike.
  - ~80% of interest form respondents indicated cost was their biggest concern with purchasing an e-bike. ~70% indicated they would only be willing to pay less than \$500 to purchase an e-bike after a discount.
  - 3 of the 5 participating bike shops offered no e-bike options under \$2,000. With the minimum price of a qualifying e-bike being \$1,000 to ensure quality, many interested residents are priced out.
- New and creative ways of making e-bikes more affordable to more people should be explored. Future considerations may include: extending the 30 day incentive code expiration period, providing financing options, and partnering with community-based organizations.

***"I don't know if everyone that was chosen would be able to just come up with the extra \$400, in my case, to get an e-bike, but overall a great initiative and experience!"***

- Incentive Recipient

***"Increase the the minimum amount of the voucher or length the time frame."***

-Recipient who did not use incentive



## 3. Education

**Lack of informed purchase decisioning: While there is great interest in e-bike incentives in Columbus, there is further education needed around the cost of e-bikes (both upfront and maintenance costs) and greater awareness needed around e-bikes being a legitimate form of transportation worth a personal investment.**

- Many survey respondents expressed a desire for more support in navigating the complexities of e-bikes and determining the best bike for their needs. New and creative ways of educating the public should be explored.
- 69% of those who did not end up using their incentives shared that e-bikes were more expensive than expected. Some do not understand why the cost of an e-bike is so high.
- Some individuals expected the e-bikes to be free, this may be due to confusion over the term 'Incentive'. Part of a new messaging strategy could be renaming the program as suggested by an incentive recipient: "Eliminate 'Incentive' and call it the Columbus E-Bike Purchase Assistance Program."

**"Be more up front with the cost of an ebike and the different types of ebikes. Ebikes are a wide term for what's out there and without prior knowledge it hard to understand what I'm actually buying."**

-Incentive Recipient

**"If the program's website could better prepare participants for the complex (and often times confusing) world of e-bikes, the purchasing experience could be much smoother/less intimidating. The world of e-biking is a totally different monster compared to the minuscule knowledge of mechanical bikes that most people have from childhood. So, why not send participants out into that world with a bit of a foundation to start from!"**

-Incentive Recipient

## 4. Bike Infrastructure

**Lack of bike infrastructure is a barrier: From a lack of protected bike lanes to a lack of safe storage and parking options, residents and incentive recipients continue to mention these issues as a primary obstacle to feeling comfortable on the roads, using an e-bike more often, and going completely car free. This concern can lead to less frequent e-bike use or avoidance of e-bike use all together. Many have expressed that this program will not work without improvements in this area.**

- Only 28% of Interest Survey respondents feel “Very Safe” riding on Columbus streets. A desire for better infrastructure was commonly mentioned.
- 45% of Interest Survey respondents selected “concern with theft or tampering” as a primary concern with owning an e-bike.
- One of the trial run participants had their bike stolen within 2 months of purchase. This e-bike was their primary mode of transportation, used to travel to work and transport their child to school.
- Leisure, running errands, and travel to social activities are the top three uses of e-bikes purchased through the program so far. Survey sentiments indicated that people live too far away from where they work to make biking a viable commute option, lack of safe places to store their bike at destinations result in out-and-back trips only, and people with limited experience feel insecure biking in traffic.

**“My primary use for the e-bike is none and it literally has less than five miles on it. At a \$1000 investment, I’m terrified of it getting stolen. The goal was to use it to travel from where I live in south side up to downtown, but I have no idea where there’s bike parking and where there’s not. So that’s one reason I haven’t really taken it out anywhere.”**

-Incentive Recipient, Older Adult

**“I’m planning on staying in Columbus. I’m planning on working in Columbus... We have a family to raise here. We have grandparents here. We have friends here. I’m staying in Columbus and... we would go car free if we can, but we can’t, we literally can’t because the infrastructure is so bad.”**

- Cargo Bike Incentive Recipient, Father of a young child

## 5. Availability

**More work and collaboration with local retailers needs to be conducted in order to increase local inventory and provide a wider variety of e-bike options at different price points.**

- There are few locally owned bike shops within the City of Columbus that carry e-bike inventory.
- Several of the local bike shops in Columbus were not willing to increase their inventory of e-bikes for the pilot program. This resulted in the majority of residents going to two bike shops where inventory was quickly depleted leaving customers with even more limited options or having to wait for a bike to be ordered.
- Bike shops decide what brands they carry and at what price points. Three of the five participating bike shops will not carry bikes under \$2,000 because of quality concerns.
- There have been several suggestions from residents to expand the program to include online stores, but this brings up challenges with receiving maintenance as most local shops do not want to take on the risk of working with brands they are not familiar with.

*"Work with bike retailers south of I-70 to introduce E-Bikes into their inventory. Three of the five E-Bike retailers are in Clintonville. All were north of I-70, which is challenging for a South Side resident to transport an E-Bike for service or repairs."*

-Feedback Form Suggestion

*"Not a lot of shopping options. Of the five, three were well out of my price range and only one really had something that worked for me."*

-Incentive Recipient

## 6. E-bike Quality

**The majority of the bikes purchased through the program were the more affordable options, costing around \$1,000-\$1,300 (before the discount). The lasting quality of these lower-end e-bikes is unknown.**

- It is too early in the process to understand how these e-bikes will hold up over time with heavy use and whether or not they should be included in the program long-term.
- Bike shop owners have expressed concern over certain brands being included in the program as these e-bikes may require parts to be replaced more often than higher quality bikes. Incentive recipients may not be able to take on these costs to make repairs.

*"When I spoke with the guys at the shop, they did tell me this is a really good value bike. I knew that from the beginning. So with that, you don't get all the bells and whistles that a Giant or a specialized bike would give you. I'd say I am not disappointed but I would say there's tradeoffs with the price. Like my LED lamp already went out... you're not buying a Ferrari you're buying a Kia."* -Incentive Recipient

*"Purchasing advice. I didn't know and couldn't find out how bad the Denago Cruiser is."*

-Incentive Recipient

# Recommendations & Next Steps

# Recommendations & Next Steps

An extension of the pilot will allow us to provide additional incentives to more people, expanding our ability to test the program's effectiveness across key evaluation areas:

1. Specific barriers and benefits within different demographic groups.
2. Gauging interest during different times of year.
3. Understanding usage and behavior.
4. Understanding quality of different e-bike types and brands.



**Further research is needed to understand long-term benefits, behaviors, and barriers:**

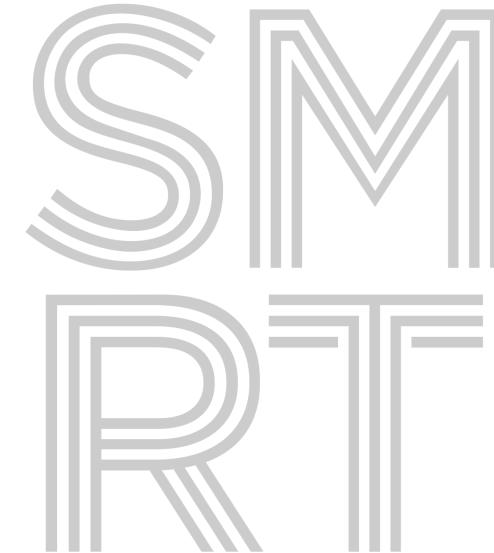
- Surveys will continue to be sent out to customers after 30 days of e-bike use.
- In-depth interviews with incentive recipients will be conducted throughout the year.
- Survey and diary study to document e-bike use, behavior change, and experience riding e-bikes in Columbus over time.
  - ◆ At 3-6 months and/or 1 year.

# Budget to Date & Future Funding

Budget v Actual as of 9/26/2023

	BUDGET	ACTUAL	REMAINING
PROGRAMMING & OUTREACH	\$20,000	\$16,988	\$3,012
DIRECT INCENTIVES	\$160,000	\$160,000	\$0
SOFTWARE	\$10,000	\$11,700	-\$1,700
PROGRAM DESIGN	\$30,000	\$30,000	\$0
PROGRAM MANAGEMENT	\$30,000	\$30,000	\$0
	Total Budget	Total Spent	Total Remaining
	\$250,000.00	\$248,688.99	\$1,312

Future funding will be leveraged **primarily for direct incentives**, as many expenses were one-time costs. We anticipate that other expenses will support minor software updates, program evaluation and program management.





**Submitted by Smart Columbus on  
September 26, 2023.**

Andreya Veintimilla, Design Research Lead ([av@smartcolumbus.com](mailto:av@smartcolumbus.com))

Hailey Allison, Director of Operations ([ha@smartcolumbus.com](mailto:ha@smartcolumbus.com))

Jen Sullivan, Program Designer ([ebikes@smartcolumbus.org](mailto:ebikes@smartcolumbus.org))