

WEBINAR



Standards & Engagement



# E-Bikes for Everyone: How Cities Are Making E- Bike Ownership a Reality

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Tuesday, November 12th @ 3:00 PM ET

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[BIKELEAGUE.ORG/WEBINARS](https://bikeleague.org/webinars)



# HOUSEKEEPING

- » Webinar is being recorded, will be posted at:
  - » [youtube.com/bikeleague](https://www.youtube.com/bikeleague) (@BikeLeague)
  - » [bikeleague.org/webinars](https://bikeleague.org/webinars)
- » Closed captions are available
  - » Can be hidden or shown from the Zoom menu on your screen:
  - » Click “Show Captions” / “Hide Captions”
- » Feel free to type your questions into the Q&A at any time!

# Speakers



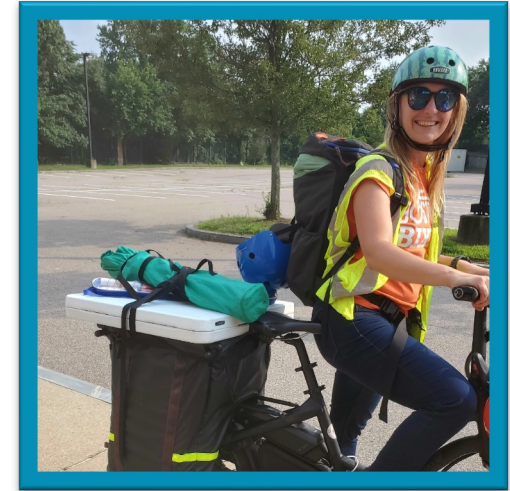
**Sue Baldwin**

Electrified Mobility Administrator  
Denver Office of Climate Action,  
Sustainability, Resiliency



**Rebecca Serna**

Executive Director  
PropelATL



**Anna Jacobs**

E-Bikes Program Manager  
City of Boston

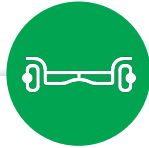


Moderator: **Jennifer Bradley** | Sr. Manager of Partnerships, UL Standards and Engagement

# Key e-mobility documents in our library

At UL Standards & Engagement, we work with stakeholders to achieve a safer world through standards. There are more than 80 standards developed by ULSE that address lithium-ion battery risks, offering a layer of protection for consumers.

For e-bikes and scooters, **ULSE** has three standards that cover the vehicles and the batteries that power them.



UL 2272  
**Personal  
e-Mobility  
Devices**



UL 2271  
**Light Electric  
Vehicles**



UL 2849  
**e-Bikes**

# Government Initiatives

## Incentive Programs

**Washington, DC:** Financial incentive program that mandates e-bikes eligible for a discounts must meet specific ULSE standards for battery safety

*Launched Sept. 19, 2023*

**Denver, CO:** Instant rebate program that allows qualified e-mobility devices to be certified to specific ULSE safety standards

*Launched 2022*

## City Legislation

**New York City:** Local Law 39 prohibits the sale, lease, or rental of e-mobility devices and their batteries that do not meet three ULSE safety standards

*Effective as of Sept. 16, 2023*



## Standards & Engagement

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Sr. Manager, Partnerships

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# Everything You Wanted to Know About Denver's E-Bike Rebate Program but Were Afraid to Ask

Sue Baldwin

Electrified Mobility Administrator

[Sue.Baldwin@denvergov.org](mailto:Sue.Baldwin@denvergov.org)



# DENVER

CLIMATE ACTION,  
SUSTAINABILITY &  
RESILIENCY

**0.25% sales tax** with equity exemptions

**\$40 million** annual budget for Climate Action

**50%** of funding supports equity



# CLIMATE

PROTECTION FUND

## Six allowable uses

1. Green Workforce
2. Renewables/Energy
3. Climate Justice
4. Adaptation & Resiliency
5. Sustainable Transportation
6. Buildings & Homes



# Denver Climate Action 2020 Recommendations Report

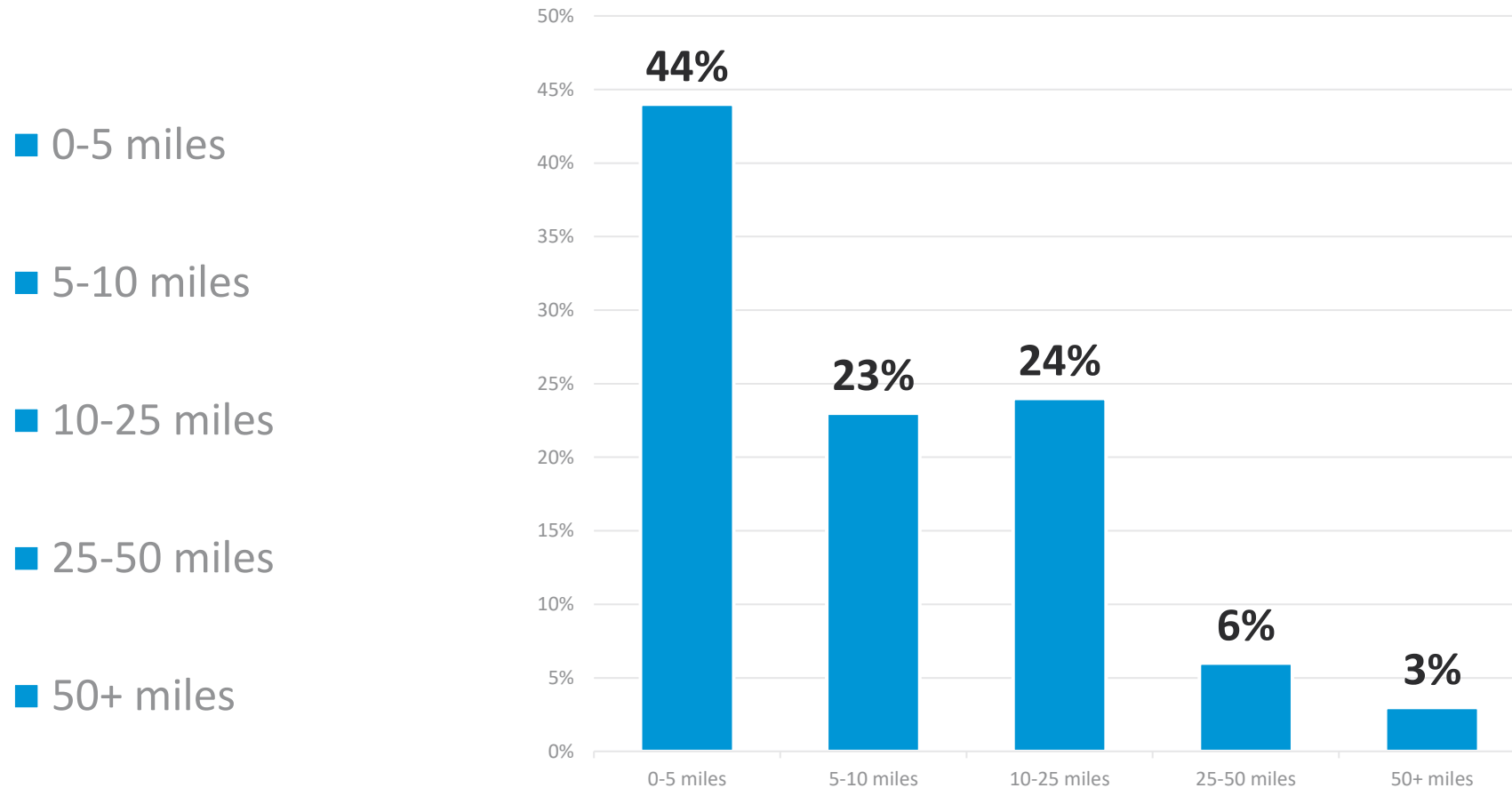
Developed by the

**Denver Climate Action Task Force**

“Evaluate how to create equitable programs that offer subsidies or vouchers to individuals who purchase...e-bikes.”

# Why E-bikes?

Car Trips Originating in Denver (source RMI)



# E-Bike Voucher

- Launched Earth Day, 4/22/22
- \$400 for all Denver residents
- \$1,200 for income qualified Denver residents
- \$500 adder for e-cargo bikes



[Denvergov.org/ebike](https://denvergov.org/ebike)

# How did we do it?

- North star – keep it simple for all parties involved
- Focus on equity
- Point of sale rebate
- First come first serve process
- Third party does reimbursement and fulfillment
- Bike shops reimbursed within a few days
- Recipients receive vouchers via email within seven days of release



# How did we do it?

- Participating bike shops within five miles of CCD limits
- Want voucher redeemers to have a relationship with a local bike shop.
- Must have a brick-and-mortar shop and service facility
- E-bikes must be fully assembled



# E-bike Vouchers Results

- Applications - nearly 15k applications
- Redemptions – 9,144 e-bike purchases
  - 52% to low- or moderate-income residents
  - 47% e-cargo bikes
- Spending - \$8.6 million in vouchers redeemed
  - 72% to low- or moderate- income residents
- Supporting over 30 local bike shops



# Annual survey results

## Weekly e-bike round trip

- 2023 – 4.3
- 2022 – 4.1

## E-bike round trip miles

- 2023 - 6.8, up from 5.9 in 2022

## Number of trips replaced

- 2023 & 2022 - 3.4

29% of respondents indicated they were new cyclists



# Weekly Average Estimated VMT Replacement

Overall average

23.32

Standard  
voucher

20.99

Income  
Qualified

25.81



# What changes have we made

## Equity Access

- Shifted application opening time
- Working with community-based organizations to directly provide vouchers to under-resourced individuals
- Added adaptive voucher

## Voucher Amount

- Reduced voucher amount to extend budget
- Added Moderate Income category
- Extended voucher redemption from 60 – 90 days

## Data Collection

- Safety messaging
- Quarterly survey
- Annual survey – sent in September

# Safety Changes

- Followed New York City's lead on safety
- All bikes to be UL certified or in process
- All bike shops have to have a battery recycler relationship



## Colorado State Tax Credit

April 1, 2024, all Colorado residents get \$450 off the price of an e-bike

Not stackable with Denver vouchers in 2024

# Not without its hiccups

- First come first serve challenges
- Continue to work to make the application process more equitable
- Hear a lot about bike theft
- Feeling unsafe on the streets
- Bike maintenance – how can we support keeping e-bikes on the road

“It has really made an impact in our lives. The only issue we've had is that we can't go anywhere that we can't take the bikes inside with us. The good locks are so expensive, and the cheaper ones don't prevent theft, especially with the very determined people here in downtown Denver.”

“My bike was stolen very shortly after receiving it. I had only put around 5 miles on the bike.”

# From our e-bike voucher redeemers

My anecdotal experience is that this program has gotten more people on bikes, more cars off the roads and opened more Denverites up to alternative transport than any other program I've ever seen. We should continue to fund it and increase funding in the future, so bikes become even more affordable. My senior citizen parents got ebikes after riding around with us and despite living in the suburbs have started to replace a few trips with bikes. This program is actually moving the needle

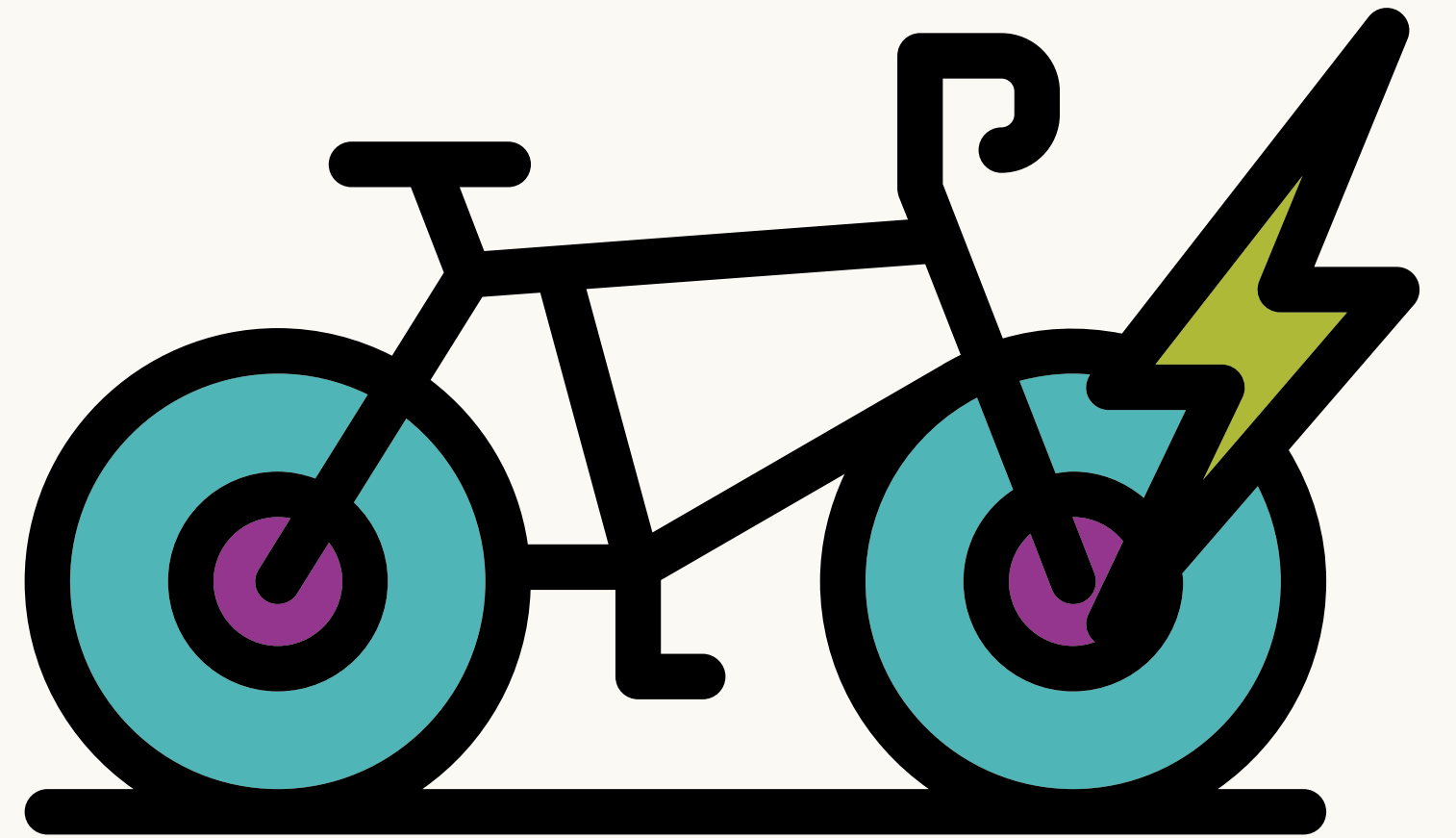
“Our family has benefited tremendously from this program! We’ve been happy to move from a two car to one car family. We were also very happy to be able to support a local bike shop with our voucher.”

“I really love having my e-bike and am building the courage to ride further!”

“My partner commutes long-distance with our only vehicle and my e-bike has been amazing. I have gotten out considerably more since purchasing it (I've done 500 miles in the 3 months!) and it effectively replaces many trips that would have otherwise required a car (e.g. hauling groceries and other errands).”



Atlanta e-bike rebates:  
from advocacy to  
active





# First, the idea

Like all good ideas, it came from a listserv  
(TRANSP-TDM@LISTSERV.USF.EDU)

Involved a spreadsheet “E-bike Incentive Programs in North America: New Online Tracker” from Portland State University

And reinforced what we were seeing in the neighborhood: families everywhere picking up ebikes for the school commute



# Finding champions

1

## An advocate

Bennett Foster, Atlanta Regional Commission (and previously of the Atlanta Bicycle Coalition)

2

## A nonprofit

Propel ATL included “making e-bikes more affordable” in our annual policy agenda

3

## Elected officials

Championed by Atlanta City Councilmember Matt Westmoreland, Post 2 At-Large; supported by Atlanta City Council and Mayor Andre Dickens

4

## Stakeholders

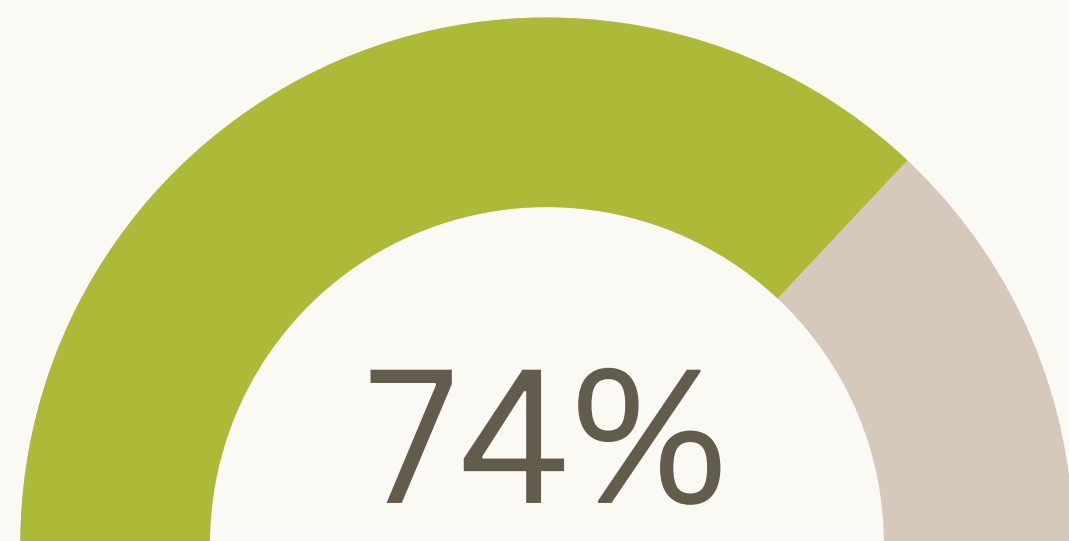
Everyone who wants an e-bike but finds them financially out of reach; bike shop owners, health and equity advocates

5

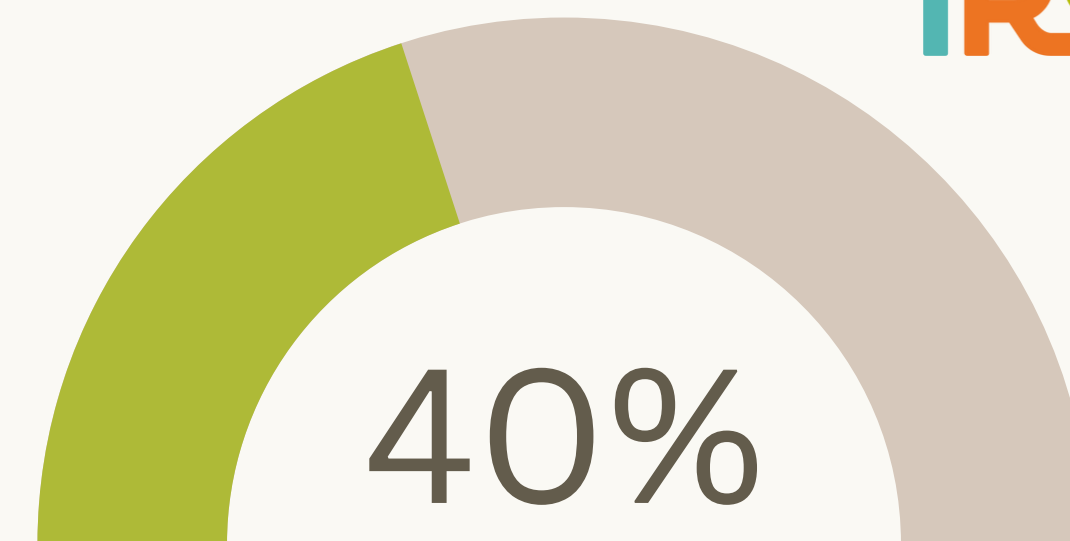
## An agency

Atlanta Regional Commission agreed to administer the program





High cost



Lack of safe bicycling infrastructure

Survey: “What's your biggest barrier to owning an e-bike?”

Laying the groundwork  
Used communications platforms to establish the problem: e-bikes are too expensive but address many social issues

# Created a working group



1

## Intersecting issues

E-bikes can address a wide array of issues - have each represented to create a broad coalition of support

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02

## Legislative ability

Starting this from legislative branch creates simple path to creating and funding the program

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03

## Equity

Ensure there are organizations at the table that focus on building more equitable communities

# Legislation & Funding



**Fix the main problem you identified: affordability**

Dedicate a majority of \$1 Million program to low-income households and provide an upfront “point-of-sale” rebate, making it accessible to a wider spectrum of residents.



**Selecting an administrator:**

- Concept Buy-in
- Technical Expertise
- Administrative ability



**FY2024 Income Levels at 80% Area Median Income (AMI) for Atlanta-Sandy Springs-Roswell, GA Metropolitan Statistical (MSA)**

**E-Bike Rebate Amounts**

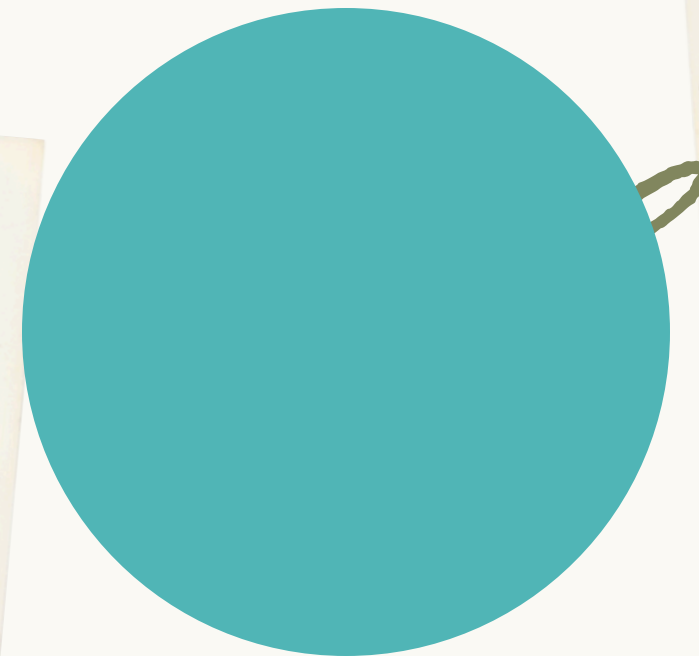
	<b>Standard E-Bike</b>	<b>Cargo E-Bike</b>
<b>Non-Income Qualified Rebate</b>	\$500	\$1,000
<b>Income Qualified Rebate</b>	\$1,500	\$2,000

<b>HOUSEHOLD SIZE</b>	<b>80% AMI</b>
1 Person	\$60,200
2 Person	\$68,800
3 Person	\$77,400
4 Person	\$86,000
5 Person	\$92,900
6 Person	\$99,800
7 Person	\$106,650
8 Person	\$113,550

**e-bike rebate**

**\$1 Million program  
funded by City of Atlanta**

# Education & Outreach



**Provide opportunities for test rides  
and classes to learn to ride safely**

E-bike expos, outreach at MARTA stations, e-bike classes





# SAVE BIG ON E-BIKES

City of Atlanta Residents



REBATES UP TO  
**\$2,000!**

Photo by Specialized Bicycles

**NEED A BETTER WAY TO GET AROUND?**  
E-bikes offer a reliable, affordable solution. Get up to \$2,000 in rebates. Sign up today and simplify your commute.



FOR MORE INFORMATION [ATLANTAREGIONAL.ORG/EBIKEREBATE](https://atlantaregional.org/ebikerbate)



## E-BIKE EXPO

TEST RIDE E-BIKES  
AT ATLANTA  
STREETS ALIVE

E-Cargo | E-Trikes | Folding  
Class 1 | Class 2 | Class 3

### Discover the joy of electric bikes!

Liked the ride? Learn more about the City of Atlanta E-Bike Rebate Program and check out the FAQ page:

click here: [bit.ly/3Q5YbSe](https://bit.ly/3Q5YbSe)

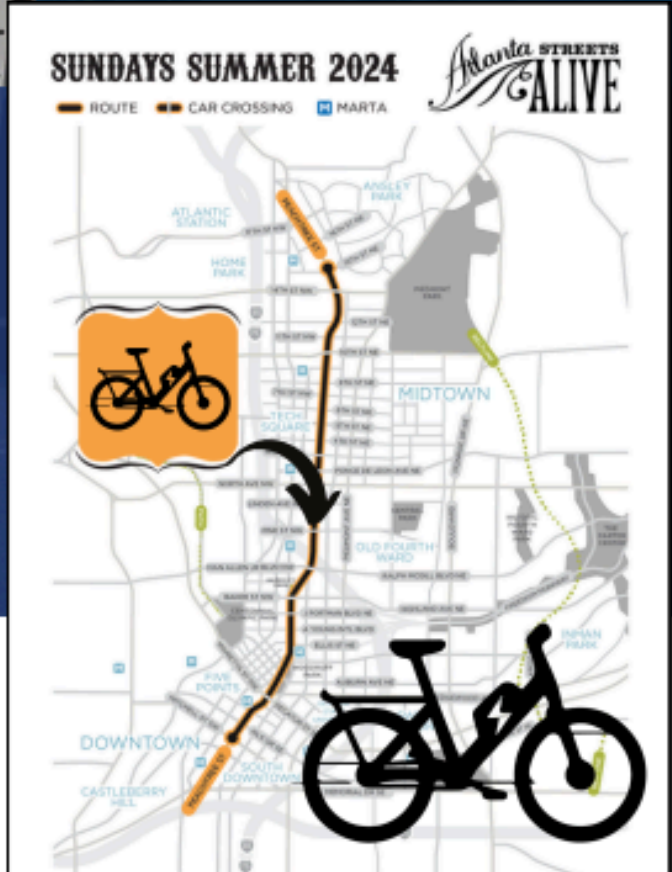
**1:00 P.M. - 5:00 P.M.**

St. Luke's Episcopal Church  
435 Peachtree St NE, Atlanta, GA 30308

Sunday, May 19, 2024

Sunday, June 16, 2024

Sunday, July 28, 2024



Join us at the E-bike Expo to learn more about the City of Atlanta E-bike rebate program and commute options.



# Community leaders help spread the word



community and it's fun and

# Challenges & Opportunities

## A.

### Challenges

1. Lack of infrastructure for people to bike comfortably and safely.
2. Setting up a new program takes time, money, and expertise
3. Lack of secure bike parking in multifamily housing.
4. Lack of funds for functional bike accessories



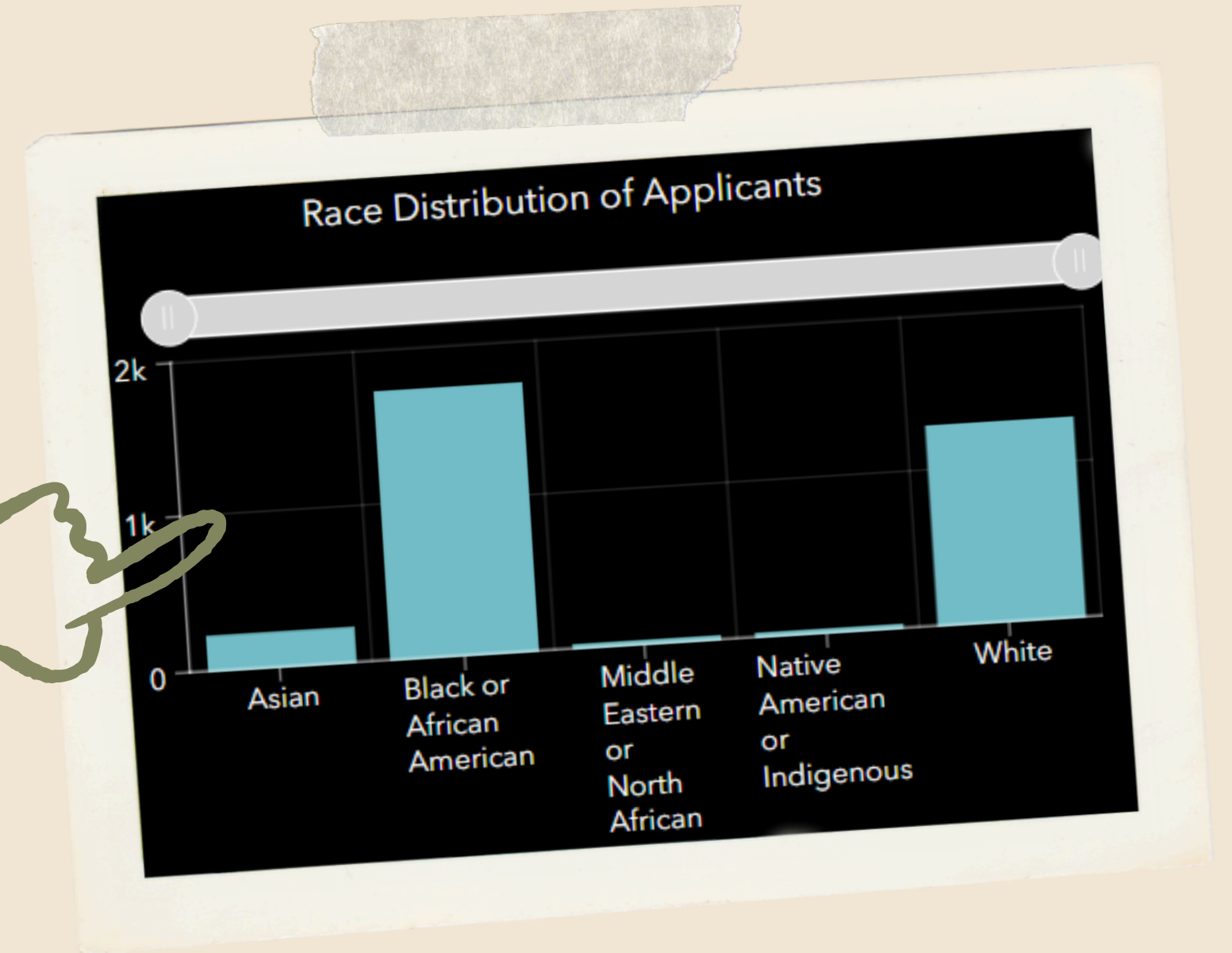
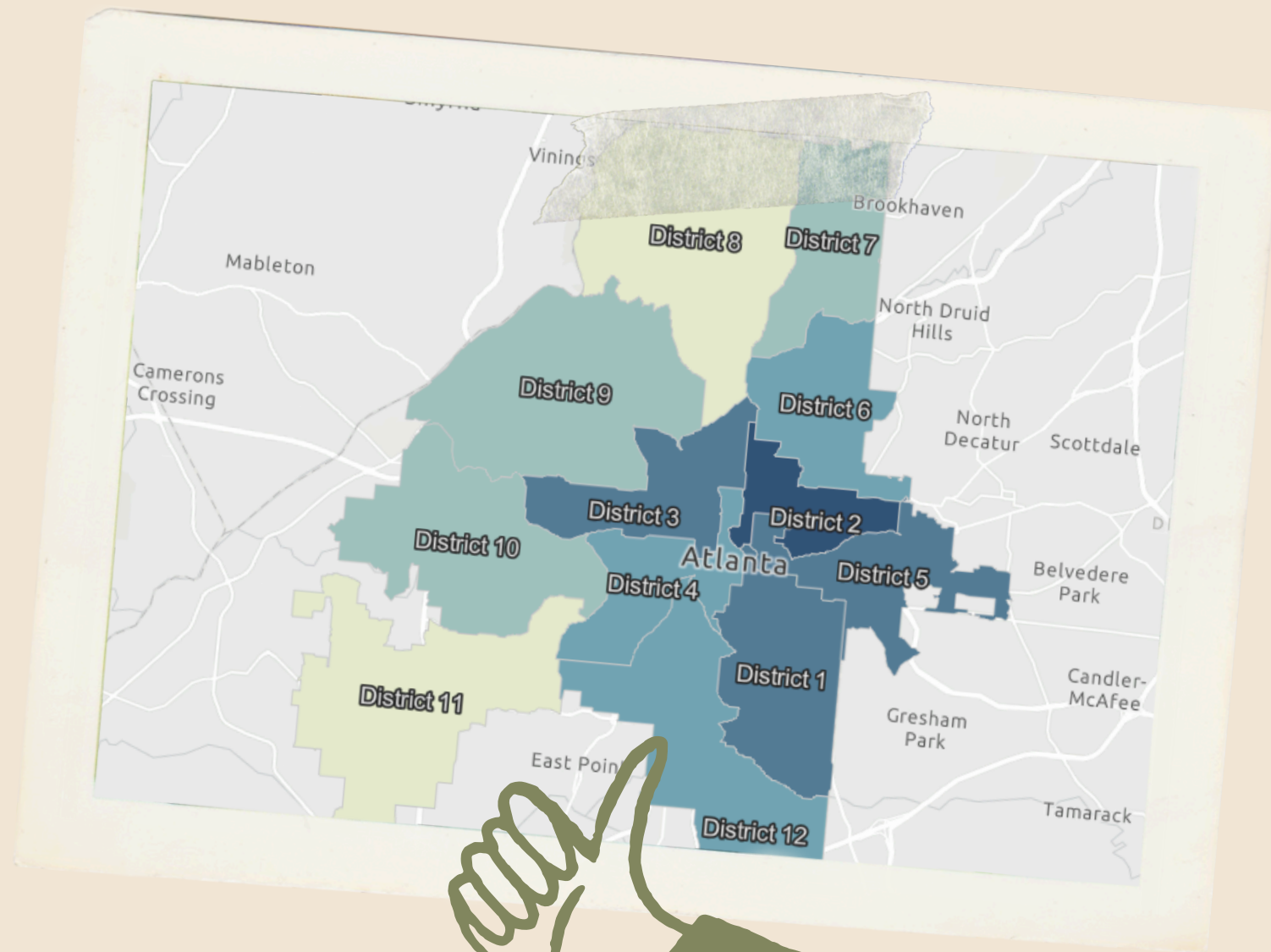
## B.

### Opportunities

1. More people with e-bikes means more advocates for connected and protected bike networks
2. The Atlanta Regional Commission has the structure to administer these programs. Other cities and counties in Georgia could take advantage to create their own e-bike rebate initiatives.



# Who applied for a rebate in round 1?

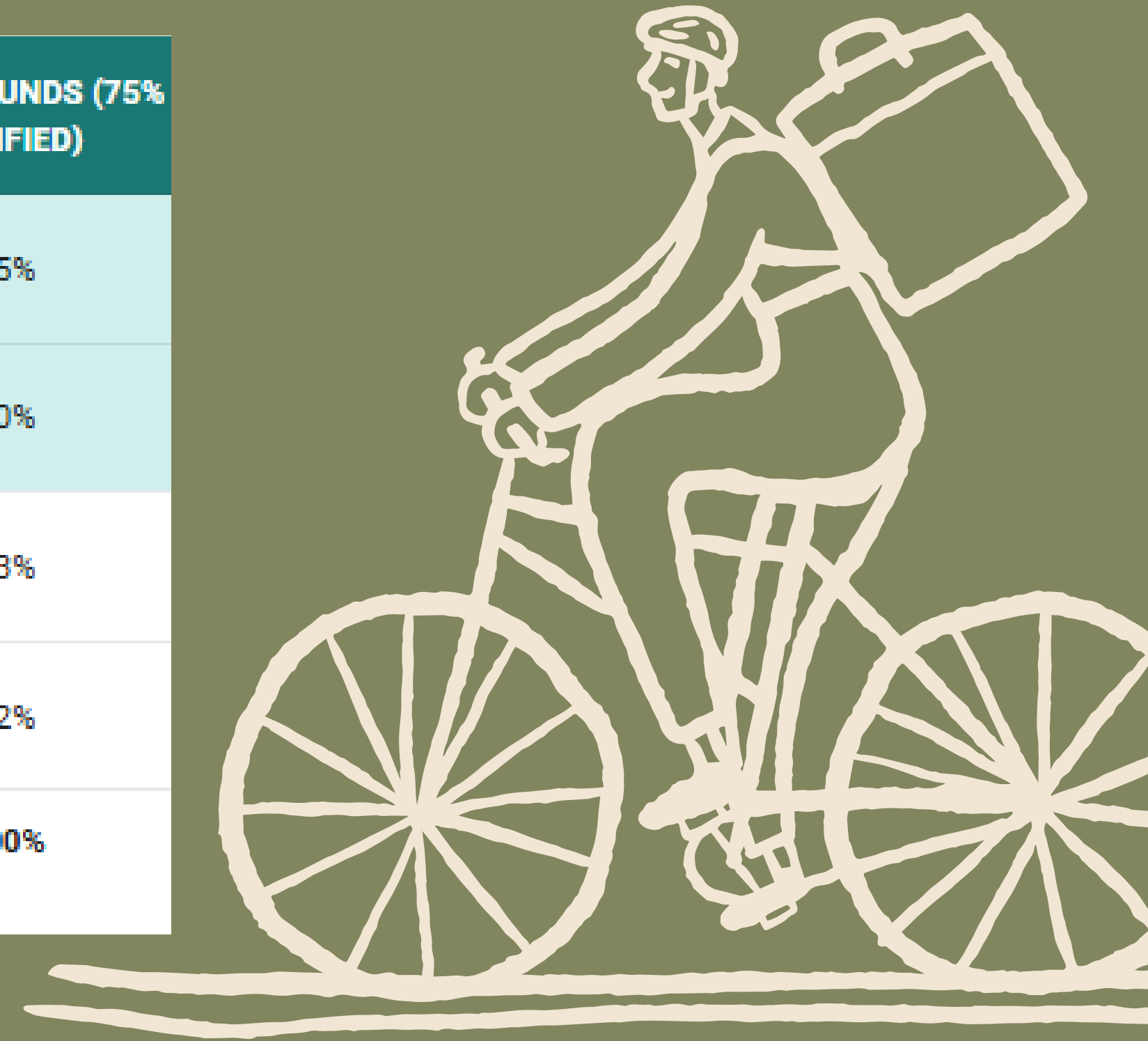


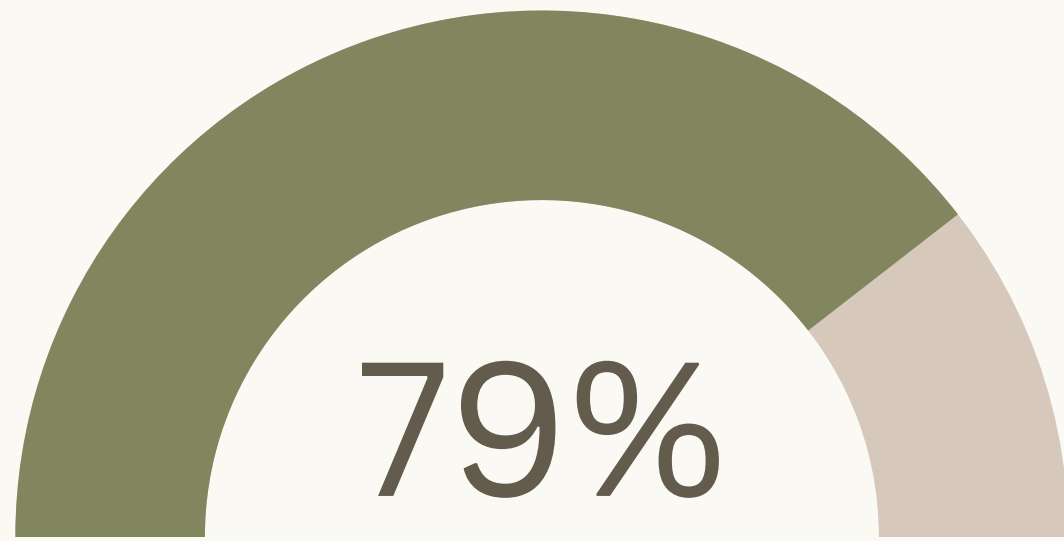
4,270 income-qualified out of 8,800 applications

54% male 44% female 3% non-binary

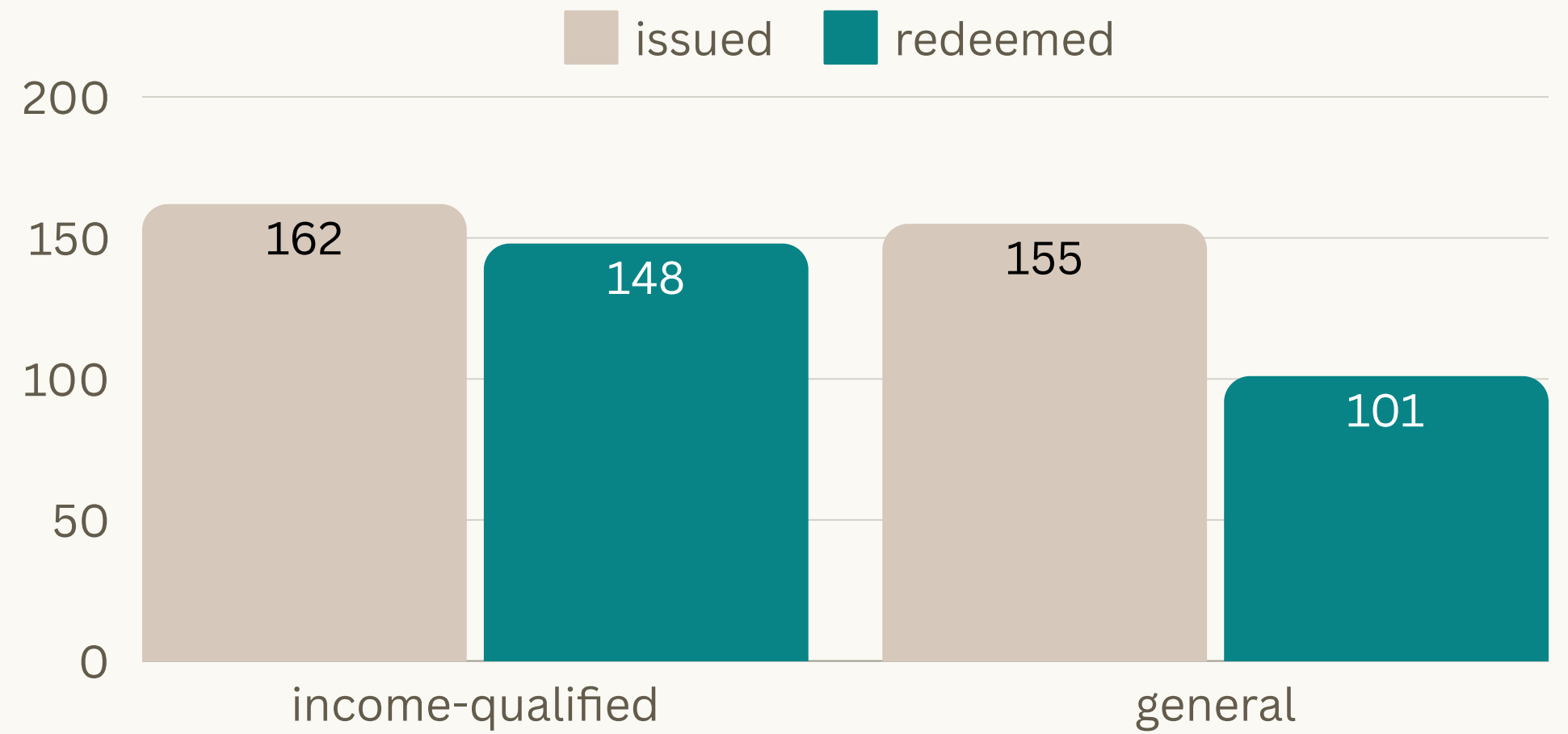
# ROUND 1 APPLICANTS

REBATE TYPE	APPLICANTS	REBATE RECIPIENTS	TOTAL ALLOCATED	PERCENT OF FUNDS (75% INCOME QUALIFIED)
Income Qualified E-Bike	2403	150	\$225,000	45%
Income Qualified Cargo	1547	75	\$150,000	30%
Non-Income Qualified E-Bike	3028	126	\$63,000	13%
Non-Income Qualified Cargo	1910	62	\$62,000	12%
<b>TOTAL</b>	<b>8888</b>	<b>413</b>	<b>\$500,000</b>	<b>100%</b>





of round 1 rebates redeemed to date



# e-bike rebate redemption

Income-qualified rebates were redeemed at a significantly higher rate (91% vs 65%).

With second round, close to 400 new e-bikes on the road in Atlanta

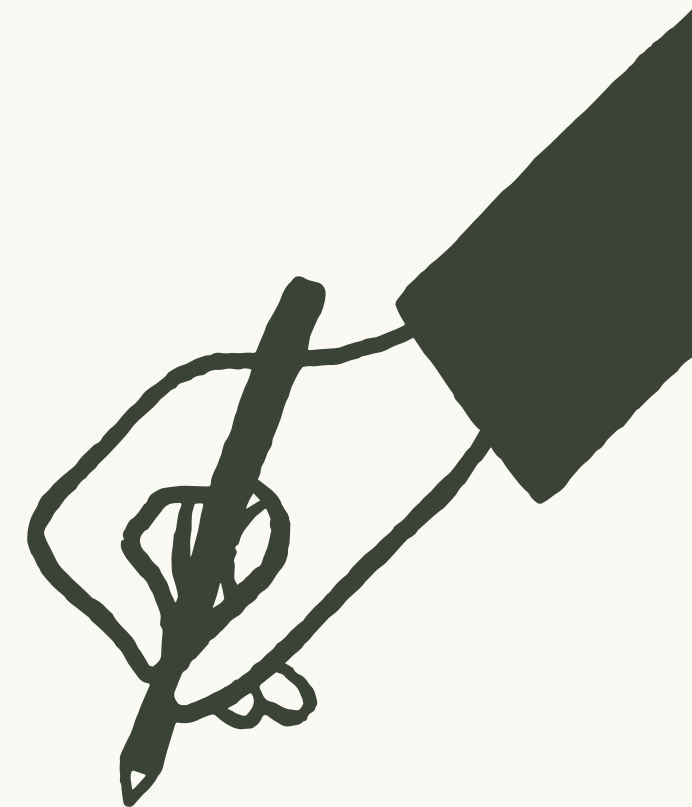
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## PROPEL ATL

- REBECCA SERNA, EXECUTIVE DIRECTOR  
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- SAGIRAH JONES, PROGRAM DIRECTOR  
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## ATLANTA REGIONAL COMMISSION

- BENNETT FOSTER, INTERIM MANAGING DIRECTOR,  
MOBILITY SERVICES + GEORGIA COMMUTE OPTIONS  
[BFOSTER@ATLANTAREGIONAL.ORG](mailto:BFOSTER@ATLANTAREGIONAL.ORG)



# BOSTON E-BIKES INCENTIVE PROGRAM

*ARPA funded pilot program*

## BOSTON E-BIKES INCENTIVE PROGRAM

The City of Boston's new *E-Bikes Incentive Program* provides vouchers by lottery to eligible Boston residents towards the purchase of a personal e-bike.



*But first, quickly 2 slides about*  
**BOSTON BIKES**



# BOSTON BIKES

*We run bike programs and events. This includes managing the City's public bike share program, coordinating the e-bikes incentive program, overseeing bike parking, and teaching residents of all ages how to ride safely and with confidence in the City.*



# BOSTON E-BIKES INCENTIVE PROGRAM

*ARPA funded pilot program*

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The City of Boston's new *E-Bikes Incentive Program* provides vouchers by lottery to eligible Boston residents towards the purchase of a personal e-bike.





## PROGRAM OVERVIEW

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- ARPA-funded pilot-program
- Point-of-sale digital voucher between \$800-\$2400
- Assisting ~1000 eligible Boston residents to purchase a new e-bike

# PROGRAM ELIGIBILITY

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- Seniors (Age 60+)
- Adults with disabilities
- Low income residents (at or below 40% AMI)



## PROGRAM GOALS

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- Support **1,000** Boston residents in purchasing an e-bike
- Build knowledge and confidence in riding a bike
- Accelerate mode shift
- Improve mobility, travel times, and reliability
- Increase physical activity,
- Generate more than \$5 million in sales for local bike shops
- Encourage job growth in bicycle service and maintenance

## KEY PARTNERS

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Evaluation Consultant: **Stantec** contract through June 2026

Program Administrator: **Aptim** contract through June 2026

Outreach Support: **MassBike** PO through EOY

# COMMUNITY OUTREACH

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- **27 presentations, tabling-events, and info-sessions** (23 in person, 4 virtual)
- **6 Try-an-E-Bike Events** (2 at Open Streets, 2 at City Hall Plaza, 1 in Mattapan, 1 in Roxbury)
- **6 In-person help sessions** at City Hall
- **Cross-departmental collaboration** - Age Strong Commission, Disabilities Commission, LCA

# COMMUNITY OUTREACH

## BOSTON E-BIKES INCENTIVE PROGRAM

Ai đủ điều kiện để tham gia?

### NHỮNG CƯ DÂN THÀNH PHỐ BOSTON:

- Người cao tuổi trên 60 tuổi
- Người trưởng thành bị khuyết tật mãn tính hoặc vĩnh viễn
- Cư dân đủ điều kiện về thu nhập, ở mức 40% Thu Nhập Trung Bình Khu Vực (AMI) trở xuống



CITY of **BOSTON**

[BOSTON.GOV/EBIKES](https://boston.gov/ebikes)

## BOSTON E-BIKES INCENTIVE PROGRAM

Aplikasyon yo

### 5 DAWOU - 5 SETANM

Aplikasyon Woulman pou granmoun ki gen andikap grav oswa pèmanan ki entere nan akseswa chèn woulant oswa yon bisiklèt elektrik adaptif



### 12 DAWOU - 24 DAWOU

Aplikasyon Jeneral pou tout gwoup kalifye yo ki entere pou yon bisiklèt elektrik estanda oswa bisiklèt elektrik cargo

CITY of **BOSTON**

[BOSTON.GOV/EBIKES](https://boston.gov/ebikes)

## BOSTON E-BIKES INCENTIVE PROGRAM

有意申请?

### 敬请参加

- 电动自行车试驾活动
- 信息讲座
- 申请帮助



CITY of **BOSTON**

[BOSTON.GOV/EBIKES](https://boston.gov/ebikes)

# COMMUNITY OUTREACH



# 2024 APPLICATIONS

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## Aug 5 - Sept 5, 2024

### Rolling Application

- Adults with disabilities interested in an adaptive e-bike

## Aug 12 - Aug 24, 2024

### General Application

- Seniors (Age 60+)
- Adults with disabilities
- Income-eligible adults (at or below 40% of AMI)



# VOUCHER AMOUNTS

		Standard E-Bike	Cargo E-Bike	Adaptive E-Bike
<b>General Application</b>	Senior (age 60+)	\$800	\$1100	n/a
	Income-eligible senior (60+)	\$1200	\$1500	n/a
	Adult with a chronic or permanent disability	\$800	\$1100	n/a
	Income-eligible adult with a chronic or permanent disability	\$1200	\$1500	n/a
	Income-eligible adult	\$1200	\$1500	n/a
<b>Rolling Application</b>	Adult with a chronic or permanent disability	n/a	n/a	\$2000
	Income-eligible adult with a chronic or permanent disability	n/a	n/a	\$2400

Every applicant, who receives an E-Bike Voucher, will also receive a \$150 voucher for bicycle safety equipment.

# 2024 ROLLING APPLICATION

Aug 5 - Sept 5, 2024

## 36 applicants total

- 24 fitted for bikes
- 5 redeemed vouchers
- 2 have received their adaptive bikes  
(these are custom-built bikes)!

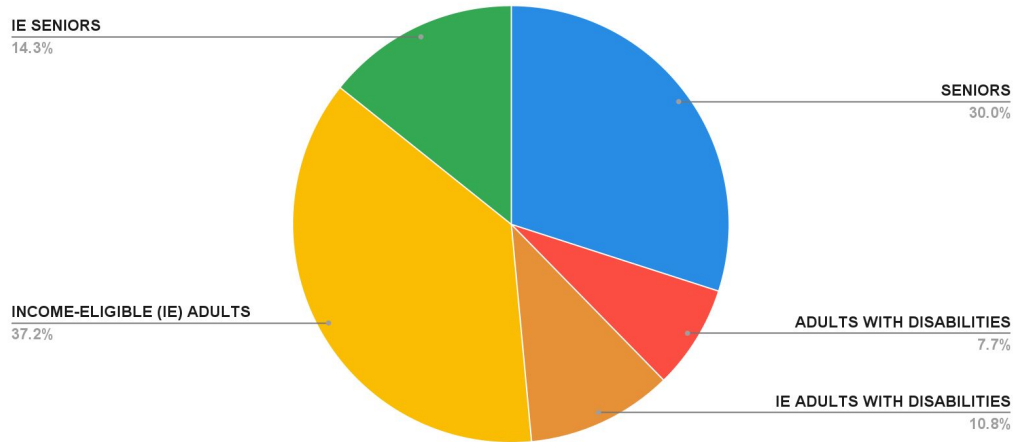


# 2024 GENERAL APPLICATION

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Aug 12 - Aug 24, 2024

## 1295 applications total!

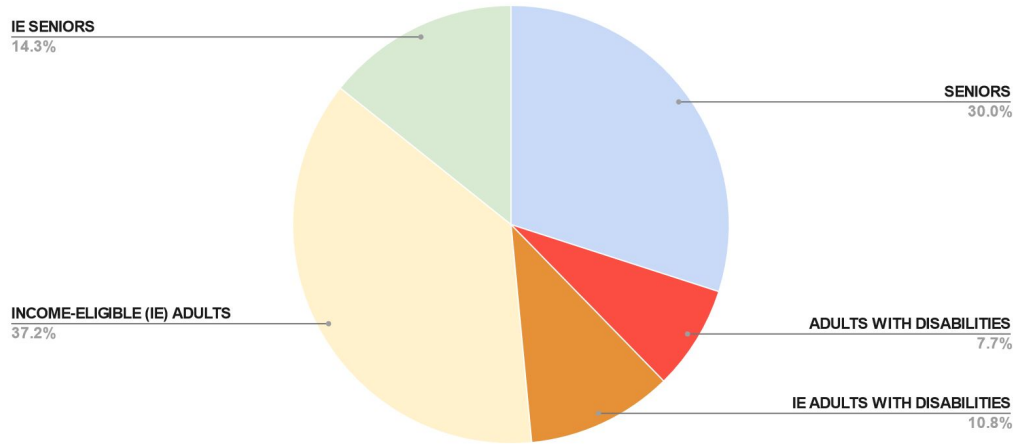


# 2024 GENERAL APPLICATION

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Aug 12 - Aug 24, 2024

## 1295 applications total!



18.5% Adults  
with Disabilities

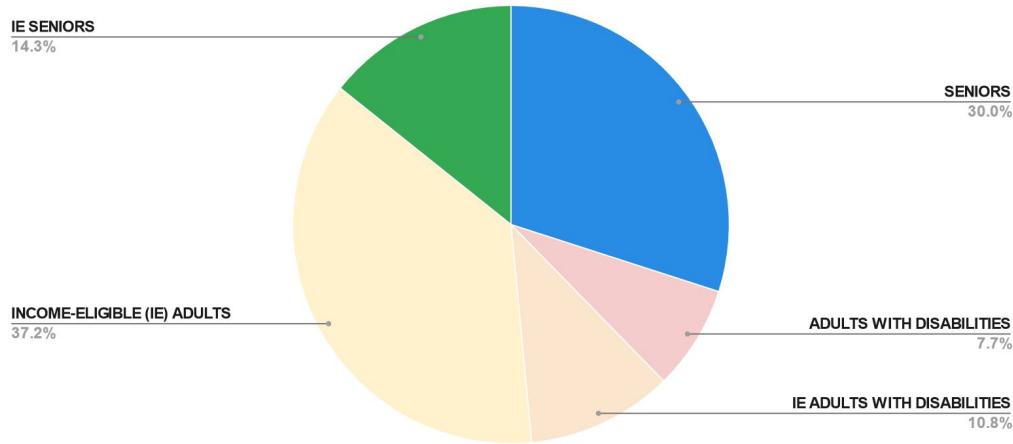
# 2024 GENERAL APPLICATION

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Aug 12 - Aug 24, 2024

## 1295 applications total!

## 44.3% Seniors

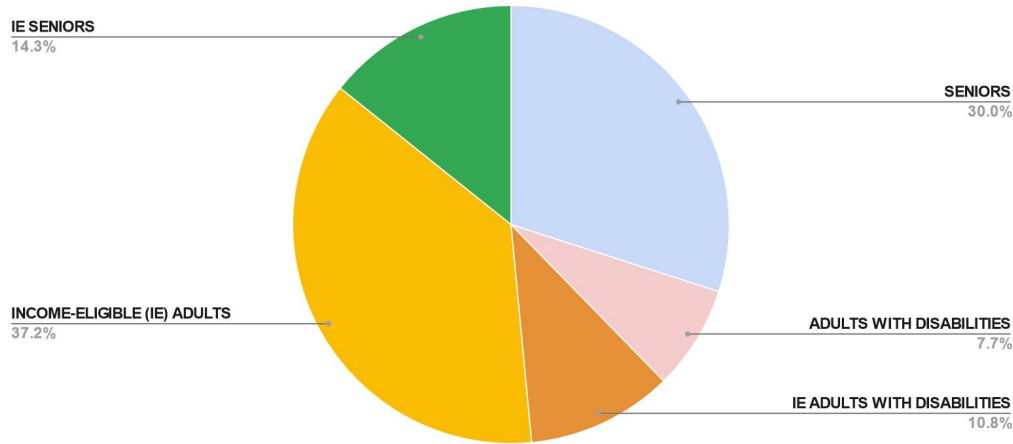


# 2024 GENERAL APPLICATION

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Aug 12 - Aug 24, 2024

## 1295 applications total!



62.3%  
Income-Eligible  
Adults

## 2024 GENERAL APPLICATION

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- Applicants, who received vouchers, were selected randomly
- Number of vouchers awarded was distributed proportionally to the # of applicants in each eligibility category (e.g. seniors, adults with disabilities, etc.)
- Total of 600 e-bike vouchers awarded
- Each recipient was also awarded a \$150 voucher for safety equipment

## SAFETY EQUIPMENT REDEMPTIONS

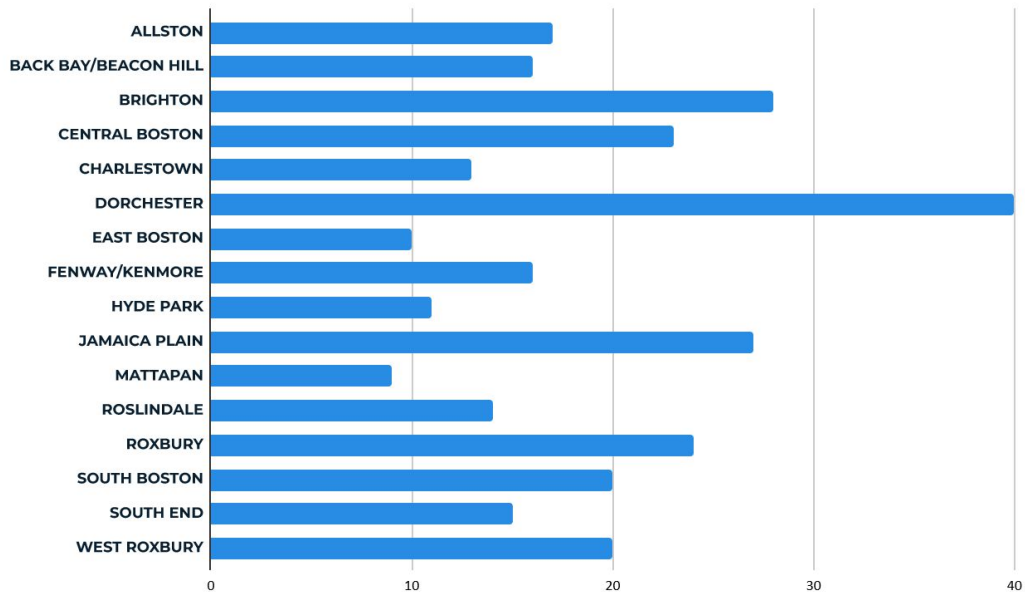
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Category	# Participants who purchased with safety voucher
Lock	183
Helmet(s)	107
Rack/Basket	56
Mirror	39
Lights	36
Bell	22
Air Pump	16
High-Vis Gear	8
Child Seat	3
Car Rack	1

Helmets and/or locks are a part of most safety equipment voucher redemptions.

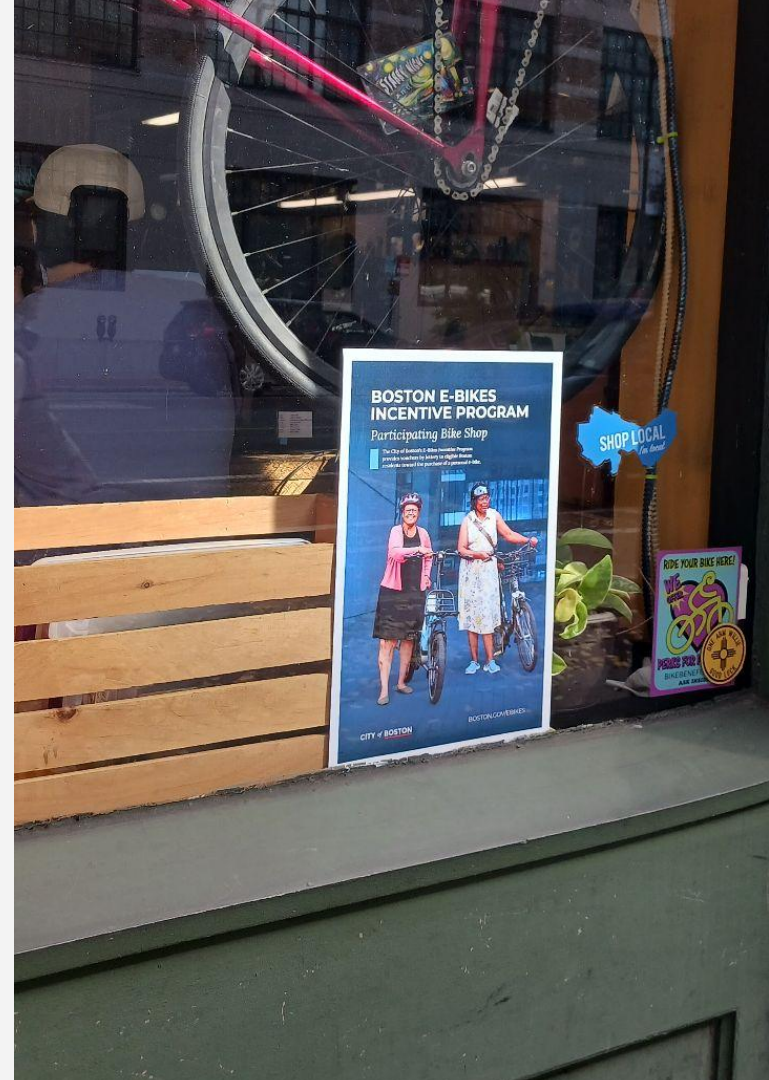


# REDEMPTIONS BY NEIGHBORHOOD



# BOSTON E-BIKES INCENTIVE PROGRAM

*Participating Bike Shops*



## **PARTICIPATING BIKE SHOPS THAT SELL ADAPTIVE E-BIKES AND POWERED HANDCYCLE WHEELCHAIR ATTACHMENTS**

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### **Bike On**

Soon *Bunch Bikes x Bikes Not Bombs*

## **PARTICIPATING BIKE SHOPS THAT SELL STANDARD E-BIKES AND CARGO E-BIKES**

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**Ashmont Cycles**

**Acton Cycles**

**Belmont Wheelworks**

**Bikes Not Bombs**

**Boston eBikes**

**Casa Bikes**

**Cambridge Bicycle**

**Conte's Bike Shop**

**Farina's**

**Ferris Wheels**

**Landry's Boston**

**Landry's Charlestown**

**Landry's Braintree**

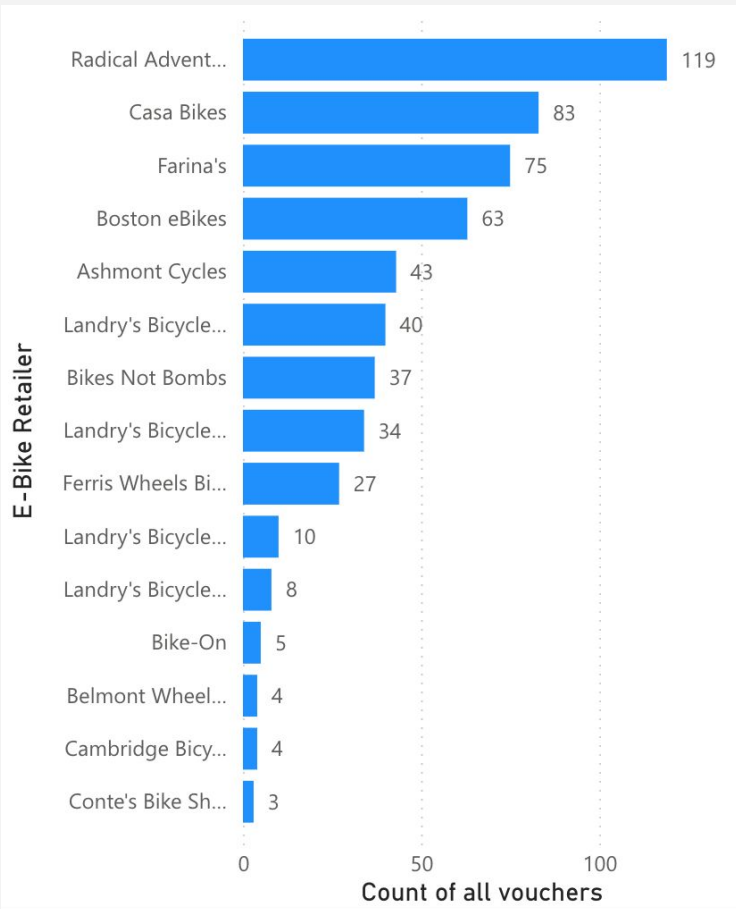
**Landry's Needham**

**Radical Adventures**

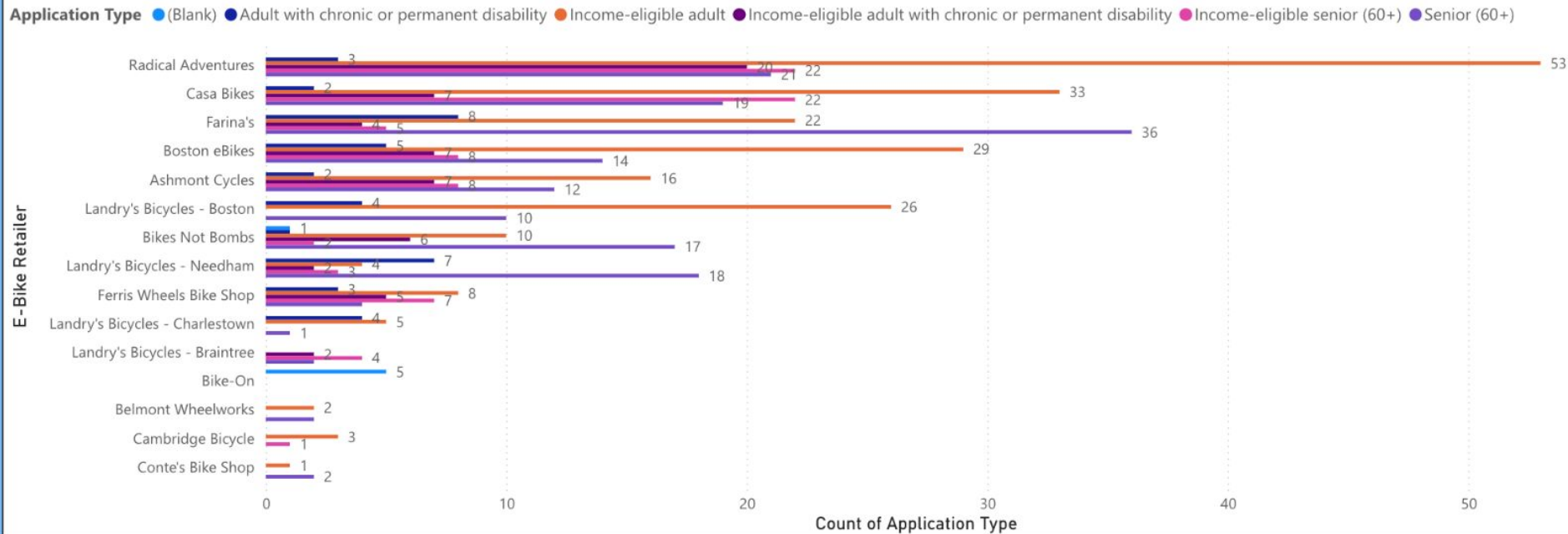
**QuadCycles**

Soon *Urban Cycles*

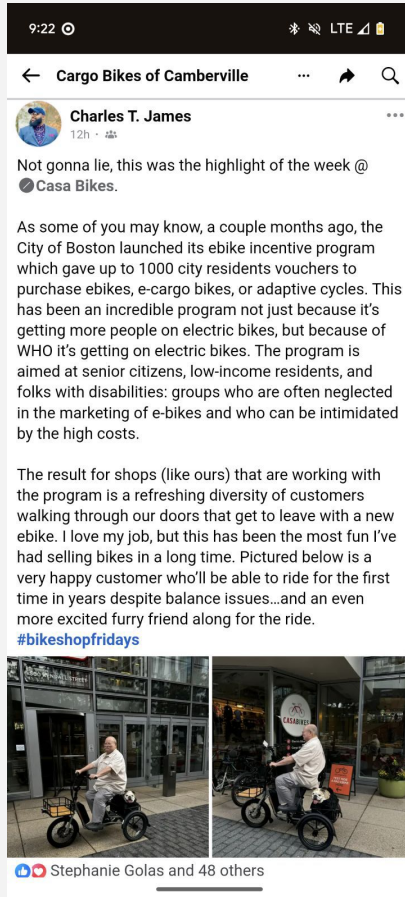
# REDEMPTIONS BY PARTICIPATING BIKE SHOP



# REDEMPTIONS BY BIKE SHOP



# FEEDBACK FROM SHOPS



**Landry's Braintree:** Loves the program, have had many customers. "We would be struggling without it." Some customers seem to be confused about the classes of e-bikes.

**Belmont Wheelworks:** Have only had a few customers. Customers don't know which bikes/brands are eligible.

**Ferris Wheels:** Are in support of the program, noted that people are trying to limit total purchase to the value of the voucher (i.e. have \$0 out of pocket).

**Farinas:** Positive overall, many more diverse customers than typical clients. They would like more options for safety equipment vouchers, such as fenders. Have noticed most customers refuse to spend any more money than what the program provides.

**Casa Bikes:** It has been refreshing to see new people/communities that they have not been serving in the past, such as from southern part of the city, and influx Asian American customers. The staff member we spoke to said this program keeps him employed full-time, instead of part-time at this time of the year.

# FEEDBACK FROM PARTICIPANTS

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to Boston ▾

Awesome, I'll keep an eye out for the email!

I'm loving my ebike (which I couldn't have afforded without the program). Thank you for all that you do with this program!

Sincerely,  
Stephanie

I am unable to attend any meet ups as I teach during those times, but I wanted to extend my sincere appreciation for this program! I am a graduate student at Northeastern university, and commuting via the T into campus from an affordable area can sometimes be quite the hassle- not to mention expensive. I live off the orange line and the recent track work has made commuting quite the ordeal.

Biking into campus has made a huge difference in my mental health, and will help me save ~\$80-90 every month.

Thank you again!

Brittany

Thank you so much for meeting with us. It is wonderful to know that we have all kinds of support from the City for our biking needs. I really do appreciate your work!

--Olga

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# WHAT ARE WE DOING RIGHT NOW? WHAT'S NEXT?



- Community-building gatherings + rides
- Evaluation
- Outreach for Round 2
- Round 2 of applications - April 2025!
- Looking for new funding sources







Thank you!  
Questions?

[ebikes@boston.gov](mailto:ebikes@boston.gov)  
[boston.gov/ebikes](https://boston.gov/ebikes)

# Additional Links & Resources from the Webinar Chat:

- [E-Bike Rebates - City and County of Denver](#)
  - **Denver Contact:** Sue Baldwin, Electrified Mobility Administrator | [sue.baldwin@denvergov.org](mailto:sue.baldwin@denvergov.org)
- [Atlanta E-Bike Rebate Program - Propel ATL](#)
  - [Instagram video](#)
  - **Atlanta Contact:** Rebecca Serna, PropelATL Executive Director | [rebecca@letspropelatl.org](mailto:rebecca@letspropelatl.org)
- [Boston E-Bikes Incentive Program](#)
  - **Boston Contact:** Anna Jacobs, E-Bikes Program Manager | [ebikes@boston.gov](mailto:ebikes@boston.gov)
- [E-Bike & E-Scooter Safety Action Center | UL Standards & Engagement](#)
  - **ULSE Contact:** Jennifer Bradley, Sr. Manager, Partnerships | [Jennifer.Bradley@UL.org](mailto:Jennifer.Bradley@UL.org)
- [E-Bikes | League of American Bicyclists](#)
  - **League Contact:** Amelia Neptune, BFA Program Director | [amelia@bikeleague.org](mailto:amelia@bikeleague.org)
- [Portland State University's TREC E-Bike Incentive Programs of North America Tracker Spreadsheet](#)
- [People for Bikes' E-Bike Incentive Toolkit](#)



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