

MassCEC Voucher Program

Evaluation Report March 2026



Introduction



- **The 2025 Statewide E-Bike Voucher Program** was launched with the goal of assisting low- to moderate-income (LMI) residents of Massachusetts with the cost of an electric assist bicycle (e-bike).
- Eligibility criteria for the Program’s two e-bike vouchers (\$800 and \$1,200) is shown in the table to the right, based on income adjusted for household size. Equipment vouchers were also available.
- To evaluate the Program’s progress towards its desired goals, participants completed surveys before and after owning their e-bike.
- **This report provides results of the Program compared to the Program’s metrics** (on the following page).



Voucher Type	Maximum Amount	Eligibility Criteria
Standard	\$800	<ul style="list-style-type: none"> • Have an income at or below 400% of the Federal Poverty Line ("FPL") adjusted for household size; OR • Participate in an eligible income-certified program.
Enhanced	\$1,200	<ul style="list-style-type: none"> • Have an income at or below 225% of the Federal Poverty Line ("FPL") adjusted for household size; OR • Participate in an eligible income-certified program; OR • Submit a signed doctor’s note that specifies a need for an adaptive e-bike.
Equipment Voucher	Up to \$150	The equipment voucher is available to both Standard and Enhanced applicants. It assists with the purchase of a helmet, a lock, a floor pump, and/or lights.

Statewide Goal:
Reduce statewide greenhouse gas emissions 50% below 1990 levels by 2030.

- The evaluation team worked closely with MassCEC to develop overall goals and metrics of success for the Program.
- These metrics created the framework for survey development.
- **This survey-based evaluation is designed to measure progress towards the goals outlined for this program, in alignment with statewide 2030 climate goals.**

Program Goals/Metrics for Success

Advance **equity in the clean transportation industry** via LMI e-bike access.

Increase **transportation flexibility** particularly for Low- and Moderate-Income (LMI) residents.

Reduce **vehicle miles traveled (VMTs)** in alignment with statewide 2030 goals.

Reduce **greenhouse gas (GHG) emissions** related to transportation, particularly from vehicles.

Promote long-term economic growth by **reducing transportation cost burdens** for LMI residents.

Decrease travel times for commuting and other typical trips.

Increase **physical and mental health** due to e-bike use.

Improve mobility, especially in geographic regions of the state with few transportation options.

Increase **access to resources, employment opportunities, and destinations.**

- Most people are **choosing to replace trips they previously made by car or rideshare** with their e-bike, resulting in **VMT and GHG emissions reductions** across the state.
- E-bikes are saving people **money and time**.
- People use their bikes for many **trip purposes**, including riding the e-bike as its own recreational activity as well as commuting and shopping.
- Many respondents feel a newfound sense of **self-sufficiency and freedom**.
- Participants reported **notable quality of life improvements**, specifically regarding **physical, mental, and social well-being**.

Program Findings

The Program distributed **over 2,700 e-bike vouchers** to LMI residents and residents with disabilities.

The Program provided an **additional transportation option to car-limited households**.

The Program **reduced car travel growth** by boosting e-bike use.

By reducing car travel, the Program **cut CO₂ equal to 500 cars**.

Most respondents are reporting **monetary savings** due to their e-bike.

Respondents are **getting around faster** with their e-bike, when compared to other travel modes.

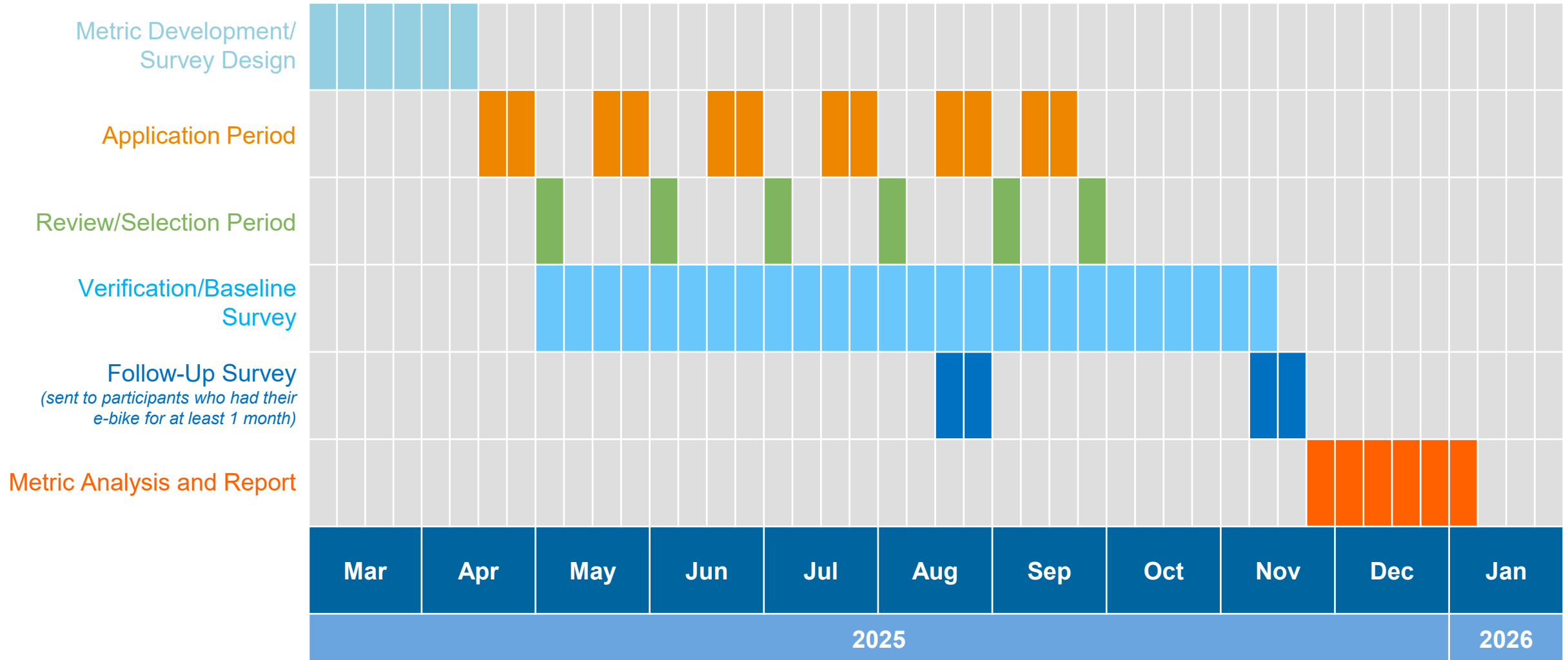
Respondents report **improvements to their physical, mental, and social well-being**.

Respondents can and did **go more places and make more trips** with their e-bike.

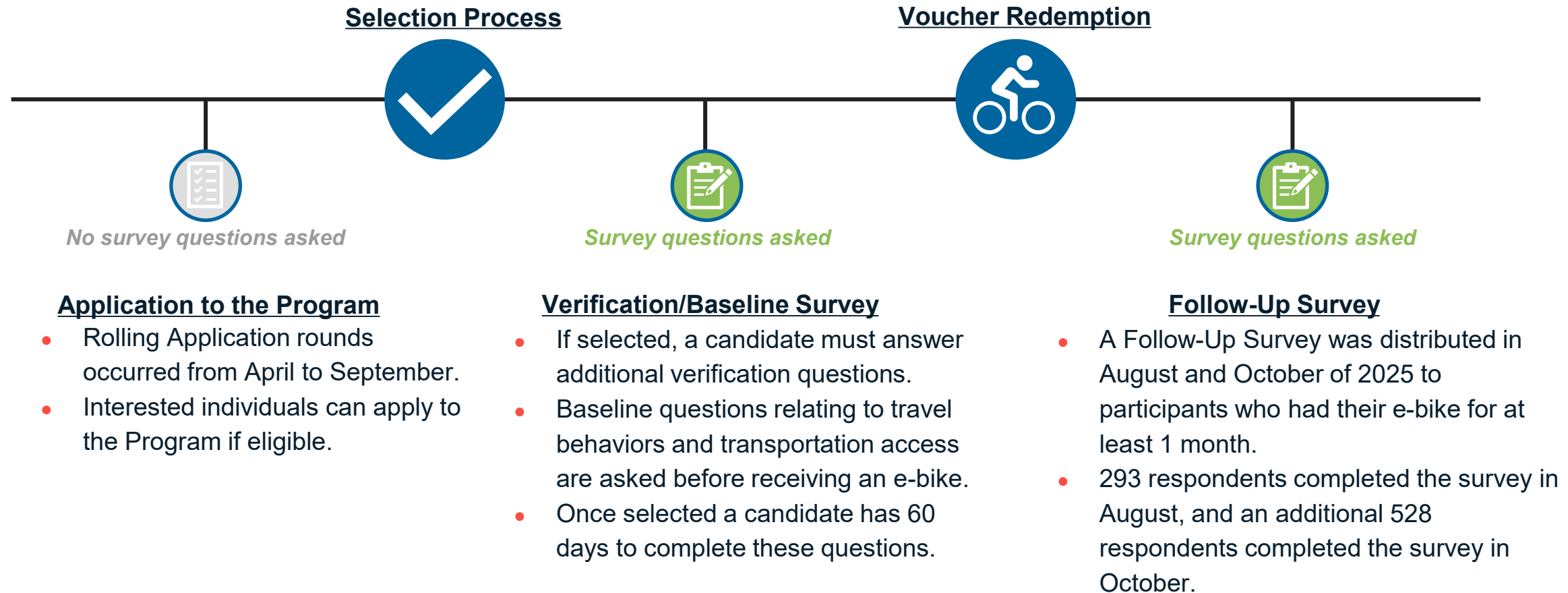
Some respondents report specific instances of better or new job access using their e-bike.

Evaluation Program Timeline

Overview



- Survey questions were asked at multiple points throughout one's participation in the program, as outlined below:



Findings



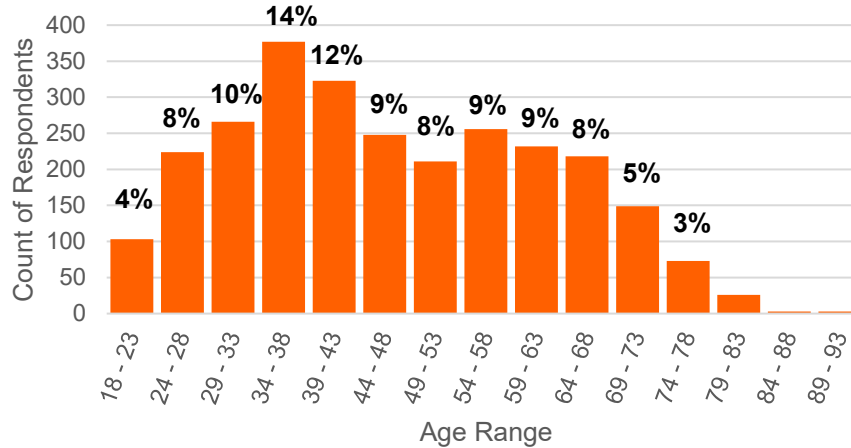
Program participants represent underserved populations

Advance equity in the clean transportation industry via LMI e-bike access

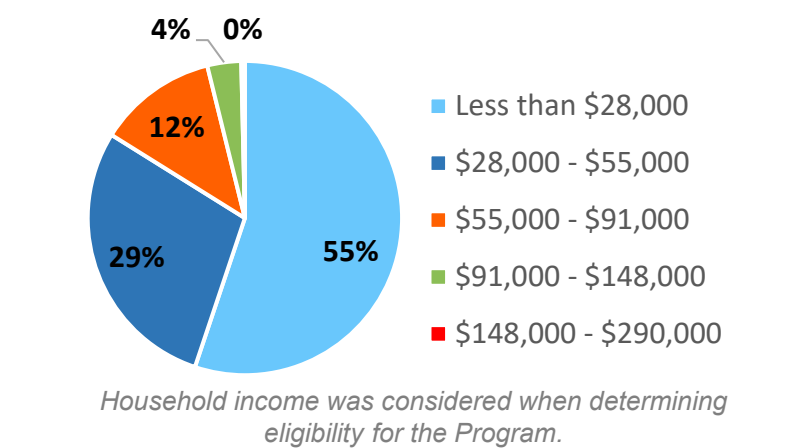


- Over half (55%) of participant households have an income at or below \$28,000 per year.
- Nearly 30% of participants identify as having a disability. This is more than double the statewide rate (12%).*
- There is representative participation across a wide array of age groups.
- A quarter of all participants are **over the age of 60**.

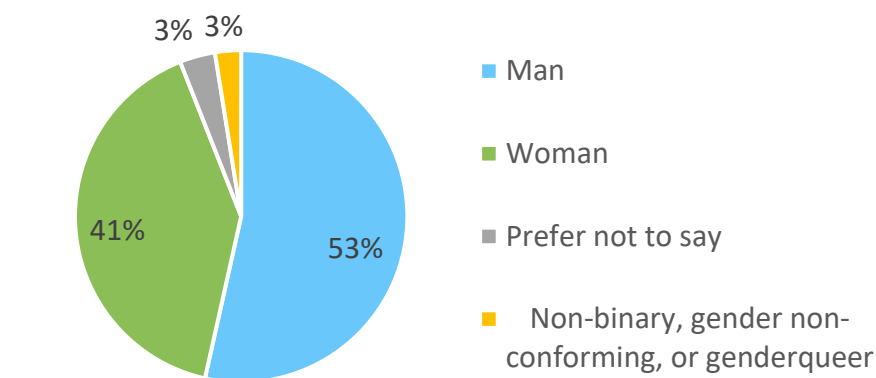
Q: What is your age?



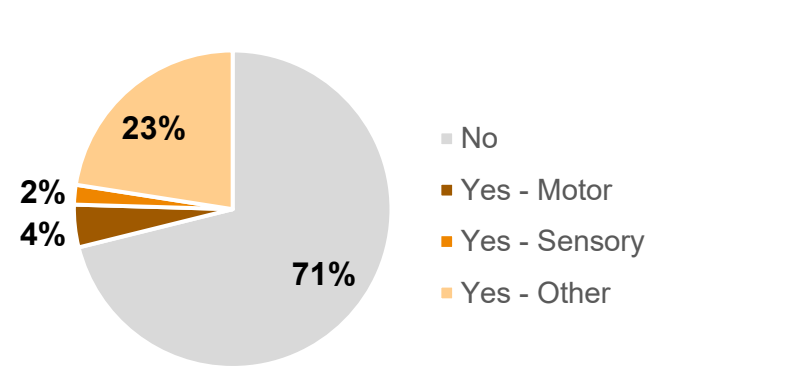
Q: What is your household's annual income range?



Q: What gender do you identify as?



Q: Do you identify as having a disability?



N=2,712

*Source: U.S. Census- ACS 5-Year Estimates (2023)

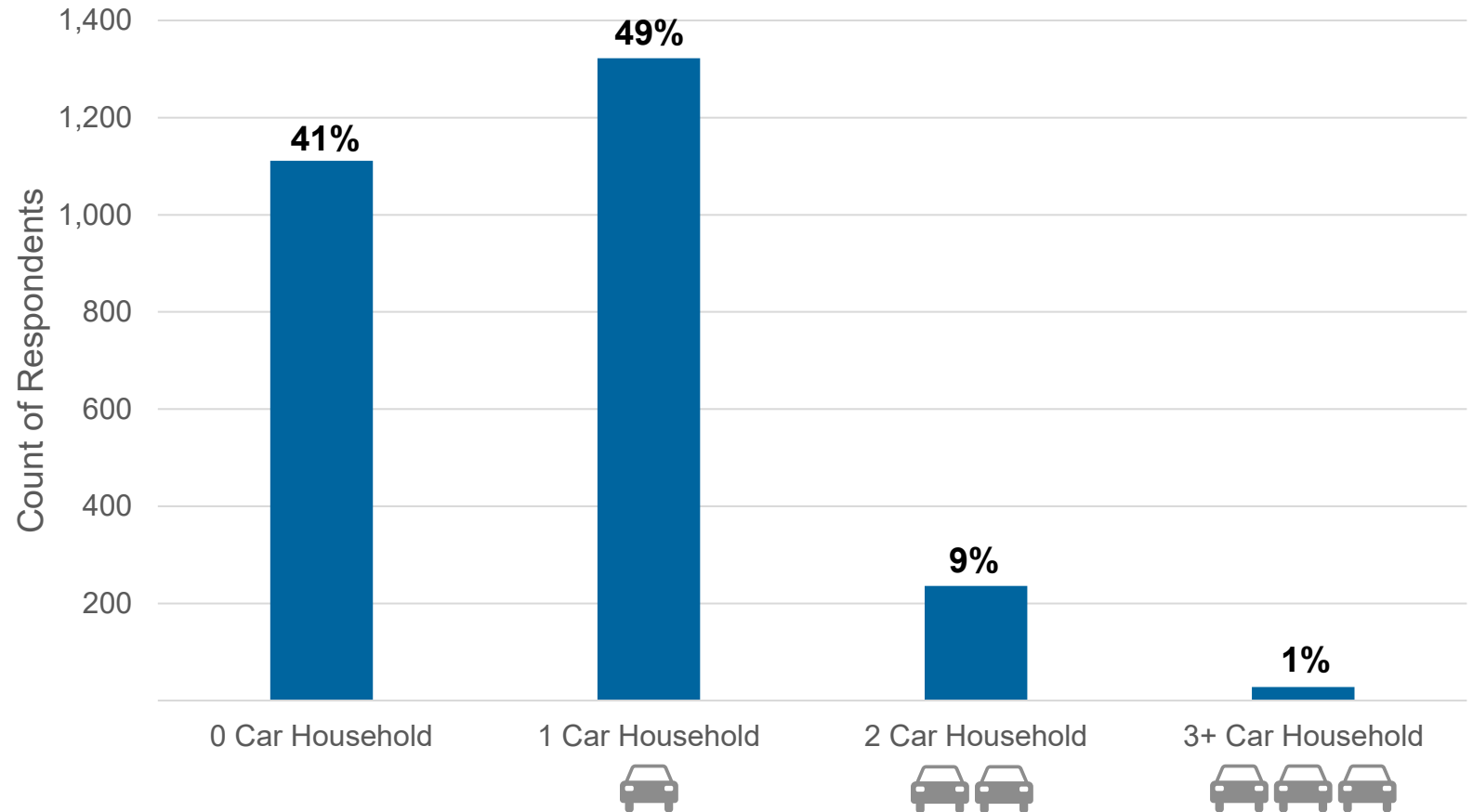
The Program provided more transit options to car-limited households

 Increase transportation flexibility particularly for LMI residents



Q: How many vehicles are owned by your household?

- **Over 40% of participants report being part of a no-car household.** This is more than 3 times higher than the statewide rate of 0-car households (13%).*
- **Only 10% of participants are part of a household with 2 or more cars** (compared to the statewide rate of 45%).
- Most participants report having no car or being a car-constrained household (owning 1 vehicle). This means that the Program is supporting participants' ability to live car-free or car-light.



"I can go more places and don't have to ask anyone for a ride."

—Program Participant

N=2,697

*Source: U.S. Census- ACS 5-Year Estimates (2023)

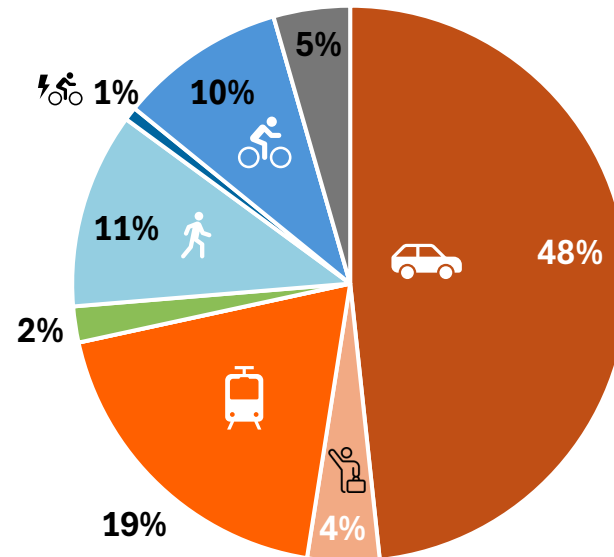
Respondents are using e-bikes for more trips than before

Reduce vehicle miles traveled (VMT) in alignment with statewide 2030 goals

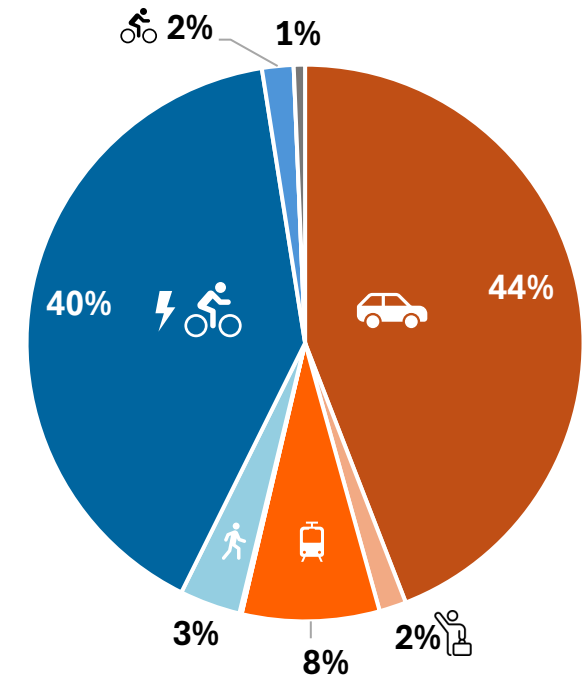
Q: Think of a recent, typical trip. What was your primary mode of transportation?

- The Program increased e-bike use amongst respondents for “typical trips”.
- The share of trips by car (including rideshare) as well as other modes decreased in favor of e-bike use for “typical trips”.

Prior to Receiving Voucher



After Receiving Voucher



- Car or Truck (own or lease)
- Public Transportation (bus, MBTA subway, train)
- Bikeshare (Bluebike)
- Electric Bicycle (E-Bike)
- Carshare (Zipcar, Turon, Good2Go)

- Rideshare (Uber, Lyft) or Taxi
- Moped or Scooter
- Walking
- Bicycle
- Other

N= 770

“Having an e-bike allows me to be self sufficient and helps the environment because I don’t have to use a car or bus to get around.”

–Program Participant

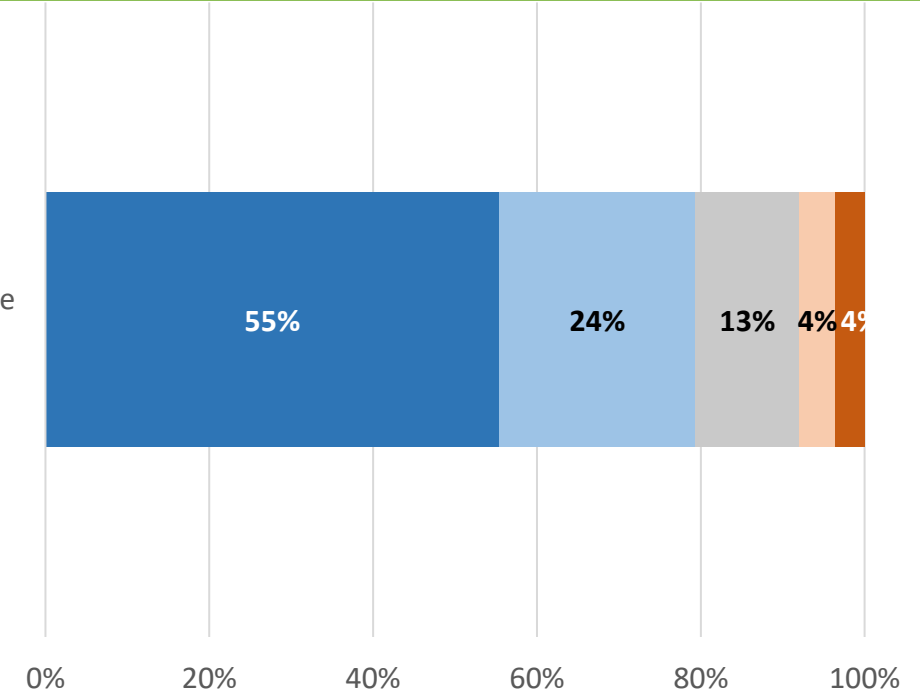
Respondents can go more places with their e-bike

 Improve mobility, especially in geographic regions of the state with few transportation options

Q: Please rate how much you agree or disagree with the following statement.

- Nearly **80% of respondents indicate that they can access more places** due to their e-bike.
- Respondents note being able to take trips they had previously taken by car, transit, or another mode, but also able to make entirely **new trips made possible by their e-bike.**

Compared to before I had an e-bike, I go to more places.



“It gave me a **new perspective on getting around** especially places that are close to home. If the weather permits I love hopping on my e-bike to get where I need.”

–Program Participant

“I love the rail trail bike paths and hope to see them expanded. It is a **safe and fun way to exercise and get around without needing to use my car to run an errand or visit a friend.** Faster and more range than I can walk!”

–Program Participant

■ Agree ■ Kind of Agree ■ No Opinion ■ Kind of Disagree ■ Disagree

N=772

Respondents can go more places with their e-bike

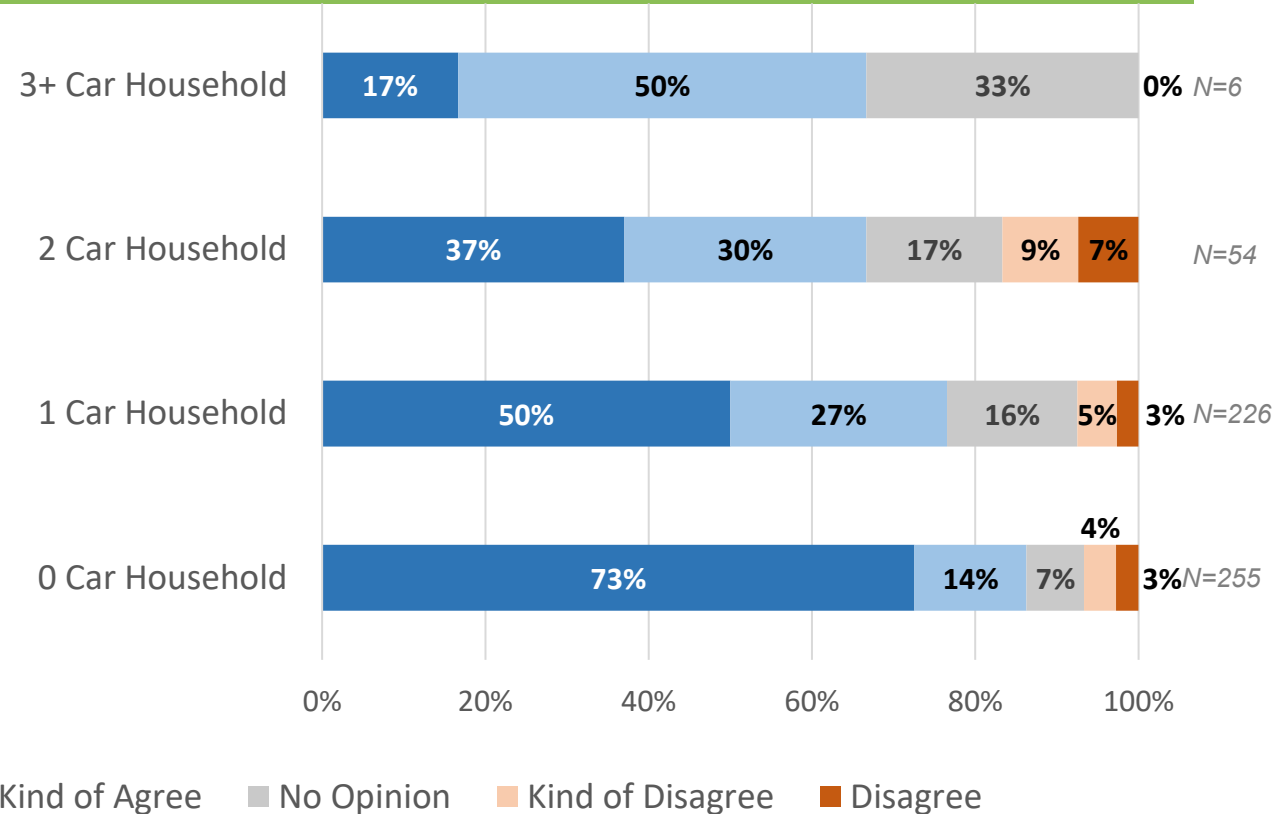
Improve mobility, especially in geographic regions of the state with few transportation options



Q: Please rate how much you agree or disagree with the following statement; compared to car ownership*

- When the statement “Compared to before I had an e-bike, I go to more places” is cross-compared with car ownership rates, there is a clear indication that **no-car or 1-car households are feeling a disproportionately higher ability to access more places** compared to households with 2+ cars.
- 73% of no-car households “agree” that they have access to more places with their e-bike**, compared to just 37% for 2-car households and 17% for 3+ car households.

Compared to before I had an e-bike, I go to more places.



“This Program has opened doorways for people who can't have or afford a car.”

–Program Participant

N=541

*231 respondents did not indicate a number of vehicles. Those responses were filtered out for this cross-comparison.

Respondents can go more places with their e-bike

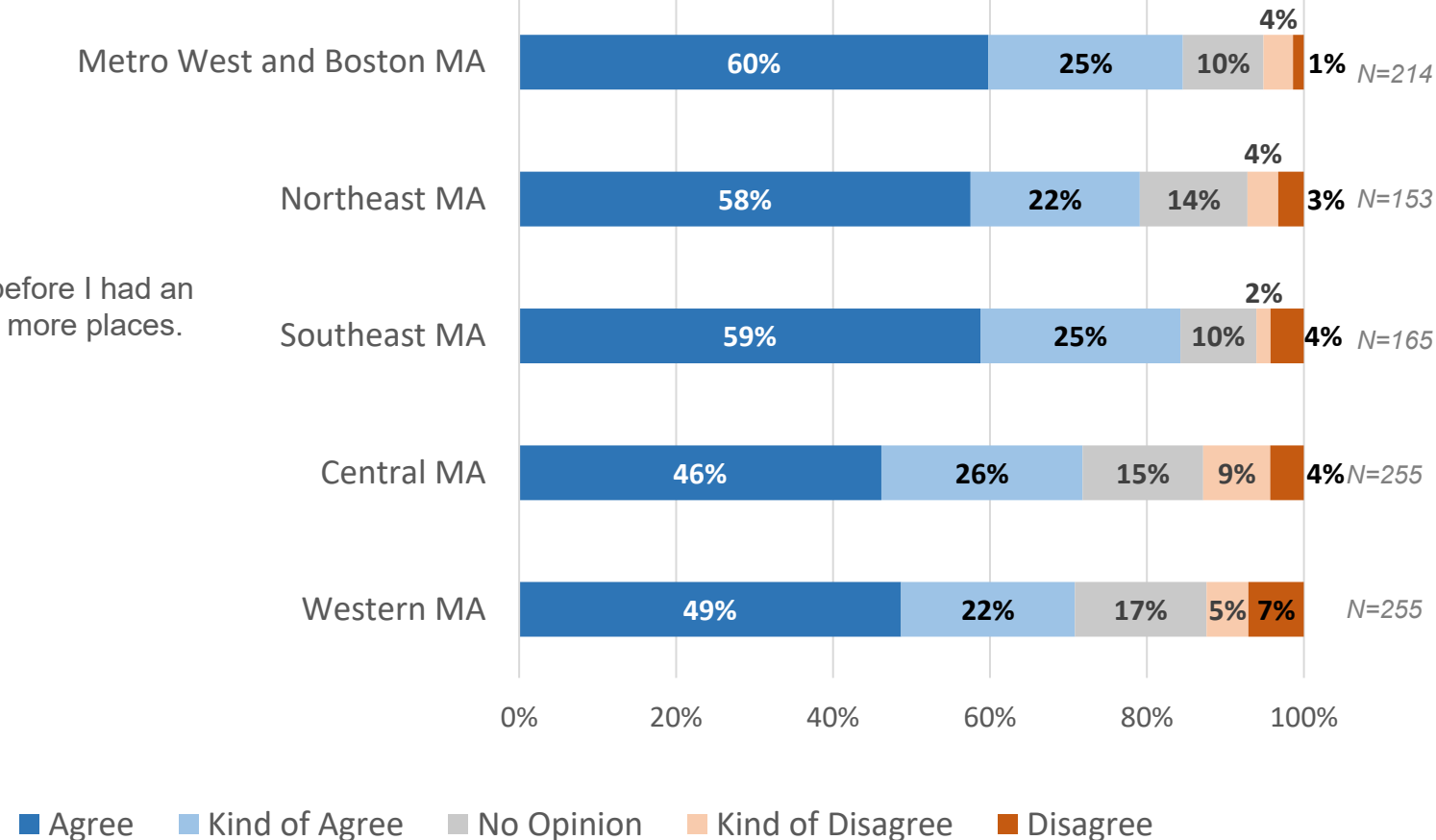
Improve mobility, especially in geographic regions of the state with few transportation options



Q: Please rate how much you agree or disagree with the following statement; compared to MA region*

- Across all of the MA regions, the majority of respondents report having access to more places due to their e-bike.
- Overall, respondents took **many more trips in general** after receiving a voucher.
- There is a slight trend that the **eastern regions experience greater access due to their e-bike**. However, this trend is not conclusive.

Compared to before I had an e-bike, I go to more places.



“It makes clear how lacking the bicycle infrastructure is. In **Western Mass** there is **decent connection by bicycle highways**, but **the connecting roads are lacking**. It is easier for me to bike to the neighboring town than it is to bike to my own main street.”

—Program Participant

N=772


Respondents took many more trips in general after receiving a voucher

 *Improve mobility*  *Increase access to resources, employment opportunities, and destinations*

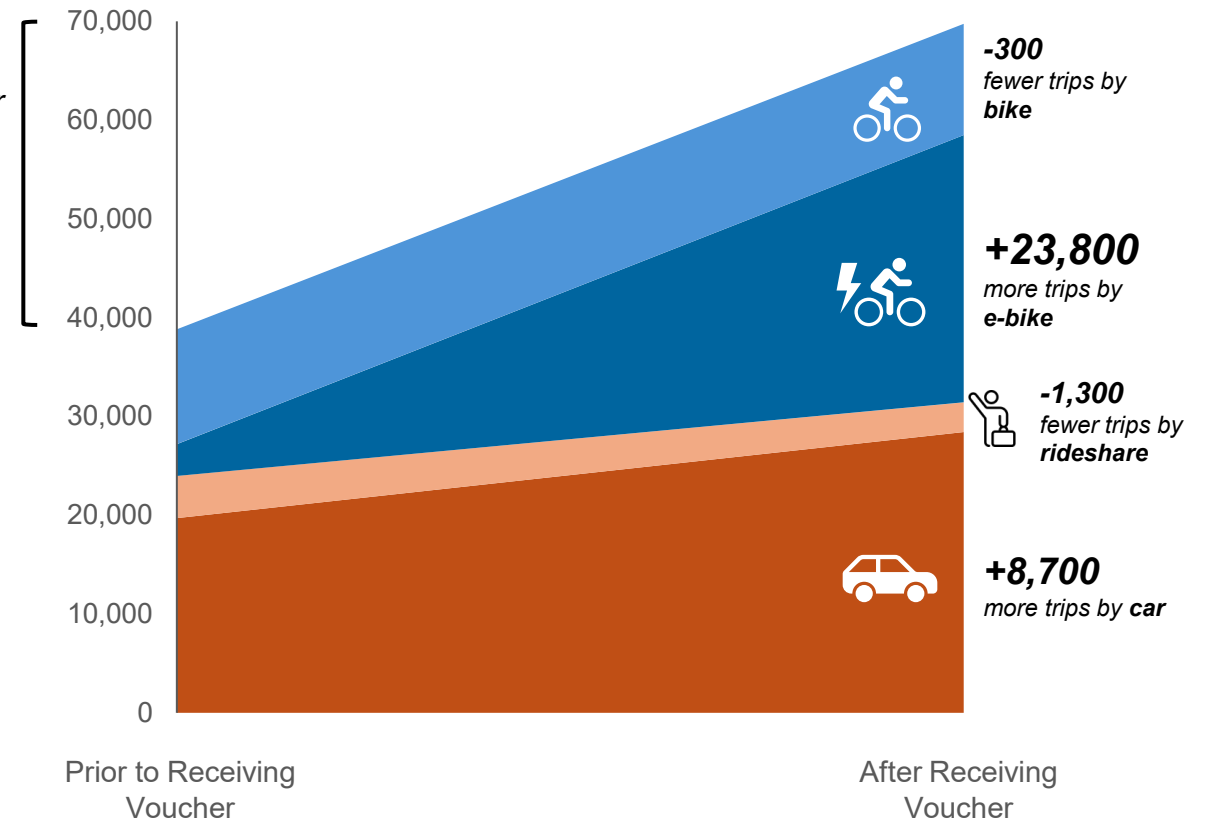


- Respondents took almost **80% more trips every week after receiving a voucher.**
- This equates to over 30,900 new trips per week and **1.6 million new trips over a year.**
- The majority of those new trips occurred by e-bike, with some occurring by car.

+30,900
new trips per week by all modes combined



Weekly Trips by Mode



“I am able to do groceries more often to get fresher vegetables and fruits, attend more local meetup groups for my hobby (boardgames and pickleball) and join more community activities.”

–Program Participant

“It has made biking accessible and opened up more local destinations to me.”

–Program Participant

“It has helped me become more active in my local community.”

–Program Participant

N=2,712*

*(estimated from 772 survey respondents)

Note: Participants did not provide information on walking trips or trips by public transit. Some new trips by e-bike or car may have previously occurred by those modes.

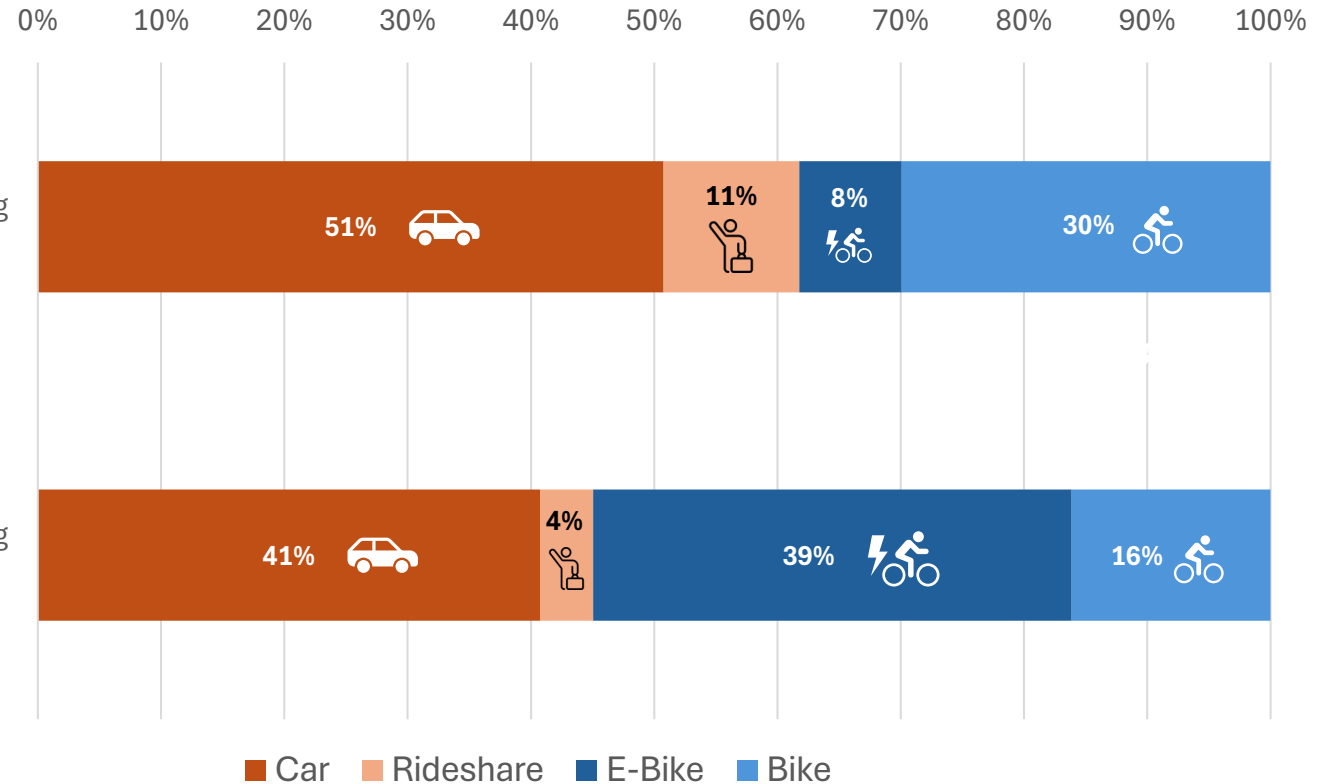
The Program reduced car travel growth by boosting e-bike use

Reduce vehicle miles traveled (VMTs) in alignment with statewide 2030 goals



Share of Reported Trips by Mode (Auto v. Bike)

- Respondents took a greater share of trips by **bike than by car** after receiving their voucher.
- Overall, respondents took **many more trips in general** after receiving a voucher.
- If respondents took these new trips by car at the same rate as before receiving a voucher, it would have meant over **11,000 new trips by vehicle every week**.
- That equates to over **4.3 million vehicle miles averted** over a year, and nearly 30 million vehicle miles averted over the lifetime of bikes received through the Program.



"I love that I'm saving money and more eco conscious of my transportation."

—Program Participant

N=772

People with e-bikes rely less on rideshare

Reduce vehicle miles traveled (VMTs) in alignment with statewide 2030 goals

- Respondents reduced their use of rideshare (including Uber, Lyft, and taxis) **by 30% after receiving a voucher.**
- This equates to over 1,000 trips per week and **over 65,000 trips over a year.**
- This decrease in rideshare usage was reported for both commute trips and for non-commute trips.

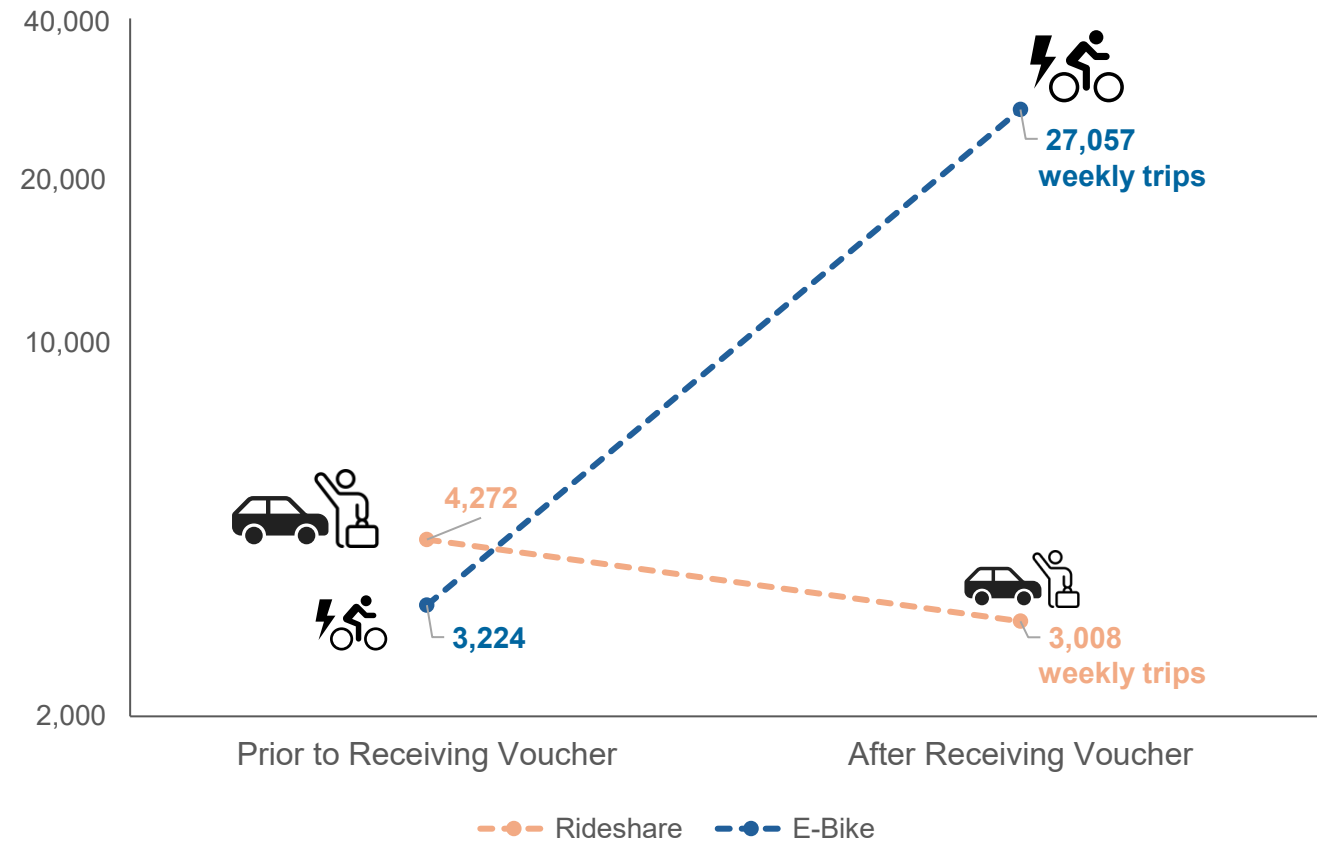
“Having an e bike has improved my overall quality of life and allows me to be more active and not have to rely on rideshare or other people driving me.”

–Program Participant

“Everything feels so accessible now! I don't have a driver's license so getting bike train/bus used up a lot of time. And commuting by uber is so expensive. Now I never Uber.”

–Program Participant

Weekly Trips by Rideshare and E-Bike



N=772

E-bikes are replacing car trips for many participants

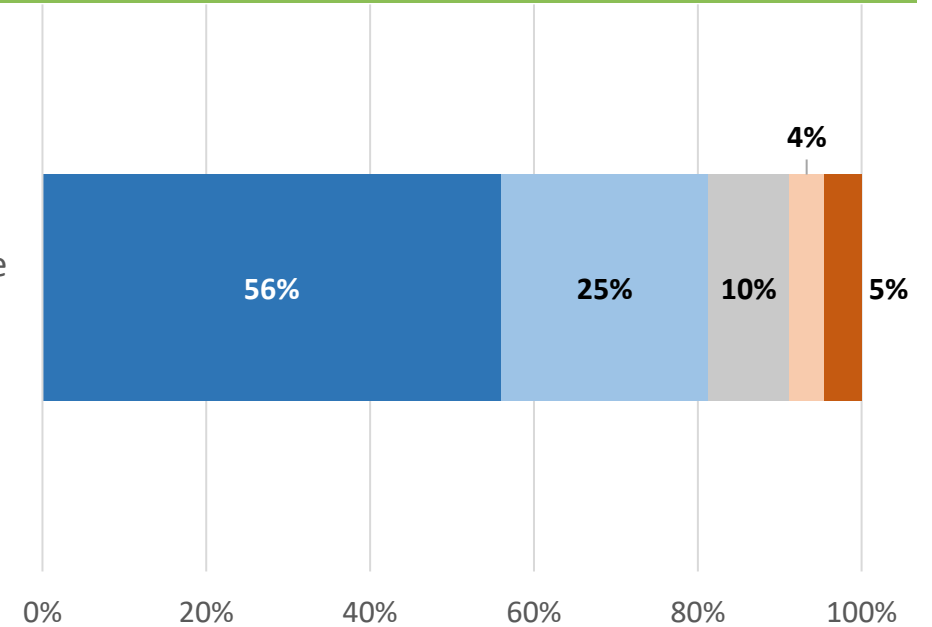
Reduce vehicle miles traveled (VMT) in alignment with statewide 2030 goals



Q: Please rate how much you agree or disagree with the following statement.

- 81% of respondents report that they have **replaced vehicle trips with e-bike trips**.
- This self-reported response rate aligns with the trip replacement calculations on the previous pages.

I use my e-bike for trips I would have previously made by car.



“Getting an e-bike significantly changed both my life and my dependence on my car.”

–Program Participant

“Its great because I feel less tired when I get to work, and I can see how it could easily replace car commuting.”

–Program Participant

■ Agree ■ Kind of Agree ■ No Opinion ■ Kind of Disagree ■ Disagree

N=772

Car travel prevented by the Program cut CO₂ equal to 500 cars

 Reduce greenhouse gas (GHG) emissions related to transportation, particularly from vehicles



VMT and GHG Methodology Overview

Input data points noted in blue

- 1 From [survey results](#), calculate trips taken by respondents and the mode split of those trips before and after receiving a voucher.

Finding: Respondents took many more trips after receiving a voucher. While auto trips increased, auto mode share decreased.

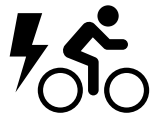
- 2 Estimate the number of trips program participants would have taken by car if they had driven at their pre-voucher rate.
- 3 Use respondents' [average trip length from the survey](#), an [assumption for typical e-bike speed](#), and an [assumption for rideshare "deadhead" time](#) to calculate VMT averted by all program participants.
- 4 Apply [EPA emissions factors](#) and [Massachusetts per-capita VMT](#) to estimate CO₂ emissions averted and equivalent number of people.
- 5 Use [Massachusetts car ownership rates](#) to estimate the equivalent number of cars removed from the road.

- If program participants took trips by car at the same rate as before receiving a voucher, it would have meant millions of additional vehicle miles traveled – **which translates to 1,700 metric tons (MT) of CO₂ equivalents (CO₂e) over a year.**
- Averting that amount of CO₂ is equivalent to taking around **500 cars off the road.**
- Over the estimated lifetime of bikes received, this equates to an estimated cost of **\$380 per averted MT CO₂** given the cost of the Program.

1,700 MT CO₂e
saved annually



Equivalent of **500 cars**
off the road



Over **2,700 new E-Bikes**
on the road due to this Program

Respondents are saving money due to their e-bike

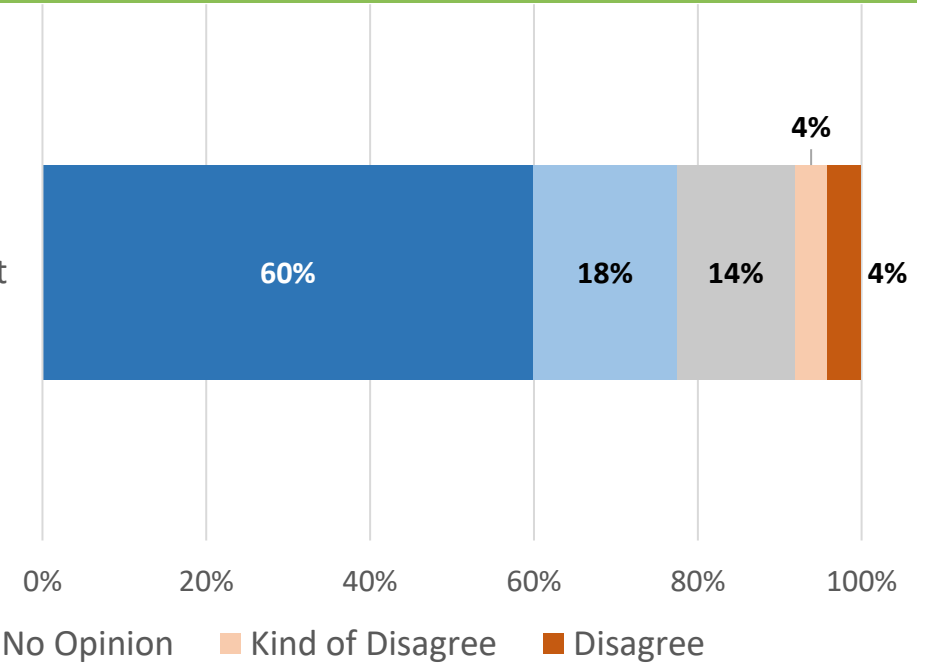
 Promote long-term economic growth by reducing transportation cost burdens for LMI residents



Q: Please rate how much you agree or disagree with the following statement.

- 78% of respondents believe that they are saving money due to their e-bike.
- Notable cost savings are attributed most often to **lower expenditures on gas and reduced rideshare trips.**

Compared to before I had an e-bike, I am saving money on transportation (i.e. I spent less on gas, Uber/Lyft rides, and taxis.



"I had not been planning to purchase an e-bike before I learned about the Voucher Program because of cost, but by applying it to one of the commuter style e-bike options I saw that I could spend very little out of pocket and reduce my reliance on car travel around the city to almost zero."

–Program Participant

"Its great knowing I'm saving money on gas, the bike is easy to use and my trip are now fun. I love riding my e-bike!"

–Program Participant

"I never thought about owning an e-bike; but it has helped with saving for gas on smaller trips and has made me more active."

–Program Participant

N=772

Respondents are getting around faster with their e-bike

 Decrease travel times for commuting and other typical trips



Q: Please rate how much you agree or disagree with the following statement.

- 75% of participants believe that they are **getting around faster** due to their e-bike.

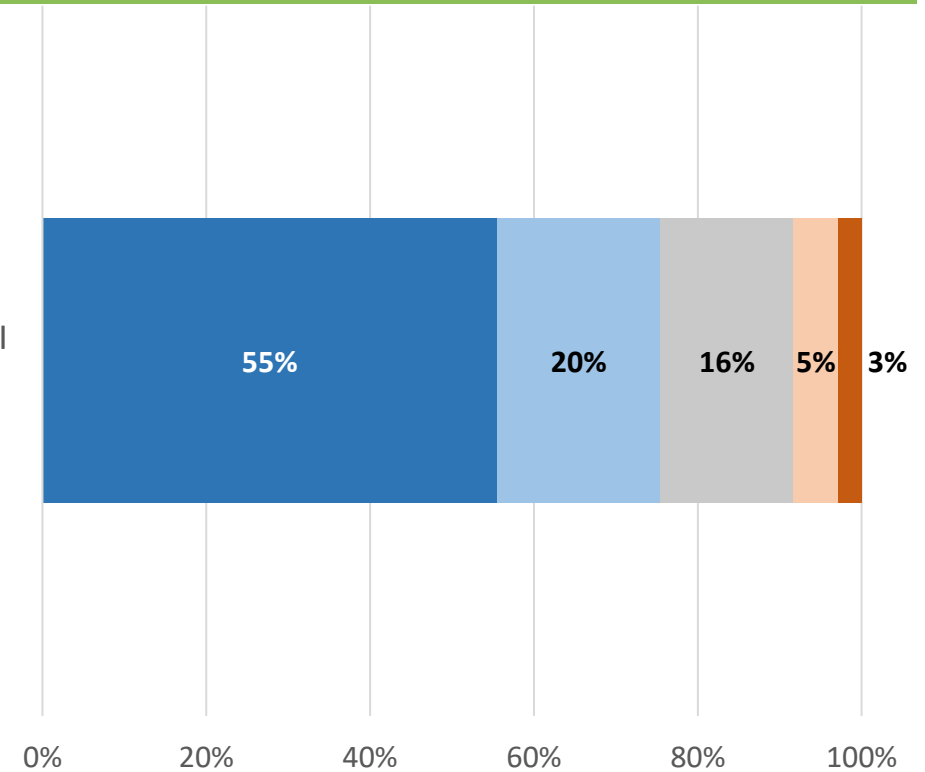
“I have a heart condition but owning an e-bike allows me to get some exercise and **allows easier access to my job and school** which are all within just a few miles of my home.”

–Program Participant

It takes me less time to get around because I have an e-bike.

“I ride my bike to every single one of my clients year-round (rain, snow, or shine). I don't have a driver's license or a permit yet, so I depend on my bicycle for transportation to my clients. My bicycle is my only source of transportation for work, and **having an e-bike makes commuting to my clients faster and easier, allowing me to book and reach more clients.**”

–Program Participant



■ Agree ■ Kind of Agree ■ No Opinion ■ Kind of Disagree ■ Disagree

N=772

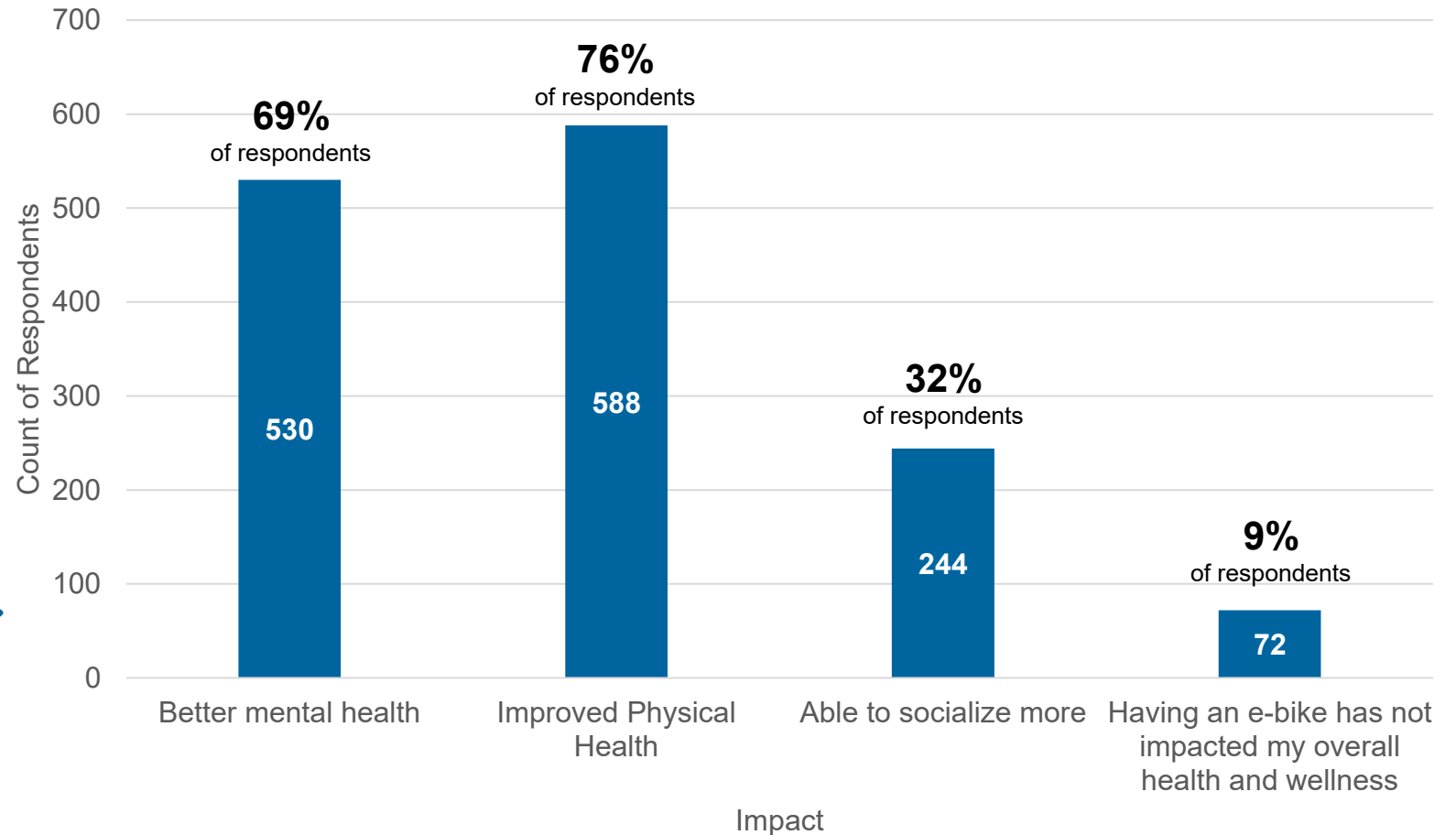
E-bike access improves overall well-being.

 Increase physical and mental health due to e-bike use



Q: How has having an e-bike impacted your overall health and wellness?
Select all that apply.

- The vast majority of respondents indicate that their **e-bike has improved their overall well-being.**
- **Physical health benefits are widespread:** 76% of respondents reported improved physical health.
- **Mental health improvements** were identified by 69% of respondents.



“I was always an avid cyclist in my youth but the physical barrier was always steep. I'm glad more people, especially elderly and disabled can enjoy cycling now.”

—Program Participant

“This was the **best purchase I could have made** for my mental and physical health.”

—Program Participant

N=770

E-bikes support exercise and health

 Increase physical and mental health due to e-bike use

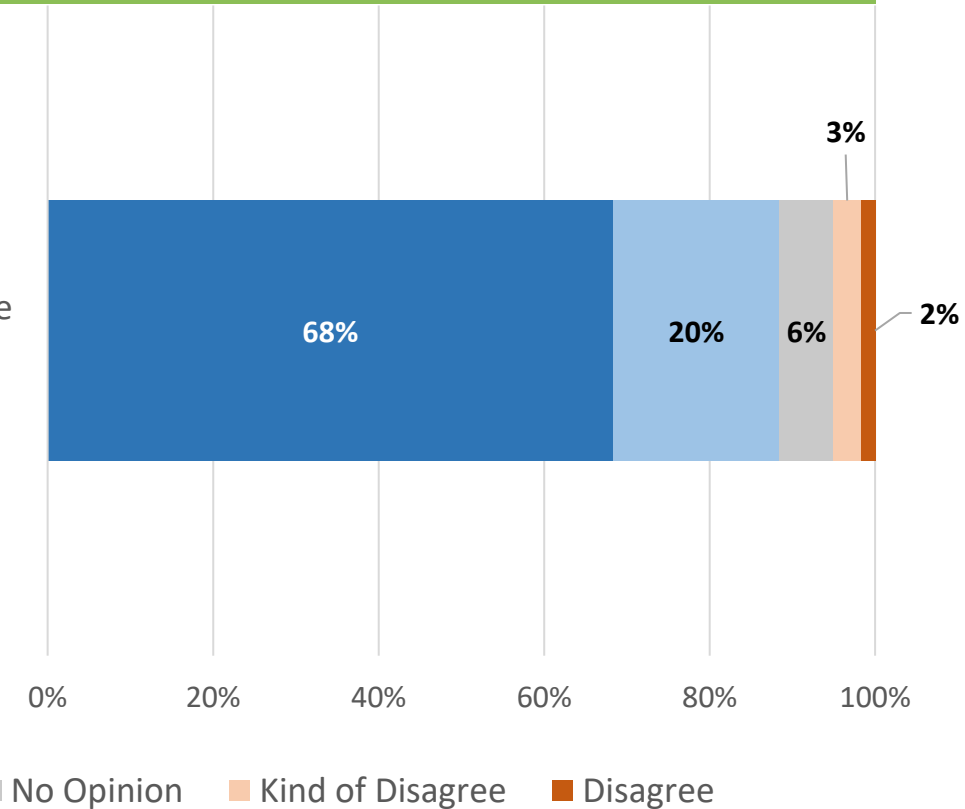
Q: Please rate how much you agree or disagree with the following statement.

- 88% of respondents indicate an **increase in physical activity in their daily lives** due to their e-bike.

“I have wanted to switch more of my local travel from my car to an e-bike but prior to the voucher opportunity I could not afford the full cost of an E-bike. I was thrilled when I was afforded the opportunity to purchase an e-bike through the Voucher Program. **Since purchasing my e-bike I have been more physically active, discovered some great new local restaurants and met a bunch of great people while out in the community on my bike.**”

—Program Participant

Compared to before I had an e-bike, I am more physically active.



N=772

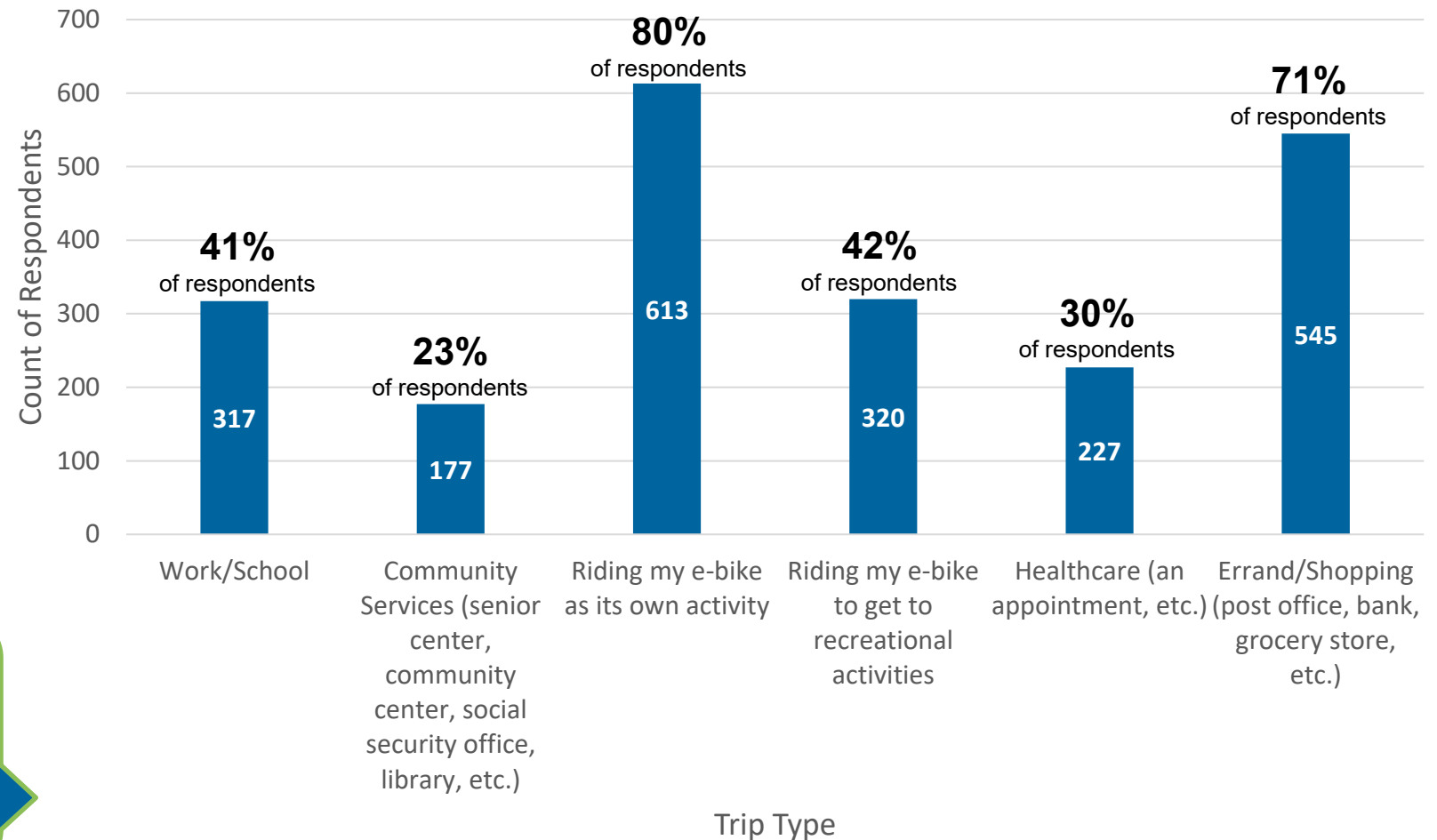
People use their bikes for all types of trips

 Improve mobility, especially in geographic regions of the state with few transportation options



Q: Since receiving your e-bike, what types of trips have you used your e-bike for? Select all that apply.

- **80% of respondents report that they ride their e-bike as its own activity.** This means that most participants are likely making new trips.
- The majority (58%) of participants report using their e-bike **for 3 or more different types of trips** (meaning they selected 3+ answer choices).
- While 41% of participants report using their e-bike to commute to work or school, the **majority of trips taken by participants are non-commuting trips.**



“It is definitely a game changer because I go places now I wouldn't have taken my regular bike. It's also handy for short trips where I will leave the car home.”

–Program Participant

N=769

E-bikes have made jobs more accessible for some

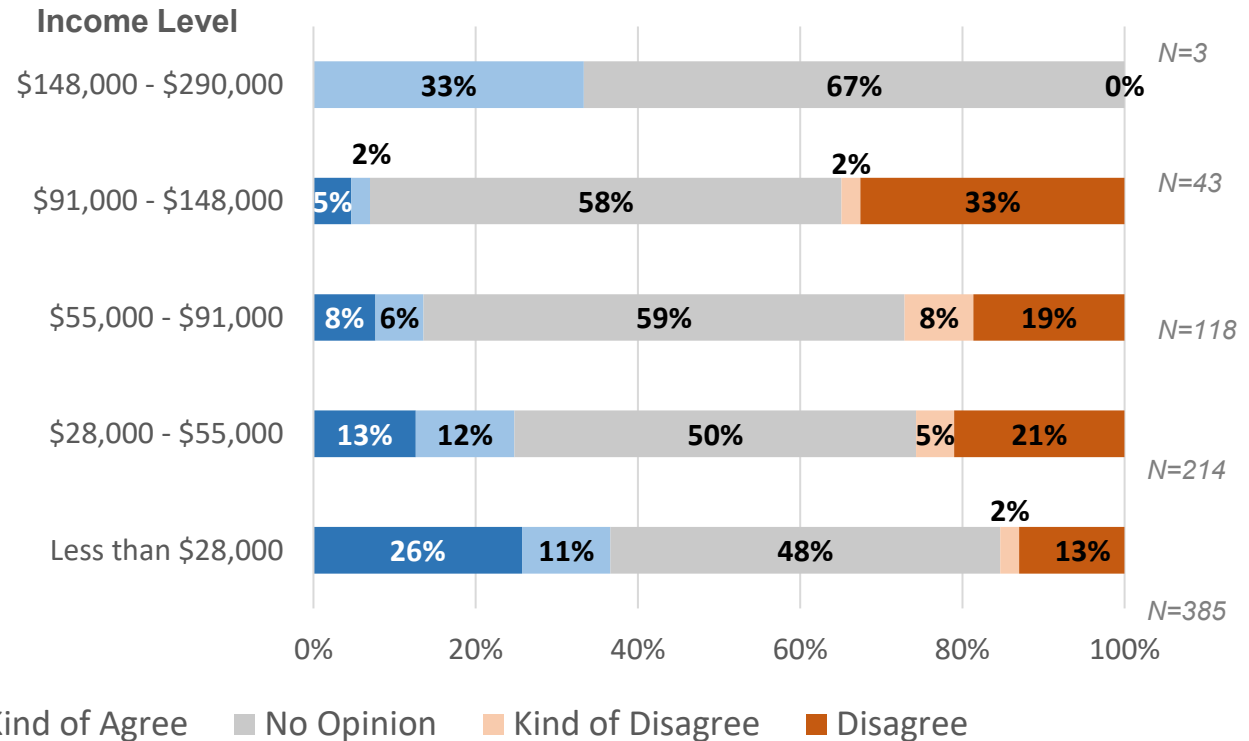
 Increase access to resources, employment opportunities, and destinations



Q: Please rate how much you agree or disagree with the following statement.

- When the statement “*Compared to before I had an e-bike, I have access to more job opportunities*” is cross-compared with household income levels **there is a trend of lower-income groups reporting greater access to job opportunities compared to higher-income groups.**
- Participants noted **new job access in specific instances.**

Compared to before I had an e-bike, I have access to more job opportunities.



“Life-changing, I use it as a food service delivery e-bike. I now earn income and can get around the city to see my friends.”

–Program Participant

“It has given me a better lifeline to get around and find a job.”

–Program Participant

“It makes it easier for me to work the later shift when there isn't a bus running.”

–Program Participant

N=772

Conclusions and Next Steps for the Program

- With over **2,700 new e-bikes** in use all across the state, it is clear that the Statewide Program was an immense success.
- **In line with statewide goals, the Program has achieved notable GHG and VMT reductions.**
- More people are using e-bikes for more trips, **replacing auto trips** as well as other types of trips. People say that e-bike trips are **faster** and are **saving people money.**
- Participants are reporting a **range of life improvements**, including better physical and mental health, greater transportation flexibility and cost savings, and an ability to access more destinations. Lower income folks in particular report **better access to jobs.**
- **This program continues to push the state towards meeting its broader statewide priorities.**

Program Findings

The Program distributed **over 2,700 e-bike vouchers** to LMI residents and residents with disabilities.

The Program provided an **additional transportation option to car-limited households.**

The Program **reduced car travel growth** by boosting e-bike use.

By reducing car travel, the Program **cut CO₂ equal to 500 cars.**

Most respondents are reporting **monetary savings** due to their e-bike.

Respondents are **getting around faster** with their e-bike, when compared to other travel modes.

Respondents report **improvements to their physical, mental, and social well-being.**

Respondents can and did **go more places and make more trips** with their e-bike.

Some respondents report specific instances of better or new job access using their e-bike.