



# CITY OF BOSTON FARE FREE PROGRAM

## Mid Program Report

**MARCH 2023**



# What is the Fare Free Program?

- On March 1, 2022, MBTA **bus routes 23, 28, and 29** became fare free for two years.
- This **builds on the Route 28 Fare Free Pilot**, which ran from August 2021 through February 2022.
- Riders can **use all doors** without paying a fare.
- The **RIDE paratransit users can also ride for free** as long as their trips start and end within  $\frac{3}{4}$  mile of these routes.
- All **other MBTA services still require payment**, including transfers.
- The City of Boston is funding the program using **\$8 million in federal funds** via the American Rescue Plan Act (ARPA) to reimburse the MBTA.





# Mid Program Report Highlights

- **Most riders** on the fare free routes are **transit-critical\***.
- 26% of riders saved **\$20 or more per month**, and are using their savings to **purchase food, save towards long-term goals** and **build emergency funds**.
- **Ridership** on the fare free routes is **increasing at a greater rate** than the overall MBTA bus system.
- Some riders are now choosing to take the bus rather than drive, which could **reduce congestion and greenhouse gas emissions**.
- **Riders like the Fare Free Program**.
- **Travel times on the routes remained constant** despite the influx of riders.

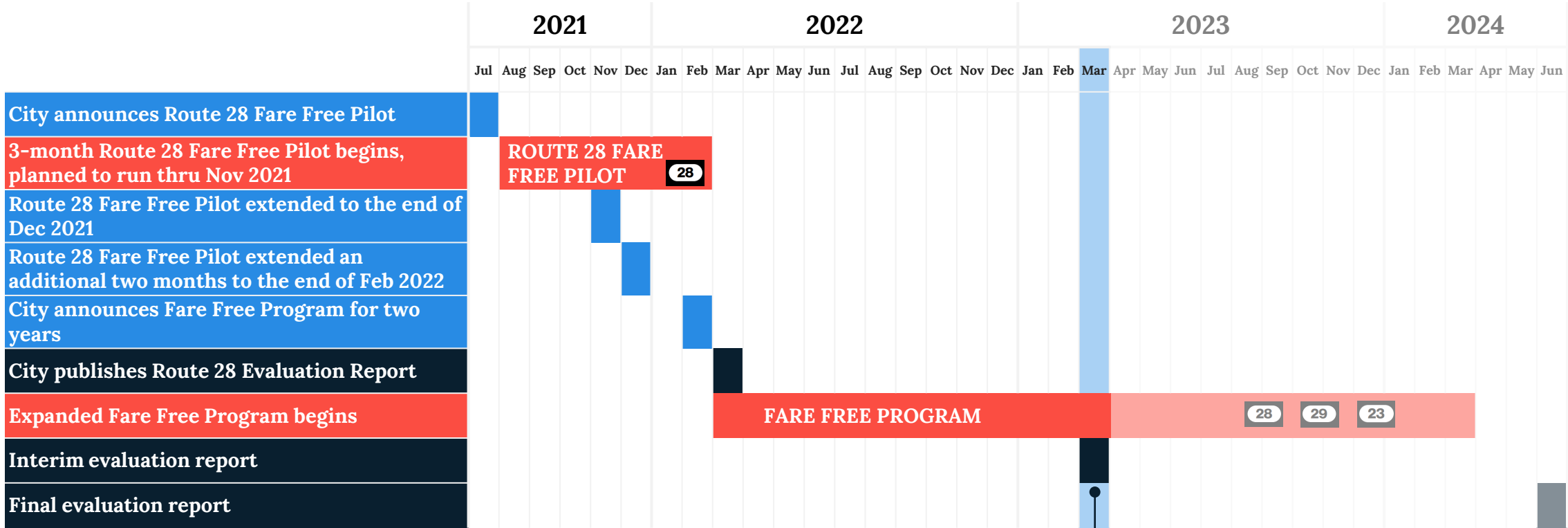


**B** \*Transit critical populations, as defined by the MBTA, include “residents who are low-income, people of color, seniors, people with disabilities, or who live in households with few or no vehicles”



# Boston Fare Free Timeline

- Announcement
- Milestone
- Reporting



*We are here*



# Why these routes?



## Essential Travel Connection

- The Routes 23, 28, and 29 are **key connectors** for many Boston residents, connecting:
  - Mattapan
  - Roxbury
  - Dorchester
 to key employment and community centers.
- Many area residents **rely on bus service** to meet their daily travel needs.



## High Ridership Corridors

- These routes run along some of the highest ridership bus corridors in the City of Boston.
- Routes 28 and 23 serve up to 10,000 riders per weekday, and Route 29 serves much of the same corridors.



## Public Transit as a Public Good

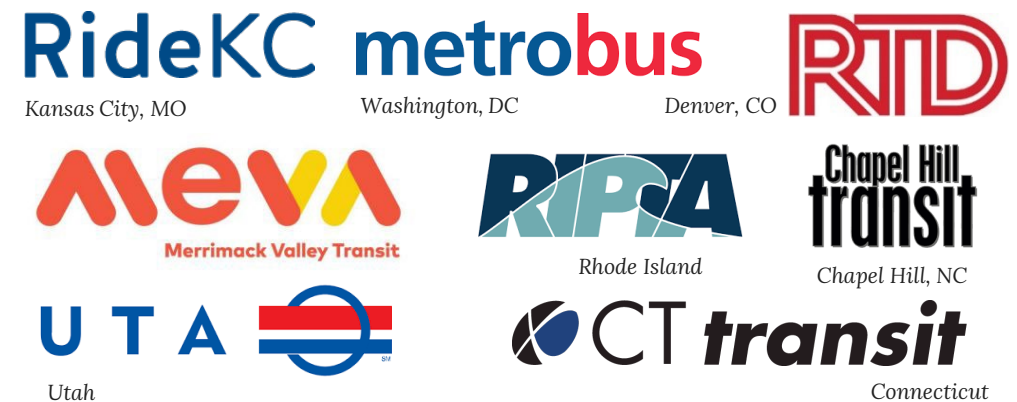
- Over half of riders on Routes 23, 28, and 29 are classified as **low income**.
- Free fares will **lessen riders' financial** burden at a time when **economic vulnerability is at a historic high**.

# Fare free is being tested across the country

Boston's Fare Free Program comes at a time when other communities are testing (and evaluating) similar efforts. Key takeaways from these programs include:

- Utah's UTA experienced **significant ridership growth** across the system.
- Denver's RTD absorbed an increase in ridership **without crowding issues** or substantial new service.
- Run times for MEVA (Haverhill/Lawrence, MA) bus routes **have decreased** despite increased ridership.
- Kansas City's KCATA bus riders reported a **greater sense of safety** and **improved overall mobility and quality of life**.

## Other Agencies Deploying Fare Free Transit



### Massachusetts RTA "Try Transit" State Grant

- A state grant allowed RTAs throughout the state to go fare free in December 2022.
- The City convened the first of a series of internal roundtables with RTA administrators to discuss benefits and findings from this experiment.

# Boston Fare Free Program Goals



Rider Equity

Provide a direct benefit to many of Boston's transit-critical\* residents



Economic Impact

Provide monetary support to some of Boston's most economically disadvantaged residents and businesses



Ridership

Bring people back to transit and make it easier to attract new riders



Improve Rider Experience

Improve rider experience and satisfaction on these bus routes



Environmental Impact

Reduce greenhouse gas emissions and improve air quality



Travel Time Impacts

Improve travel times and reliability on routes that frequently run behind schedule

\*Transit critical populations, as defined by the MBTA, include “residents who are low-income, people of color, seniors, people with disabilities, or who live in households with few or no vehicles”

# Boston Fare Free Program Results



Rider Equity

The majority of riders on fare free routes are transit-critical\*



Economic Impact

26% of passengers saved more than \$20 a month in October



Ridership

Ridership on the fare free routes is increasing at a greater rate than the overall MBTA bus system



Improve Rider Experience

Riders like the Fare Free Program, but are frustrated with other transit service challenges



Environmental Impact

*Evaluation is ongoing*



Travel Time Impacts

Travel times remained relatively constant even with ridership increases

\*Transit critical populations, as defined by the MBTA, include “residents who are low-income, people of color, seniors, people with disabilities, or who live in households with few or no vehicles”



# The Mid Program Report Evaluation

- The City of Boston is going beyond most fare free programs by including a **detailed impact evaluation as a key component**.
- The program hit the **one-year mark** in March 2023.
- This interim report provides **preliminary insights** into the extent to which the fare free routes accomplish the goals of the program.
- **Evaluation is ongoing**, and a full report will be available after the first two years of the program are complete.



# The Mid Program Report Evaluation: Tools

These icons indicate the sources of findings throughout the report:



## In-Person and Online Rider Surveys

(Routes 23, 28, and 29; 1,200  
Respondents; May 2022 and  
Oct 2022)

## MBTA Operational Data

## Focus Group Data

(24 Focus Group Participants,  
Nov-Dec 2022)

## Additional datasets from across the City

(Economic, Social, Access,  
Environmental, etc.)

We are grateful for all those who contributed data for this effort, particularly Focus Group participants, survey participants, the Mayor's Office, the Environment Department, the BPDA Research Department, the Parks and Recreation Department, Boston Public Library, the Age Strong Commission, the MBTA, and Boston Region MPO.

# WHO IS THE PROGRAM SERVING?

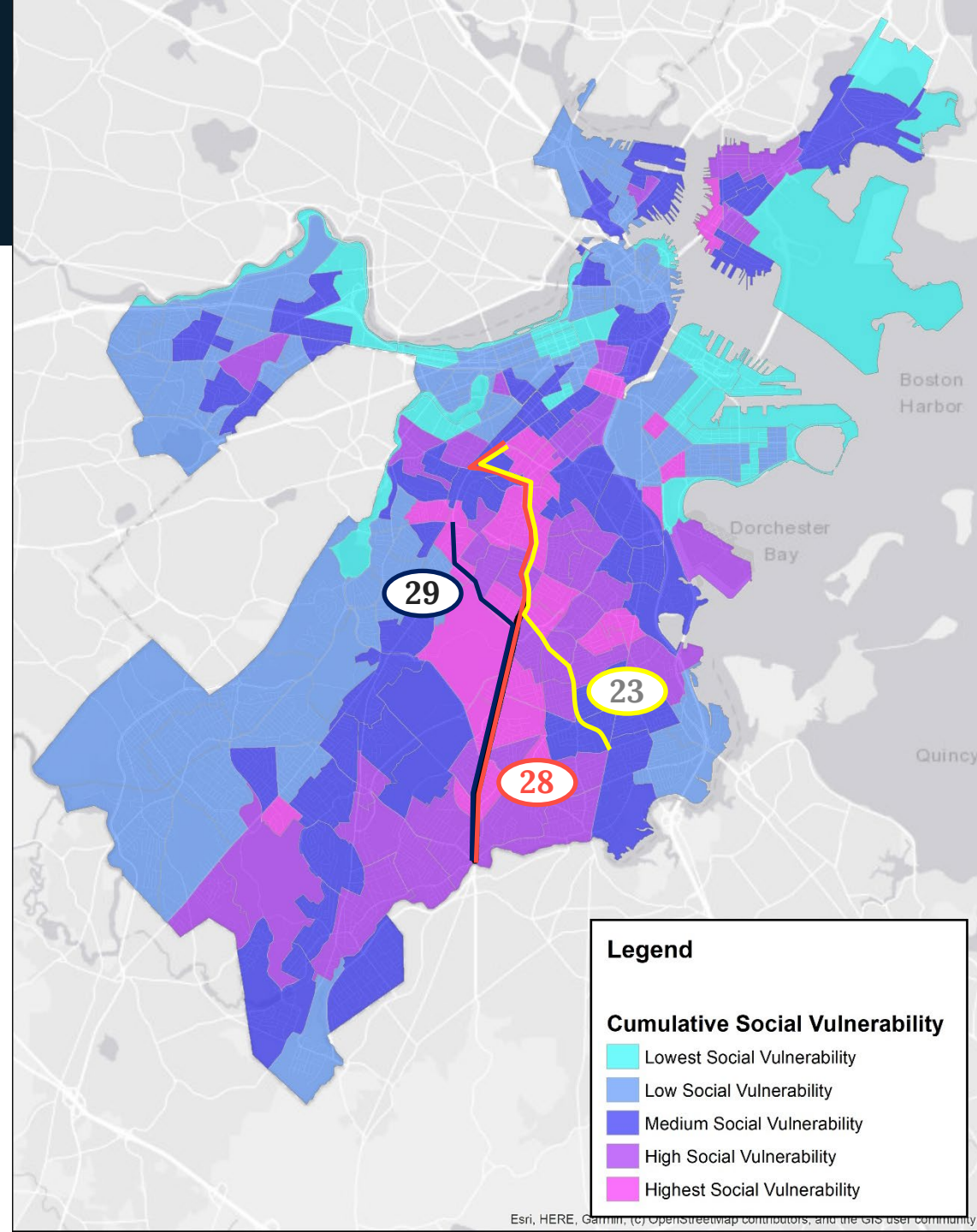
- The program is providing direct benefits to the transit-critical residents it was intended to serve.
- Free fares have made the bus more accessible to youth, unhoused people, and older adults.





# The program is benefitting transit-critical riders





- 👤 Many focus group participants live in **zero-car households**.
- 👤 Riders indicated that the program makes the bus **more accessible to youth**, unhoused people, and older adults.
- 📍 The routes run through areas of high “social vulnerability,” an index the City uses to determine critical areas for infrastructure investment.



**B** Source: Dataset via Boston's StreetCaster project ([StreetCaster | Boston.gov](https://streetcaster.boston.gov)). Dataset represents populations of low income, people of color, HS or less educated, linguistically isolated, children, seniors, disabled populations.



# The Fare Free Program is supporting both essential and new trips

-  Riders use these routes to access **work, school, errands, and medical appointments.**
-  Riders appreciate the ability to travel to **business districts in Roxbury, Dorchester, and Mattapan.**
-  2% of riders indicated that they were **taking a trip they wouldn't otherwise take.**
-  Riders noted it is **easier to travel with family**, as fare costs add up more quickly traveling with multiple people.

*“I go to visit my sister more and my daughter more because it’s on a straight route. The 28 picks me up and drops me off down the street at my sister’s house. My daughter also lives down in that area. So very, very convenient.”*

*- Focus group participant*

*“So now at least we know, if you want to go to Mattapan Square, get some food, see what’s going on around there, at least we know **you can get that far for free.**”*

*- Focus group participant*



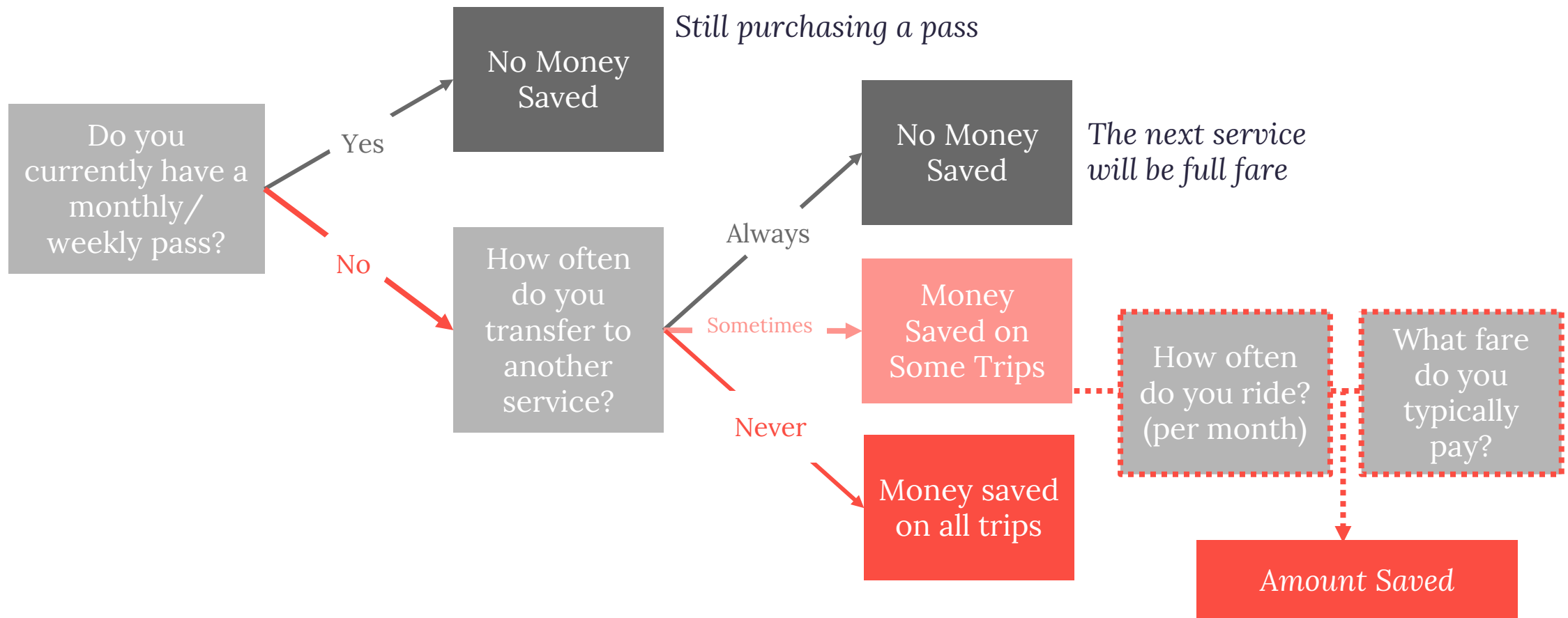
# WHAT IS THE ECONOMIC IMPACT OF THE PROGRAM?



- More riders are saving more money as the program continues
  - Over 40 percent of riders are saving money, and some have saved hundreds of dollars
- People are using these savings to purchase food, build savings, and bolster emergency funds.

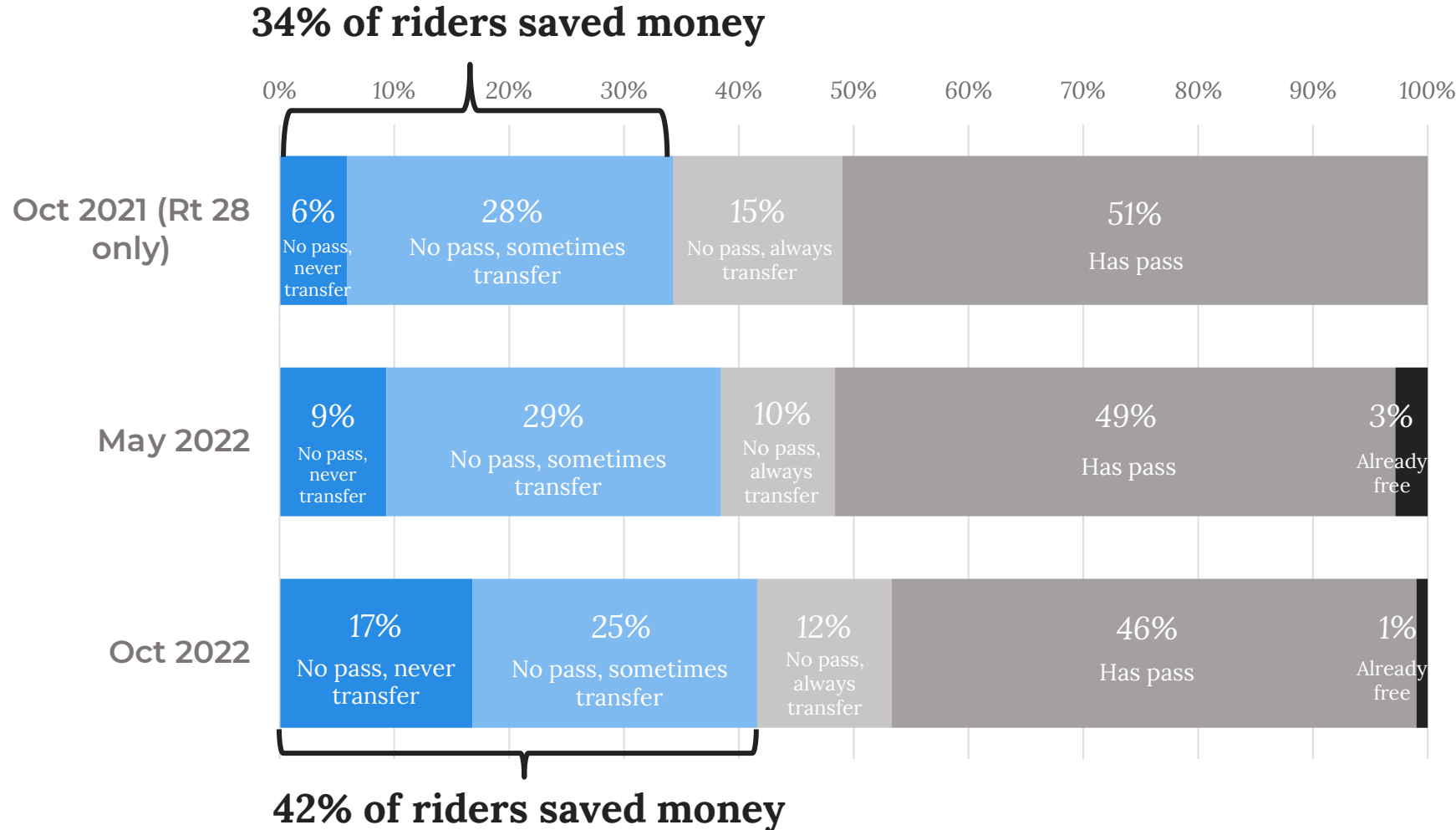
# What does it mean to save money?

Riders on the fare free routes save different amounts of money based on whether they transfer, still have a monthly pass, or access other MBTA pass discount programs:



# More riders are saving money as the program continues

- 📋 The share of riders who save money from the program is increasing.
- 🕒 This is mostly due to an increase in riders who never transfer.



**Source:** During program rider surveys, May 2022 (N=494) and October (N=411) 2022, Routes 23, 28, and 29. | During Rt 28 pilot survey, October 2021 (N=102).  
 Chart depicts likelihood of riders saving money based on typical transfer behavior and whether the rider had a pass during the fare free period. Percentages have been rounded.  
 Note: "Already free" was not an option on the Rt 28 survey in October 2021.





# Savings from the Fare Free Program are having an impact on riders' lives

- 👤 Commuters emphasized that **small daily savings add up quickly**, allowing significant benefit over the life of the program.
- 👤 Some riders were able to forgo a monthly pass (saving at least \$55).
- 👤 Riders saved enough that they had **altered their household budgets**.
- 👤 Riders are using cost savings to **purchase food, build up their household savings for long-term goals and save emergency funds**.

*“There’s been significant cost savings for me[...] I use the bus to travel every day to university and then back to my home in Roxbury, literally every day 7 days a week. It has really helped me save a lot—**around 600-700 dollars using it for 14-15 months.**”*

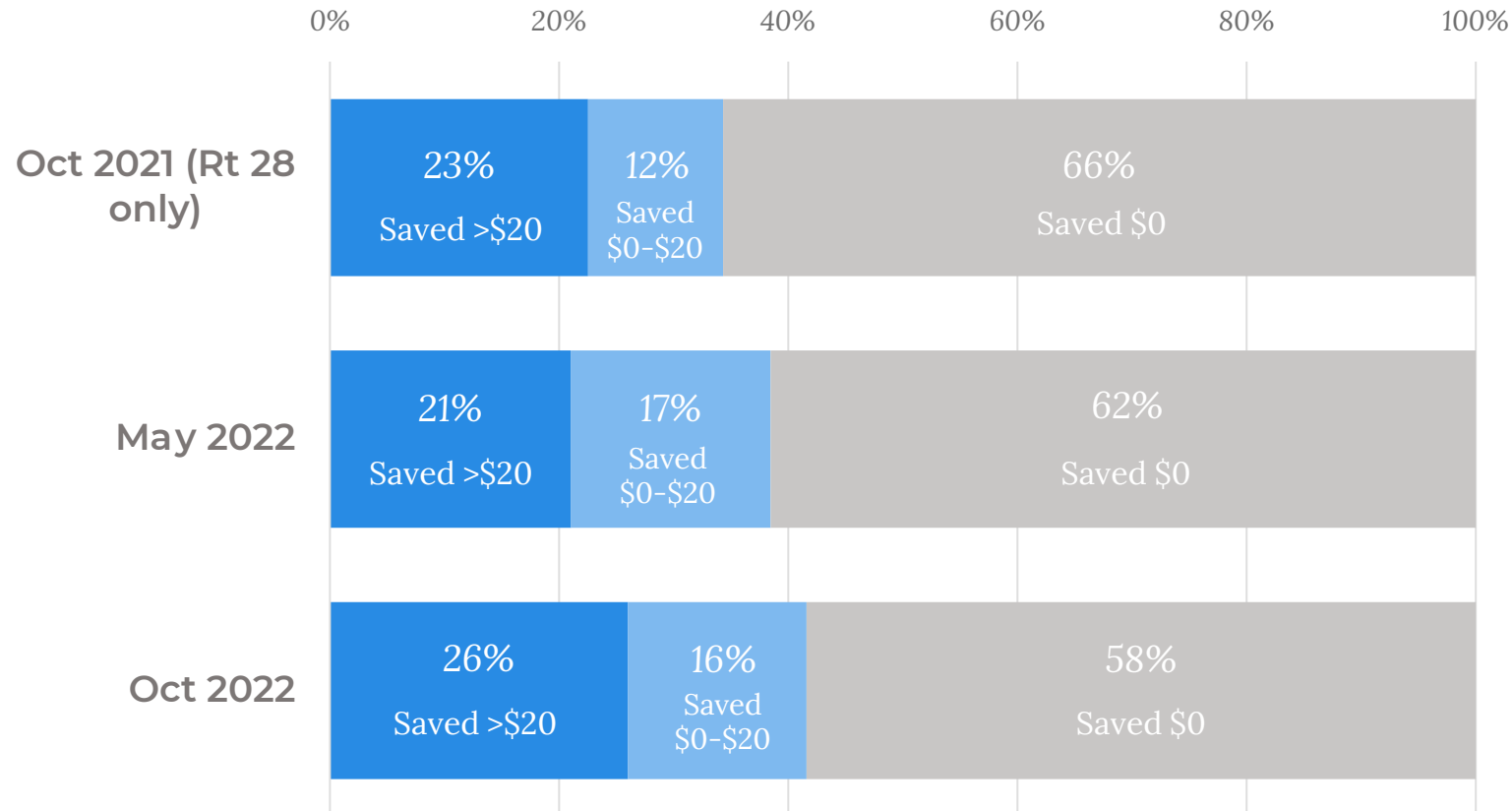
*– Focus group participant*

*“Now because [the participant’s mother] doesn’t have to pay for [the participant’s younger siblings] to take two buses, she still gives them that money and **they can use money to get breakfast or snacks for school.**”*

*– Focus group participant*

# More riders are saving more than \$20 per month

- 📋 The share of respondents saving more than \$20 is increasing.
- 📈 Over the life of the two-year program, this will add up to \$480 or more per rider.



**Source:** During program rider surveys, May 2022 (N=494) and October (N=411) 2022, Routes 23, 28, and 29. | During Rt 28 pilot survey, October 2021 (N=102). Detailed analysis of amount money saved is based on ride frequency, typical transfer behavior, whether the rider had a pass, and reduced fare pass type. This analysis also includes data for those who did not indicate their typical transfer behavior but did answer the question about transferring on the day of the survey. Percentages have been rounded.

**Note:** Savings over the entire program calculated as \$20 per month for 24 months (program length)

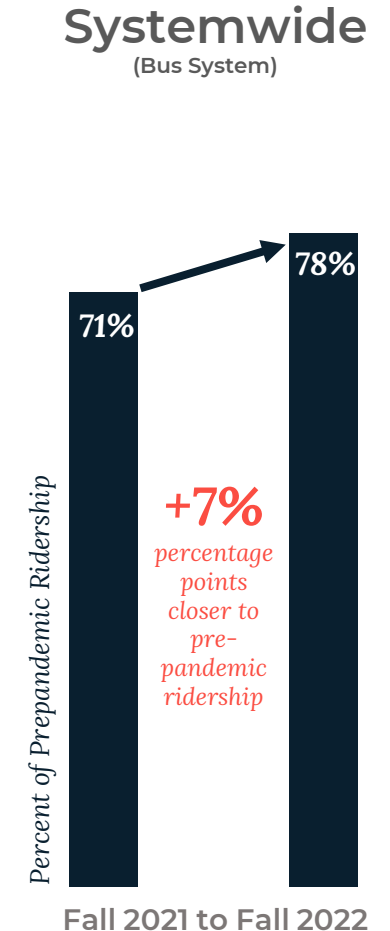
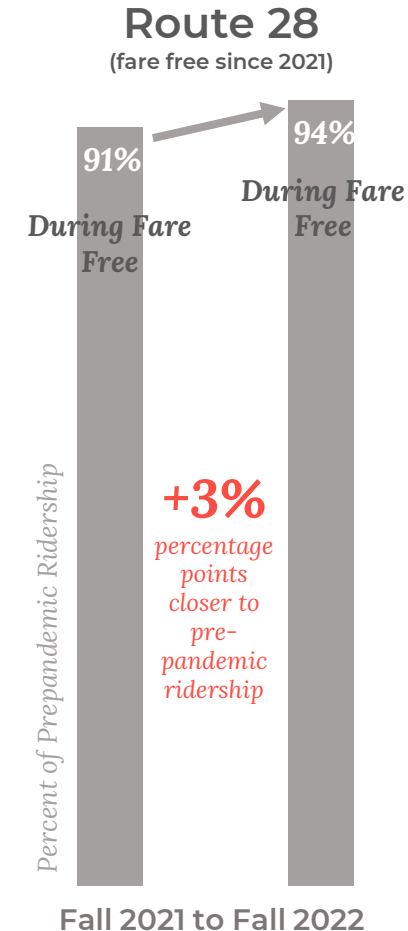
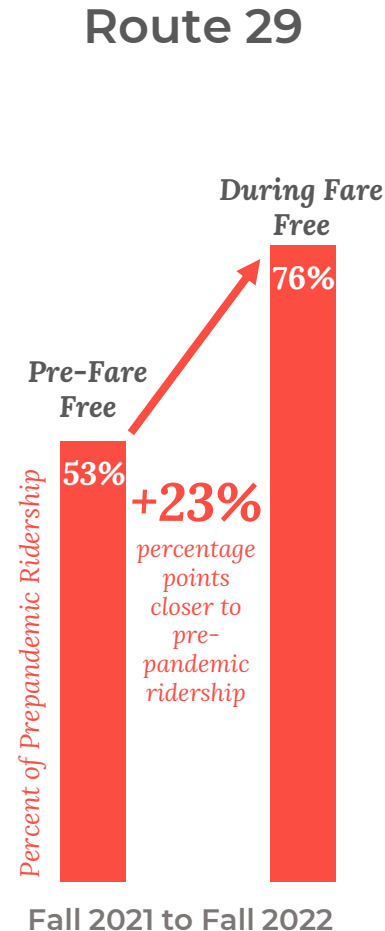
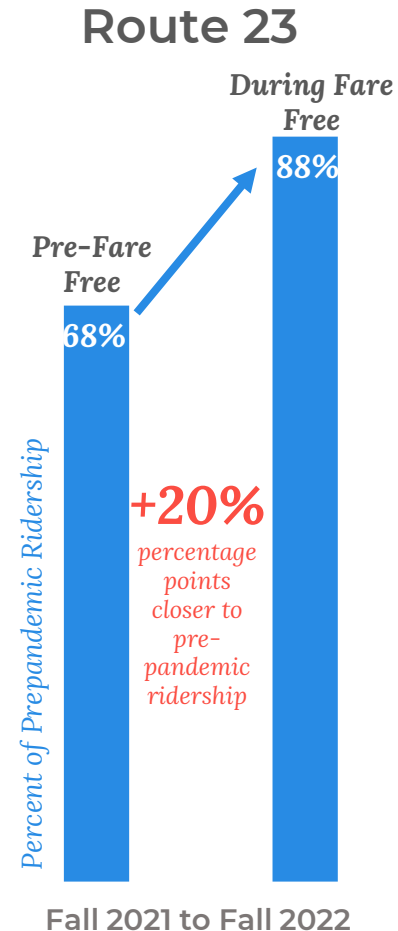
# HAS RIDERSHIP CHANGED?



- Ridership on fare free routes is growing up to three times as fast as the rest of the MBTA bus system.
- The program is attracting new riders to the MBTA bus system.

# The program is increasing ridership

- Ⓣ Routes 23 and 29 are **recovering quicker than the entire bus system** since becoming fare free.
- Ⓣ Route 28 ridership **remains high.**
- Ⓣ **About 15% of the fare free ridership increase is people taking trips they otherwise would not have taken at all.**






**Source:** MBTA Average Weekday Ridership; Fall 2021 using average weekday ridership from 06-Sep-21 through the week of 29-Nov-21; Fall 2022 calculated using average weekday ridership from 05-Sep-22 through the week of 28-Nov-22; Pre-pandemic using average weekday ridership from 02-Sep-19 through the week of 25-Nov-19. Note these time periods are slightly different than those used in the Route 28 Pilot report, therefore the percentages vary. New trip estimate calculated by comparing estimated 2% of riders reporting trips they would not have otherwise taken (p.13) to operational data on ridership increases.

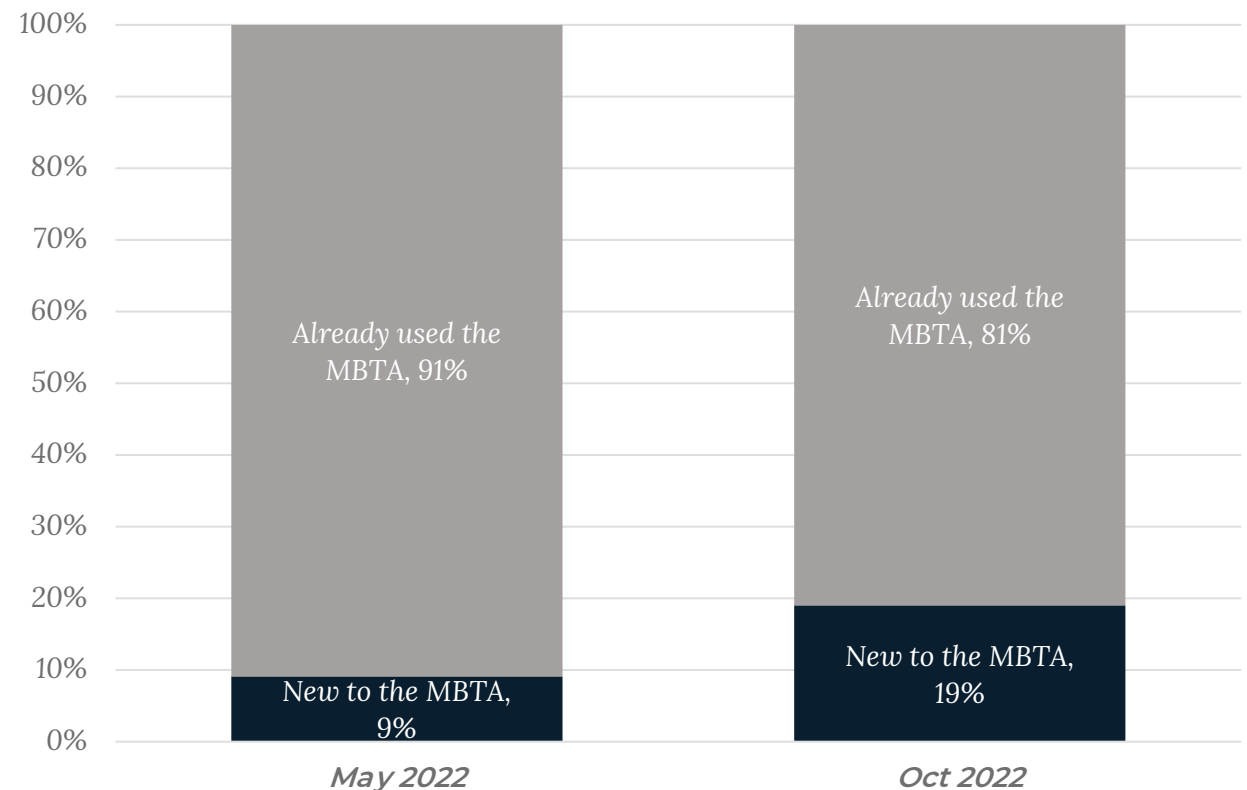
**Note:** Route 28 became fare free prior to Fall 2021; Routes 23 and 29 became fare free between Fall 2021 and Fall 2022



# A growing number of riders using the Fare Free Program are new to the MBTA bus system

-  The proportion of riders who stated they were new to the MBTA bus system **jumped from 9% to 19%** from May to October 2022.
-  The program appears to be **drawing riders who are new to the MBTA overall.**
-  Focus group participants mostly indicated that they **took the bus prior to the start of the program.**

*Survey Question: Did you use the MBTA bus system at all before the start of the Fare Free Program (August 29, 2021 for Route 28, or March 1, 2022 for Routes 23 or 29)?*

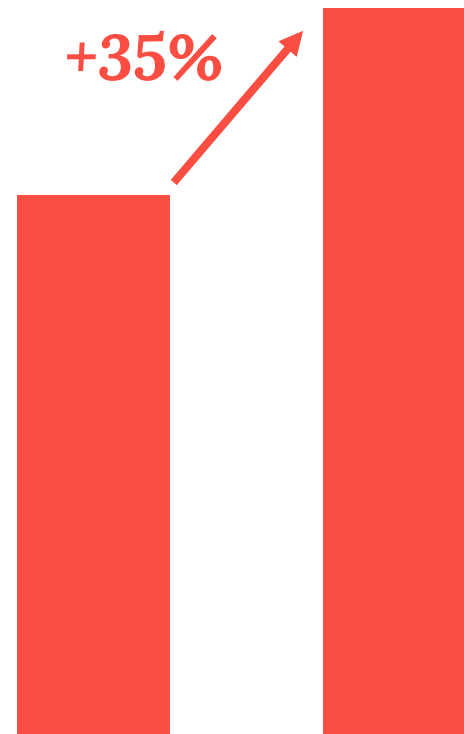


**Source:** During program rider surveys, May and October 2022. Routes 23, 28, and 29. May N=571, October N=505  
**Note:** This question was not part of the Rt 28 survey in October 2021.

# The RIDE ridership also increased in the Fare Free Program zone more than on the system as a whole

- Ⓣ Ridership in the fare free zone increased **35%** from Fall 2021 to Fall 2022.
- Ⓣ Systemwide ridership increased only **15%**.

## Fare Free Program Zone



Fall 2021 to Fall 2022

## Systemwide



Fall 2021 to Fall 2022





**B** *Source: The RIDE paratransit ridership data from MBTA. Fall 2021 defined as September, October, and November 2021; Fall 2022 defined as September, October, and November 2022. Note that portions of the fare free zone were already fare free in fall 2021 as a result of the Route 28 Fare Free pilot.*

# WHAT ARE THE TRAVEL TIME IMPACTS?

- The fare free routes have been able to absorb more riders without changes in travel time.
- Buses are running more reliably.



# Boarding times per passenger are lower, and riders are noticing

-  Many riders reported that all-door boarding has **improved their boarding experience**.
-  Riders perceive all-door boarding as **contributing to faster trips**.
-  **Dwell time per passenger has decreased**, indicating efficiencies in boarding time.
-  A few riders noted that all-door boarding has made it **more challenging for them to exit the bus**.

*“On the free buses, they open both doors, the front and the back. Everyone just rushes in quick, and in two seconds the bus is driving off. It’s definitely quicker.”*

*- Focus group participant*

*Operational Data: Dwell Times per Passenger Fall 2021 to Fall 2022*

Route	Pre-Program Dwell Time per Passenger (sec)	During Program Dwell Time per Passenger (sec)	Actual change (sec)	% change
23	6.2	5.8	-0.4	-6%
28	7.1*	6.7	-0.4	-6%
29	14.6	11.2	-3.4	-23%

*\*Route 28 was already free during this time period.*



**Source:** MBTA boardings and dwell times by route; dwell time per passenger calculated by dividing total dwell time by total boardings; during program figures are calculated using Sep – Nov 2022 data; pre-program figures are calculated using Sep – Nov 2021 data

# While routes have gotten more reliable, rider perceptions are mixed

- Ⓣ **Variation in overall travel time has decreased** on the new routes to the program despite significant ridership increases.
- 👤 Some riders perceive that service has **gotten more reliable**, while others report **experiencing more delays**.

*“But with everything being free in general, I feel like all the buses are moving faster so the wait time is not as long.”*

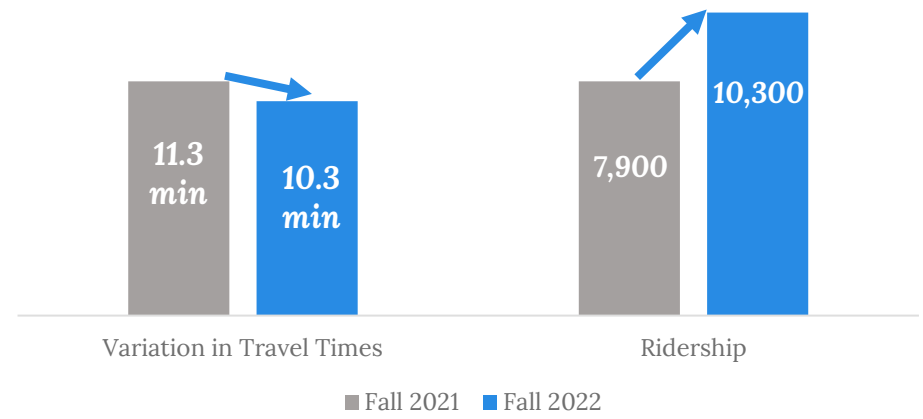
- Focus group participant

*“I’ve noticed that it seems like the 23 is much slower because it’s free.”*

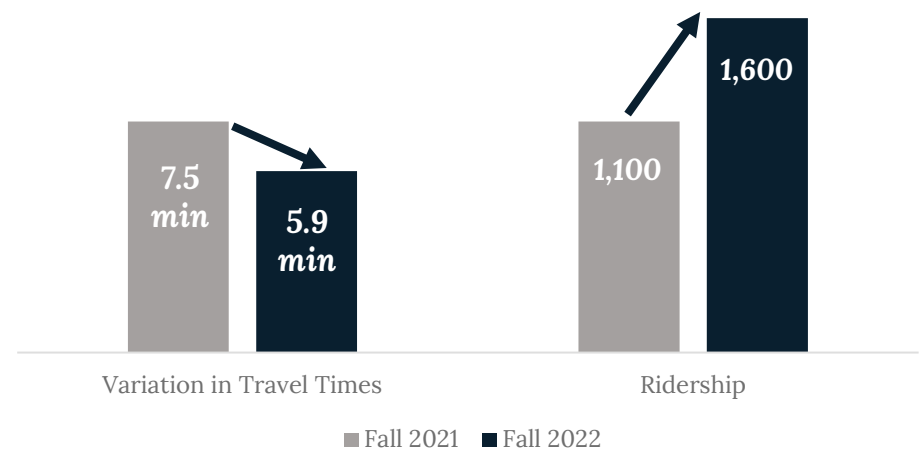
- Focus group participant

Travel time variation represents the difference in travel time between the “worst day” and a typical day on the bus. The more similar they are, the more reliable travel times are for riders.

Route 23 Travel Time Variation and Ridership



Route 29 Travel Time Variation and Ridership



**Source:** MBTA run times by route, variation in travel time = (95th percentile trip time – median trip time), pre-pilot variability uses Sep – Nov 2021 data, pilot average uses Sep – Nov 2022 data. MBTA Average Weekday Ridership; Fall 2021 using average weekday ridership from 06-Sep-21 through the week of 29-Nov-21; Fall 2022 calculated using average weekday ridership from 05-Sep-22 through the week of 28-Nov-22.  
**Note:** “Worst day” refers to 95% percentile run times.





# WHAT HAS THE RIDER EXPERIENCE BEEN?



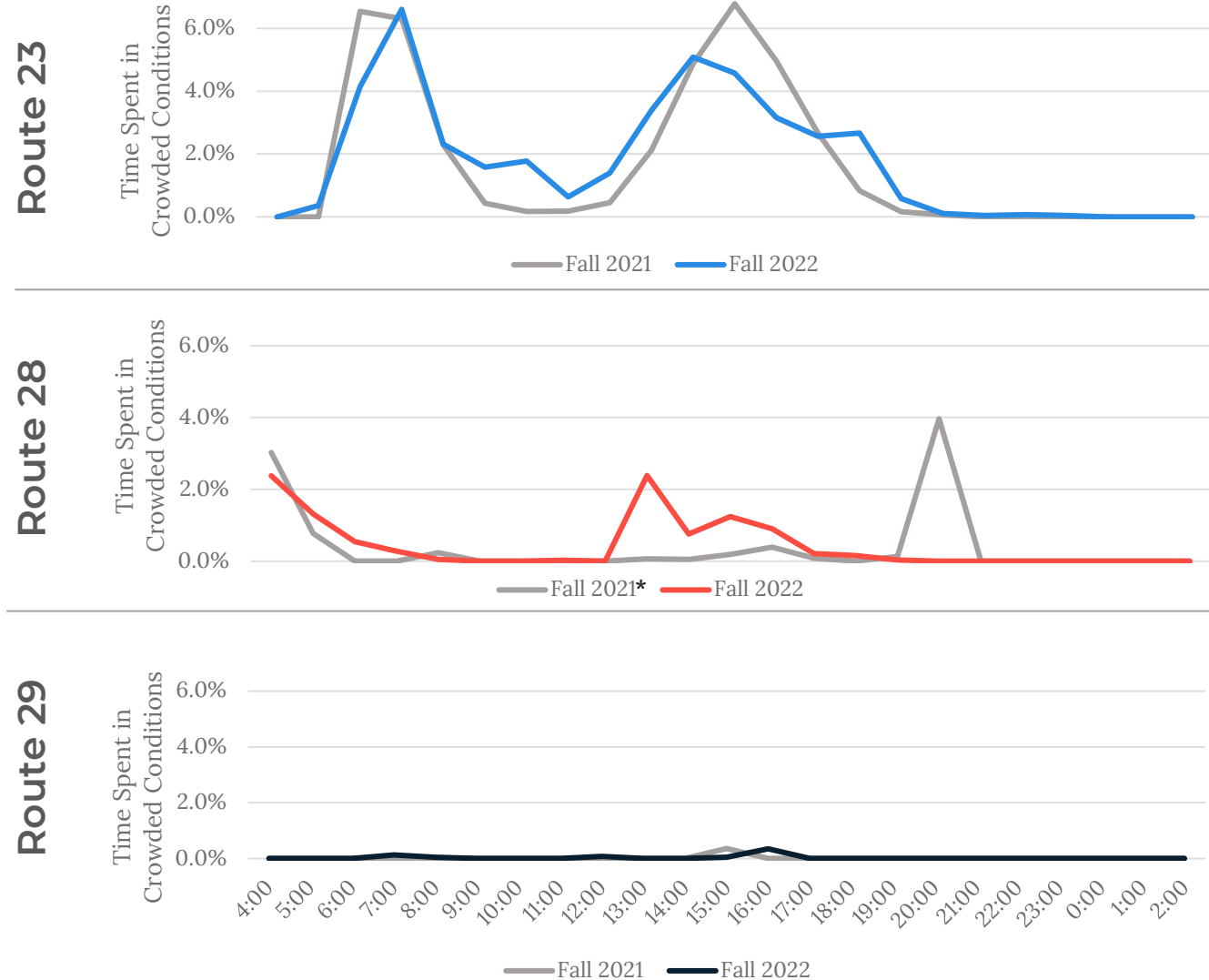
- Crowding levels have remained consistent.
- Riders want to see the Fare Free Program expanded.
- Service levels and crowding remain concerns.

# Crowding is consistent with pre-program levels despite ridership gains

- Ⓣ Time spent in crowded conditions has **not changed significantly before and after the start of the program.**
- 📋 Survey respondents rate satisfaction with crowding **consistently before and after the program.**
- 👥 However, some riders **observed that crowding has worsened** on the fare free lines.

*“We call the 23 the sardine can. It gets so crowded that you cannot put another person on that bus.”*





*– Focus group participant*



\*Route 28 was already free during this time period.

**Source:** MBTA crowding per passenger hour for September through November in 2021 and 2022  
**Note:** Route 28 became fare free prior to Fall 2021; Routes 23 and 29 became fare free between Fall 2021 and Fall 2022. The Route 28 average crowding satisfaction score prior to the pilot was 3.2 (August 2021 survey) and with the pilot it was 2.9 (October 2021 survey). Riders on all three fare free routes reported an average crowding satisfaction score of 3.1 in the May 2022 survey and 2.9 in the October 2022 Survey. The Route 29 average crowding satisfaction score was the highest of the three free routes in the two 2022 surveys (3.4). The Routes 23 and 28 average crowding satisfaction scores range from 2.7 to 3.1, according to the 2022 surveys.

# Riders see the Fare Free Program as an access improvement, but an insufficient transit one

-  Riders want to **expand the Fare Free Program**, but also want **more frequent and reliable service**.
-  Riders report **decreased conflict with operators**, both by removing fares as a source of conflict and by allowing rear-door boarding to minimize interaction.
-  Some riders believed that the **focus on routes that run entirely within Roxbury, Dorchester, and Mattapan reinforces stereotypes that Black Bostonians do not leave these neighborhoods**, or that their residents cannot afford bus service.
-  Some riders **only learned about the program upon boarding the bus**.

*“To me, it’s too small. I think the program is not ambitious enough.”*

*– Focus group participant*

*“It’s great that it’s free in Dorchester, Roxbury, and Mattapan, but it kinda puts in the idea that people in Dorchester, Roxbury, and Mattapan don’t go to places in Boston and wouldn’t need access to other places around the city outside of those three places.”*

*– Focus group participant*

# Just over half of riders are “satisfied,” but deep frustrations exist with transit in general

- ① A majority of respondents report being **“Satisfied”** or **“Extremely satisfied”** with the fare free routes.
- 👥 Riders expressed that addressing ongoing issues with transit such as bus **frequency, reliability, and crowding** is more important than fare policy.
- 👥 Riders were pleasantly **surprised that the program happened as advertised**, describing low expectations for how new government programs are put into practice.

*“I think the fare free situation is definitely a positive thing for bus riders in the city. Especially those people who can’t afford to get on the bus and need to get to work. **It really makes a difference I believe.**”*

*– Focus group participant*






# ARE PEOPLE SHIFTING MODES?



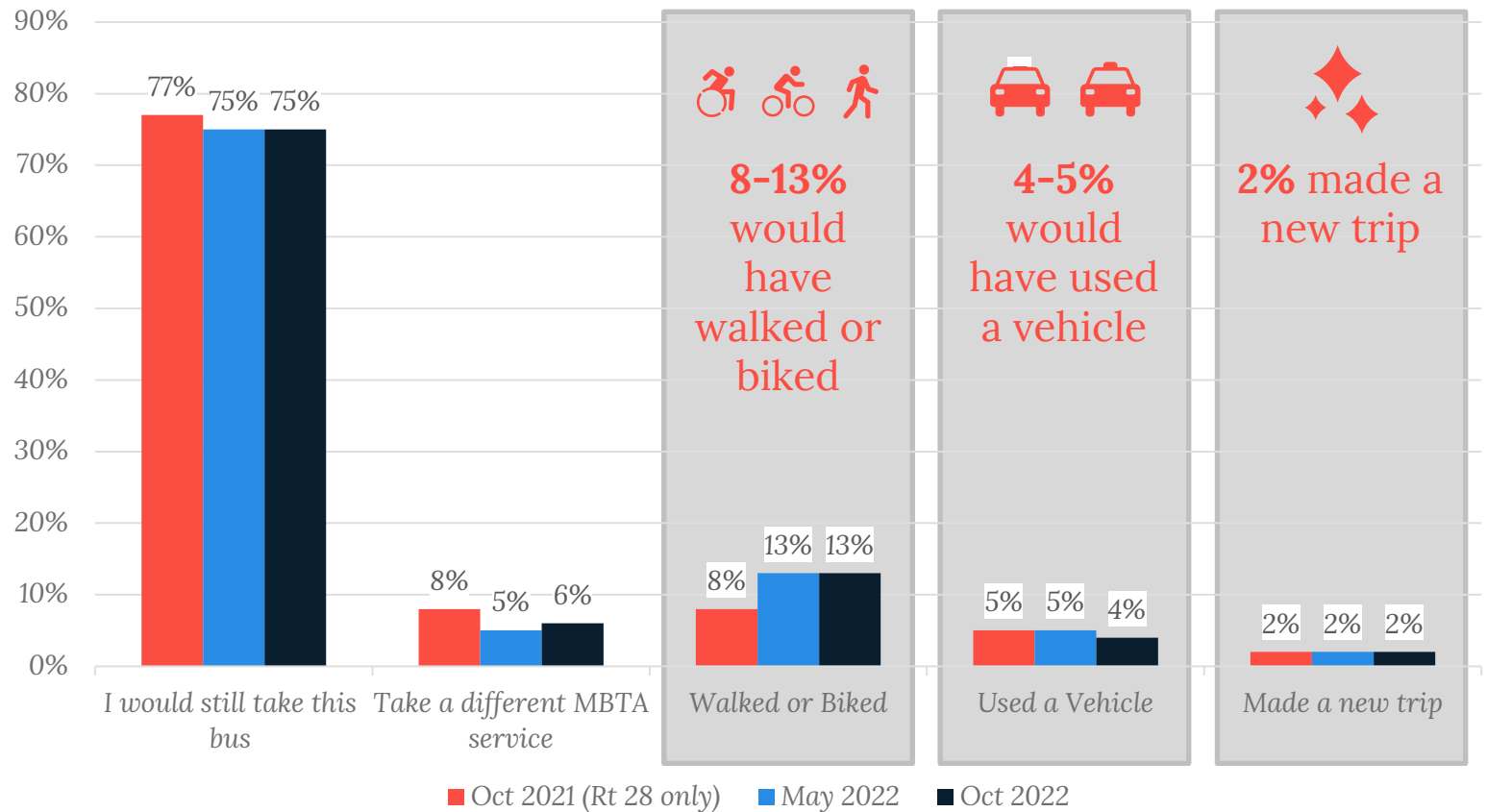
- One in 20 trips is replacing a vehicle trip.



# The Fare Free Program shifted some people onto the bus from other travel modes

-  About **1 in 20** survey respondents reported that they otherwise would have used a vehicle (i.e. drive, carpool, or taxi/rideshare)
-  2% of riders are **taking a new trip**.
-  Mode shift patterns have remained **consistent** since the Route 28 pilot in 2021.
-  Riders have **not noticed a reduction in traffic**.
-  Several riders noted that the existence of a fairly reliable bus system and the fare free lines allowed them to **continue living car-free**.

Survey Question: How would you have made this trip if the bus were not free?



**Source:** During program rider surveys, May 2022 (N=618) and October (N=549) 2022, Routes 23, 28, and 29. | During Rt 28 pilot survey, October 2021 (N=136).  
**Note:** Using a vehicle includes Drive (alone or in a carpool) and Taxi or rideshare (e.g. Uber/Lyft) responses



# NEXT STEPS



# The program lasts until March 2024. What is next?

- The program hits the one-year mark in March 2023
- The evaluation is ongoing and a full report will be available after the program is complete in 2024. The next year of the evaluation will include:
  - Talking with operators
  - Talking with community leaders and organizations
  - Assessing Neighborhood Life Impacts
  - Assessing Economic Impacts
  - Assessing Environmental Impacts
  - Additional rider surveys and focus groups

