



Massachusetts Bay Transportation Authority

Fare-Free Bus Routes 23, 28, and 29 Program

MBTA Fare Policy

Steven Povich, Director of Fare Policy and Analytics

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Fare-Free 28: Pilot Outcomes

In partnership with the City of Boston, the MBTA ran the route 28 fare-free from August 2021 through February 2022 as a pilot.

Major Takeaways



Ridership: The free fares successfully encouraged increases in ridership, some of which came from trips that would have been car trips or wouldn't have happened at all



Service: Route 28 absorbed a material increase in ridership with minimal negative impacts on travel times and reliability. Notable reduction in dwell times per rider as compared to similar routes for all riders.



Economic Impact: This pilot cost the City of Boston \$500,000. All riders of the 28 experienced operational benefits, but few saw direct economic benefit.



Fare-Free 23-28-29 Program Overview



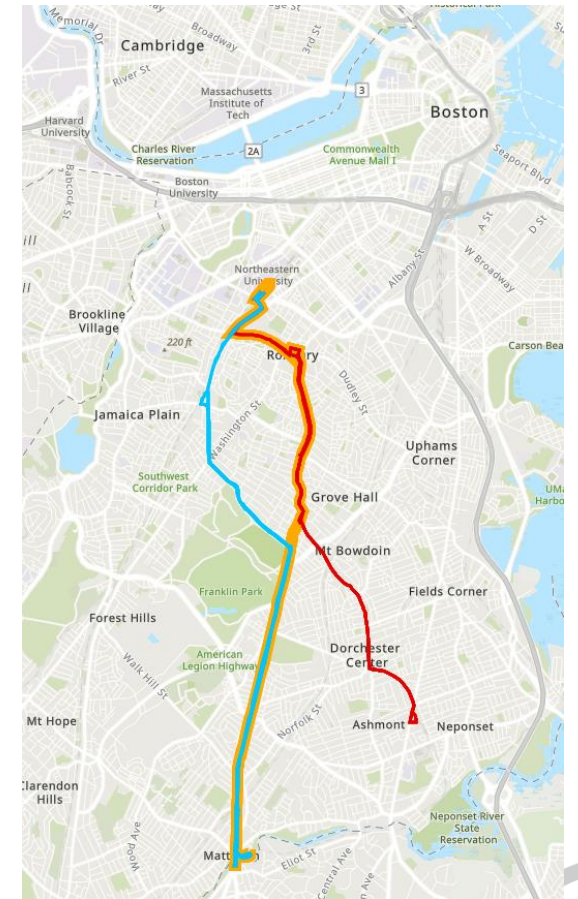
Impact: Signed MOU with the City of Boston to provide fare-free service on bus routes 23, 28, and 29. Free RIDE trips that start and end within $\frac{3}{4}$ of a mile of these routes



Dates: March 1, 2022 through February 29, 2024



Funding: All costs paid for by the City of Boston (estimated total cost of \$8 million)



Route 23
Route 28
Route 29



City Partnership and Funding

- The City of Boston is reimbursing the MBTA for the cost of the program, estimated to be **\$8 million total** over the two-year period, but dependent on ridership. Components of the cost include:
 - Routes 23, 28, and 29: Lost fares per rider, increased operating costs if demand warrants increased service
 - The RIDE: Lost fares, increased operating costs
 - Other costs: administrative costs, cost of 3rd party equity analysis
- The City continues to study the impacts of free fares through semiannual surveys and other data collection methods



Title VI Implications: Change to Fare-Free

- A fare change that lasts longer than **six months** is considered a permanent fare change per the FTA. We have worked with CTPS to conduct a Title VI Equity Analysis on the changes of the bus fare to \$0 for the three routes
- Given the highly low income and minority demographics of these routes, and the reduction in fares to \$0, **this fare change easily passes a fare equity analysis.** Both ratios are greater than 90%, the threshold for a fare reduction.

| | % Change in Average Fare | DI or DB Ratio |
|-------------------|--------------------------|----------------|
| All Riders | -0.26% | NA |
| Minority Riders | -0.95% | 367% |
| Low Income Riders | -1.00% | 388% |



Title VI Implications: Reinstating Fares

- When the program concludes, the MBTA will need to again make a permanent change to our fares going from \$0 to \$1.70 again on those routes.
 - After discussion with partners at the Federal Transit Administration (FTA), the MBTA staff believe, based upon the ridership demographics on those routes, that we will have a disparate impact and/or disparate burden finding when raising the fares.
 - The MBTA is able to justify moving forward with an inequitable fare increase if there is a “substantial legitimate justification” for moving forward with the fare change. (FTA C 4707.1B) The exhaustion of third-party funds currently in use to support the free fares would likely meet this threshold.
 - All marketing materials make clear to the riders that the program will terminate in 2024. FTA suggested rider clarity eventual exhaustion of the third-party funds will help to mitigate the impact of the future change on impacted-riders.



Public Comment

- The MBTA accepted public comment from June 1st – 30th. The MBTA also hosted a public hearing on June 23rd
 - The public hearing had 10 attendees
- We received a total of 4 comments from the public (2 email, 2 in the public hearing)
 - 2 positive comments support fare-free buses on the basis of equity and ease of access
 - 2 negative comments largely focused on the unfairness of different fare levels in different areas and fare-free buses as a use of taxpayer funds



Timeline

- **February 2022:** MBTA and City of Boston sign MOU for 2-year fare-free program on Routes 23, 28, and 29
- **March 2022:** Program begins, fares become free on Routes 23, 28, and 29
- **June 2022:** MBTA staff conduct public hearing and finalize equity analysis with CTPS
- **July 2022:** MBTA Board votes on fare-free program
- **September 2022:** 6-month limit for pilot ends; free fares beyond this date require equity analysis, public hearing, and MBTA Board approval
- **November 2023 – January 2024:** MBTA Fare Policy will return to the MBTA Board for approval to revert fares to standard levels; process will include an additional equity analysis and public hearing
- **February 2024:** Program ends, fares revert to standard levels on Routes 23, 28, and 29



Board Vote

WHEREAS, the Massachusetts Bay Transportation Authority (“MBTA”) has proposed to make Bus Routes 23, 28, and 29 fare-free from March 1, 2022 through February 29, 2024 in partnership with the City of Boston (together, the “Fare-Free Bus Routes”); and

WHEREAS, the Fare-Free Bus Routes (together, the “Fare-Free Bus Routes”) are fare changes that will last longer than six months; and

WHEREAS, the Federal Transit Administration (“FTA”) Title VI Circular 4702.1B requires the MBTA to conduct a fare equity analysis for fare changes that last longer than six months to evaluate the impacts of such fare changes and determine whether such fare changes would have a discriminatory impact based on race, color, or national origin, low-income populations would bear disproportionate burdens of the fare changes, or non-low-income populations would receive disproportionate benefits because of the fare changes; and

WHEREAS, the Fare-Free Bus Routes are fare changes requiring a fare equity analysis under FTA Title VI Circular 4702.1B; and

WHEREAS, a fare equity analysis as to the Fare-Free Bus Routes was completed on July 11, 2022 (“the Title VI Equity Analysis”); and

WHEREAS, the City of Boston has agreed to reimburse the MBTA for lost fare revenue and costs associated with the Equity Analysis, as stipulated in the Memorandum of Understanding dated February 10, 2022; and

WHEREAS, the Title VI Equity Analysis demonstrated that the Fare-Free Bus Routes, taken together, do not have a discriminatory impact on race, color, or national origin; that low-income populations would not bear disproportionate burdens of the fare changes; and that non-low-income populations would not receive disproportionate benefits because of the fare changes; and

WHEREAS, MBTA Board of Directors (“Board”) has considered and reviewed the Title VI Equity Analysis; and

On motion duly made and seconded, it is by roll call VOTED that:

The Board hereby approves the Title VI Equity Analysis for the Fare-Free Bus Routes and directs the MBTA, through the General Manager, to take all steps necessary to provide such acceptance to the FTA, as appropriate.

And further that the Board hereby approves the Fare-Free Bus Routes as set forth herein.



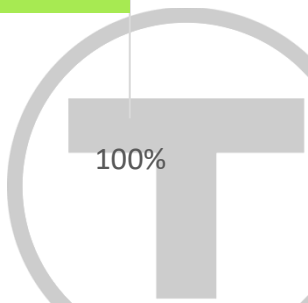
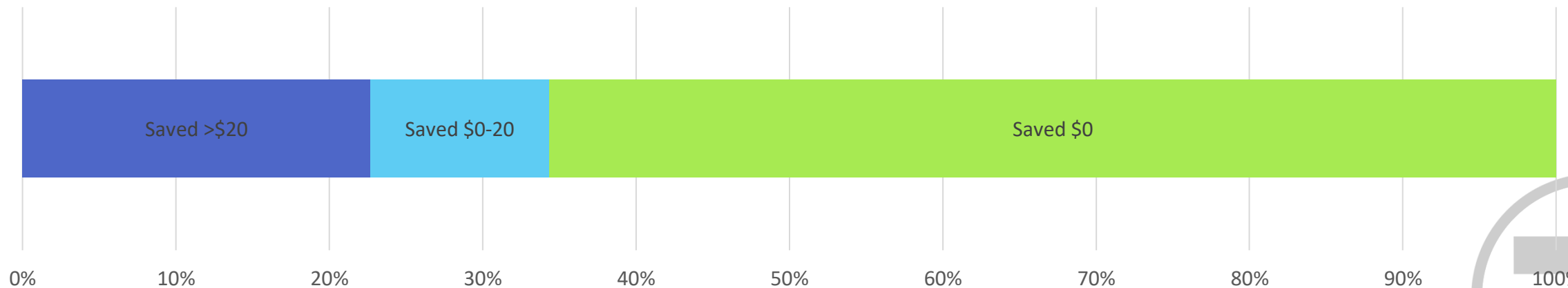
Appendix



Fare-Free 28: Summary of Rider Savings

While the service benefits were shared across all riders, the economic benefits were felt by narrow groups based on behavior, rather than based on need. Beneficiaries of the program were 28-only, non-monthly pass riders; in other words, riders saved based on where they go and if they transfer

Per Month Rider Savings



Fare-Free 23, 28, 29: Route Detail

| Route | Current Weekday Ridership | Route | Demographics | |
|----------|---------------------------|----------------------------------|--------------|--------------|
| | | | % Minority | % Low Income |
| 23 | ~9,000 | Ashmont - Ruggles | 85% | 59% |
| 28 | ~11,000 | Mattapan - Ruggles | 92% | 65% |
| 29 | ~1,500 | Mattapan - Jackson Square | 91% | 70% |
| The RIDE | ~200 | ¾ radius around fare-free routes | | |



Fixed Route - Calculation

The crux of the cost methodology is the Fare Revenue Loss per Rider, which is Total Fare Revenue Loss / Total Ridership. The MBTA charges the City this per rider rate on actual ridership. This method calculates the average amount paid for all trips, including any transfer fares (in the context of both stored value and passes).

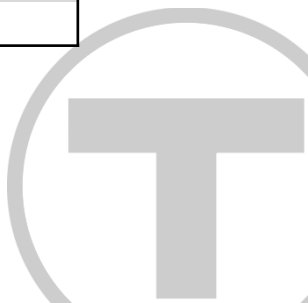
Total Fare Revenue Loss

1. Calculate Cash & Stored Value revenue for all trips that included relevant Routes (alone or as a transfer)
2. Estimate impact of switch from passes to stored value
3. Total Fare Revenue Loss = Cash & Stored Value Loss + Pass Revenue Loss

Total Ridership

1. Obtain baseline ridership (APC) of the target route

| Illustrative Calculation - Free 28 for 1 Month | | |
|--|---|-----------|
| A | Baseline Ridership | 203,517 |
| B | Baseline Cash & Stored Value | \$62,299 |
| C | Baseline Pass Value | \$52,602 |
| D | Estimate of Pass Revenue Loss (0.5 * C) | \$26,301 |
| E | Total Fare Revenue Loss (B + D) | \$88,600 |
| F | Average Fare per Rider (E / A) | \$0.44 |
| G | Expected Monthly Ridership | 274,929 |
| H | Expected Monthly Charge (F * G) | \$119,688 |



The RIDE - Calculation

Once the catchment area is determined, it is comparatively easy to determine applicable RIDE trip counts, as there are not the complexities of transfers and passes. RIDE trips within 0.75 miles of the Pilot Routes will change in price from \$3.35 to \$0. We expect significant induced demand. Because of the fully variable and highly subsidized cost of RIDE trips, we charge the city \$69.35 for each induced service hour above a pre-determined baseline.

1. Calculate baseline # of trips and adjust for systemwide ridership changes
2. Charge \$3.35 / trip for trips under baseline
3. Charge \$69.35 / hour for all hours over baseline. Note that trips average 24 minutes.
4. Re-assess operating cost on an [annual] basis

| Illustrative Calculation - Free RIDE for 1 Month | |
|--|----------|
| A Total Trips | 5,237 |
| B Baseline Trips | 3855 |
| C Baseline Charge per Trip | \$3.35 |
| D Over Baseline Trips (A - B) | 1,382 |
| E Average Hours per Trip | 0.4 |
| F Over Baseline Hours (D * E) | 553 |
| G Over Baseline Charge per Hour | \$69.35 |
| H Expected Monthly Charge ((B * C) + (F * G)) | \$51,262 |

