INCENTIVIZING A NEW ROUTINE: **HELPING SMALL-BUSINESS EMPLOYEES RETURN TO WORK VIA PUBLIC TRANSIT**

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Thank you to the residents of Greater Boston who provided feedback throughout the program. Your input helps us remember that each participant has a unique story about using the transit incentives. Your accounts and voice help policymakers and program administrators improve the program for all Bostonians.

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ABOUT IDEAS42

We're a non-profit looking for deep insights into human behavior—into why people do what they do—and using that knowledge in ways that help improve lives, build better systems, and drive social change. Working globally, we reinvent the practices of institutions and create better products and policies that can be scaled for maximum impact.

We also teach others, ultimately striving to generate lasting social impact and create a future where the universal application of behavioral science powers a world with optimal health, equitable wealth, and environments and systems that are sustainable and just for all.

For more than a decade, we've been at the forefront of applying behavioral science in the real world. And as we've developed our expertise, we've helped to define an entire field. Our efforts have so far extended to 50 countries as we've partnered with governments, foundations, NGOs, private enterprises, and a wide array of public institutions—in short, anyone who wants to make a positive difference in peoples' lives.

Visit ideas42.org and follow @ideas42 on Twitter to learn more about our work.
Contact Doug Palmer at dpalmer@ideas42.org with questions.

EXECUTIVE SUMMARY

Small businesses are significant economic drivers in Boston. Small business districts, in Boston known as Main Streets Districts, provide a myriad of economic and social benefits to their neighborhoods. For them to function well, traveling to small business districts should be as hassle-free as possible for employees and customers. This means not worrying about complicated, congested commutes or wondering where to park.

Traffic congestion and limited parking have long presented challenges for employees, employers, and customers in Boston's Main Streets Districts. The COVID-19 pandemic exacerbated the problem when many people switched from riding public transit to driving cars alone. Even as more people return to pre-pandemic activities like in-person work and shopping, many commuters have not switched back to public transit. The increased car traffic puts pressure on Boston's Main Streets Districts' already limited parking, slowing small business recovery. Driving single-occupancy cars instead of public transportation also increases emissions, with long-term impacts on the environment.

In the spring of 2021, as COVID-19 vaccines became accessible to the U.S.'s general public, the Boston Transportation Department launched the FreeRide pilot program to encourage commuters to use transit (subway and bus) and bike share as they commute to work. The FreeRide program was designed to accomplish three main goals:

- Support small businesses and their employees who have endured economic hardship throughout the pandemic,
- Shift employees away from single-occupancy vehicle use, and
- Reduce carbon emissions.

Providing public transit incentives is one lever the City of Boston has to help accomplish these ambitious goals. The program offered 1,000 participants preloaded MBTA and Bluebikes passes for May and June. We designed the program to evaluate the impact incentives have on public transit use. Over the initial four weeks, half of the program participants received cards loaded with $60, while the other half received cards loaded with $5, anticipating that the $5 card would not have significant impact on behavior. The second group subsequently received a second card loaded with $55. We also used surveys and interviews to gather information about how people used the incentives and whether they shifted from driving to public transit.

RESULTS

Our primary focus is to understand how people used public transit incentives and what impact the incentives had on changing behavior. Results of the program showed:

MBTA transit incentives increase MBTA ridership, even among those with car access. Participants with $60 passes rode the bus or subway an average of 8.29 times during the first four weeks of the program, compared to 2.05 rides for those with the $5 cards — an increase of 304.4%. Among the subset of people who had car access, participants using the $60 pass significantly had a higher ridership rate compared to the group with the $5 pass. The difference in ridership — 1.72 rides compared to 4.72 rides on average among those with access to a car, represents a 175% increase.

Transit incentives reduced financial stress for Main Streets Districts employees. Participants time and again cited how the transit incentives reduced financial hardship they faced, eased financial decisions, and provided more support during this difficult time. In one poignant example, a participant became homeless during the program, but the preloaded card allowed them to continue going into work.

People liked using Bluebikes — but there is limited evidence that Bluebikes were used as part of a commute. People without car access took an average of almost 9 trips on Bluebikes, whereas people with car access used Bluebikes just 2.4 times during the eight-week program. Participants who used Bluebikes enjoyed riding them, and the program did convert some Bluebikes skeptics to try the program and persist in using it beyond the free program period. However, participants noted that they used the Bluebikes mostly for leisure activities, not necessarily as part of a commute.

The FreeRide program may have reinforced existing transit use rather than shifting people from single-occupancy vehicles to transit. Over 70% of the participants had no car access, thereby making it difficult to determine if the incentives could cause a shift away from single-occupancy vehicle use to transit. Still, data suggest people used the incentives to commute. Participants tended to travel on the MBTA during peak commuting times into and away from the five Main Street Districts. In addition, all participants reported driving to work less and riding the MBTA more overall compared to March 2021. However, if the incentive was effective in changing behavior, we would expect to see some difference in self-reported MBTA ridership or car driving behavior between the $60 and $5 incentive groups. Instead, there was no difference between incentive groups in self-reported responses to riding in a car or taking the MBTA.

Based on these findings, we provide general recommendations for improving the program in future iterations and implementation lessons that the team learned. The implementation lessons are embedded within each section.

RECOMMENDATIONS

SUBWAY AND BUS INCENTIVE GUIDANCE:

- Continue and expand access to a subsidized subway and bus program.
- Focus the expansion on income eligibility, rather than a geographic focus.
- Simplify distribution of cards or loading funds to cards, ideally using participants' existing cards, rather than distributing new ones.

WAYS TO IMPLEMENT:

- Create a low-income fare for 25 to 65-year-old Boston residents to complement existing programs for residents below 18 and above 65.
- Provide subsidized subway and bus passes for City of Boston employees who meet income thresholds.
- If focused on Main Streets Districts, provide preloaded CharlieCards to all 20 Main Streets Districts Directors, so they can then distribute the cards directly to employees.

BLUEBIKES GUIDANCE:

- Focus on encouraging people to have a positive first trip experience.
- Streamline activation and membership processes.
- Focus on ways people can integrate Bluebikes into errands, leisure, and other transit trips, not necessarily work commuting.
- Improve outreach of the existing income-eligible program.

WAYS TO IMPLEMENT:

- Work with Main Streets Districts and small businesses to enroll employees in Bluebikes.
- Partner with large stores (like grocery stores) to make sure Bluebike stations are located near their entrances.

BACKGROUND: **SMALL BUSINESSES AND THEIR EMPLOYEES ARE ESSENTIAL TO BOSTON**

Small businesses are significant economic drivers in Boston. Boston's more than 40,000 small businesses generate more than $15 billion in revenue and about 170,000 jobs.[1] Thriving small businesses bolster local tax bases, supporting and growing public services and infrastructure essential to neighborhoods' wellbeing.[2]

Small business districts - areas with high densities of privately owned businesses - socially enrich their communities. Out of every $100 spent at small businesses, $68 stays in the community. This rate is more than four times higher than that spent at large chain stores. This money circulates back to other local businesses and the community at large.[3] Moreover, small business owners contribute greater financial and volunteer support to local nonprofits and community events than chain stores, and their employees are happier and more committed to their stores.[4]

Participants in the pilot program held jobs in a variety of positions including in retail, restaurants, healthcare, the federal government, grassroots organizing, education, law, attending school, and many more.

Main Streets Director said:
"75% of our small businesses are immigrant-owned, and most are mom and pop shops and have less than ten employees."

In 1995, Boston established the Boston Main Streets program to help commercial centers and their local neighborhoods Main Streets Districts receive funding, technical assistance, and training from the City and the National Main Street Center, and each district is led by a director. Boston now has 20 Main Streets Districts (Districts) across a diverse set of city neighborhoods. Local directors lead each District to coordinate across the city, local businesses, and community members to run various programs.

Boston Main Street Districts must be accessible for employees and customers, yet limited parking availability and increased traffic congestion make it challenging for employees, employers, and customers to park.

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1 City of Boston (2016, March). Small Business Plan. *City of Boston*. https://www.cityofboston.gov/images_documents/160330%20Boston%20Small%20Business%20Full%20Report%20-%20Web%20(144dpi)_tcm3-53060.pdf

2 Dahl, Darren. (2014, March). *Citi BrandVoice: Why Downtown Development May Be More Affordable Than The Suburbs.* Forbes. https://www.forbes.com/sites/citi/2014/03/14/why-downtown-development-may-be-more-affordable-than-the-suburbs/

3 BBB. (2019, April 23). 10 Ways Small Businesses Benefit Their Local Communities. *Medium.* https://medium.com/@BBBNW-P/10-ways-small-businesses-benefit-their-local-communities-7273380c90a9

4 BBB. (2019, April 23). 10 Ways Small Businesses Benefit Their Local Communities. *Medium.* https://medium.com/@BBBNW-P/10-ways-small-businesses-benefit-their-local-communities-7273380c90a9

Almost all Main Streets Directors highlighted parking and vehicle traffic as challenges in their districts.

"I'm hoping it helps other people visit. If you come to a restaurant, you might be there for two hours. A lot of people may see that there is no parking and keep going. Then, we lose that customer. This [program] ups the availability for new and old patrons to some of these restaurants [and] a better, livelier experience, especially, if you're driving by, and you've been dying to eat there but there is never a place to park."

"Parking is a problem. People come into the square for many reasons. It's crowded. There are two-hour parking limits, so every two hours, people need to take a break to move their cars around. Because of the volume of business, parking is limited."

"Parking is pretty horrific. We're opening new businesses. Development is going on. Students will be coming back. Businesses will be starting up again at the end of September. Traffic will increase greatly.

We have two-hour parking in most of the main drags. [The parking situation] impacts the neighborhood because people don't park legally. You'll see people waiting for spots."

"[I] hear so much from businesses around parking and how there needs to be space for cars to park for their businesses to be successful."

In addition to the dire economic challenge the COVID-19 pandemic presented to many small businesses, it also disrupted travel patterns. As COVID-19 cases rose worldwide, public transportation ridership plummeted as people avoided crowded indoor spaces. Nationally, transit ridership dropped nearly 80% in 2020 compared to 2019 levels.[5] In Boston, ridership on the Massachusetts Bay Transportation Authority (MBTA) system dropped, from 1.3 million to 300,000 on an average day.[6] While vaccination rates are increasing in the U.S., transit ridership is not rebounding to pre-pandemic levels. As of March 2021, ridership is still 60% below a 2019 baseline.[7] As shown in Figure 1 below, this trend was also felt at the local scale by Main Streets Districts. Rider numbers in Districts plummeted between March and April 2020, and bottomed out in the fall at less than half of pre-COVID-19 levels.

Program participants said:

"I did not have to go into the office everyday [anymore] because of the pandemic."

"[My] job has completely changed - now doing mostly virtual."

5 Dickens, M. (n.d.). The Impact of the COVID-19 Pandemic on Public Transit Funding Needs in the U.S. *American Public Transportation Association.* Retrieved May 11, 2021, from http://www.apta.com/research-technical-resources/research-reports/the-impact-of-the-covid-19-pandemic-on-public-transit-funding-needs-in-the-u-s/

6 *The future of public transportation is on the line in Massachusetts—The Boston Globe.* (n.d.). Retrieved May 11, 2021, from https://www.bostonglobe.com/2020/11/23/opinion/future-public-transportation-is-line-massachusetts/

7 *The future of public transportation is on the line in Massachusetts—The Boston Globe.* (n.d.). Retrieved May 11, 2021, from https://www.bostonglobe.com/2020/11/23/opinion/future-public-transportation-is-line-massachusetts/

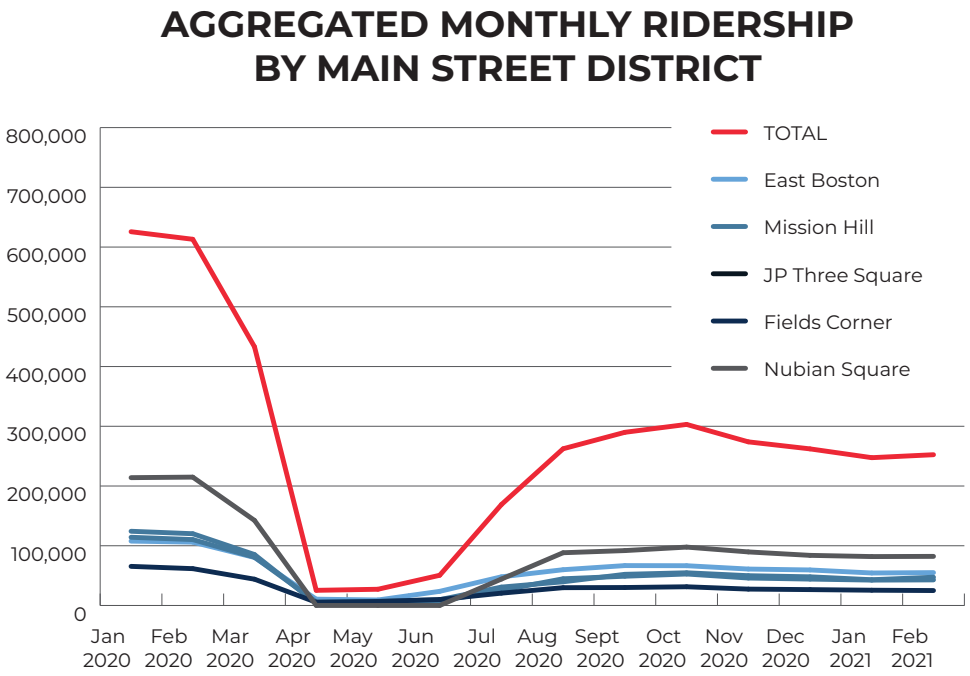


Figure 1 - Aggregated numbers of unique CharlieCards tapped within the pilot program's five Main Streets Districts, between January 2020 and February 2021, before the FreeRide program.

As riders avoided public transportation in spring 2020, the Boston-metro area anticipated a 15 percentage point increase in commuters driving alone when they returned to work, according to a November 2020 A Better City / City of Boston survey.[8] The increase in single occupancy vehicles on the road threatens to make Boston's Main Street Districts less accessible for employees and shoppers through increased congestion and demand for parking, and cause more pollution and carbon emissions.

Program participant said:
"Yes, we had a lot of fear about the severity of the pandemic and taking the T, so I borrowed a relative's car to drive to work since she works from home."

Overall economic activity and store foot traffic are increasing as vaccinations roll out, but as anticipated, many Main Street District employees and shoppers have not switched back to using public transit. Increased car traffic threatens to put further pressure on the limited parking available in Main Street Districts, possibly hampering the recovery of small businesses.

The City of Boston (the City) launched a pilot program to support Main Street Districts during this economic recovery. The pilot program provides employees in Main Street

8 *Anticipating Post-Pandemic Commute Trends in Metro-Boston* (2020, November). City of Boston and A Better City. https://www.abettercity.org/docs-new/EF_Survey_Report_Nov_2020.pdf

Districts financial incentives to take public transit and Bluebikes bike share. The goal is to increase transit ridership and reduce single-occupancy vehicle use. In turn, this would reduce pressure on parking and support small business employees without access to existing subsidized commuting benefits from their employers. ideas42, with funding from the American Cities Climate Challenge, worked with the City of Boston, MBTA, and Bluebikes to contribute to the program design and evaluate the program's effectiveness.

The City chose five Main Street Districts for the pilot: Nubian Square, Mission Hill, Fields Corner, East Boston, and Three Squares in Jamaica Plain. Each district has at least one MBTA transit line running through or near it and one bikeshare station. The City selected communities with racially and economically diverse populations who could most benefit from receiving transit benefits.

The pilot began as COVID-19 vaccinations became widely available, an optimal time for changing habits. People base many of their living, working, and family decisions around commuting. This makes commuting patterns an especially difficult habit to change. Yet people are more likely to set and meet personal goals at fresh start periods, particularly those perceived as new beginnings.[9] Returning to work as public health restrictions loosen presents one such opportunity for a **fresh start**. For people who used to take public transit but got into the habit of driving, the return to a "new routine" pattern presented a chance for such a reset. The City's goal is to support people creating new public transit commuting habits through the pilot program.

The **FRESH START EFFECT** means that people are more likely to take action on their goals immediately after a distinct event like the start of a new week or year, a holiday, our birthdays, or the return to work after a global pandemic.

Boston Transportation Department official said:
"The public transportation subsidies that the City is offering are targeted primarily to provide an equitable recovery from the COVID-19 pandemic. That's our primary purpose. We are also hoping, through this program, for our residents to make travel choices to take public transportation."

Main Streets Directors said:
[There is a] train station close by and numerous buses that come through it. A lot of employees jump on it because of how close it is to business or home. [The] bike trail [is nearby], so biking might be the way. Because of the landscape here, and because a lot of employees live in the Boston area, which makes it very convenient to jump on the T."

"This [program] came at that right time as one of a number of efforts to move people in that direction [of public transit as they return to work] and understand what works in terms of messaging and follow up - what's effective in moving the dial."

9 Dai, H., Milkman, K. L., & Riis, J. (2013). The Fresh Start Effect: Temporal Landmarks Motivate Aspirational Behavior (SSRN Scholarly Paper ID 2204126). Social Science Research Network. https://doi.org/10.2139/ssrn.2204126

PROGRAM TIMELINE AND OUTREACH

The FreeRide program was designed to accomplish three main goals:

- Support small businesses and their employees who have endured economic hardship throughout the pandemic,
- Shift employees away from single-occupancy vehicle use, and
- Reduce carbon emissions.

We encouraged employees in the five selected Main Street Districts to commute with transit and bike share instead of driving. (See Figure 2 for a map of Main Streets Districts selected for the pilot). Each of the five Main Streets District had at least one bikeshare station and one subway line running through it or next to it. The pilot program provided 1,000 preloaded CharlieCards, the name for the MBTA's passes, with money for bus and subway trips. The program also provided 536 free Bluebikes passes for employees in these Districts. Employees in eligible Districts completed applications for the program through an online Google Form application. The City mailed the CharlieCards and emailed the Bluebike passes.

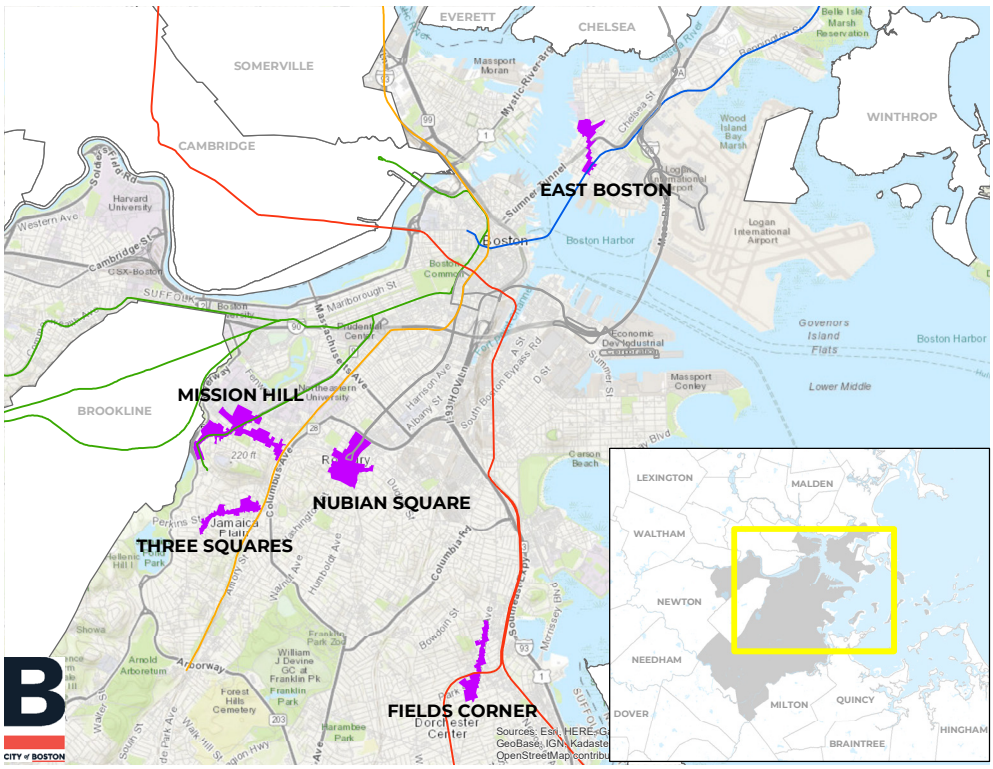


Figure 2 - Map of pilot Main Streets Districts

The Boston Transportation Department (BTD) and ideas42 began designing the Main Streets "FreeRide" pilot in January 2021 and also started considering how best to evaluate the program's impact and effectiveness at this time. The team identified potential barriers to signing up for the program and using the passes. We designed responsive outreach materials for the pilot to encourage as many eligible people as possible to apply for the program online. At the same time, BTD led conversations with local leaders to plan and coordinate outreach for program applications. Main Streets Directors within each of the five Districts helped think through implementation challenges, engaged with local business owners, advertised the program, distributed outreach materials, and gathered feedback along the way.

Main Streets Director said:
"We were involved with the City of Boston Transportation Department. We were involved since the inception, helping them think through what would work. For rollout, we distributed printed documents to the district and circulated mailers and emailers to members in the district. The program created a buzz and interest since it was free."

TIMELINE OF EVENTS

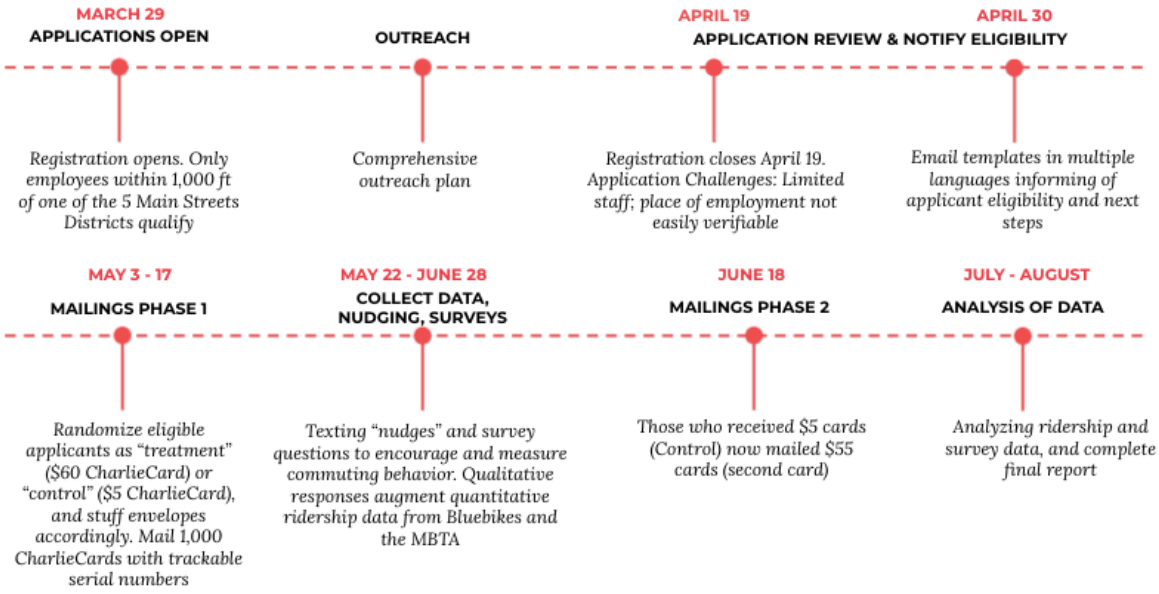
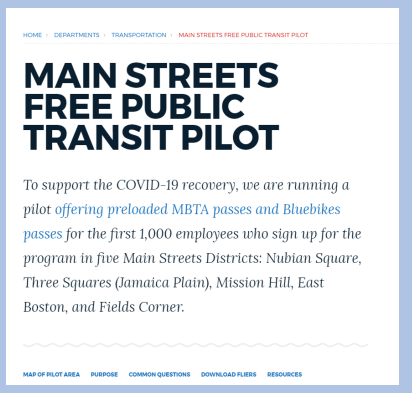


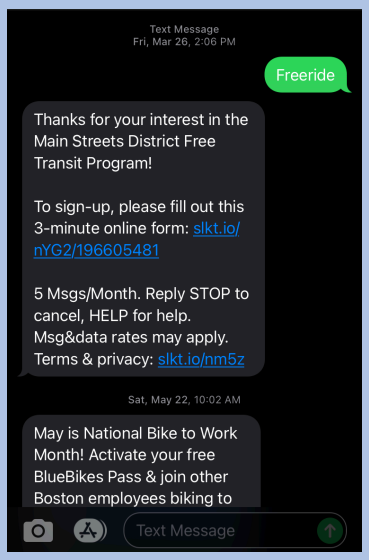
Figure 3 - Program timeline

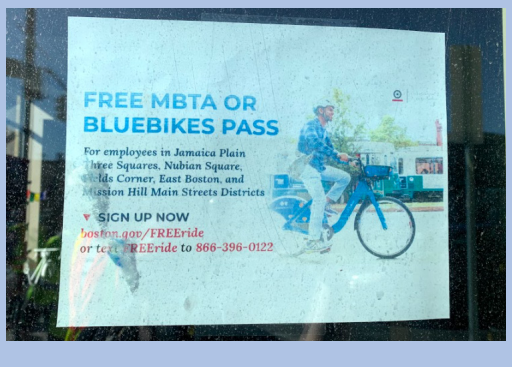
The City began accepting online applications in late March. To participate in the pilot, employees filled out an online application via Google Forms that determined eligibility based on work address. The survey included optional additional questions on demographic information and transport habits. People who filled out these questions were entered into a chance to win a gift card.

We used several outreach strategies to maximize the number and diversity of applicants. These strategies included: flyers and door hangers at local businesses in Main Street Districts; a public media toolkit; emails to and outreach by District Directors; an informational website; social media posts; paid social media ads; conversations with local and City leaders; door-to-door conversations led by City staff; and outreach at local venues like public libraries. Mayor Kim Janey kicked off the program at a press conference, and multiple news outlets ran stories about the pilot. (See timeline in Figure 3.) More than 4,000 people applied. BTD verified eligibility and enrolled the first 1,000 eligible applicants, and enrolled additional applicants who only requested a Bluebikes pass.

OUTREACH STRATEGIES







DATA COLLECTION AND METHODS

To evaluate the effectiveness and impact of the incentives, we created two groups with different incentive amounts and randomly assigned 500 people to each group (a randomized controlled trial). We randomly selected 500 participants to receive $60 CharlieCards at the start of the pilot and the other 500 to receive a pass with $5 and then a second pass with the remaining $55 four weeks later. (See Figure 4). The program was designed this way for four reasons:

1. Ensure that all participants received a total of $60 on CharlieCards.
2. Compare the larger incentive amount ($60) to a nominal incentive amount ($5).
3. Track card usage in aggregate. Without providing cards to people, we would have no way to count the rides people took.
4. Compare changes in use from a $5 card to a $55 card.

All participants were immediately eligible for a free Bluebikes pass at the start of the pilot. This was not randomized, which limits the ability to draw behavior change conclusions from the data. BTD sent the first wave of CharlieCards in the mail on May 17.

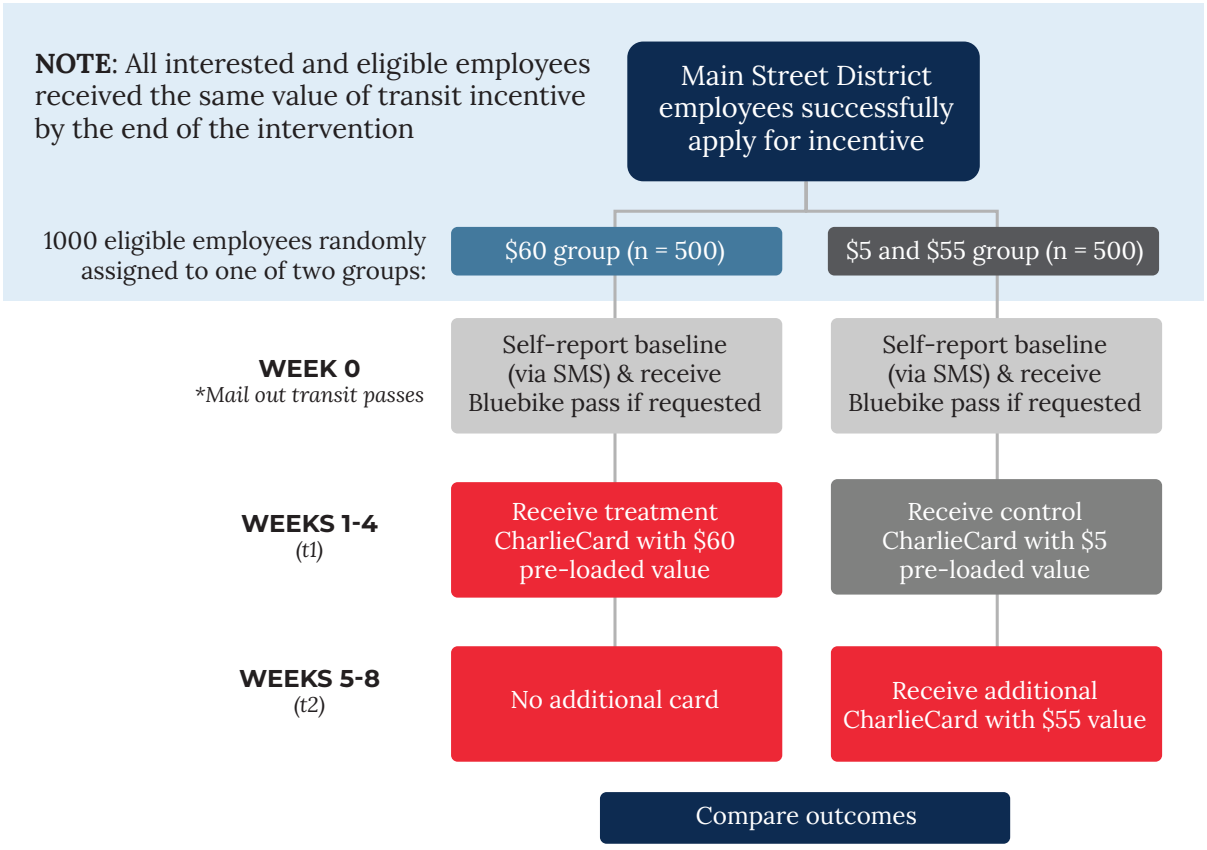


Figure 4 - Experimental design of the pilot program

The MBTA and Bluebikes collected anonymized public transit data. The MBTA provided the number of weekly rides for each CharlieCard. Bluebikes provided aggregated total ridership data for each account. These data sources provide administrative counts of program use and they do not rely on self-reported data. These data help determine the effect that different incentives have on transit use.

Understanding the potential impact of incentives on driving behavior is more complicated. The City and MBTA do not collect data on where people drive within Main Street Districts or anywhere else in the city. There are also no fees associated with driving to specific areas while on city roads.[10] The inability to track driving behavior requires us to use self-reported data, which is less reliable than administrative data. To collect information on driving behavior, we sent three short surveys via text message to participants to collect real-time data and gather longitudinal feedback about participants' experiences. We also conducted more than 20 qualitative interviews to understand their engagement and perspectives about the program. Finally, to make sure we received feedback from all relevant stakeholders, we also talked with those who received passes but never activated them, City officials, and Main Streets District Directors involved in the pilot.

10 The Massachusetts Turnpike is a state administered toll-road and does charge fees within the City of Boston, but not on city-administered roadways.

FREERIDE PROGRAM FINDINGS

PARTICIPANT OVERVIEW

The pilot program served employees working in five Main Street Districts. We collected demographic and travel data from participant intake Google Forms. Participants could answer the optional demographic and travel behavior questions to enter into a chance to win $50 Visa gift cards. (The following data describes all enrolled participants.)

We randomly assigned participants to either the $60 group or the $5 & $55 group. The groups were equal, on average, with respect to race, gender, and geographic variables. The only variable that was not equal (on average) was the choice of pass type — that is, choosing both a CharlieCard and Bluebikes pass or CharlieCard only. In the $5 & $55 group, 66% of participants chose CharlieCard only. In the $60 group, 60% chose CharlieCard only. We have controlled for this unbalanced effect in the analysis.

About one-third of participants (322) worked in Mission Hill. East Boston had the second most participants (245). (Figure 5). Women comprised more than 60% of participants. Program participants skewed younger overall, with more than half under age 35. The program reached a racially diverse population, one of the intended goals of choosing the five pilot Districts. Hispanic and Black participants represented the two largest racial and ethnic groups (Figure 6). Over 70% of participants did not have access to a car; this suggests that the program appealed more to those already reliant on public transit and did not substantially motivate those with access to a car to participate. (See appendix for more demographic information).

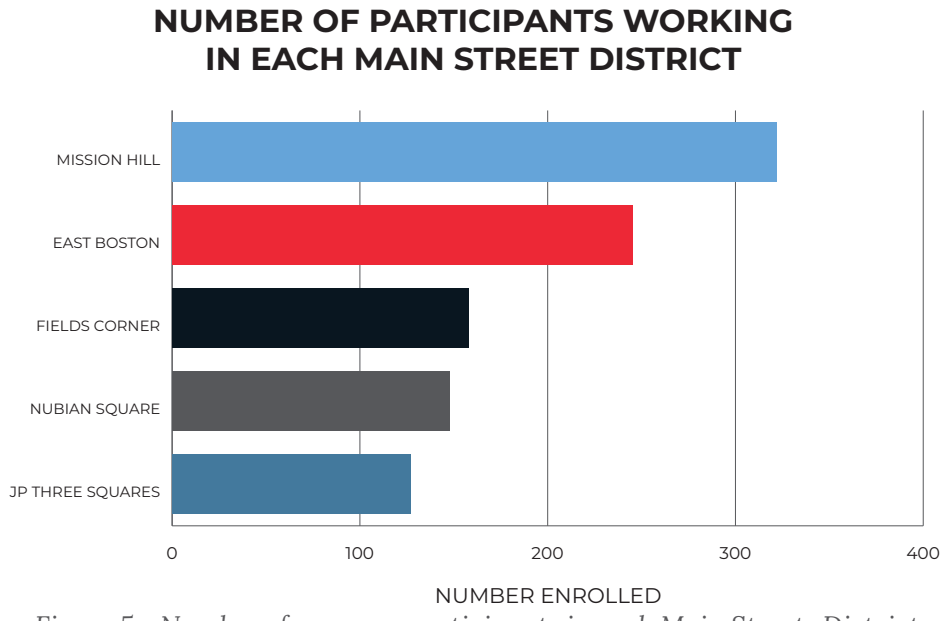


Figure 5 - Number of program participants in each Main Streets District

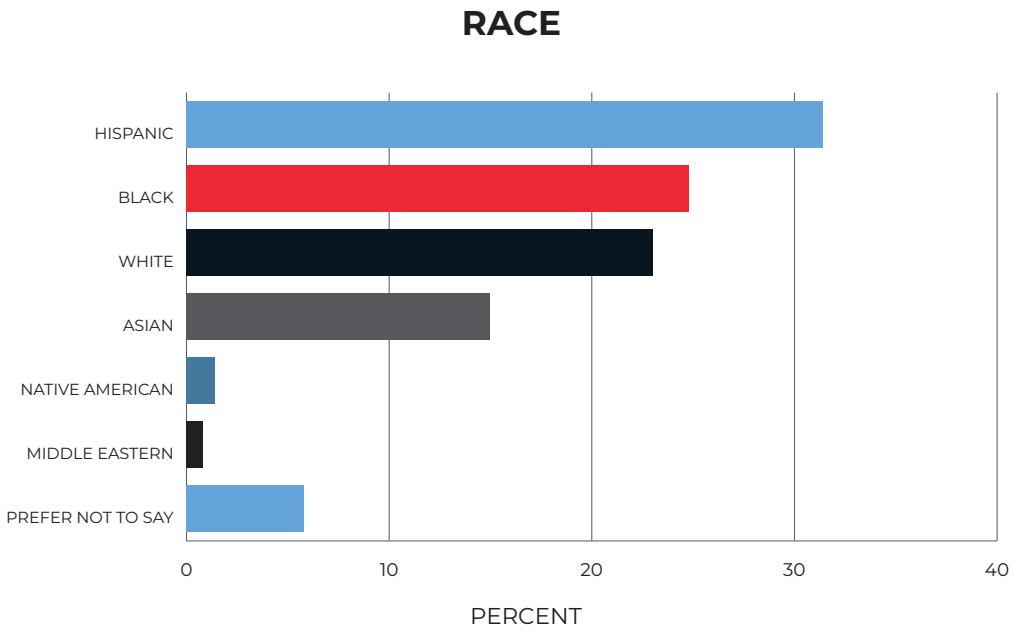


Figure 6 - Self-described race of program participants. The total adds up to more than 100% as participants could select multiple options for race.

PROGRAM SIGN-UP

Roughly half of the 4,741 applicants applied for the program in the first two days of the enrollment period, with a total of 3,000 sign-ups in the first week. (Figure 7). Mayor Kim Janey's program announcement and press coverage likely caused this surge in early sign-ups. Enrollment rates fell significantly after this first week. Concerted social media and door-to-door outreach minimally increased sign-up rates.

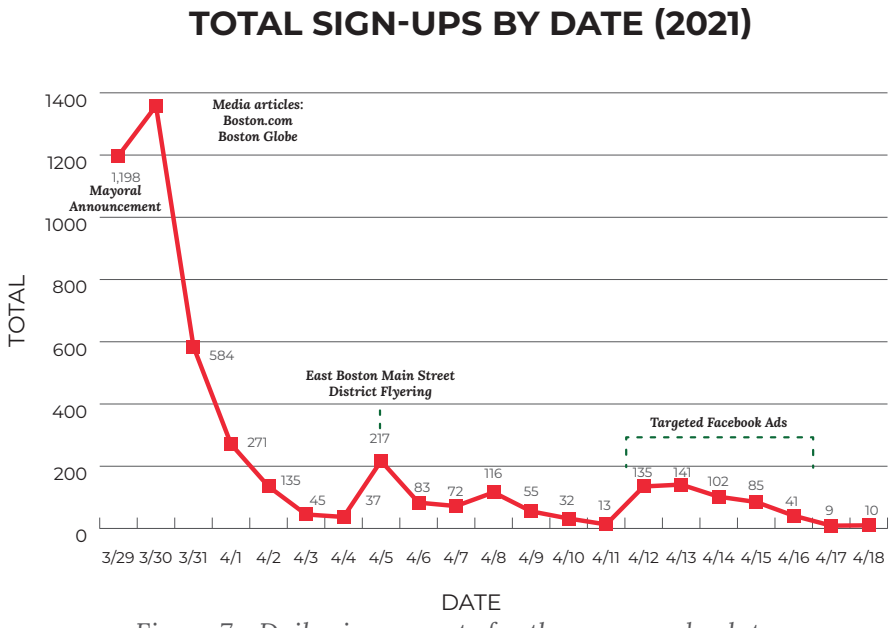


Figure 7 - Daily sign-up rate for the program by date

While sign-ups exceeded initial expectations, several unexpected challenges delayed sending the first CharlieCards. Google Forms, used for participant intake, does not prevent people from submitting multiple applications unless requiring Gmail email addresses. BTD employees manually screened all applications and found about 600 duplicates. BTD employees also manually verified eligibility based on the applicant's workplace location. This process was time-intensive and delayed the anticipated project timeline.

We learned through our interviews that participants applied to the program for many reasons. Still, one key theme from participants was more prevalent than the others: participants hoped the program would help alleviate the financial strain they faced, especially given the amount of their budget that goes toward public transit.

Program participants said:

"I applied [to the program] because the trains are expensive and a little help would be a big help. Those $60 would help me a lot."

"I work less than the federal minimum wage. 85% of my stipend goes toward living expenses."

While those who signed up came from various professions, a significant proportion were medical workers (i.e., doctors, nurses, support staff, and hospital administrators). Given the considerable resources at many Boston-area medical institutions, we found it surprising that these workers were unaware of or had employer-funded public transit benefits that were less than what was offered by the City.

IMPLEMENTATION LESSONS

- Announcements from key public figures (i.e., the mayor) and accompanying press proved far more effective in generating signup than other outreach channels. Future efforts should incorporate such announcements and include corresponding media plans.
- Future projects should not use Google Forms to verify applications. Verification approaches should prioritize automation and limit staff time.
- Encourage and partner with Boston-area medical institutions to fund new and better advertise existing employee transit benefits.

INCENTIVES INCREASED USE OF CHARLIECARDS ON TRANSIT

As discussed above, although we could not directly measure car usage, we were able to evaluate whether and how the financial incentive changed public transit usage for employees in the five Main Street Districts of focus. Setting up the pilot in this way allows us to answer one of the key questions of whether the program increased subway and bus ridership. Furthermore, it is critical to understand if and how this program might impact participants differently based on various demographic or geographic factors. We detail the results and learnings below.

KEY FINDING 1: PARTICIPANTS ACTIVATED 67% OF CHARLIECARDS

At the close of the eight-week pilot, participants activated 67% of the CharlieCards initially sent out ($5 and $60 cards). The activation rate did not differ between the $5 versus $60 CharlieCard, implying that the reason for activation was unrelated to the value on the card. The equal activation rates between the two groups also give some reassurance that activation rates do not skew the results on ridership.

Figure 8 below depicts the daily activation rate throughout the FreeRide pilot. The pilot program included two reminder text messages to encourage participants to activate and use their CharlieCards. **Reminders** can be an effective and low-cost solution to help individuals follow through on intentions.[11] We also crafted these text message reminders using two other behavioral science principles. The messages leveraged the **endowment effect**[12] (i.e., people's tendency to ascribe greater value to something because they own it) and **reciprocity**[13] (i.e., responding to another's action with an equivalent action) to encourage ridership. Although there is a slight increase in activations following the first reminder, there is no increase immediately following the second text. One reason might be that the second text targets those who drive into work, but we learned through data analysis and in follow-up interviews that most participants of the FreeRide pilot did not have access to a car and were not parking in the Districts.

SMS REMINDER #1

"Got your new MBTA card? Use it today! We've already pre-loaded it for you - all that's left is to tap onto an MBTA bus or subway."

SMS REMINDER #2

"Trouble finding parking near your work? Use your new FREEride MBTA card to take the bus or subway instead!"

11 Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2016). Getting to the Top of Mind: How Reminders Increase Saving. Management Science, 62(12), iv–vii, 3393–3672.

12 Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *The Journal of Economic Perspectives*, 5(1), 193–206.

13 Fehr, E., & Gachter, S. (n.d.). *Fairness and Retaliation: The Economics of Reciprocity*. 70.

NEW CHARLIECARD ACTIVATIONS BY DATE (2021)

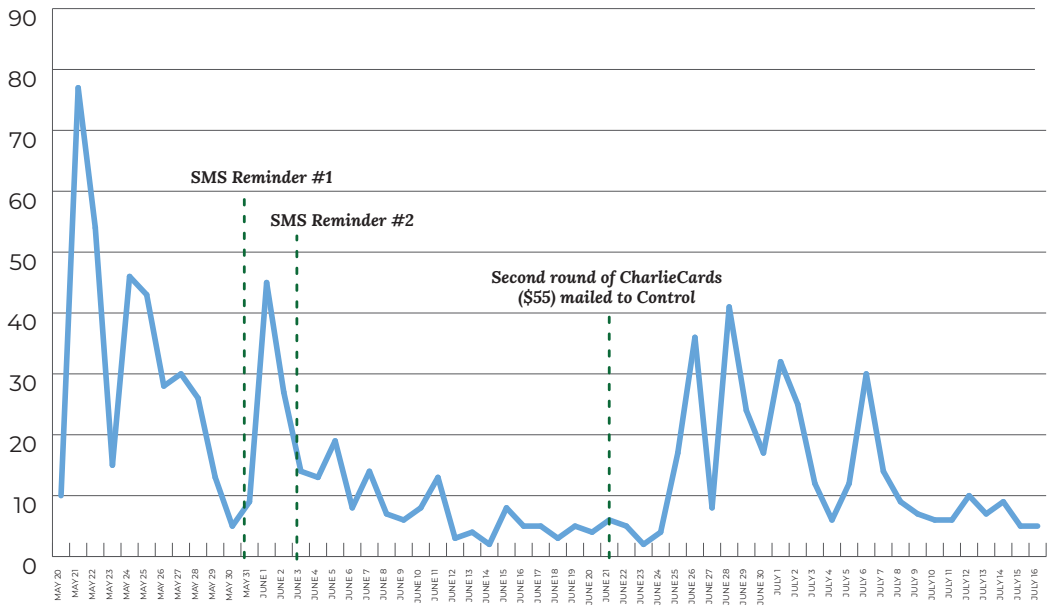


Figure 8 - Daily activation rate from May 20 to July 15.

Individuals may not have used their cards during the eight-week data collection period for several reasons. We conducted several follow-up interviews to understand why. Some participants said they wanted to save the card for later, had an existing public transit employment benefit, or forgot to replace their existing card with the new one. Some riders also hesitated to take public transit due to COVID-19 fears. Returned and undeliverable mail consisted of only 3% of letters, implying that incorrect addresses or mailing mistakes were not the main reason behind incomplete activation. A future program should focus on ways to reduce inactivated cards.

IMPLEMENTATION LESSONS

- When the technology to remotely load cards becomes available, load the funds onto the participant's existing card to avoid unnecessary hassles.
- If technologically possible in the future, consider using a "use it or lose it" system where money from unactivated cards would be returned to the City to allow more cost-effective implementation of an expanded program.
- Testing ways to encourage uptake and activation of provided CharlieCards could be a valuable opportunity for more behavioral science research in the future.

KEY FINDING 2: 304% INCREASE IN TRANSIT RIDERSHIP FOR $60 CHARLIECARD PASSES COMPARED TO THE $5 CHARLIECARD PASSES

Over the initial four-week period, sending the $60 CharlieCard pass quadrupled average individual ridership. Participants with the $5 CharlieCard took an average of 2.05 rides compared to 8.29 rides for those who were sent a $60 CharlieCard.[14] This represents a 304.4% increase in ridership (increase of 6.2 rides, $p < 0.001$), as shown in Figure 9. If all individuals had received and used their cards, we estimate that the $60 subsidized CharlieCard would have caused 11.14 more rides for each individual over the course of four weeks.

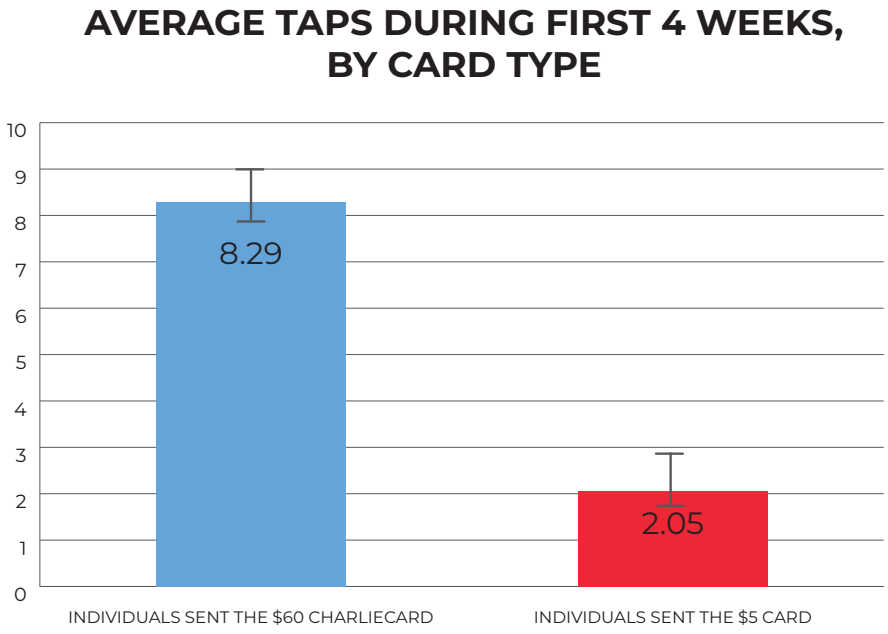


Figure 9 - Average taps during the first 4 weeks by card type

The $60 CharlieCard participants also used them more within the five designated Main Street Districts. The $60 CharlieCard doubled the average number of rides taken among participants within the five Districts, from 1.6 rides to 3.26 rides on average ($p<0.001$). The increase in ridership program-wide was significant both at morning and evening peak-times[15] ($p <0.001$), as well as for both subways and buses (with a larger magnitude increase for subway rides). This finding provides support that participants used the free CharlieCard to commute to and from their District workplaces.

14 Because choice of pass type was unbalanced between the two groups, it could be possible that our effect is influenced by a difference in the proportion of individuals who requested to receive only the CharlieCard versus CharlieCard and Bluebikes pass. Therefore, we controlled for choosing only the CharlieCard pass and report on these results.

15 Time periods for AM and PM peak-times generally 7 - 8:59 am and 4 - 6:29 pm, and defined by MBTA in more detail: https://cdn.mbta.com/sites/default/files/fmcb-meeting-docs/reports-policies/2017-mbta-service-delivery-policy.pdf.

KEY FINDING 3: THE $60 CHARLIECARD SIGNIFICANTLY INCREASED MBTA RIDERSHIP FOR PARTICIPANTS WITH CAR ACCESS

Among participants who reported having car access, the $60 CharlieCard significantly increased MBTA ridership from 1.72 to 4.72 rides on average. This increase represents a 175% increase ($p < 0.001$). However, car access attenuates the effect of the $60 pass (304% increase in the overall sample compared to a 175% increase with car access). The financial subsidy may not sway those who have the option to drive to work to shift to public transit at this time without other contextual changes (e.g., more convenient transit routes or more expensive parking). In interviews, people with car access (whether their own, or through rideshare apps) expressed a combination of appreciation for the program and a hesitancy to use public transit, largely due to concerns about COVID-19.

Program participants said:

"I mostly took a Lyft and an Uber, only because it was less people, and the less people I was around, the better because I wasn't exposing other people and I wasn't getting exposed [to COVID-19]."

"Because I have little ones, I didn't feel comfortable using public transportation [before the program]. Most days [I] was using a car to drop them off at daycare then Ubers to pick them up."

"Parking became such a big issue on our team. My boss heard about the program, and then, he sent it out to us."

"[There are] very expensive parking garages or parking spots by Brookline. Public transit is more affordable and it's reliable."

KEY FINDING 4: RIDERSHIP BEHAVIOR WAS SIMILAR ACROSS BASELINE CHARACTERISTICS INCLUDING RACE, BASELINE COMMUTE FREQUENCY, AND MAIN STREETS DISTRICT

An important question is whether the program impacted the behavior of people differently based on participant characteristics, especially given the diverse nature of our sample and the Main Streets District populations. The program had no significant differences in ridership behavior across self-identified race, age, gender, or employment District. In addition, the $60 CharlieCard had no impact on ridership based on safety perceptions or baseline commute frequency. This finding suggests that the financial subsidy can be applicable and effective across a broad population without creating new inequities. It is unclear whether the pilot reduced inequities that may currently exist. Future work could gather data on income and employee access to transit benefits to explore whether transit passes and financial subsidies can reduce inequities.

KEY FINDING 5: $55 CHARLIECARD INCREASED RIDERSHIP AMONG THOSE WHO HAD PREVIOUSLY RECEIVED THE $5 CHARLIECARD

Four weeks into the intervention, we sent a $55 CharlieCard to participants who had received the $5 CharlieCard to ensure that all participants received equal amounts in value. On average, individuals in this group took 8.95 rides in the four weeks after receiving the $55 pass, compared to 3.89 rides in the initial four weeks (5.1 more rides in the month with the

$55 pass than in the month with only the $5 pass, p <0.01). Figure 10 below shows ridership over the eight weeks of the pilot for the $60 CharlieCard, $5 CharlieCard and $55 CharlieCard (sent on week 5). As we might expect, if a higher financial incentive leads to a more significant shift in behavior, the average number of taps per week of the $55 card should be more than the $5 card, even if it is within the same group. Indeed, the $55 card exceeds the $5 CharlieCard within the first week. Still, it does not quite reach the peak magnitude of the $60 CharlieCard (at week 3).

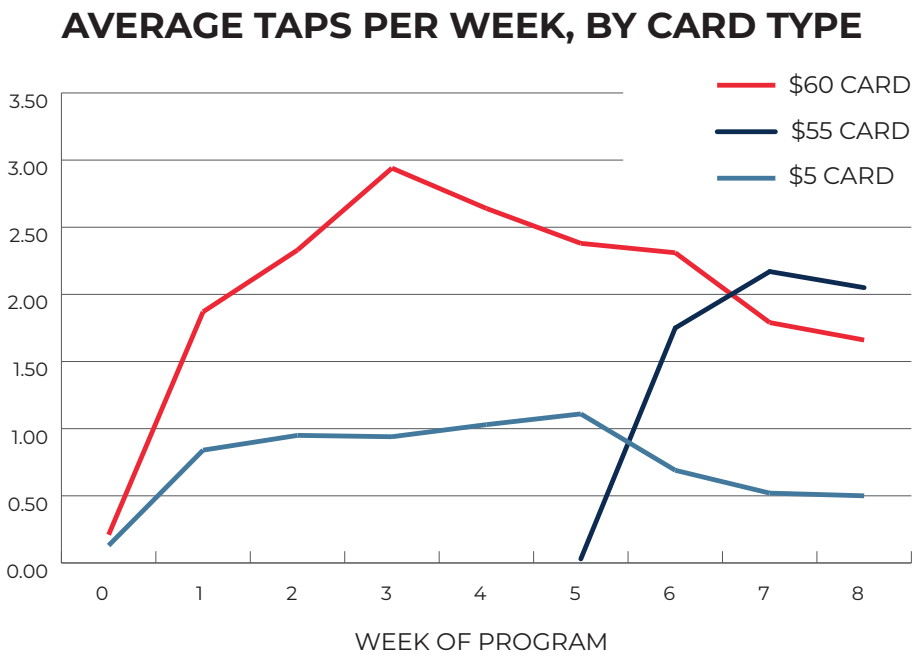


Figure 10 - Average taps per week by card type

KEY FINDING 6: PARTICIPANTS CONTINUED USING THE PILOT PROGRAM CHARLIECARDS BEYOND EXHAUSTION OF THE PRE-LOADED VALUE

One consideration of providing pre-loaded CharlieCards is whether participants simply stop using the card after the value runs out or if the new card can be used to sustain new habits. Looking at the card usage data,[16] the average value used on activated CharlieCards is $37.30 for the $60 CharlieCards and $14.10 for the $5 CharlieCards within the initial four weeks. Of those who activated the $5 CharlieCard, 52% reloaded and continued using their card within the

Program participants said the following about loading more money onto their cards:

"What I've been doing is just trying to add $10, $15 before it runs out."

"[Having the CharlieCard] gave me a sense of responsibility that this is my CharlieCard, and I feel that the $55 was the primary goal. If it dropped anywhere between $30 and $25, I knew at some point I needed to reload it to keep it going."

16 Assuming regular one-way bus and subway fares at time of writing: $1.70 for a bus ride and $2.40 for a subway ride.

initial four weeks. For comparison, 20% of those who activated the $60 CharlieCard reloaded their cards within four weeks. At the close of the pilot, those who activated their CharlieCard in the $60 card group spent an average of $56.34, while those who activated at least one of their cards in the $5 & $55 card group spent an average of $35.91. These data and participant feedback suggest that individuals continued to use their card once they exhausted the preloaded value. Participants may have used the timing of the program and salience of their new CharlieCard to return to commuting in a post-COVID-19 vaccination work environment. However, we note that participants may have used other cards to commute that were not reported in the data. The funds here do not represent the totality of funds people may have used to commute on the MBTA during this time, but instead just what was observable within this study.

PARTICIPANTS LIKED USING BLUEBIKES

All eligible applicants could select a free Bluebikes membership as part of the program. The free membership offer expired on June 30, 2021, giving participants May and June to activate their membership. In total, BTD approved 407 applicants for the Bluebikes membership, 367 for the CharlieCard and Bluebikes incentives, and 40 for Bluebikes-only memberships. In total, 39% (159) activated the membership. Mission Hill (71 of 151) and Fields Corner (28 of 63) had the highest activation rates.

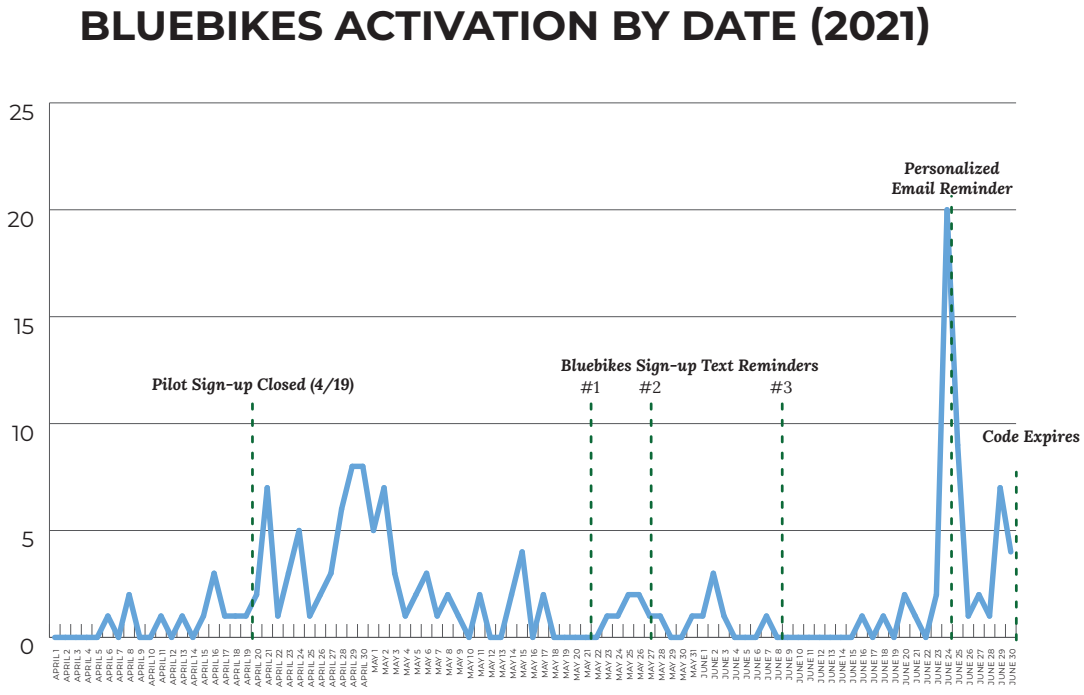


Figure 11 - Bluebikes activations by date

As noted earlier, the City sent three SMS text reminders to Bluebikes users to activate and use their memberships throughout the pilot program. One warning email focused on those who had not yet activated their membership. As Figure 11 shows, the SMS text reminders appear to have had little impact on activation purchases, if any. Similarly, the SMS text reminders appear to have had little effect on ridership. A few reasons for this may be that the messages may not resonate with riders, the messages do not include a personalized activation link, or riders have other hesitations or confusions about Bluebikes not addressed in the SMS messages.

The email, however, is correlated with a significant increase in activation purchases on June 24. The email specifically targeted those who had not yet activated their membership. It warned participants that they might lose the free membership if they did not act urgently. The email also provided a personalized direct link to activate their membership.

We also sent an email reminder (Figure 12), encouraging participants to activate both their CharlieCards and Bluebikes passes. This proved more effective in promoting sign-up, especially for Bluebikes users. We suspect this email motivated action by including a link to activate Bluebike passes, which reduced hassles, and through language that made the impending deadline for activating the passes or losing them salient.

EMAIL REMINDER FOR BLUEBIKES ACTIVATION

Email subject line: Your Free Bluebikes Code is Expiring Soon!

Hello [pipe in name]!

Thank you for being part of Boston's FreeRide pilot program. By now, you should have received your free Bluebikes pass.

Important: Your Bluebikes promotion code will expire on June 30, 2021. After this date, you will no longer be able to activate the pass.

The pass is ready to use now. Just click here to activate your BlueBike pass now. We reserved this pass just for you and it's waiting for you to use it.

Questions? Contact: bostoncommutes@boston.gov.

Happy biking!

The Boston Transportation Department

Figure 12 - Reminder email sent to participants with unactivated Bluebikes passes

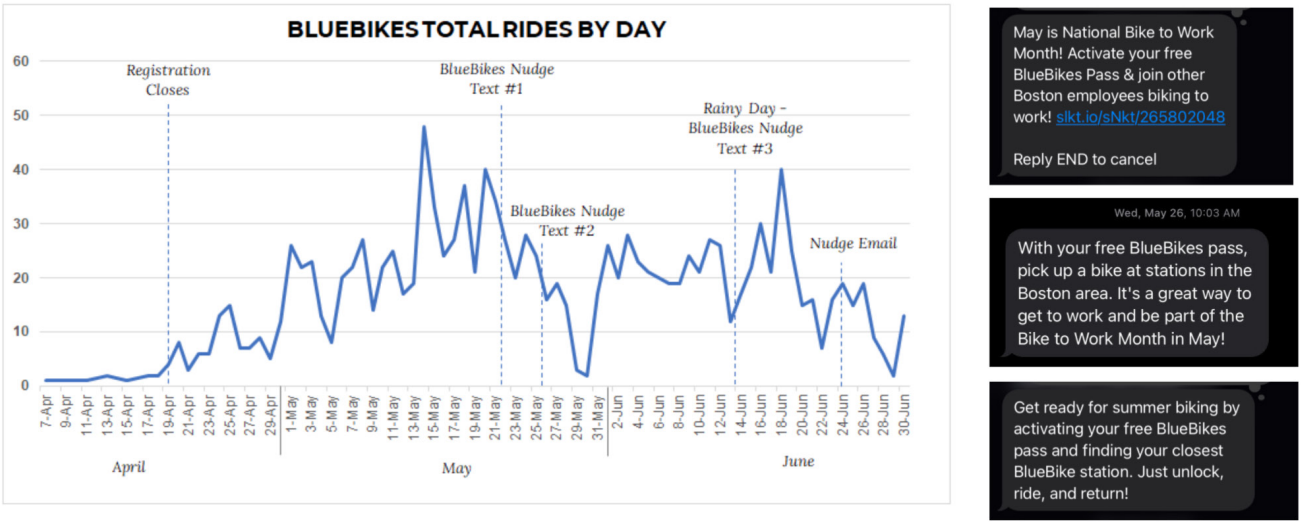


Figure 13 - Bluebikes total rides by day and text messages nudging ridership

Bluebikes membership activation rates, demographics, and characteristics help us understand the impacts of the program. Although more women (42%) than men (33%) activated memberships, this represents a smaller proportion of women in the activated cohort than the total program population. The age of the participants also skews younger, with 69% of activated memberships for people under age 34. It is also worth noting that twice as many people without car access activated their membership compared to those with access to a vehicle.

Program participant said:
"It was only yesterday that I realized that I had the free Bluebikes. I didn't realize that I got the email. I would click the link, but it would go to the homepage, and there was nothing personalized about it."

IMPLEMENTATION LESSONS

- Testing ways to encourage uptake and activation of provided Bluebikes passes could be a valuable opportunity for more behavioral science research in the future.
- Explore an agreement between Bluebikes and the City where money from unactivated passes would be returned to the City to allow more cost-effective implementation of an expanded program.

KEY FINDING 7: BLUEBIKES RIDES AND NOT HAVING ACCESS TO A VEHICLE ARE CORRELATED

Over the entire length of the program, activated Bluebikes members took an average of 7.16 rides, a little less than one ride per week. The most rides a person took were 151, with six people riding 50 or more times and 11 people riding 25 or more times. None of these high-frequency riders had access to a car. Not surprisingly, those without car access used Bluebikes more frequently than those with car access, averaging 8.85 riders per user compared to 2.4 rides for those with car access. Those without car access were also more likely to take at least one ride than those with car access, 55% compared to 37%.

The key finding that people without car access used Bluebikes more frequently than those with car access is not necessarily surprising. Instead, it may affirm that the free Bluebikes memberships supported existing Bluebikes riders without access to a car and encouraged new riders to try it, especially those without access to a vehicle.

	AVERAGE RIDES PER USER	PERCENT WITH AT LEAST 1 RIDE
No Car Access	8.85	55%
Car Access	2.40	37%

KEY FINDING 8: BLUEBIKES FREQUENTLY USED FOR NON-COMMUTING PURPOSES

Bluebikes is often promoted as one part of the transit system, helping residents get to and from a subway or bus route. Bluebikes can also serve as the main transit mode for people cycling directly from home to work. Our research suggests that people use Bluebikes for non-commuting purposes. In our interviews with participants, many mentioned how they used Bluebikes for non-work commuting trips. They would take Bluebikes to get around the city leisurely, to visit friends or family, or as part of a grocery run. It is unclear from the available data whether these leisure trips with Bluebikes replace car trips, or if people were taking these trips by non-car means already. Nevertheless, for some participants, Bluebikes became an integral part of their public transit experience.

Program participants said:

"I ride Bluebikes about three times a week, and I use bike mostly just to get around."

"I haven't yet used my Bluebikes pass because it's been too hot. But [I'm] working on it."

"I've been interested in Bluebikes but wasn't sure how useful it was going to be, so I wanted to check it out. Bluebikes is totally awesome! I will continue my membership after the free two months."

Program participants said:

"Discovering Bluebikes, I wasn't sure how it worked. [I] was really hesitant. I thought it was expensive. I didn't want to do it, and I wasn't sure about the stations or how far I could get. But after the membership, I totally enjoyed it. I use it for most of my rides."

"[I] Can't Figure out why I didn't do the Bluebikes. I used to be a member. I just didn't consider it. When I used Bluebikes in the past, it wasn't to get to work. It was to get to the supermarket and then take the train home. I really like the shared bike membership."

"I use Bluebikes more as a second resort for getting to work, but in the morning, especially, I'd much rather take the bus. I take Bluebikes more for leisure, for groceries, and things like this."

"I have not used the [Bluebikes] pass yet. It's been too cold. Now that the weather is nice, I would love to use it. I would not use it for [my new place of] work in Seaport. Professional white men in the area are more typical; I would definitely want to do it after work."

"I prefer Bluebikes over the train. The membership isn't per ride, which is better than the train. I feel like the 45-minute time limit is a bit inconvenient. I wish it could be extended to an hour. Sometimes, I have to stop at a Bluebikes station to lock one bike and unlock the next one because I want to ride more."

SURVEY DATA SHOW INCENTIVES MAY REINFORCE TRANSIT BEHAVIOR, RATHER THAN SHIFTING BEHAVIOR

The pilot program included three brief SMS text surveys sent throughout the course of the program. Each survey went out to the 1,000 CharlieCard participants to gauge self-reported ridership trends. BTD sent each of the three surveys in Spanish, English, and Vietnamese based on participants' preferred language. The program used the vendor SlickText to administer the SMS text message program and surveys. Participation was voluntary. BTD entered respondents to win one of several $50 gift cards as part of the promotion.

The chart below includes the survey questions and average responses. The average number of participants responding to the survey was 184, roughly 18% of the total sample. The answers were not significantly different from each other in each of the three surveys. Survey responses indicated that participants typically rode the MBTA a little more than four times in the previous seven days, which did not change over time. On average, respondents shared that they drove to work in a little more than one day and rode Bluebikes about 0.5 times over the last seven days.

Respondents also had a positive perspective on MBTA safety. The average rating for "How safe is it to ride the MBTA at this point?" was "Somewhat safe." The score indicates that although

some people may hesitate to ride the MBTA or worry about safety, most people believe that it was safe during the pilot program. In other words, these data do not indicate that the majority of people are necessarily staying away from MBTA out of safety fears during this program. This average rating could result from many factors, including that people worried about MBTA safety likely chose not to participate in the FreeRide pilot program.

Lastly, the survey data included questions about how participant behavior changed from before the program started in March 2021. We used March 2021 as a baseline because it was before the general public under age 65 became eligible for COVID-19 vaccination, was potentially recent enough in memories to provide reliable self-reporting, and minimized the differences in commuting patterns due to seasonal changes. Overall, respondents in both groups reported they were riding MBTA "a little more" than in March 2021 and riding in a car "a little less." Analysis comparing respondents who received the $60 CharlieCard compared to the $5 CharlieCard group reveals no significant difference in their responses to these questions.

There may be several reasons for not seeing a difference between the $60 group and the $5 group's responses to these questions. The survey question asks specifically about commuting ***to work***, but qualitative interviews suggest that people used the CharlieCards for other trips. Moreover, the suggested responses themselves are ambiguous: "a little less" to one person may be "about the same" to another and "a lot less" to another person. Parsing these nuances may contribute to the lack of statistically significant differences between the $60 and $5 CharlieCard groups.

IMPLEMENTATION LESSONS

- Require participants to provide quantitative responses for all questions. This reduces confusion for the participant and makes cleaning and analyzing the data much easier.
- Where possible, reduce gradation in responses. For example, when comparing ridership to March 2021, provide only three options: "More than March", "About the same", and "Less than March". This may provide more differentiation over the survey time horizon.

PARTICIPANT STORIES: FREERIDE PROGRAM REDUCED PARTICIPANT FINANCIAL BURDENS

During the program, we randomly selected roughly 20 program participants to interview to understand their perspectives on the program. We paid participants with $50 gift cards for their time. We also interviewed Main Streets Directors and BTD staff to help reveal insights beyond the story told by the quantitative data alone. Here, we share the key themes that emerged from those conversations.

KEY FINDING 9: COVID-19 IS STILL A CONCERN FOR MANY RIDERS

When we started planning this program in early 2021, we hoped that the summer would broadly provide a reprieve from the COVID-19 pandemic. Unfortunately, the rapid and unexpected spread of the Delta variant meant that conditions during the study were quite different from those we imagined. Many interviewees noted they felt safer riding public transit during the program than earlier in the pandemic due to vaccines and mask mandates. Still, others told us they worried more than a few months earlier, with a small subset even saying they had started to ride transit less or avoid it altogether. Although MBTA practices stringent cleaning and health measures to ensure rider safety, because COVID-19 is still present, both physically and mentally, encouraging people to resume riding on buses and the subway will require making the system feel safe for riders.

Program participants said:

"I don't feel totally safe, especially with the new COVID-19 strains. I personally don't feel like the pandemic is over. Anything can happen, and I don't want to expose anybody else or be exposed [to COVID-19]."

"[I] feel a little anxious because part of me really enjoyed being at home. My worry is more people, I guess. But, at the same time, because I'm vaccinated, it's not as much a concern. [It's] more about taking care of others. I don't know if I feel comfortable visiting my family at Somerville because three-fourths of family members are vaccinated. The one that isn't is at higher risk, so we've always been careful with them. [I] wouldn't feel comfortable taking the train to get them."

"After being vaccinated, [I'm] pretty comfortable [on transit]. No safety concerns."

"I still get kind of anxious. I try to take an earlier train so I can avoid people."

"It did [increase willingness to take transit] before they started to open it and didn't allow more than 100 people or a bus or train, but once we started... thinking everything was going back to normal, I haven't ridden it as much. Before that, it was nice to use since we were cautious. Now that it's open and people are doing whatever, I don't know about that."

KEY FINDING 10: PEOPLE LIKED USING PUBLIC TRANSIT

Overall, despite fears about COVID-19, interviewees were optimistic about their experiences with transit and Bluebikes and grateful that the program facilitated ridership. We asked program participants about their thoughts on the reliability, accessibility, and safety of the MBTA system and Bluebikes. Interviewees found transit and Bluebikes highly accessible and reliable but noted that buses were often challenging to access outside of downtown Boston. Frequently broken elevators also present a significant accessibility challenge. Apart from COVID-19, most participants said the MBTA felt safe, though several said they could feel threatened by other riders, for example, given the uptick of hate crimes targeted at Asian Americans. Some interviewees also told us they often felt unsafe biking in Boston, pointing to better bike infrastructure as a solution.

Program participants said:

"Bluebikes are very accessible. There are Bluebikes stations everywhere I need to go."

"Accessibility and reliability - [I] feel really good about this because if I need help with directions or have a problem, the MBTA ambassadors are really there to help me."

"I think accessibility-wise, it's pretty good coverage for most neighborhoods, though the route can be long. The connections to the bus to train or Bluebikes are fairly good across the city, at least downtown."

"[The T is] totally awesome. There have been a few times when the Red Line isn't reliable, but that's only once a month. But overall, I like them. Every train is on line and has no problems."

"[Biking] can be pretty risky on the roads with no visible bike lines and have to share a lane with cars. It's a bit nerve-wracking."

"I think the MBTA, in general, is doing decent when it comes to accessibility. We could do better, but there's so much to the MBTA that I would like to change, especially because of certain stations that don't have an elevator."

"I've witnessed so much Asian hate, and I'm a woman as well. There is so much marginalized sectionality here that I just don't feel safe."

Main Streets Directors described largely positive feedback about the program. Though, some said several people in the districts had problems receiving their CharlieCards in the mail. They also expressed interest in giving the cards directly to small business owners to offer them as a benefit for their employees.

Main Streets Directors said:

"People are really excited about it. I saw the list of people who were eligible and people who got it, and there was a ton of diversity about the kinds of people and the companies that people work for that took advantage of it, so it was really great to see."

"I've been pleased with the uptick. It can amplify our efforts to reach and convert lower-income workers to long-term bike share members helping us move in the direction of goals to extend access to bike share to those less represented in historical membership."

"Free transportation benefits really resonate with people and something that excites them to respond, and we should be building on this in our efforts to get people out of their cars."

"It's amazing. Definitely gives people the opportunity to get where they need to go in a fashion that doesn't hold up traffic and parking. It's an opportunity that every employee and business should take advantage of."

"For one, it makes it more attractive for employees to come in. That's how I sold it: 'This may be a way for you to hire.' A lot of businesses are struggling with hiring. It could be childcare or getting there. [This program] cuts down on one of those things."

"A lot of huge companies offer T passes, so to be able to offer something like this is a bonus."

"In the transition of the pandemic, coming back to the norm, we're giving people a good jump start."

KEY FINDING 11: CHARLIECARDS AND BLUEBIKES PASSES REDUCED MENTAL AND FINANCIAL STRESS

The interviews suggest that many people applied to the pilot program to help relieve financial stress. Numerous interviewees told us stories about how the passes had allowed them to go to work without worrying about the cost. Interviewees also gave examples of how the incentives made it easier to use public transit to visit family, get groceries, attend night classes, and to explore Boston on the weekends. On top of this, participants also explained that simply having the CharlieCard gave them one less thing to worry about and reduced their stress.

Program participants said:

"I received the envelope with the first CharlieCard. I was really happy because it gave me one less thing to stress about, and I was able to go to work, and my kids were able to go to school. The second one was even more of a blessing because I ended up being homeless and then moved to Malden. Being out of my everyday comfort zone, [it] was great to have access into work and Boston that I needed."

"Having the CharlieCardand stored value gave me some extra money in my pocket but also made me more mindful of the balance. [This] was my first time using a CharlieCard so I was really thankful for it."

"It's made it a little easier. Usually, I would have a weekly pass. I try to work out the numbers just right. If I take the T at all, it's more expensive than buses. It's carried me between times, so I can start the weekly T-pass later. I've been using both in conjunction between my old and the new card. The new card is so much nicer."

"Even after a pandemic, people who deal with a lot of stuff, marginalized folks are still going to deal with a whole bunch of stuff, so it's nice to have that around to know 'oh yeah, there's a program I can sign up to use the bus or ride a bike somewhere and not have to worry about paying out of pocket.'"

"I've been using [Bluebikes] more for leisure, so my wife and I have been taking it to breweries and other restaurants. We just walk outside, and there are a couple of stations within a quarter-mile, and so, we just hop on and go."

"Being able to tap it and go was less stressful for me. The comfort was nice to have during this period where there's a lot of anxiety around COVID-19. It's one less thing you have to deal with."

KEY FINDING 12: THE CITY SHOULD FOCUS ON HELPING THOSE WHO NEED IT THE MOST

Interviewees were overwhelmingly in agreement on the future of this kind of program in Boston. When asked, "What do you think should be the future of this kind of program in the city?", almost all interviews want to keep this program in place and expand it. They said the program should prioritize offering incentives to low-income groups. Interviewees explained that an expansion could play a key role in increasing access to quality education, employment opportunities, and the city's cultural amenities. They also underscored that this could provide ease of mind by lowering the barriers to access opportunities across the city.

Participants said:

"I think it should target those who need it the most. We live in a higher cost of living area, but if the program continues, it should really target the areas who need it a lot more."

"I think it can help out those who feel more economically affected, those who have been hit harder by the pandemic."

"[You should] touch base on the low-income families or people in the shelters. Give them an opportunity to grab the opportunity first."

"The essence of this [program] is that, if you give folks the funds to access public transportation, you give them access to many more things, like healthier grocery stores, allow their kids to experience more parts of Boston, allow people to appreciate Boston more, allow them to see the world, and what Boston has to offer."

"[An expanded program could offer] ease of mind. [Participants would] not have to worry about being fired from missing too many days of work [and be] able to get on a train/bus at any time, especially for kids. The only way to get to school from work is a quick train ride. I know [the program has] definitely impacted my life, and I definitely know somebody else who takes public transportation and faces a financial burden. This would also have a great impact on them."

IMPLEMENTATION LESSON:

- If future programs focus on Main Street District geographies, explore centralized distribution channels (e.g., distribution by Main Streets Directors) to mitigate problems with mailing cards.

CONCLUSION

The COVID-19 pandemic has changed almost every aspect of life in some way. Public health guidance discouraged the type of close-quarters environment often found on public transit and within the workplace. As many people worked from home, small businesses in Boston's Main Street Districts were responsible for providing essential services for communities and needed to find ways to survive in this new environment. Given this backdrop, there are no simple solutions to encourage transit ridership that could help employees and customers reach small business districts. However, the City of Boston launched the FreeRide transit program to accomplish three main goals:

- Support small businesses and their employees who have endured economic hardship throughout the pandemic,
- Shift employees away from single-occupancy vehicle use, and
- Reduce carbon emissions.

The results provide evidence that a $60 transit incentive leads to more transit ridership than a $5 transit incentive and that the incentives relieve financial stress for those who may need it most. Increasing transit ridership, in general, reduces harmful greenhouse gas carbon emissions.[17] Shifting people from cars to transit would reduce carbon emissions, reduce Main Street District congestion, and improve access to parking. The FreeRide pilot program may have reinforced existing transit ridership rather than help shift commuters from cars to public transit. Supporting public transit behavior during near-record low ridership is a positive outcome, even if we were not able to directly measure its effect on driving behavior.

The FreeRide pilot program is part of a larger movement toward more evidenced-based policymaking in government. None of these nuanced findings would be possible without the rigorous approach the City of Boston took in developing, implementing, and evaluating the program. The pilot program provided an opportunity for the City to study what happens when a program is launched, identify faults in the program, and develop ways to improve the program in the future. Ultimately, the FreeRide pilot program is critical in making better use of city funds, monitoring program performance, and improving the success of a program in achieving its desired goals.

17 U.S. Department of Transportation. (January 2010) *Public Transportation's Role in Responding to Climate Change*. Located: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/PublicTransportationsRoleInRespondingToClimateChange2010.pdf

APPENDIX

SLICKTEXT SURVEY RESPONSES.

	SURVEY 1	SURVEY 2	SURVEY 3
	RESPONSES: 194	RESPONSES: 189	RESPONSES: 168
QUESTION	**AVERAGE**	**AVERAGE**	**AVERAGE**
Over the last 7 days, how many days did you ride MBTA for work?	4.2	4.5	4.2
Over the last 7 days, how many days did you drive to work, either your personal car, taxi, or rideshare?	1.1	1.1	1.3
Over the last 7 days, how many days did you ride BlueBikes in any part of your commute to work?	0.6	0.6	0.7
In your opinion, how safe is it to ride MBTA at this point in time? 1 - very safe 2 = somewhat safe 3 = neither safe/unsafe 4 = somewhat unsafe 5 = very unsafe	2.0	1.9	2.0
How much are you riding the MBTA to work compared to March 2021? 1 = A lot more 2 = A little more 3 = About the same 4 = A little less 5 = A lot less	Not asked	2.2	2.0
How much are you riding in a car to work compared to March 2021? 1 = A lot more 2 = A little more 3 = About the same 4 = A little less 5 = A lot less	Not asked	3.8	3.7

FULL DEMOGRAPHIC BREAKDOWN OF PROGRAM PARTICIPANTS.

	MEAN (PERCENT)
n (Sample size)	1000
Pass Type: CharlieCard only	633 (63.3)
RACE [SELECT ALL THAT APPLY]	
Hispanic	314 (31.4)
Black	248 (24.8)
White	230 (23.0)
Asian	150 (15.0)
Native American	14 (1.4)
Middle Eastern	8 (0.8)
Prefer not to say	58 (5.8)
Gender	
Woman	618 (61.8)
Man	324 (32.4)
Non-binary	15 (1.5)
Other	2 (0.2)
NA	18 (1.8)
Prefer not to say	23 (2.3)
MAIN STREETS DISTRICT	
Mission.Hill	322 (32.0)
East Boston	245 (24.5)
Fields Corner	158 (15.8)
Nubian Square	148 (14.7)
JP Three Squares	127 (12.7)
Car Access	
No	706 (70.6)
Yes	265 (26.5)
NA	29 (2.9)

	MEAN (PERCENT)
AGE	
Under 18	4 (0.4)
18 - 24	172 (17.2)
25 - 34	364 (36.4)
35 -44	207 (20.7)
45- 54	118 (11.8)
55 - 64	99 (9.9)
65 or older	11 (1.1)
NA	25 (2.5)
BASELINE COMMUTE FREQUENCY	
None	11 (1.1)
1 - 2 times a week	59 (5.9)
3 - 4 times a week	254 (25.4)
5 or more times a week	657 (65.7)
NA	19 (1.9)

INCENTIVIZING A NEW ROUTINE:

HELPING SMALL-BUSINESS EMPLOYEES RETURN TO WORK VIA PUBLIC TRANSIT

City of Boston Transportation

ideas 42