

ITEM 10 – Information

October 20, 2021

Bus Transit Service and Fare Equity

Background:

The board will be briefed on a white paper and webmap prepared on bus transit equity in the region, looking specifically at local bus service coverage and frequency in relation to the travel needs of traditionally disadvantaged populations. In addition, the board will be briefed on a memo summarizing national and local transit fare relief initiatives and experiences.



MEMORANDUM

TO: Transportation Planning Board
FROM: Eric Randall, TPB Transportation Engineer
SUBJECT: Bus Transit Service Equity White Paper and Webmap
DATE: October 14, 2021

This memorandum reviews the purpose and findings of a white paper analysis of bus transit service and equity in the National Capital Region, prepared by consulting firms ICF Consulting and Foursquare Integrated Transportation Planning for the Transportation Planning Board (TPB).

PURPOSE OF THE WHITE PAPER

In March 2020, bus transit agencies across the region drastically cut bus service in response to the coronavirus pandemic. Since then, transit agencies have gradually restored bus service. In response to requests to identify bus service that should be a priority for restoration, the firms ICF Consulting and Foursquare Integrated Transportation Planning were contracted to produce a white paper to inform regional decision makers about equity considerations when restoring transit service and improving transit service equity in the longer-term post-pandemic.

Questions to be addressed with the analysis included:

- How does bus transit access for traditionally underserved groups compare to the region's overall population's transit access?
- How does bus transit access for COG's Equity Emphasis Areas (EEAs) work compare to the region's overall population's transit access?
- How does bus transit access to peak, high-frequency service (15 minutes or better) compare for traditionally underserved groups?
- How does bus transit access to jobs for low-wage work and essential jobs compare to the region's overall population's transit access to jobs?

The white paper analysis assessed bus service (route coverage, frequency, time of day, and span of service) as of March 15, 2021 for those living in COG's Equity Emphasis Areas (EEAs), historically disadvantaged populations, and essential workers. The analysis assessed whether service is distributed equitably and identified gaps in that service that could be filled to improve equity, both for service as of March 15 and for pre-pandemic service.

GEOGRAPHIC ANALYSIS AND WEBMAP TOOL

The bus transit service equity analysis focused on the geographic distribution of transit service compared to various demographic and employment groups of interest. Initially, the analysis produced static maps showing the density of select population groups within a ¼ mile of a bus stop in blue, and density outside of a ¼ mile of a bus stop in red. Select groups included:

- Total population density
- Total household density
- Persons of color population density
- Persons with disabilities density
- Low-income household density
- Zero/one-car household density
- Language other than English (LOTE) density
- Veteran population density
- All workers home location density
- Low-wage workers home location
- Total job density
- Density of essential service jobs
- Density of low-wage jobs

Static maps were succeeded by a dynamic map in ArcGIS Online format (AGOL) available at the following link. The full white paper is also available on this site in the introductory pop-up window.

<https://fitp.maps.arcgis.com/apps/webappviewer/index.html?id=dd131b91ef5148fbadd4778015f19cc9>

KEY FINDINGS

The white paper analysis had the following key findings:

Gaps in Service vs. Population

- While 60 percent of the total population in the TPB region is within one-quarter mile of fixed route bus service, only 68 percent of that group have access to 15-minute or better service in the AM peak period.
- Overall, transit service, major corridors, and population density are generally congruent.
- There are select block groups across the region that are high in population density (both total and specific equity subgroups) that are not within one-quarter mile of a bus stop.
 - Areas with concentrations of these block groups include Prince George's County outside the Beltway (such as in Laurel and Bowie); Prince William County around Dale City and parts of Manassas; and portions of Loudoun County south of Leesburg.

Gaps in Service vs. Employment

- Overall, transit service, major corridors, and job density are generally congruent, particularly in the region's core.
- Overall, 73% of all jobs are within a ¼ mile of a bus stop, reflecting the fact that a significant amount of transit service is directed towards job centers and jobs access.
- A higher density of low-wage jobs with no transit access can be seen primarily in Loudoun County around Dulles Airport and in and around Manassas and Manassas Park.
 - Other significant areas include the edges of the City of Frederick; Stafford County; and Prince George's County outside of the Beltway (such as Laurel, College Park, and Bowie).
 - Essential jobs follow the same patterns, but with additional underserved essential job hotspots in Fairfax County and on the eastern boundary of Prince George's County.

Disparities in Access to Bus Transit

- Overall, most persons of color, people with low incomes, and zero and one-car households have higher access to bus stops than the overall population (total population and total households).
 - However, many of these percentages fall when looking at frequent bus service in the peak periods (15 minutes or better).
- When looking at low-wage workers, only 61 percent are within one-quarter mile of a bus stop, and this figure drops to 41 percent in the peak periods.
- While marginalized population groups overall have more access to transit service compared to the general population, a smaller share (41 to 55 percent) have access to high-frequency service (15 minutes or better in the AM Peak) compared to the 62 to 68 percent of the transit-accessible population overall.
- The low percentage of access to frequent service for all groups, even in the peak periods, remains a concern, particularly for quality of life and jobs access.
- Equity Emphasis Areas (EEAs) have a higher percentage of residents within one-quarter mile of a bus stop for every analyzed sub-group, often by a factor of 20 percentage points.
 - However, this is compared to the region as a whole, which is overall less dense than the EEAs.
- When looking at low-wage jobs within a quarter mile of transit compared to all jobs, the percentage drops five percentage points, indicating that those in this higher need category have less slightly less access to their employment location.
 - When looking at essential jobs (work location) the figure rises slightly to 75%
 - When evaluating the peak periods however, access drops significantly, with only 56% of jobs within a ¼ mile of 15-minute or better service in the AM peak period, during the PM Peak period this rises slightly to 57%.
 - For low-wage jobs this drops to 41% in the AM peak and 48% in the PM peak.
 - Access to essential jobs (work location) in the AM peak period remains on par with overall access to jobs (56%).

Network Job Accessibility Analysis

- The service period with the highest quantity of jobs accessible is the weekday peak period, followed by weekday midday, Saturday, and weekday late night.
- For all time periods, low-wage workers have access to fewer jobs compared to all workers.
- Job access for all job types and all workers decrease consistently from the peak, to midday, to the late periods.
- More jobs are accessible for people living within EEAs compared to those living outside of them.
- The highest levels of job access are found in the dense core of the District of Columbia and radiate out along major corridors. However, Montgomery County shows generally better access along its corridors compared to Prince George's County and Northern Virginia.

Transit Level of Service Change

- Areas that lost the greatest amount of service during the pandemic included:
 - Burke (Fairfax County)
 - McLean (Fairfax County)
 - City of Falls Church
 - Fort Washington, Mitchellville, and Crofton (Prince George's County)

Areas which Lost High-Frequency Service

- The loss of high-frequency service (service that comes every 15 minutes or more) was most prevalent across the District of Columbia and along Columbia Pike in Fairfax County.
- Other smaller pockets saw a loss of high-frequency service in Arlington County, the City of Falls Church, and throughout Montgomery County and the northern end of Prince George's County.

Transit Equity Need Index

- The Transit Need Equity Index measures demographic characteristics at the block group level which are known to indicate likelihood of transit use and/or transit dependency. These variables measure population and households at their home location and are therefore indicators for access on the origin side.
- There is a large degree of overlap between the areas which scored high on this index and Equity Emphasis Areas (EEAs): The eastern and southwest portions of the District of Columbia; the inner beltway regions of Prince George's County and Montgomery County; adjacent to major corridors in Northern Virginia; and, the densest areas of the region's satellite communities such as Rockville, Frederick, and Manassas.
- Clusters of high-scoring areas outside EEA boundaries can be found primarily in Prince George's and Charles Counties.

Level of Service (LOS) Change Index

- The Level of Service (LOS) Change Index measures how much service changed in each block group from before the pandemic until now. The change in number of trips per period calculations were used to create the LOS Change Index.
- The highest scoring areas (those that experienced the most significant losses in service) are in Northern Virginia (including Fairfax County, Falls Church, McLean, and Burke) and Prince George's County (around Fort Washington, Bowie, and Laurel).

Gap Analysis Index

- The Gap Analysis Index determines the areas within the region that have high transit need and experienced notable reductions in or losses of service during the pandemic. This index is calculated by taking the Transit Equity Need Index and LOS Change Index and calculating the size of the gap between them. Block groups with higher Transit Need Equity scores that experienced a larger decrease in trips resulted in larger Gap Analysis Index scores, while block groups with lower Transit Need Equity scores with a similar service reduction would yield a smaller gap.
- The District of Columbia had many block groups with moderate scores on this index. Most of the largest gaps were found in Maryland and Virginia.
- The largest gaps in Maryland can be found in College Park, Laurel, Bowie, and the National Harbor/Fort Washington area.
- In Virginia, major gaps exist around Falls Church, Annandale, Burke, and Quantico.
- High-scoring gaps can be found both within and outside of COG's Equity Emphasis Areas.



MEMORANDUM

TO: Transportation Planning Board
FROM: Antonio Castañeda, TPB Transportation Planner
SUBJECT: Overview of Regional Bus Fare Collection and (Equity) Fare Relief Pilots
DATE: October 14, 2021

This memorandum provides an overview of bus fare collections and revenues in the National Capital Region (NCR) as it relates to the COVID-19 pandemic, declines in service, ridership, and national discussions around transportation and equity. Public buses in the region serve as a key lifeline for the mobility of residents and in particular low income, minority residents who are disproportionately transit dependent and often essential workers, providing equitable mobility. Public transportation is also essential to meeting our regional climate goals and priorities around reducing carbon emissions, lowering regional congestion on roadways, and promoting multi-modal transportation options. Lastly, this memo reviews local and national initiatives towards fare relief (a term encompassing policies on either free fares or means-tested fare discounts or subsidies) to collect lessons learned for service providers in the NCR.

INTRODUCTION

Throughout 2020, most local bus services in the National Capital Region suspended fare collection in the interest of public health and safety for riders and operators. Over the last few months fare collection and service restoration have slowly been reintroduced as more residents become vaccinated and ridership returns. During this period, a renewed interest and urgency for transit fare relief has emerged as transit ridership trends shed light on our essential workers and transit dependent populations, especially on bus transit¹ where Black and low-income riders comprise 82% and 69% (respectively) of Metrobus riders during the pandemic² (in comparison to 81% for all minority riders and 46% low-income pre-pandemic). In light of this, we discuss here fare relief policies and programs, historical and ongoing, in transportation agencies throughout the US³.

FARES AND SERVICE IN THE NCR

In 2019 the National Capital Region provided over 170 million trips to riders across 12 local bus service providers, collecting upwards of \$167 million in fare revenues⁴. The base fare rate for bus service varied from free (DC Circulator operated fare free from February to September in 2019) to \$2 with an average of \$1.53. However, the average fare paid by passengers was \$0.99 (see Table 1 below), this difference in averages is largely due to transfer discounts between modes and services, subsidy programs and federal mandates that require service providers to offer discounted fares for

¹ APTA. "Who Rides Public Transit" American Public Transportation Association, Jan 2017, <https://www.apta.com/wp-content/uploads/Resources/resources/reportsandpublications/Documents/APTA-Who-Rides-Public-Transportation-2017.pdf>

² George Justin, Rabinowitz Kate. "The Pandemic Changed the Workday, but Will Transit Riders Return?" *The Washington Post*, WP Company, 16 Apr. 2021, www.washingtonpost.com/transportation/interactive/2021/public-transit-ny-dc-metro/.

³ Barry, Ellen, Rybus Greta. "Should Public Transit Be Free? More Cities Say, Why Not?" *The New York Times*, The New York Times, 14 Jan. 2020, www.nytimes.com/2020/01/14/us/free-public-transit.html.

⁴ Synthesis of National Transit Database 2019 Data.

seniors and riders with disabilities during off-peak hours⁵ (most service providers in the region also extend these discounts to all day service). Meanwhile, local bus operating costs in the region totaled \$1 billion with Metrobus, Ride On and Fairfax Connector accounting for nearly 90% of these costs (they also carry 90% of the NCR’s annual bus trips). Fare revenues fund a portion of the region’s operating costs, nearly 16% on average. The fare recovery ratio (a metric that compares collected fare revenues to operating expenses), when viewed per service provider, ranges from as low as 4% and as high as 27%. Thus, the impact of fare revenues is neither uniform nor consistent across the region as fare recovery varies based on fare rates, total subsidies provided and overall ridership.

Since the start of the pandemic the impact of fare revenues has been exacerbated as local bus ridership declined significantly, with some agencies experiencing as low as 20% of pre-pandemic ridership levels while others have maintained close to 80% (median ridership loss in the NCR was approximately 65%, see Figures 1 and 2 in appendix for more information). As bus ridership continues to remain below pre-pandemic levels, many local service providers have begun to assess the role fare relief can play in the recovery of the region.

Table 1 - 2019 Fare Information of Local Bus Service Providers in the NCR

Name	Annual Trips (Millions)	Annual Fare Revenue (Millions)	Annual Operating Expenses (Millions)	Base Fare Rate	Discounted Fare Rate	Average Fare Paid by Passengers	Fare Recovery Ratio (%)
MetroBus	123.3	124.0	733.4	\$2.00	\$1.00	\$1.01	17%
Ride On	20.6	20.5	124.6	\$2.00	\$1.00	\$1.00	16%
Connector	8.3	10.9	85.5	\$2.00	\$1.00	\$1.31	13%
DC Circulator	5.5	0.0	26.9	\$1.00	\$0.50		
DASH	3.9	4.3	19.9	\$1.60	\$1.00	\$0.88	21%
ART	2.8	3.7	14.9	\$2.00	\$1.00	\$1.29	25%
TheBus	2.6	1.5	28.7	\$1.00		\$0.50	5%
OmniRide	0.9	0.7	15.8	\$1.55		\$0.81	5%
VanGo	0.8	0.4	5.4	\$1.00	\$0.50	\$0.53	7%
CUE	0.6	1.1	4.2	\$1.75	\$0.85	\$0.63	27%
TransIT Loudoun	0.6	0.6	5.7	\$1.50	\$0.75	\$1.02	10%
County Transit	0.4	0.2	4.5	\$1.00		\$0.52	4%
Total	170	\$168	\$1,069	\$1.53	\$0.84	\$0.99	16%

Source: NTD 2019 Data & Service Providers’ Websites

REGIONAL INITIATIVES

FARE PROGRAMS, PILOTS & STUDIES

Within the NCR and over the last 20 years TPB staff have found over 10 related transit fare relief programs, pilots or studies as listed in the three sections below. Detailed summaries for each program and study can also be found in the appendix.

⁵ Part 609 – Transportation for Elderly and Handicapped Persons §609.23 Reduced fare. *Legal Information Institute*, Cornell Law School, <https://www.law.cornell.edu/cfr/text/49/609.23>

In December 2019, WMATA in partnership with the District of Columbia proposed piloting a fare subsidy program for low-income riders (across both Metrorail and bus), which has been postponed due to the ongoing pandemic⁶. WMATA currently provides fare discounts for select routes in the Anacostia region (the subsidy has existed since the opening of Anacostia Metrorail Station in 1991) and for enrolled universities in WMATA's service area via the U-Pass program. Enrolled District and Montgomery County students can also ride WMATA and Ride On free via the Kids Ride Free program. Fairfax County offers a similar program for students in the county on both Connector and CUE.

In 2014, DC Circulator conducted a fare elasticity study which estimated a 64% increase in ridership would result from suspending fares⁷. In 2019 they implemented a 7-month fare free pilot, during which DC Circulator experienced a 36% increase in ridership. In early March 2020 and again in October 2021, DC councilmember Charles Allen proposed *Metro For DC*⁸ which aimed to establish a dedicated fund for a monthly transit fare credit totaling \$100 per DC resident in the aim of promoting transit equity and reducing congestion and carbon emissions.

Recently, a TPB Land Use Connections (TLC) Program project for the City of Alexandria's DASH bus service funded a low-income fare pass assessment which found fare free transit to be the most cost-effective fare relief scenario with an estimated 23% increase in ridership⁹. DASH began operating fare free service on September 5, 2021 along with the implementation of the New DASH Network service restructuring. Lastly, the Northern Virginia Transportation Commission (NVTC) published the white paper titled: *Zero-Fare and Reduced-Fare Options for Northern Virginia Transit Providers* in September 2021. The white paper reviews many of the same initiatives listed in the next sections and draws similar takeaways, however it provides a wider range of fare relief options (e.g. limited period, customer groups, routes, zones and time of day) and notes unique considerations like transfers and ongoing technology upgrades not discussed in this memo.

NATIONAL FARE RELIEF PROGRAMS

FARE FREE PILOTS

Fare free transit precedents have existed for almost 50 years with the most notable and researched examples being Mercer County (Trenton), New Jersey and Denver, Colorado in the late 1970s and Austin, Texas in 1989. All three of these experiments underwent considerable ridership gains, but were criticized for increased problems of overcrowding, disruptive passengers, and complaints from bus operators as well as decreased schedule reliability¹⁰.

Fare free programs can benefit agencies and riders by eliminating the need for fare enforcement which disproportionately affects low-income/minority residents, overburdens transit riders, puts immigrants at a higher risk for deportation¹¹, increases operator safety by reducing the likelihood of fare-related disputes and eliminates administrative costs related to fare collection and enforcement. Additional impacts of fare free programs vary across regions and system sizes as discussed below.

⁶ "Board Action/Information Summary" Report by Finance and Capital Committee, <https://www.wmata.com/about/board/meetings/board-pdfs/upload/9C-DC-Low-Income-Fare-Pilot.pdf>.

⁷ DC Circulator. "Potential Impact of Modifications to Circulator Fares on Ridership, Revenue, & Costs." *FY2014 DC Circulator TDP Update*, DC Circulator, 30 May 2014, www.dccirculator.com/wp-content/uploads/2015/08/Appendix_B_Fare_Elasticity_Memo.pdf.

⁸ Salmi Erik. "Introducing Metro For DC: Give Every DC Resident \$100 on SmarTrip and Set Aside Millions Annually to Improve Bus Service in First Wards 5, 7, and 8." *Charles Allen DC Council v2.0*, 02 March 2020, www.charlesallenward6.com/introducing_metro_for_dc.

⁹ Foursquare ITP. "City of Alexandria Low Income Fare Pass Assessment." *City of Alexandria*, 5 May 2021, www.alexandriava.gov/uploadedFiles/tes/info/MWCOG-Alexandria-TLCLowIncomeFarePassAssessment-Final%20Report_Final.pdf.

¹⁰ National Academies of Sciences, Engineering, and Medicine. 2012. *Implementation and Outcomes of Fare-Free Transit Systems*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/22753>

¹¹ "Why decriminalize fare evasion?" TransitCenter. (2019, August 13). <https://transitcenter.org/why-decriminalize-fare-evasion/>.

In 2012 the Transportation Research Board's Transit Cooperative Research Program (TCRP) surveyed 39 fare-free service providers in the US and found that three types of communities were most likely to adopt fare-free transit policies: rural and small urban areas, university-dominated communities, and resort towns¹². Since the TCRP report, larger cities like Kansas City, Missouri, Olympia, Washington and Los Angeles, California, have implemented their own fare relief programs. As of 2018, Kansas City is the largest transit provider in the US to offer system-wide fare free transit service with over 10 million annual trips on its RideKC service. In Olympia, going fare free was deemed the simplest solution to an aging farebox system and a low farebox recovery ratio. LA Metro, which has offered means-tested discounts for almost a decade, has proposed providing free fares to all adults earning less than \$35,000 a year (approximately 70% of their riders) in 2022. The 18 month pilot is expected to cost \$338 million, which would make it the largest fare free pilot to date.

FARE RELIEF PROGRAMS

Means-tested fare programs like LA Metro's also exist in New York City, Seattle, Portland and the San Francisco Bay Area, among others. These programs date as far back as 2012 (Los Angeles), have as many as 200,000 enrollees (New York City) and typically offer discounts ranging from 20 - 50% for adults earning between 100-200% of the federal poverty line (FPL). In March 2021, Massachusetts Senator Edward J. Markey and Congresswoman Ayanna Pressley also reintroduced the "Freedom to Move Act" to further support state and local efforts to implement fare free transit via a \$5 billion competitive grant program.

Means-tested fare subsidies have been implemented in many large transit agencies where going fare free system-wide would be too costly, however the administrative costs for such programs can also be prohibitive for smaller agencies. Additional assistance and coordination with subject matter experts and technical support can help improve the planning and implementation of such programs. The San Francisco Bay Area's Clipper START program is one example of a regionally coordinated means-tested fare pilot with over twenty participating agencies. Additional regional coordination can also help address the impacts of fare relief programs like increased ridership, related service impacts and potential concerns of public safety by sharing resources and best practices.

FARE RELIEF PILOTS - LESSONS LEARNED

CONSIDERING THE IMPACTS TO RIDERSHIP, SERVICE, AND COSTS

While fare relief initiatives and their results vary, a few key impacts can be considered beforehand: Ridership gains have been experienced across all pilots, with larger impacts on heavily utilized systems. For smaller service providers with lower ridership, these gains can often be absorbed without the need for additional buses or operators, and potentially result in increased federal funding¹³. Mid-size and larger systems may need to consider additional costs for vehicles and staff.

In addition to increased ridership, travel times can sometimes be lengthened as additional riders board, even with shorter boarding times and the opportunity for two door boarding. Continuous monitoring of service and soliciting customer feedback can help ensure consistent service quality. The revenue loss of foregone fares is often the largest barrier for agencies to implement fare relief policies. However, the costs related to fare collection and enforcement, including purchasing and maintaining fareboxes or ticketing machines, security and administrative costs to count physical currency, planning future fare rates and conducting community workshops is often overlooked and can be a significant proportion of collected fares, particularly for smaller agencies. The City of

¹² National Academies of Sciences, Engineering, and Medicine. 2012. *Implementation and Outcomes of Fare-Free Transit Systems*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/22753>

¹³ "FTA Section 5311 grants to small urban and rural public transit systems are reduced by the amount of fares the systems collect, providing further incentive for such systems to not collect fares. As a consequence, by providing fare-free service, these small agencies receive more federal assistance while providing their local passengers with free mobility." -Excerpt from TCRP Synthesis Report.

Alexandria's DASH system recently determined the cost of fare collection was approximately \$450,000 or 11% of fare revenues collected, and after assessing the costs to administer a means-tested fare program, they determined going fare free was the most cost-effective solution. In Olympia, Washington fares only consisted of 2% of Sound Transit's operating costs; they determined going fare free would be more cost effective than upgrading their aging farebox infrastructure.

Some studies have reported increased complaints from riders and operators as more youth and homeless passengers utilize free transit service, while other studies have reported the majority of customers as satisfied or very satisfied during the pilot. Survey respondents of the TCRP Fare Free Transit Synthesis said disruptive passengers were not a significant problem and that their bus operators preferred to deal with a few more disruptive passengers in exchange for not having to manage fare collection and related disputes. Fare relief strategies also reduce or eliminate the need for fare enforcement which disproportionately affects minority transit riders and can allow for safer and more effective use of transit staff like serving as system ambassadors or assisting new riders with navigating routes.

The benefits of fare relief strategies like increased ridership, faster boarding, and the increased equity for minority riders should be weighed against the existing costs of fare collection / enforcement, the potential for system crowding, service delays, the administrative costs for need-based strategies and alternative funding uses like improving service frequency and reliability. There are also longer-term impacts from any provision of fare relief that should be considered, including changes in trip choices, increased income for low-income recipients, and macroeconomic outcomes such as land value changes.

CONCLUSION

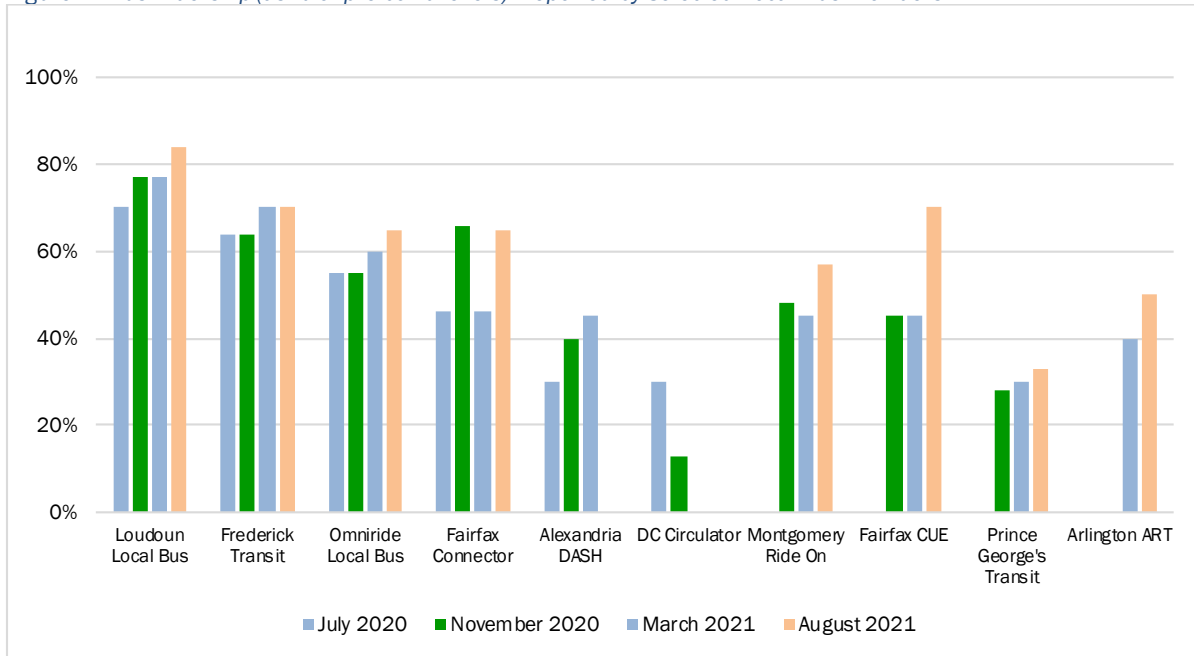
The COVID-19 pandemic disrupted transportation systems, travel patterns and habits among the many other aspects of our daily lives. As the region plans for inclusive recovery and the return to normalcy after widespread vaccinations, service restoration and fare reinstatement will impact residents and how they decide to travel around the region. This period of recovery can provide a unique opportunity to work towards regional goals like improving equity, promoting transportation alternatives, and reducing carbon emissions in the NCR while building on existing fare relief strategies and best practices. Fare relief, whether completely fare free or means-tested can increase ridership, reduce the cost burden for many riders and improve the safety of riders and operators.

However, with these programs, service reliability should be regularly monitored to address potential performance or safety issues related to overcrowding and customer satisfaction. The available ridership capacity and revenues for each service provider should also be reviewed when considering these options, as they can determine which policy is best suited for a system. Larger agencies with higher fare recoveries may find the administrative costs of a means-tested fare program to be more feasible and effective than a system-wide policy, while smaller agencies with lower fare recoveries may find larger benefits in discontinuing fare collection altogether, particularly when they consider the costs of collecting and enforcing fare revenues and the costs of administering a means-tested program.

Regional coordination can also help agencies learn best practices and share technical resources for administering a fare relief program and can help ensure riders have easier and seamless experiences across public transit in the region. Assessing the tradeoffs between a region's economic and social priorities as well as the opportunity costs of alternative funding uses (e.g., improving service frequency, access, state of good repair) can be difficult, particularly in a time of fiscal constraint or when the outcomes of a policy will vary for each service provider. Fare relief policies can serve as one strategy to help relieve the cost burden of historically underserved populations and improve the safety of often over-policed minority transit riders, while bringing back ridership to transit and furthering the sustainability of our region.

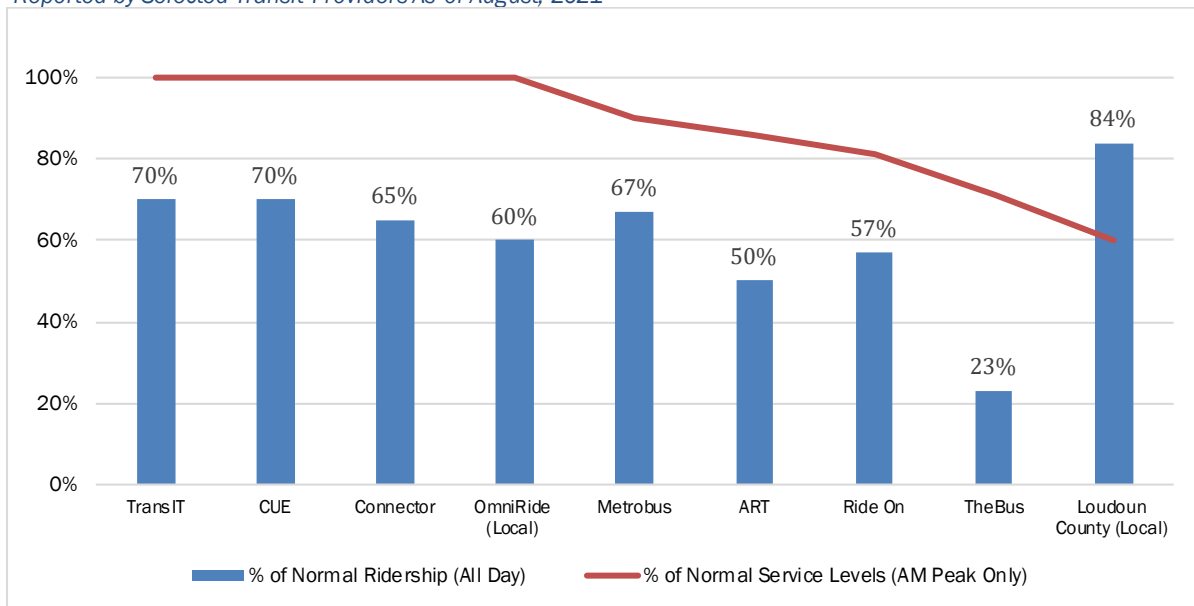
APPENDIX – GRAPHS & TABLES

Figure 1 - Bus Ridership (as % of pre-covid levels). Reported by Selected Local Bus Providers.



Agency self-reported approximate percentages of ridership vs. typical levels.
Source: COG/TPB questionnaires of local (non-WMATA) transit agencies.

Figure 2 - Percentages of Normal Transit Ridership and Service Levels Reported by Selected Transit Providers As of August, 2021



Source: COG/TPB questionnaires of local (non-WMATA) transit agencies.

Table 1 – Adapted from the TCRP Synthesis – Results of System-Wide Fare-Free Public Transit Experiments

RESULTS OF SYSTEM-WIDE FARE-FREE PUBLIC TRANSIT EXPERIMENTS			
Service Area	Dates of Demonstration	Population of Service Area	Results
Denver, CO (off-peak hours only)	02/78–01/79	1,500,000	<ul style="list-style-type: none"> • Reported increases in ridership of 36% to 49%, although inconclusive because of changes in service made during experiment • decreased schedule reliability, crowding.
Mercer County, NJ (off-peak hours only)	03/78–02/79	300,000	<ul style="list-style-type: none"> • Ridership increases of 25%–30% • 45% of buses ran late, extra buses required, driver complaints, problem riders.
Salt Lake City, UT	October 1979	910,000	<ul style="list-style-type: none"> • 13% increase in ridership.
Topeka, KS	May 1988	120,000	<ul style="list-style-type: none"> • Ridership increased 86% and 6% increase in ridership was retained after demonstration. • Credited for ridership increases of 30%–75% • reports of disruptive teenagers and driver complaints. Increased operating costs, but successful in promoting ridership.
Austin, TX	10/89–12/90	500,000	<ul style="list-style-type: none"> • Ridership exceeded forecasts by a factor of 4. • Policy ended when state funding source was eliminated by voters.
Chelan–Douglas Counties, WA	12/91–09/00	100,000	<ul style="list-style-type: none"> • 58.5% increase in ridership • some problem riders, schedule adherence suffered, retained an increase of 9% in ridership after demonstrations.
Asheville, NC	08/06–11/06	70,000	<ul style="list-style-type: none"> • Ridership increased 63% • some increased rowdiness among young passengers, but 99% of customers “satisfied” or “very satisfied.”
Milton, Canada	06/07–12/07	54,000	

Source: TCRP Synthesis 101 – Implementations and Outcomes of Fare Free Transit Systems

Table 2 – National Fare Free Pilots

NATIONAL FARE FREE PILOTS						
Service Area	Start Date	Population of Service Area	Previous Fare Revenues / Fare Recovery Ratio	Ridership Impacts	Comments	Funding Sources
Kansas City, MO	2019	788,748	\$8m / 12%	10.9M annual trips in 2019	<ul style="list-style-type: none"> Zero Fare Transit Program began after the City Council unanimously voted on making bus routes free (ligh-rail was already free) 	<ul style="list-style-type: none"> Public and Private funds \$5m contributed by Kansas City Area Transit Authority \$1m contribution from Blue Cross Blue Shield of Kansas City)
Lawrence, MA	2019	306,339	\$225k collected on 3 bus routes in city / 8%	<ul style="list-style-type: none"> 20% increase after first few months recent survey showed 90% of riders on free routes earned less than \$20k a year 	<ul style="list-style-type: none"> pilot will last 2 years 	City of Lawrence General Fund
Olympia, WA	2020	185,500	\$2m / 2%	20% increase (600K riders) after first month	<ul style="list-style-type: none"> Zero-fare demonstration pilot will last 5 years old farebox systems, increased costs of plastic fare cards and public sentiment that cashless systems would be too costly to implement impacted decision to go fare free. upgrading current fare collection system was deemed more costly than fare revenues collected 	Increase to sales tax
Alexandria, VA	2021	139,966	\$4m / 21%	23% increase projected by FY25	<ul style="list-style-type: none"> anticipated net increase over baseline costs for FY22-25 = \$15m cost of fare collection is ~\$450,000 (11% of fare revenues) Full fare free service will be implemented with a network redesign, increasing service and access to riders Low Income Fare Pass Assessment was conducted in March 2021 and considered feasibility of full fare free service and low income fare relief (full fare free and 50% discounts to SNAP recipients; 130% FPL) 	TBD
Los Angeles, CA	2022	8,621,928	\$280M / 15%	<ul style="list-style-type: none"> +138-141k in daily boardings 77M in increased total pilot boardings projected 	<ul style="list-style-type: none"> Estimated cost of \$304-338m over 18 months Costs to collect fare revenue = \$70m riders earning less than \$35k a year (70% of metro riders) would be eligible, to be extended to K-12 students later. additional fleet vehicles not required for the pilot, but additional operators are required. Fares currently consist of 4% of Metro's budget 	<ul style="list-style-type: none"> Potential funding sources include: <ul style="list-style-type: none"> Federal: CMAQ & FTA Innovation Grants, Freedom to Move Demonstration Grants (new bill pending in congress) State: Transit and Intercity Rail Capital Program (TIRCP) & Low Carbon Transit Operations Program (LCTOP)

Source: TPB review of online articles & agency websites

Table 3 – National Low Income Fare Subsidy Pilots

NATIONAL LOW INCOME FARE SUBSIDY PILOTS						
Service Area	Start Date	Population of Service Area	Pilot Name	Pilot Details	Funding Sources	Enrollment
Seattle, WA	2015	2,149,970	Orca Lift	<ul style="list-style-type: none"> • 45% subsidy for anyone earning less than 200% of the Federal poverty line • Piloting a program to offer free transit for people with essentially no income 	<ul style="list-style-type: none"> • Partially funded through fare increases system wide 	<ul style="list-style-type: none"> • 75k enrollees
Portland, OR	2015	1,565,010	HOP	<ul style="list-style-type: none"> • 50% subsidy for riders earning less than 200% of the Federal poverty line • Evolved from previous Rider Relief Transportation Program (RRTP) & Immediate Needs Transit Program (INTP) 	<ul style="list-style-type: none"> • \$12M program funded through payroll tax increase of 0.1% 	<ul style="list-style-type: none"> • 2k monthly enrollees
Los Angeles, CA	2018	8,621,928	LIFE	<ul style="list-style-type: none"> • subsidies towards the purchase of a Metro 7-Day, 30-Day Pass or a 20-Regional Rides. • fare products offered to senior / disabled riders, students (K-12) & University, and low-income riders (based on annual income / household size) • 24% discount for eligible low-income riders Household Size > Income 1 > \$39,450 or less 2 > \$45,050 3 > \$50,700 4 > \$56,300 5 > \$60,850 6 > \$65,350 	<ul style="list-style-type: none"> • \$3.6M from Measure M funds • \$10m from Prop C funds 	<ul style="list-style-type: none"> • 79k participants (40% of Metro's core frequent riders)
Denver, CO	2019	2,920,000	LIVE	<ul style="list-style-type: none"> • 40% discount for anyone earning less than 185% of Federal poverty levels 	<ul style="list-style-type: none"> • Funded through fare increase 	<ul style="list-style-type: none"> • 79k participants anticipated by 2022
New York City, NY	2019	8,398,748	Fair Fares	<ul style="list-style-type: none"> • 50% subsidy for all adults below the poverty line (bus and rail) 	<ul style="list-style-type: none"> • \$212m program paid for by City's General Fund 	<ul style="list-style-type: none"> • Over 227k total enrollees
SF Bay Area, CA	2020	7,100,000	Clipper START	<ul style="list-style-type: none"> • 36 month pilot, preceded by a 3 year study from MTC in 2015 • 20/50% single-ride fare discount for eligible low-income adults on most transit agencies: <ul style="list-style-type: none"> • BART (20% discount) • Caltrain (50% discount) • AC Transit (20% discount) • SF Muni (50% discount) 	<ul style="list-style-type: none"> • \$8m in State Transit Assistance funds (via sales tax / diesel fuel tax) + \$3m from Statewide Low-Carbon Transit Operations Program + CARES Funding 	<ul style="list-style-type: none"> • 3k approved applicants over first 6 months

Source: TPB review of online articles & agency websites

Table 4 – State of Fare Collection in the NCR

State of Fare Collection in NCR				
Service Provider	Discontinued Fare Collection	Resumed Fare Collection	Fare Collection Status	Fare Relief Actions
WMATA - Metrobus	3.23.2020	1.3.2021	New Reduced Fares	Reduced Bus Fares to \$2 Improved service frequency (12/20 schedule) Considering further options (e.g. \$1 fare, means-tested subsidy for rail and bus, lower late-night rail fares)
Arlington County - ART	4.17.2020	1.3.2021	Resumed	
Prince George's County - TheBus	3.20.2020	1.4.2021	New Reduced Fares	Reduced Bus Fares Jan. 4 to \$1
Fairfax County - Connector	3.24.2020	1.4.2021	Resumed	Considering means-tested subsidy with TRIP funding
City of Alexandria - DASH	3.20.2020 / 9.5.2021	3.15.2021 / -	Fare Free	Report: Low Income Fare Pass Assessment Fare Free as of Sep. 5 + New DASH Network
Loudoun County	3.30.2020	5.3.2021	Resumed	
Frederick County - TransIT	3.28.2020	7.1.2021	Resumed	
DDOT - Circulator	3.18.2020	10.1.2021	Resumed	
Montgomery County - Ride On	3.16.2020	1.1.2022	Fare Free	Report: Zero & Reduced Fare Study Fare Free through end of 2021 Considering reduced \$1 bus fare in 2022
PRTC - Omni Ride (local)	3.25.2020	6.0.2022	Fare Free	Fare Free through Jun 2022
Charles County - VanGO	NA	NA	Always Collected Fares	Considering fare free service
City of Fairfax - CUE	3.19.2020	TBD	Fare Free	

Source: TPB review of online articles & agency websites

APPENDIX – SUMMARY OF REGIONAL FARE RELIEF INITIATIVES

WMATA

WMATA / DC Low-Income Fare Pilot -

“To understand the impact of the discounts on mobility, we will use existing data and participant surveys to measure how the discounts affect the number and type of trips participants take, whether participants have trouble paying fares, and how often they travel by car. To capture a fuller picture of how lives change (or do not) when barriers to transit are lessened, we will collect data on participants’ employment, income, children’s outcomes, and use of social services.” – *The Lab @ DC Can discounted transit improve mobility and well-being for low-income residents?*

Began as an MOU on 12.12.2019 to authorize the District of Columbia to fund / pilot a low-income fare program. Would work as a fare buydown agreement between Metro and DC. The District will allocate up to \$500,000 to fund associated revenue losses for the pilot program. The project has also raised external funding for research and data collection for the pilot from MIT’s Abdul Latif Jameel Poverty Action Lab (J-PAL) and DDOT.

1. Pilot structure would be an RCT (random control trial) selecting up to 2,500 low income District residents for a 6-9 month pilot. 3 fare products would be offered - no benefit (control group), free transit group, subsidized fares group.
 - a. Administered through a means-tested social service program via the District
 - b. Additional support via The Lab @ DC
 - c. Partial funding through Abdul Latif Jameel Poverty Action Lab (J-PAL)
2. Context - low income households most likely to be burdened by the cost of using public transport and forego using transit altogether, least likely to have alternative travel options.
 - a. 52% of mid-to-high income customers receive additional transit subsidies via employer-sponsored programs (ridership / survey data) compared to 11% of low-income customers.
 - b. 46% of Metrobus riders are low income

Anacostia Buy Down – (Per email correspondence with WMATA staff)

To help mitigate the impact of the total fare increase on Anacostia residents, Metro reduced basic bus fares for many routes in the area from \$1 to 35 cents. Anacostia’s reduced fare has historically existed since the Anacostia Station opening (December 1991) – references to paper transfers:

- The Anacostia reduced fare applied to the A2, A4, A6, A7, A8 and “W” shuttle routes only (originally W2, W3, W6, W8) to provide a reduced fare bus trip to Anacostia Station or a bus-only trip within Anacostia/Congress Heights. The way it worked was that if you boarded one of the designated routes to Anacostia you paid the reduced fare and didn’t get a transfer. If you needed to transfer to a regional route operating outside of Anacostia (90, B2, P6, U2 (now V2), W4, etc.), you paid full fare to get a transfer. There was one exception, if you boarded 90, B2, P6, U2/V2 southbound within Anacostia at stops between Good Hope Road and Anacostia Station you could pay the reduced fare, again not receiving a transfer unless you paid full fare.

When the Green Line was extended to Branch Ave (January 2001), the reduced fare provision was extended to Congress Heights and the newly established M8, M9 (now W1) shuttle routes. The reduced fare never applied to regional routes starting at Anacostia or Congress Heights and operating to other parts of the city (90, 92, B2, P6, U2/V2, W4). Starting at Anacostia or Congress Heights was never the sole determinant of whether or not a route was designated a reduced fare route. The only exception was the southbound Good Hope Road to Anacostia Station on 90, B2, etc. mentioned above.

When paper transfers were eliminated in January 2009, the same provisions were carried over to SmarTrip. The Anacostia reduced fare provision is still in the tariff. The current Ward 8 council member's office will most likely look at the Anacostia transfer as an equity issue.

KIDS RIDE FREE PROGRAM (KRF)

Subsidy program for enrolled District and Montgomery County students who are residents to get to school / school-related activities. Began August 26, 2019 has continued through September 2021

SUMMER / FALL 2021 SERVICE AND FARE CHANGES

In April 2021, the WMATA board approved the FY2022 budget which includes Metrobus service operating at 85% of pre-pandemic service.

Service Improvements - June bus service improvements included: 2 am service on 34 lines, seven days a week. Peak, full day, and weekend service restorations. September bus service enhancements and modifications included: Changes as part of New DASH Network in Alexandria, increasing service frequency all day. Restructuring of downtown routes to improve corridor reliability by shortening some routes, realigning others, and reinvesting in the primary portions of the corridors. These changes equate to consistent, high frequency (12 minute or better headways) all-day service along 20 lines and improved headways (20 minutes or better) along an additional 16 lines.

Fare Changes - To promote ridership, equity and a more seamless experience across modes, WMATA introduced: free rail-bus transfers, lower 7-day regional bus passes, including regional providers in Metro passes, weekend flat \$2 fares on rail, and 30 day promotional pricing on short-term / monthly passes.

WMATA is also considering long term fare strategy changes including a reduced \$1 bus fare, means-tested subsidies for low-income residents, and late night flat fares of \$2 for rail.

METRO FOR DC

DC Councilmember Charles Allen (D-Ward 6) reintroduced the bill Fall of 2021 (which was originally proposed in March 2020) along with 9 council co-sponsors to give all DC residents \$100 a month to use for public transportation as well as a dedicated fund for bus improvement in low-income, transit-dependent communities. The credit would be paid as a \$100 monthly SmarTrip card credit. Estimated cost \$54M - \$151M. Councilmember Allen proposed paying for Metro for DC by dedicating future revenue increases above budgeted revenue and rolling out the program in four parts based on income levels. The first tier, residents earning 300% or less of the federal poverty level, which for a family of four, would be \$26,200.

DC CIRCULATOR

Offered fare free service February - September 2019 and experienced a 36% increase in ridership during the pilot. It initially started as a 1 month initiative. DC's city budget proposed \$3.1M in dedicated funding for the service, however the city council rejected the budget proposal.

FY2014 DC Circulator TDP Update - the fare elasticity analysis aimed to understand the potential impact of modifications to circulator fares on ridership, revenue & costs. Four scenarios were analyzed for DC Circulator service (free fares; \$1.50 ST / \$2 cash; \$1.75 ST / \$2 cash; \$2 ST/cash). Two rates were used for the analysis -0.245 & -0.34 based on Metrobus-specific and national studies on fare elasticity (respectively).

- Scenario 1 estimates a 65% increase in ridership
- Scenarios 2/3/4 saw a 11%/14%/ 20% decrease respectively
- Scenarios 2/3/4 revenues would increase by 29/32/33% respectively with scenario 4 assuming further decreased ridership due to price competition with WMATA
- Peak vehicle needs impact assessment was performed for scenario 1 due to the expected increase in ridership.
 - a. Analysis showed 3 routes / 2 extensions would face capacity constraints and DC Circulator would need 11 buses / 9 buses for evening / morning peak periods respectively.

CITY OF ALEXANDRIA - DASH

Alexandria Low-Income Fare Pass Assessment

TLC Grant awarded for \$40,000 to study the feasibility and mechanics of a fare program to benefit low income riders. Originally a 4 Scenario Analysis was proposed to look at the FY22 fiscal / ridership impacts for the City of Alexandria and DASH.

1. Free Fares for all (est. +23.2% riders)
2. Free Fares during *off-peak (+10.7%)
3. Free Fares for low income passengers (+5.7%)
4. Subsidized Fares for low income passengers (+3.4%)

Option '2' was removed from the final analysis. Foursquare ITP worked alongside DASH staff to create the finalized report. *peak hours considered 6-9AM & 3-6PM

Recently, the City of Alexandria's DASH system launched full fare free service in conjunction with the Alexandria Transit Vision Plan's New DASH Network September 5, 2021. The Mayor's newsletter stated fare free service would help the city achieve its environmental goals and especially benefit lower-income residents. "With ridership depressed due to the pandemic, the initial cost to implement this change is dramatically reduced. The City Council will ultimately determine the future of this proposal as we work to finalize our budget this month." Alexandria's City council approved the FY22 budget to include fare free service to commence with the New DASH Network.

MONTGOMERY COUNTY – RIDE ON

Zero & Reduced Fare study

Based on interest expressed by the Montgomery County Executive and County Council members, MCDOT staff began work on an examination of zero-fare and reduced-fare options, and engaged IBI Group to research, analyze, and deliver this report on them. The examination of zero-fare and reduced-fare options in this report has been conducted specific to Ride On.

Based on the findings of the study, County Executive Marc Elrich recommended the Council reduce fares to \$1 and continue the existing fare relief programs Kids Ride Free and Seniors Ride Free. Ride On has continued its 'fare holiday' through the end of 2021.

PRTC – OMNI RIDE (LOCAL)

PRTC approved its FY22 budget and has decided not to increase fares during the FY, and continue free fares on its Metro Express, Local, East-West Express and Access services. Free fares would continue to the end of the fiscal year (June 2022).

V-DRPT TRANSIT RIDERSHIP INCENTIVE PROGRAM (TRIP)

TRIP is a new statewide grant program dedicated to improving transit's regional connectivity in urban areas with a population in excess of 100,000 and reducing barriers to transit use by supporting low income and zero fare programming. The TRIP program was created by the passing of House Bill 1414 in the 2020 General Assembly session. Currently, the Virginia Department of Rail and Public Transportation (DRPT) is concluding the development process and accepting final public comment before seeking approval from the Commonwealth Transportation Board (CTB). Below you will find the materials open for public comment and relevant resources that were used throughout the development process. The TRIP application is predicted to open in July 2021.

Zero Fare and Low Income Pilots - "supports the creation and improvement of zero fare and low income pilot programs that aim at increasing ridership accessibility to healthcare, education and the workforce through transit and enhancing transportation equity"

- Eligible applicants: Transit agencies, Transportation District Commissions, Public Service Corporations, Local Governments, Private non-profit transit providers, and local governments that provide transit service.
- Eligible Projects: Providing subsidized or fully free passes to low-income populations or essential workers, eliminating fares on high-capacity corridors, or deploying an entirely fare free system.
- Scoring considerations: Project's ability to improve accessibility and quality of life for low-income populations, by improving their access to transit, Title VI analyses, existing or completed planning efforts, financial capacity, partnerships/collaborating with local organizations (human resource agencies, non-profits, etc.)

NVTC

Zero-Fare and Reduced-Fare Options for Northern Virginia Transit Providers - This analysis by NVTC found that eliminating or reducing fares for public transit users can improve access, increase ridership and produce added community benefits. NVTC's Zero-Fare and Reduced-Fare Options for Northern Virginia Transit Providers white paper provides Commissioners and policy makers a high-level overview of options and considerations when evaluating potential zero- or reduced-fare programs. The September 2021 publication of the report comes as transit systems across the nation are weighing the advantages and considerations of zero and reduced fares.



BUS TRANSIT: SERVICE AND FARE EQUITY

Overview

Eric Randall, TPB Transportation Engineer
Antonio Castañeda, TPB Transportation Planner

Transportation Planning Board
October 20, 2021



Presentation Outline

- Bus Service Equity White Paper
Assessing Distribution Of Bus Transit Service For Equity During Covid-19 Pandemic
- Findings
 - Regional Access
 - High-Frequency Access
 - Job Access
 - EEA Access
- Bus Service Equity Webmap – *Demonstration*
- Bus Fare Relief (Equity) Memo

Purpose of Bus Service Equity White Paper

Purpose

- Identify bus service that should be a priority for restoration coming out of the pandemic
- Plan for long term (post-pandemic) service expansion to improve bus service equity in the region

Scope of Work

- The white paper analysis evaluated the locations of select population groups in relation to local bus service
- White paper and webmap prepared by ICF Consulting and Foursquare Integrated Transportation Planning

Questions

The white paper analysis examined:

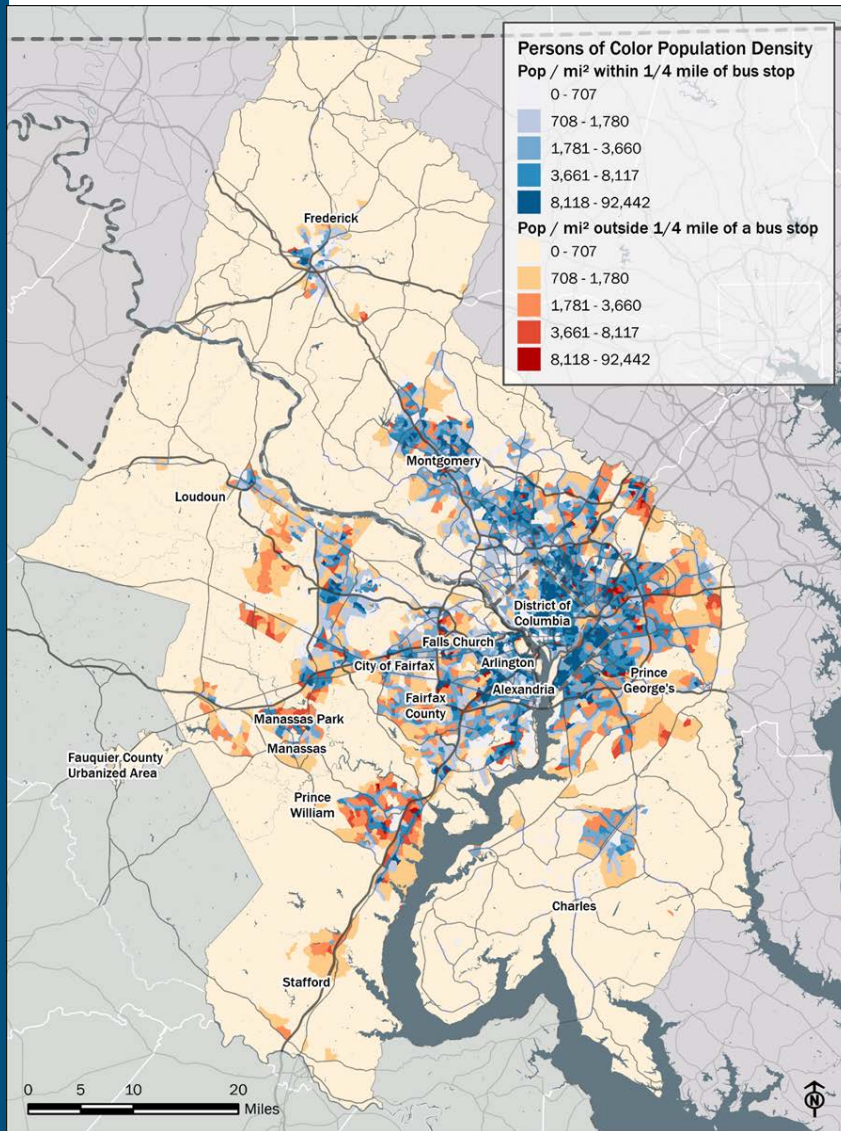
- Local bus transit stop locations, frequency of service, peak vs. off-peak and span of service
- Compared to the locations of:
 - historically disadvantaged populations (e.g., people of color, low-income households, non-native English speakers)
 - COG's Equity Emphasis Areas (EEAs)
 - essential workers and jobs

Do the select population groups have good access to bus transit?

- Compared to the general population?
- During peak periods to high-frequency service (at least every fifteen minutes)?



Regional Persons of Color Population Density



- Sample static map - regional persons of color population density within (blue) and without (red) a quarter mile of bus stops
- Throughout the sequence of factors examined, any area that is red in multiple factors would be of high priority for service improvements



Findings – Regional Access

How does bus transit access for traditionally underserved groups compare to the region's overall population's transit access?

Persons of color, people with low incomes, and zero and one-car households have higher access to bus stops than the general population

- 65% of people of color
- 74% of low-income households
- 78% of zero or one car households
- 61% of low-wage workers
- 60% of *general population*

are within ½ mile of a local bus stop



Findings – Hi-Frequency Access

How does bus transit access to peak, high-frequency service (15 minutes or better) compare for traditionally underserved groups?

Traditionally underserved groups also have more access to peak, high-frequency transit when compared to the region as a whole:

- 49% of zero/one car households
- 44% of low-income households
- 33% of people of color
- 31% of low-wage workers
- 30% of *general population*

have access to 15-minute or better service in the AM peak period

The low percentage of access to frequent service, even in the peak periods, remains a concern, particularly for quality of life and jobs access



Findings – Job Access

How does bus transit access to jobs for low-wage work compare to the region's overall population's transit access to jobs?

Location of jobs in relation to bus stops is generally good:

- Overall, 74% of all jobs are within a $\frac{1}{4}$ mile of a bus stop, reflecting the fact that much transit service is directed towards job centers
 - 71% of low-wage jobs
 - 75% of essential jobs
- On Weekdays (AM Peak) - Less than half of the region's low-wage jobs, 42%, are accessible via peak-period, high-frequency service (vs. 47% for the region)
- On Saturdays - Less than half of the region's low-wage jobs, 47%, are served (vs. 52% for all of the region's jobs)



Findings – EEA Access to Transit

How does bus transit access for COG's Equity Emphasis Areas (EEAs) compare to the region's overall population's transit access?

COG EEAs have relatively good access to bus service:

- 84% of EEA populations are within a ¼ mile of a bus stop
 - 85% of people of color
 - 87% of low-income households
 - 90% of zero or one car households
- On the employment side, 86% of jobs in the EEA areas are within a ¼ mile of a bus stop
 - 85% of low-wage jobs
 - 88% for essential jobs

More analysis is required to understand if this service is adequate and if it is connecting these populations with their destinations in an efficient manner



Bus Service Equity Webmap - *Demonstration*

<https://fitp.maps.arcgis.com/apps/webappviewer/index.html?id=dd131b91ef5148fbadd4778015f19cc9>

Welcome to TPB's *Assessing Distribution of Bus Transit Service for Equity During COVID-19 Pandemic* Web Application.

This app enables users to view transit equity data in the context of COVID-19 pandemic-related reductions in transit service. The app can be used to inform decision makers on where to prioritize restoration of transit with a focus on equity, to ensure that renewed travel options are available to all.

This analysis was conducted as a part of the *Assessing Distribution of Bus Transit Service for Equity During COVID-19 Pandemic* White Paper, found [Here](#). For more information on MWCOC's Equity Initiatives, click [Here](#).

General Tips for Use:

1. The top right of the screen comprises of five data menus (see next section) and two menus for general context. **Other Layers** contains layers for TPB's member jurisdictions' boundaries and TPB's Equity Emphasis Areas. **Bookmarks** contains spatial bookmarks that can be used to automatically zoom in to each jurisdiction.
2. Click the **■** to the left of each layer to modify its appearance including transparency, visibility range, and drawing order. This legend can be hidden with the arrow button on its outer edge.
3. The controls on the top left can be used to zoom in on the map manually, find a particularly address, or view the user's current location on the map.

The data is organized into the following five menus:

- ① **Distribution of Transit Service**

OK





MEMORANDUM

TO: TPB Technical Committee
FROM: Antonio Castañeda, TPB Transportation Planner
SUBJECT: Overview of Regional Bus Fare Collection and Fare Relief Pilots
DATE: September 24, 2021

This memorandum provides an overview of bus fare collections and revenues in the National Capital Region (NCR) as it relates to the COVID-19 pandemic, declines in service, ridership, and national discussions around transportation and equity. Public buses in the region serve as a key lifeline for the mobility of residents and in particular low income, minority residents who are disproportionately transit dependent and often essential workers. Public transportation is also essential to meeting our regional climate goals and priorities around reducing carbon emissions, lowering regional congestion on roadways, and promoting multi-modal transportation options. Lastly, this memo reviews local and national initiatives towards fare relief that encompass a variety of policies on their merits or merits relative to their goals, possible impacts, and other considerations. This provides a brief overview of the current situation in the region and provides a brief overview of the current situation in the region.

Bus Fare (Equity) Relief Memo

Throughout 2020, most local bus services in the National Capital Region suspended fare collection in the interest of public health and safety for riders and operators. Over the last few months fare collection and service restoration have slowly been reintroduced as more residents become inoculated and ridership returns. During this period, a renewed interest and urgency for transit fare relief has emerged as transit ridership trends shed light on our essential workers and transit dependent populations, especially on bus transit⁴ where Black and low-income riders comprise 82% and 69% (respectively) of metrobus riders during the pandemic² (in comparison to 81% for all minority riders and 46% low-income pre-pandemic). In light of this, we discuss here fare relief policies and programs, historical and ongoing, in transportation agencies throughout the US³.

FARES AND SERVICE IN THE NCR

In 2019 the National Capital Region provided over 170 million trips to riders across 12 local bus service providers, collecting upwards of \$167 million in fare revenues⁴. The base fare rate for bus service varied from free (DC Circulator operated fare free from February to September in 2019) to \$2 with an average of \$1.53. However, the average fare paid by passengers was \$0.99 (see table 1 below), this difference in averages is largely due to transfer discounts between modes and services, subsidy programs and federal mandates that require service providers to offer discounted fares for

⁴ APTA, "Who Rides Public Transit" American Public Transportation Association, Jan 2017, <https://www.apta.com/wp-content/uploads/2017/01/Who-Rides-Public-Transit-2017.pdf>
² George Justin, Rabinowitz Kass, "The Pandemic Changed the Workday, but Will Transit Riders Return?" The Washington Post, WP Company, 18 Apr. 2021, www.washingtonpost.com/transportation/interservice/2021/public-transit-ride-metro/.
³ Berry, Ellen, Rybus Gress, "Should Public Transit Be Free? More Cities Say, Why Not?" The New York Times, The New York Times, 14 Jan. 2020, www.nytimes.com/2020/01/14/us/free-public-transit.html.
⁴ Synthesis of National Transit Database 2019 Data.



Purpose of Bus Fare Relief Memo

- To assess bus transit fare relief efforts in the region and nationally
- Provide an overview of local bus fare collection and revenue as they relate to the COVID-19 pandemic, declines in service, ridership and transportation equity
- Outline lessons learned from fare free and means-tested programs - historic and ongoing across the US

Bus Fare Collection in the NCR

- In 2019, the NCR provided over 170 million transit trips across 12 local bus services pre-pandemic and collected \$168 million in fare revenues

Local Bus Characteristics in CY 2019 (Source: NTD)

Name	Annual Trips (Millions)	Annual Fare Revenue (Millions)	Base Fare Rate	Average Fare Paid by Passengers	Fare Recovery Ratio (%)
MetroBus	123.3	124.0	\$2.00	\$1.01	17%
Ride On	20.6	20.5	\$2.00	\$1.00	16%
Connector	8.3	10.9	\$2.00	\$1.31	13%
DC Circulator	5.5	0.0	\$1.00		
DASH	3.9	4.3	\$1.60	\$0.88	21%
ART	2.8	3.7	\$2.00	\$1.29	25%
TheBus	2.6	1.5	\$1.00	\$0.50	5%
OmniRide	0.9	0.7	\$1.55	\$0.81	5%
VanGo	0.8	0.4	\$1.00	\$0.53	7%
CUE	0.6	1.1	\$1.75	\$0.63	27%
TransIT	0.6	0.6	\$1.50	\$1.02	10%
Loudoun County Transit	0.4	0.2	\$1.00	\$0.52	4%
Total	170	\$168	\$1.53	\$0.99	16%

- During the pandemic ridership levels varied across the region, ranging from 20–80% of pre-pandemic levels. Fare collection was discontinued by most local bus providers



Recent Fare Relief Actions in the NCR

- Most local bus agencies have since resumed fare collection
- Renewed focus on equity and encouraging transit ridership has led to growing interest in fare relief

Service Provider	Fare Relief Actions
City of Alexandria - DASH	Report: Low Income Fare Pass Assessment Fare Free as of Sep. 5 + New DASH Network
Montgomery County - Ride On	Report: Zero & Reduced Fare Study Fare Free through end of 2021 Considering reduced \$1 bus fare in 2022
PRTC - Omni Ride (local)	Fare Free through Jun 2022
City of Fairfax - CUE	Remained Fare Free through pandemic
Charles County - VanGO	Considering fare free service
Fairfax County - Connector	Considering means-tested subsidy with TRIP funding
WMATA - Metrobus	Reduced Bus Fares to \$2 Improved service frequency (12/20 schedule) Considering further options (e.g. \$1 fare, means-tested subsidy for rail and bus, lower late-night rail fares)
Prince George's County - TheBus	Reduced Bus Fares Jan. 4 to \$1

Alexandria's DASH is going fare-free. The city says transit should be considered public infrastructure.

On Sept. 5, DASH will become the first transit agency in the D.C. area to end fares.

Metro will expand service and reduce fares starting Sunday

Montgomery County Executive Elrich Supports 'Fare Equity Study' Recommendations to Benefit Riders and Extend Free Fares for Ride On Buses Through Jan. 1

Gridlock

D.C. Council resurrects proposal to give residents \$100 a month in transit fare

Bill initially was introduced in March 2020 as pandemic took hold



Regional & National Fare Relief Programs

- Fare relief initiatives have existed in the NCR over the last 20 years. Agencies who have studied or implemented fare relief locally include: WMATA, Circulator, Ride On, Connector, CUE and DASH
- System-wide fare free programs are most often implemented in smaller agencies with low fare recovery ratios
- Means-tested programs have been implemented in many large agencies where foregoing fares would be too costly

“Fare-free public transit has been discussed and considered ever since the federal government became involved in providing capital assistance to local public transit agencies in the 1960s”

TCRP Synthesis 101 - Implementations and Outcomes of Fare Free Transit Systems (2012)

Service Area	Fare Relief Type	Start Year	Population of Service Area	Comments
Seattle, WA	Means-Tested Subsidy	2015	2,149,970	45% subsidy for adults earning > 200% FPL 75k enrollees
Portland, OR	Means-Tested Subsidy	2015	1,565,010	50% subsidy for adults earning > 200% FPL 2k monthly enrollees
New York City, NY	Means-Tested Subsidy	2019	8,398,748	50% subsidy for adults earning > FPL Over 227k total enrollees
Kansas City, MO	System-Wide Fare Free	2019	788,748	
Lawrence, MA	3 Routes Fare Free	2019	306,339	20% increase after first few months. 90% of riders on free routes earned less than \$20k a year
SF Bay Area, CA	Means-Tested Subsidy	2020	7,100,000	20-50% for eligible low-income adults; 3k approved applicants
Olympia, WA	Fare Free	2020	185,500	+20% ridership (600K riders) after first month
Alexandria, VA	System-Wide Fare Free	2021	139,966	Implemented with network redesign. Anticipated ridership increase of 23%
Los Angeles, CA	System-Wide Fare Free	2022	8,621,928	+138-141k in projected daily boardings, +77M in total boardings



Lessons Learned

- Ridership gains have been experienced across almost all programs
 - Larger impacts on heavily utilized systems (from 20% up to 75% for systems that went fare free)
- Fare relief can improve the safety and equity of riders and bus operators by eliminating fare disputes and fare enforcement which disproportionately impact minority and low-income transit riders
- Fare relief can improve the quality of life and sustainability of local communities, including reduced emissions and road congestion
- Crowding, travel times, and service reliability can be affected and should be regularly monitored
- Loss of fare revenues is the largest barrier to implementation
 - It is equally important to assess the cost of fare collection and enforcement



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