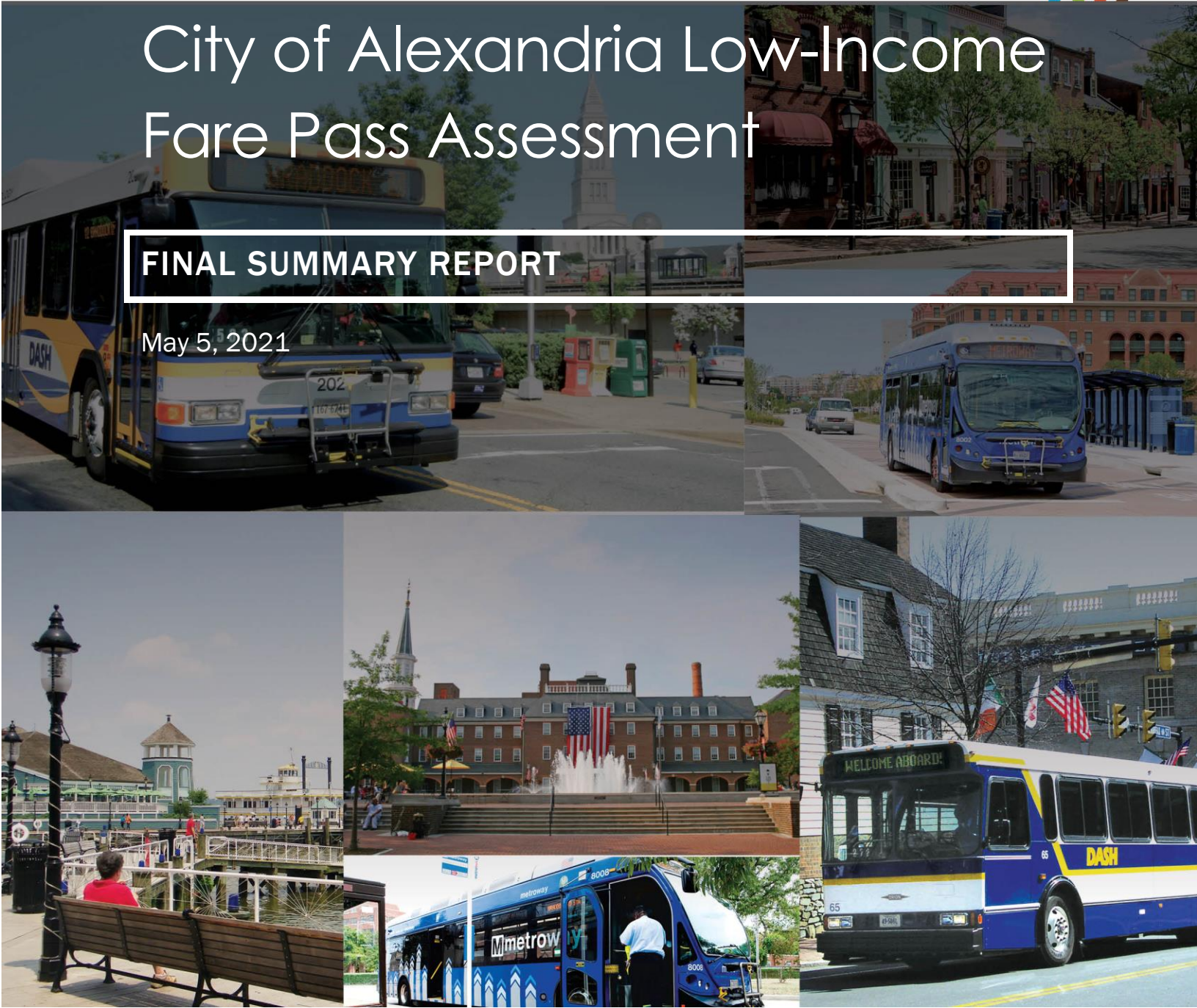**FOURSQUARE ITP**
INTEGRATED TRANSPORTATION PLANNING

City of Alexandria Low-Income Fare Pass Assessment

FINAL SUMMARY REPORT

May 5, 2021

Prepared for:

Metropolitan Washington **Council of Governments**

TLC

CITY OF ALEXANDRIA · VIRGINIA

Executive Summary

The City of Alexandria, in partnership with the Metropolitan Washington Council of Governments (MWCOG), initiated a study to understand options, and their impacts, for making public transit more affordable for low-income residents. Recognizing that transit affordability has an equity component, and that the topic is of interest to many jurisdictions, the study also provides a potential model for other jurisdictions to build upon and could support other fare affordability initiatives in the region.

Through an initial screening process, the study team identified three fare program scenarios for evaluation:

- **Scenario 1: Free fares for all riders on DASH services.**
- **Scenario 2: Free fares for low-income residents on DASH and WMATA services** (Metrobus and Metrorail).
- **Scenario 3: Half-price fares and passes for low-income residents on DASH and WMATA services.**[1]

This summary report includes the high-level findings from the study, which included a literature and case example review, interviews with City staff and regional partners, projections for ridership and costs for each of the program scenarios, and development of program evaluation and marketing recommendations. These are detailed in two technical memoranda produced as part of the study.

The study found that free fares for all DASH riders (Scenario 1) would benefit the most people (including all low- and moderate-income DASH riders), result in the largest increase to DASH ridership, and have the lowest administrative cost and complexity. Although the free DASH scenario is identified as having the most benefits for the City of Alexandria, there are additional factors relating to regional contributions to WMATA and the SmarTrip program, and regional fare consistency that should be considered between the City of Alexandria and its regional partners. It should also be noted that this study does not contemplate the regional financial implications of any future scenarios in which WMATA or other regional partners transition to fare-free service.

Free fares for low income riders on both DASH and WMATA (Scenario 2) would be the most expensive option but would also provide the largest benefit to qualifying low-income riders (fewer than in Scenario 1), who would be able to ride on DASH and WMATA services for free. Scenario 3 (Reduced fares for low income DASH/WMATA riders) would be the least expensive but would also provide a more modest benefit to low-income residents. Based on the removal of the administrative and cost burdens associated with managing a low-income fare program and collecting fares, and the number of people Scenario 1 would benefit relative to its cost, the project team concludes that Scenario 1 would produce the greatest overall benefit for low-income transit riders in the City.

Program Administration

Program administration costs and logistics would be minimal under Scenario 1, with free fares for all DASH riders, but are relevant in Scenarios 2 and 3, which both include transit benefits for eligible low-income residents. The City's Transportation and Environmental Services (T&ES) Department would be responsible for overall program management, including coordination with WMATA and DASH staff. The City's Department of Community & Human Services (DCHS) would have a key role in ongoing program administration, including

---

[1] Under Scenario 1, the benefit would be accessible to all DASH riders, including over 18,000 residents who qualify for SNAP benefits and over 33,000 residents who earn less than 200 percent of the FPL. For Scenarios 2 and 3, low-income residents are those from households that are eligible for the federal Supplemental Nutrition Assistance Program (SNAP); in most cases, their households earn less than 130 percent of the federal poverty level (FPL). For the analysis, it was assumed that over 8,000 individuals would receive the benefit under Scenarios 2 and 3 beginning in the program's second year (participants would be gradually added during the first year).

FOURSQUARE ITP

program outreach, eligibility verification, fare media distribution, and customer service. The eligibility requirements for the low-income programs outlined in Scenarios 2 and 3 would be identical to other DCHS programs like SNAP for ease of verification and administration.

Case Study Review Findings

The study included a review of case examples to gain a better understanding of the scope, design, and effectiveness of similar fare programs. Key findings from the review included:

- Tying eligibility to participation in other low-income benefit programs simplifies the certification and administrative processes.
- Existing fare discount programs typically target those earning between 125 and 200 percent of the Federal Poverty Level (FPL).
- Community organizations can effectively assist in marketing fare programs to low-income riders.
- In Boston, a pilot program found that low-income people who were given a 50 percent discount on fares took 30 percent more trips.
- A sample of ridership increases from agencies that eliminated fares ranged from 25 to 205 percent, with most agencies experiencing increases of 25-60 percent.
- Some fare programs targeting low-income riders had relatively low adoption rates. This finding implies that there is considerable value for such programs in keeping barriers to participation as low as possible, and ensuring effective marketing to targeted populations to make them aware of the program.

> **Despite riding transit more frequently, low-income riders are less likely to purchase flat-rate passes for transit usage. They also travel shorter distance and make more transfers.**

The findings from this review were incorporated into the program design for the scenarios, administration and marketing recommendations, program evaluation recommendations, and ridership and cost projections.

Ridership Projections

Ridership was projected for a "Baseline Scenario" (i.e., continuation of the status quo) and each fare program scenario for Fiscal Years (FY) 2022 to FY 2025. All the scenarios, including the Baseline, take into account planned changes in DASH service levels resulting from the Alexandria Transit Vision (ATV) implementation, reductions in ridership due to the pandemic, and WMATA's anticipated rail-to-bus transfer discount starting in FY 2023. Anticipated ridership impacts of the three fare scenarios vary based on: the applicable or eligible population (all riders or low-income residents), the services the fare program would cover (DASH or both DASH and WMATA), and the level of fare reduction (free or half-price). They also take into account riders' likely switches between DASH, Metrobus, and Metrorail services depending on their relative prices. **Table 1** shows projected ridership for all scenarios from FY 2022 to FY 2025.

> **Free fares for all riders on DASH (Scenario 1) is projected to result in the largest ridership increase compared to the Baseline Scenario.**

Table 1: Estimated Ridership on DASH and WMATA Services for All Scenarios, FY 2022–FY 2025

Scenario	FY 2022	FY 2023	FY 2024	FY 2025
Baseline Scenario				
DASH Ridership	2,303,000	3,720,000	4,698,000	5,220,000
Total Transit Ridership in the City (DASH + WMATA)	**4,396,000**	**7,501,000**	**9,332,000**	**11,221,000**
Scenario 1: Free fares for all DASH riders				
DASH Ridership	2,837,000	4,579,000	5,778,000	6,424,000
Total Transit Ridership in the City (DASH + WMATA)	**4,920,000**	**8,372,000**	**10,429,000**	**12,479,000**
Total Ridership Increase Rate over Baseline	11.9%	11.6%	11.8%	11.2%
Scenario 2: Free fares for low-income residents on DASH and WMATA services				
DASH Ridership	2,434,000	4,060,000	5,127,000	5,697,000
Total Transit Ridership in the City (DASH + WMATA)	**4,648,000**	**8,153,000**	**10,139,000**	**12,153,000**
Total Ridership Increase Rate over Baseline	5.7%	8.7%	8.7%	8.3%
Scenario 3: Half-price fares and passes for low-income residents on DASH and WMATA services				
DASH Ridership	2,381,000	3,924,000	4,956,000	5,506,000
Total Transit Ridership in the City (DASH + WMATA)	**4,547,000**	**7,892,000**	**9,816,000**	**11,780,000**
Total Ridership Increase Rate over Baseline	3.4%	5.2%	5.2%	5.0%

Cost Projections

Similar to the ridership projections, the cost projections include comparisons of the fare program scenarios to a Baseline Scenario and are based on numerous assumptions. Costs accounted for in the projections include:

- Foregone fare revenue (farebox revenues not collected due to fares being eliminated or partially eliminated; could vary significantly if actual ridership is significantly different from projections).
- Capital and operating costs of collecting fares.
- Administration and marketing costs, including the cost of fare media.

The cost projections assume that most of the administration of the program under any scenario will be conducted as part of the regular duties of current City staff. The assumptions used to identify the amounts the City would reimburse WMATA for program participants' use of WMATA services under Scenarios 2 and 3 are based on available data and information and an initial conversation with WMATA staff; however, they are subject to negotiation. Scenario 2 assumes all SNAP recipients will receive a monthly unlimited pass, which could result in high costs if the City would be responsible for reimbursing WMATA for the passes regardless of actual pass usage. (However, there could be "opt-in" mechanisms implemented to address this possibility.) If the program were to be implemented as a pilot, data on usage rates could inform negotiations regarding pass reimbursement amounts paid to WMATA by the City.

Table 2 shows total costs for each scenario from FY 2022 to FY 2025. Scenario 2 is projected to have the highest costs *if* participation in the program is maximized, although the cost difference between Scenarios 1 and 2 is anticipated to decrease throughout the four-year period. This is due to the fact that, between FY 2022 and FY 2025, following the pandemic, ridership on DASH is anticipated to recover significantly. As a result, this means that the costs (primarily foregone fare revenue) of Scenario 1 will increase. By contrast, cost projections for Scenarios 2 and 3 are not as dependent on system ridership and assume relatively steady participation rates throughout that period, leading to more stable program costs through FY 2025.

Table 2: Total Cost by Scenario, FY 2022–FY 2025

Scenario	FY 2022	FY 2023	FY 2024	FY 2025
Baseline				
Total (Cost of Collecting Fares)	**$449,000**	**$466,000**	**$483,000**	**$498,000**
Scenario 1: Free fares for all DASH riders				
DASH Foregone Fare Revenue	$2,623,000	$3,912,000	$4,961,000	$5,512,000
Other Program Costs (Marketing)	$16,300	$5,500	$5,600	$5,800
Total	$2,639,000	$3,921,000	$4,970,000	$5,521,000
Scenario 1: Net Increase over Baseline	**$2,190,000**	**$3,455,000**	**$4,487,000**	**$5,023,000**
Scenario 2: Free fares for low-income residents on DASH and WMATA services				
DASH Foregone Fare Revenue	$724,000	$1,170,000	$1,477,000	$1,641,000
Payments to WMATA	$2,745,000	$4,393,000	$4,393,000	$4,393,000
Other Program Costs (Marketing + Cost of Collecting Fares)	$503,000	$501,000	$517,000	$533,000
Total	$3,972,000	$6,067,000	$6,390,000	$6,570,000
Scenario 2: Net Increase over Baseline	**$3,523,000**	**$5,601,000**	**$5,907,000**	**$6,072,000**
Scenario 3: Half-price fares and passes for low-income residents on DASH and WMATA services				
DASH Foregone Fare Revenue	$317,000	$469,000	$592,000	$658,000
Payments to WMATA	$965,000	$1,544,000	$1,544,000	$1,544,000
Other Program Costs (Marketing + Cost of Collecting Fares)	$503,000	$504,000	$520,000	$536,000
Total	$1,785,000	$2,517,000	$2,656,000	$2,737,000
Scenario 3: Net Increase over Baseline	**$1,336,000**	**$2,051,000**	**$2,173,000**	**$2,239,000**

Analysis performed as part of this study indicated that increased ridership on the DASH system is not likely to result in the need for significant additional operating expenditures (i.e., adding more drivers, vehicles, or trips) outside of those service improvements that are already recommended by the FY 2022 DASH Transit Development Plan (TDP) to satisfy higher demand between FY 2022 and FY 2025 under any of the scenarios. Based on similar programs in other cities identified for the literature review, it is not anticipated that the program would result in a noticeable decrease in traffic in the City. The study did not evaluate the administrative costs to WMATA associated with implementing the fare program under Scenarios 2 and 3; such costs are assumed to be accounted for in the reimbursement payments from the City to WMATA.

Findings & Recommendations

The cost and ridership findings for each scenario are summarized in **Table 3** for FY 2025. Annual ridership and cost projections are available for FY 2022 through FY 2025 in Technical Memorandum 2.

Table 3: Projected Ridership and Cost Summary by Scenario, FY 2025

Scenario	DASH Ridership (Trips)	All Transit Ridership in the City (DASH + WMATA Trips)	Net Cost Increase over Baseline	Potential Beneficiaries (Low-Income* Program Participants)
Baseline Scenario	5.2 million	11.2 million	-	-

Scenario	DASH Ridership (Trips)	All Transit Ridership in the City (DASH + WMATA Trips)	Net Cost Increase over Baseline	Potential Beneficiaries (Low-Income* Program Participants)
Scenario 1: Free fares for all DASH riders	6.4 million (23% increase)	12.5 million (11% increase)	$5.0 million	15,000-20,000[2]
Scenario 2: Free fares for low-income riders on DASH and WMATA	5.7 million (9% increase)	12.2 million (8% increase)	$4.3 million - $6.1 million	5,000 – 10,000[3]
Scenario 3: Half-price passes and fares for low-income riders on DASH and WMATA	5.5 million (6% increase)	11.8 million (5% increase)	$1.6 million - $2.2 million	5,000-10,000

Those from households with incomes at or below 130 percent of FPL.

Uncertainties remain regarding ridership levels in future years, as well as participation and usage under Scenarios 2 and 3, which could have significant implications for the cost to the City of implementing the program (for this reason, net cost increases have been shown as ranges in the table). These costs could also vary based on how many trips participants take on WMATA (versus DASH) services. These uncertainties could be alleviated by a combination of: (1) implementing the program as a pilot first, enabling collection of data to inform the City's understanding of costs; (2) capping the number of program participants; and (3) implementing an opt-in mechanism such that the City would only compensate WMATA for passes actually used on the WMATA system. There is also the option for the City to implement versions of Scenarios 2 and 3 that initially cover just DASH services in the short-term and expand the program to WMATA at a later point in time.

Table 4 summarizes key advantages and disadvantages of each scenario, encompassing both quantitative and qualitative characteristics.

Table 4: Summary of Scenario Advantages and Disadvantages

Scenario	Advantages	Disadvantages
Scenario 1: Free fares for all on DASH	■ Easiest for the City to implement ■ Benefits the largest number of residents, including many who are just above typical low-income thresholds ■ Easiest to access for participants ■ Enhanced operational performance and reduced travel times ■ Lowest cost relative to number of residents (low-income and total) served ■ Greatest increase in ridership (11% in FY 2025) and associated environmental benefits ■ Highest savings due to not collecting fares ($450,000 in FY 2022) ■ Could reduce expenses owed to WMATA by the City.	■ Relatively high net cost ($5.0 million in FY 2025) ■ Does not enhance affordability of WMATA services ■ May reduce ridership revenue to WMATA, as riders may switch from a paid service to a free service. ■ Offers less support for an integrated regional transit network, as envisioned in recent regional plans[4] ■ Loss of employer-subsidized fare revenues through SmartBenefits (10-12% of fare revenue in FY19)

---

[2] The City of Alexandria is home to roughly 33,000 residents from households earning less than 200 percent of the FPL. The range provided above is an estimate for the amount who might ride free DASH service based on previous ridership surveys.
[3] As a reference point, there are 8,425 total SNAP participants in the City of Alexandria who could qualify for this program.
[4] Such plans include the Washington Area Bus Transformation Project. For more information, see: https://bustransformationproject.com/.

Scenario	Advantages	Disadvantages
Scenario 2: Free fares for low-income residents on DASH and WMATA	■ Highest level of benefit for participants, with free access to both DASH and WMATA services ■ Consistency between regional providers allows for a more integrated regional bus network.	■ Highest net cost *if* participation level is high (up to $6.1 million in FY 2025) ■ Fewer program beneficiaries compared to Scenario 1 ■ Greater administrative burden for the City and participants
Scenario 3: Half-price fares and passes for low-income residents on DASH and WMATA	■ Provides more affordable access to both DASH and WMATA services ■ Lowest net cost (up to $2.2 million in FY 2025) ■ Consistency between regional providers allows for a more integrated regional bus network.	■ Lower level of benefit to participants ■ Fewer program beneficiaries compared to Scenario 1 ■ Greater administrative burden for the City and participants ■ Lowest increase in ridership (5% in FY 2025) and associated environmental benefits

While each scenario has its advantages and disadvantages, any of the three would have a significant and positive impact for low-income City residents. In addition, the program has potential to build momentum around investment and innovation in fare programs to enhance equity throughout the region.

Based on the removal of the administrative and cost burdens associated with managing a low-income fare program and collecting fares, and the number of people who benefit relative to its cost, the project team's conclusion is that Scenario 1 (Free DASH fares) would produce the greatest overall benefit for the city's low-income transit users.