



# Alexandria Transit Company Board of Directors Meeting



March 13, 2024 @ 5:30pm  
Meeting Held at City Hall, Council Workroom, 301 King St., Alexandria, VA 22314 and  
Held Electronically - Livestream on ZOOM and Facebook Live

ITEM	DESCRIPTION	PAGE #	PRESENTER
Public Hearing	- Public Hearing – FY25 Alexandria Transit Strategic Plan (ATSP) Public Hearing	2	
#1	Public Meeting Call to Order, and Welcome	N/A	Mr. Kaplan
#2	Consideration of Approval Meeting Minutes a) ATC Board of Directors Meeting – February 14, 2024	3-5	All
#3	Board Member Announcements, Reports & Business Items a) Chair's Report a. Introduction of New Board Members b. FY 2025 WMATA Budget Letter— <i>Board Action</i> b) T&ES Report c) Others	6-8	Mr. Kaplan   Ms. Orr All
#4	General Manager's Report a) Ridership Update b) FY 2025 City of Alexandria Budget Calendar c) City Manager's Proposed Budget	9-10	Mr. Baker
#5	Financial Reports a) Financial Report b) Summary Income Statement c) Budget vs. Actual d) Budget Forecast	11-14	Mr. Ryder
#6	Planning Reports a) Onboard Survey Report	15	Mr. Barna
#7	Next Meeting Date & Adjournment The next regular meeting of the Alexandria Transit Company Board of Directors is scheduled for Wednesday, April 10, 2024	16	All



## **\*\* Public Hearing \*\***

### **FY25 Alexandria Transit Strategic Plan (ATSP) Public Hearing**

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DASH is seeking public input on potential service changes for its FY 2025 – FY 2034 Alexandria Transit Strategic Plan (ATSP). The ATSP is a new annual service plan that summarizes any proposed service, fare, or capital program changes for the following fiscal year (FY 2025) and is directly tied to the proposed operating budget. It is required by the Virginia Department of Rail and Public Transportation (DRPT) and has replaced the previous annual Transit Development Plan (TDP) process. The ATSP is subject to minor updates each year and major updates every five years.

The draft ATSP is typically presented to the Board of Directors in February with a public hearing in March and final consideration for adoption in April or May.

For FY 2025, DASH is putting forward the following potential service modifications:

1. Line 104 would be reduced on weekdays so that trips between Braddock Road Metro and the Pentagon would run every 60 minutes instead of every 30 minutes based on guidance from the City Manager's budget proposal.
2. Line 32 would be improved from every 60 minutes to every 30 minutes during weekday middays, evenings, and weekends (*Unfunded*).
3. Line 34 would be improved from every 60 minutes to every 30 minutes on Sundays (*Unfunded*).
4. Line 31 would be improved from every 30 minutes to every 15 minutes between King Street Metro and Braddock Road Metro during middays, evenings, and weekends.

The full DRAFT FY 2025 – FY 2034 Alexandria Transit Strategic Plan (ATSP) was provided in the Board Packet for the February board meeting. The full document is available for review on the DASH website at [www.dashbus.com/strategicplan](http://www.dashbus.com/strategicplan).

#### **PUBLIC OUTREACH UPDATE**

DASH staff is conducting a public outreach period that began with the presentation of the draft ATSP to the ATC Board of Directors on February 14 and will conclude on March 29, 2024. Staff held the first community meeting at the Del Pepper Resource Center last month and will be holding two additional community meetings in Old Town and Arlandria.

##### **ATSP Community Meeting #1**

Thursday, February 29 | 5:00 PM  
Del Pepper Resource Center | Conference Room

##### **ATSP Community Meeting #2**

Monday, March 25 | 5:00 PM  
Alexandria City Hall | Council Workroom

##### **ATSP Community Meeting #3**

Date & Time TBD  
Chick Armstrong Community Center (Arlandria)

Additional customer engagement is being conducted through multiple community group meetings, pop-up events and ride-along chats. Bus posters, onboard announcements, newspaper ads, e-blasts and social media are also being utilized to raise awareness of the plan and the proposed service modifications.

Staff has received nearly one dozen public comments in the first three weeks of outreach. Multiple comments have been received in opposition to the proposed reduction to Line 104. Other comments have been received in support of the Line 32 improvements. A full outreach summary and comment list will be provided to the ATC Board in advance of the April 10<sup>th</sup> meeting.



## **ATC Board Agenda Detail**

**Item #:** 2a  
**Item Title:** Meeting Minutes—February 14, 2024  
**Contact:** Beth Reveles, Secretary to the Board  
**Board Action:** Consideration of Approval

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### **Alexandria Transit Company (ATC) BOARD OF DIRECTORS MEETING MINUTES February 14, 2024**

A meeting of the Board of Directors of the Alexandria Transit Company was held at 5:30 pm on Wednesday, February 14, 2024, at the DASH Facility and was also available electronically. A recording of the meeting was made and is available upon request.

Board members present: David Kaplan, Hillary Orr, Arthur Wicks, Steve Klejst, Kendel Taylor, Jesse O'Connell, Ajashu Thomas

Board members participating electronically: Matt Harris from his residence due to illness.

Board members absent: N/A

Staff members present: Josh Baker, Raymond Mui, Beth Reveles, Edward Ryder, Stephanie Salzone, Joseph Quansah, Brent Reutter, Martin Barna, Ryan Visci

Other attendees: Bob Gronenberg, Praveen Kathpal

#### **Agenda Item #1 – Call to Order, Welcome and Public Comment**

Chair David Kaplan welcomed everyone and called the meeting to order at 5:36 pm. A quorum was reached at that time. Ajashu Thomas arrived at 5:43 pm, and Kendel Taylor arrived at 5:48 pm.

Bob Gronenberg thanked the Board for setting goals for frequent, convenient, and dependable service. He feels there is a glaring omission in DASH's strategic plan regarding connections. Connections only work if they are reasonably timed.

Dan Green stated that he has been a Metro and DASH rider for the past 40 years. He has grown concerned about a reduction in DASH service, especially after going fare free. Many federal government employees and downtown DC employees receive a subsidized transit allowance which DASH is not benefiting from since going fare free. He has noticed a decline in the condition and maintenance of DASH buses: worn seats, trash, mechanical problems.

Chair Kaplan closed public comment as there were no other speakers.

#### **Agenda Item #2 – Consideration of Approval of Meeting Minutes**

##### **#2a – ATC Board of Directors Meeting – January 10, 2024**

The Chair called for a motion to approve the January minutes and asked if there were any corrections, revisions, or amendments. A motion was made by Jesse O'Connell to approve the minutes and was seconded by Steve Klejst. There was no further discussion, and the motion carried. Ajashu Thomas abstained.

#### **Agenda Item #3 – Board Member Announcements, Reports & Business Items**

##### **#3a – Chair's Report**

Chair Kaplan announced that Murat Omay had resigned from the Board.

Mr. Kaplan announced that the Stockholders' meeting is scheduled for March 12. He explained that ATC/DASH would be allowed a 15-minute presentation rather than one hour. He encouraged the Board members to attend either in person or virtually.

Mr. Kaplan stated that he is planning for an ice breaker session during the April Board meeting. The topic will be to determine who used public transit the most in 2023.

### **#3b – T&ES Report**

Transportation Deputy Director Hillary Orr provided a review of her written report which was shared with the Board in advance of the meeting.

On February 8, the WMATA Board released a revised FY 2025 capital budget which includes minor changes to peak hour windows, frequency of weekend rail service, and a 12½% fare increase. Public hearings on the proposed budget are scheduled to take place in February, and they are anticipating budget adoption in April. Ms. Orr stated that she would be willing to draft a letter for the Board to send to WMATA regarding the proposed budget.

### **#3c – Board Member Recruitment Update**

Chair Kaplan explained that the Board can seat up to three new Board members.

Matt Harris announced that there were 21 applicants for the Board seats. After interviewing four candidates, the following three were recommended: Praveen Kathpal, Kursten Phelps, and Arish Gajjar. Mr. Harris briefly reviewed highlights for each of the three candidates.

Chair Kaplan mentioned that one of the three new members would need to serve on the Transportation Commission since Mr. Omay had resigned.

Mr. Kaplan asked for a motion to add the three candidates to the slate for the Stockholders to approve. A motion was made by Steve Klejst and was seconded by Jesse O'Connell. There was no further discussion, and the motion carried.

### **#3d – Others**

The Chair asked if there were any other announcements from the Board. Hearing none, he moved on to the General Manager's report.

## **Agenda Item #4 – General Manager's Report**

General Manager Josh Baker announced that we finally have a new Director for Marketing and Public Engagement who previously worked for T&ES with the City.

### **#4a – Ridership Update**

The ridership update was shared with the Board in advance of the meeting.

### **#4b – Fleet Strategy Memorandum**

Mr. Baker reviewed the memorandum which was shared with the Board in advance of the meeting.

## **Agenda Item #5 – Financial Reports**

### **#5a – Financial Report**

### **#5b – Balance Sheet**

**#5c – Summary Income Statement**

**#5d – Budget vs. Actual**

**#5e – Budget Forecast**

Mr. Baker briefly reviewed the financial reports which were shared with the Board in advance of the meeting.

**Agenda Item #6 – Planning Reports**

**#6a –Alexandria Transit Strategic Plan (ATSP) Memorandum**

Director for Planning & Scheduling Martin Barna provided the memorandum which was shared with the Board in advance of the meeting.

**#6b –DASH Bus Stops Update Near Ladrey Redevelopment**

Mr. Barna reviewed the bus stops update which was shared with the Board in advance of the meeting.

**Agenda Item #8–Next Meeting Date & Adjournment**

A final motion to adjourn the meeting was made by Jesse O’Connell and seconded by Arthur Wicks. A vote was called, and the motion was approved unanimously.

The next regular meeting of the Alexandria Transit Company Board of Directors is scheduled for March 13, 2024, at 5:30 pm at City Hall.

Minutes respectfully submitted by:  
Beth Reveles  
Secretary to the Board  
Alexandria Transit Company

## ATC Board Agenda Detail

**Item #:** 3a  
**Item Title:** Chair's Report: Introduction of New Board Members, WMATA Budget Letter  
**Contact:** David Kaplan, Chair  
**Board Action:** FYI/Consideration of Approval



- a) Introduction & Welcome: New Board Members (*Pending confirmation from City Council*)**  
Kursten Phelps, Praveen Kathpal, and Arish Gajjar
- b) FY 2025 WMATA Budget Letter**

### ALEXANDRIA TRANSIT COMPANY

Paul Smedberg, Chair  
WMATA Board of Directors  
300 7th St SW  
Washington, DC 20024

March 4, 2024

Re: WMATA FY25 Budget: Consistent, Reliable, Frequent Bus and Rail Service is the Priority

Dear Chair Smedberg:

Thank you for the opportunity to provide feedback on the proposed FY2025 budget. The Board of Directors of the Alexandria Transit Company (ATC) applauds the proposed budget's delicate balance of aggressive cost saving proposals, targeted service reduction techniques, and reasonable fare increases.

The Board appreciates that the revised FY2025 proposed operating budget avoids many of the draconian cuts to Metrorail and Metrobus service and frequencies called for in the General Manager's proposed budget, including that the revisions sustain critical bus services such as the 8W to parts of Alexandria which do not have access to Metrorail. It is of the utmost importance that the WMATA budget maintains reliable service and convenient frequencies that continue to serve all riders, especially at a time when transit ridership is increasing across the region. This must remain a top priority regionwide.

The Board also understands the need to increase fares to keep pace with inflation, and the importance of installing new faregates system-wide to reduce fare evasion. Please remember that these measures to ensure all riders fairly pay their way must be in lockstep with increased use of Metro Lift and Senior reduced-fare programs to help our riders most in need.

WMATA's request for more subsidy funding from jurisdictional partners at the local level would normally cause concern, especially while accepting existing or reduced service levels. However, the FY2025 operating budget shortfall is a regional issue which requires a regional solution from all partners, and the Board has consistently championed local investment in the Metrorail and Metrobus systems during local budget deliberations.

Looking ahead, the Board urges WMATA to pay special attention to future budgets because of the absence of dedicated funding and to continue to work closely with compact partners and jurisdictions to look at alternative funding approaches. The objective should be to increase budget stability and certainty to ensure that transit continues to serve the region's transportation needs. Only with that certainty can regional residents and workers truly build their lives around alternatives to driving alone, thereby realizing congestion reduction, greenhouse gas emissions reduction, and equity for all well into the future.

Sincerely,

A handwritten signature in black ink, appearing to read "David Kaplan".

David Kaplan  
Chair, Alexandria Transit Company

cc: James Parajon, Alexandria City Manager  
Josh Baker, DASH General Manager



## **ATC Board Agenda Detail**

**Item #:** 3b  
**Item Title:** T&ES Report  
**Contact:** Hillary Orr, Deputy Director, Transportation  
**Board Action:** FYI



### **King-Bradlee Project**

This project seeks to improve access and mobility for all users in the Study Area and it was identified in the Alexandria Mobility Plan as a priority location to install enhanced bicycle facilities and additional sidewalks to close gaps in the City's current network. Initial concept designs were presented, and some included dedicated transit lanes. The City is currently seeking input on this project. An online feedback form is available [HERE](#).

### **WMATA Budget**

The Alexandria Transportation Commission (TC) and the Alexandria Transit Company (ATC) Board of Directors sent letters to WMATA during the public comment period on the proposed FY25 operating budget. WMATA's public comment period closed on Tuesday, March 5.

TC and ATC both provided language of support for WMATA's aggressive cost saving proposals, targeted service reduction techniques, and reasonable fare increases. A top priority was cited of maintaining reliable service and convenient frequencies, including sustaining critical bus services like the 8W. Finally, TC and ATC both stated that the operating budget shortfall is a regional issue that will require a regional solution from all partners.

### **Zero Fatalities**

In February, the City made an announcement that it had ended 2023 with zero traffic fatalities for the first time since the adoption of the Vision Zero Action Plan in 2017. While this does not indicate that the City's Vision Zero goal has been accomplished, it is a significant milestone worth acknowledging. The full press release is available [HERE](#).

### **AlexMoves Multimodal Survey Update**

In late 2023, the City partnered once again with the polling and research firm [Polco](#) its bi-annual AlexMoves travel survey to gain insight into how Alexandrians get around the City. This survey was the fourth of its kind and provides important information to help the City understand how its residents travel for all types of trips (not just the daily commute). In turn, this will help the City monitor changes over time and plan better for all transportation users. The City received the final report in January of 2024 and will present it to the Transportation Commission and share with the DASH Board later this year.

Below are just a few short takeaways from the survey:

- **The addition of more off-street multi-use paths and trails could positively impact on how often residents walk or bike.**
  - About 3 in 4 respondents somewhat or strongly agreed they would walk more if there were more street lighting after dark or if there were more off-street walking options such as multi-use trails/paths.
- **Residents report that public transportation is less convenient than other forms**
  - When asked what might increase their use of public transportation, survey participants said that time and convenience were the biggest issues, with crime, cost, comfort, and child accommodations as lesser concerns.

### **Electric Bus On-Route Charging**

The City will be receiving \$1,000,000 in funds for On-Route charging for electric buses that was approved in the [FY24 Federal Appropriations bill](#). The timing of the funding is unclear, but the City will work with DASH to formalize the location for this infrastructure. The former Landmark Mall site was an original target, but staff must work out timing for implementation in coordination with the site.

**Metro Expo: New Trains and Buses**

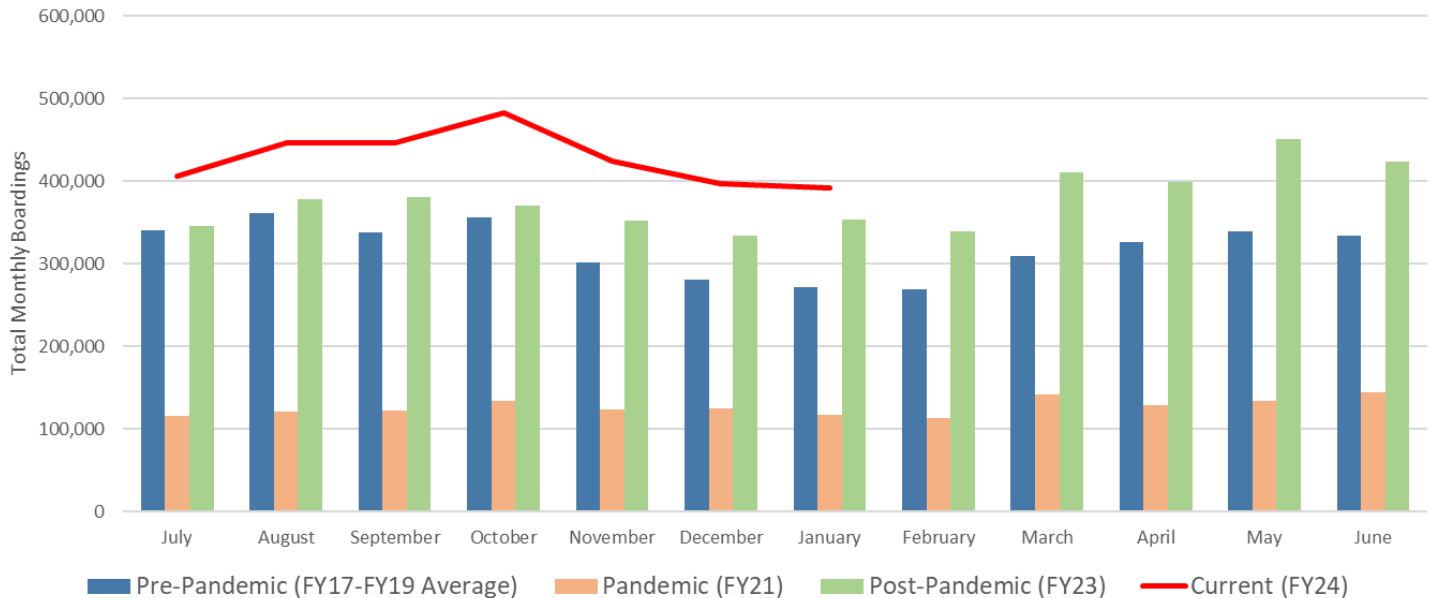
Metro is giving the public a sneak peek at its all-digital, world-class new railcars and zero-emissions buses from March 20 through April 3, daily from 9 a.m. to 5 p.m.

The [\*Fleet of the Future\*](#) Expo will be prominently displayed on the National Mall at 12th Street and Madison Drive NW near the Smithsonian National Museum of American History and National Museum of Natural History. It's the first time Metro has hosted the public to see a mock-up of its newest trains on the National Mall since the first 1000-series train cars in 1968.



**ATC Board Agenda Detail****Item #:** 4a,b**Item Title:** Ridership Update, Budget Calendar**Contact:** Josh Baker, General Manager**Board Action:** FYI

DASH Monthly Ridership Trends (FY 2017 - FY2024)

**FY 2025 City of Alexandria Budget Calendar (FYI)**

Date	Time	Meeting Topic
Monday, March 11, 2024	5:30pm	Public Hearing FY 2025 Budget
Tuesday, March 12, 2024	7:00pm	Introduce the Maximum Property Tax Rates
Wednesday, March 13, 2024	7:00pm	Budget Work Session: #3
<b>Saturday, March 16, 2024</b>	<b>9:30am</b>	<b>Public Hearing FY 2025 Budget</b>
Wednesday, March 20, 2024	7:00pm	Budget Work Session: #4
Wednesday, April 3, 2024	7:00pm	Budget Work Session: #5 (DASH Work Session)
Thursday, April 4, 2024		Add/deletes due
Saturday, April 13, 2024	9:30am	Add/Delete Public Hearing
Wednesday, April 24, 2024	6:00pm	Tax Rate Public Hearing/Budget Work Session: Preliminary Add/Delete Discussion
Monday, April 29, 2024	7:00pm	Budget Work Session: Final Add/Delete Discussion (if needed)
Wednesday, May 1, 2024	7:00pm	Budget Adoption/ Tax Rate Adoption

## ATC Board Agenda Detail

**Item #:** 4c  
**Item Title:** City Manager's Proposed Budget  
**Contact:** Josh Baker, General Manager  
**Board Action:** FYI and Discussion



The General Manager will provide an update of the impacts of the City Manager's proposed budget. A synopsis of the budget is provided in the memorandum below.

## ALEXANDRIA TRANSIT COMPANY

February 27, 2024

### MEMORANDUM: ALEXANDRIA CITY MANAGERS PROPOSED FISCAL YEAR 2025 BUDGET

On Tuesday, February 27 the Alexandria City Manager presented his proposed Fiscal Year 2025 budget to the Alexandria City Council. The budget as presented includes \$33,638,503 in General Fund contributions for DASH operations, inclusive of King Street Trolley services.

The General Fund cost to support DASH in FY 2025 increases by \$4.6 million, or 16.6%, due to the following factors:

- Personnel costs increased \$2.9 M due to the calendar year 2023 approval of a new collective bargaining agreement (CBA) which included a 9.5% salary increase in FY 2024 and a 4.0% increase in FY 2025.
- In FY 2022, DASH eliminated rider fares and was awarded a three-year Virginia Department of Rail and Public Transportation (DRPT) Transit Ridership Incentive Program (TRIP) grant to offset a portion of the General Fund cost. The grant expires in FY 2024, resulting in a \$1.8 million General Fund subsidy increase.

The investment in DASH as proposed by the City Manager is significant and it reflects the ongoing commitment to funding our services. It recognizes the value of DASH and the critical role we play in moving our community.

To offset some of these cost increases the City Manager has proposed exercising both budget reduction options as submitted by DASH:

- Reducing service on Line 104 from 30-minute frequency to 60-minute frequency during peak service, (reduction of \$180,000); and
- Taking the Administrative reduction option of (\$200,540)

The combined total reduction for the DASH budget is (\$380,540).

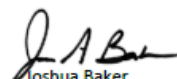
DASH submitted five supplemental requests including service enhancements on lines 31, 32, and 34; the amount for the required local match for state grants; and an administratively required supplemental wage increase. None of these supplementals are included in the Manager's budget.

The failure to fund these important improvements is contrary to the progress we have made toward the Alexandria Transit Vision Plan and the New DASH Network. Not funding the local match for state grants threatens the reputation we have established as good stewards of state grant funding, and the reduction of Line 104 harms the quality and usefulness of DASH.

DASH will be conducting community outreach to gather feedback on the proposal of reducing service on Line 104. Our outreach plan has been developed and includes Community Meetings on February 29 at Del Pepper Center; March 14 at Cora Kelly; and March 25 at City Hall. Additionally, social media and eNews blasts will seek feedback submissions by Tuesday, March 26.

A full briefing regarding the proposed budget and next steps will be provided at the Board Meeting on March 13, 2024. City Council public hearings on the proposed budget are scheduled for March 11, March 16, and April 13, 2024.

Detailed information on the proposed budget including the Manager's budget presentation is now posted and may be viewed at [www.alexandriava.gov/budget](http://www.alexandriava.gov/budget)

  
Joshua Baker  
General Manager



703.746.3274



[dashbus.com](http://dashbus.com)



3000 Business Center Drive  
Alexandria, VA 22314



## **ATC Board Agenda Detail**

**Item #:** 5a  
**Item Title:** Financial Report  
**Contact:** Edward Ryder, Director of Finance & Administration  
**Board Action:** FYI/Discussion

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## **Financial Results Through the Month Ending January 31, 2024**

Through January 2024, ATC experienced a year-to-date deficit of (\$80,394) and is now projecting a year-end deficit of (\$4,097). The significant shift in year-to-date position versus January is tied to the application of the funds requested on the Fall Supplemental Appropriations Ordinance (SAO) to cover funding needs associated with the CBA negotiations. The Fall SAO was appropriated in December 2023 and funds were applied in January.

## **Significant budget items of note through January include:**

- **Operations overtime** was down significantly in January, coinciding with the implementation of the departmental reshuffle and revised attendance policy.
  - Operations Overtime in January was \$113K. Comparatively, in previous months that had two payroll cycles, the average cost of operations overtime for the month was approximately \$165K. This marks a notable reduction.
- **Maintenance Parts and Supplies** continues to be our most significant budgetary pressure. However, this line item was significantly down in January, falling below even budgeted monthly limits for the first time in FY2024.
  - Staff indicated that they have further tuned their purchasing procedures to seek more efficient and cost focus purchasing, moving to more of a “just in time” philosophy.
- ATC continues to take all measures available to control all discretionary spending, including the General Manager’s continued freeze on all non-essential and discretionary spending.

**\*Please note: January Balance Sheet is not available due to problems with the Munis system. Balance sheets will be provided in the next months packet.**

**ATC Board Agenda Detail****Item #:** 5b**Item Title:** Summary Income Statement**Contact:** Edward Ryder, Director of Finance & Administration**Board Action:** FYI/Discussion

**ALEXANDRIA TRANSIT COMPANY**  
**Summary Income Statement for the Month Ended January 31, 2024**

	Actual	Budget	Variance	FY2024 Annual		
				FY2024 Projected	Budget	Variance
<b>REVENUES:</b>						
Passenger Revenue	-	-	-	-	-	-
Charter Revenue	37,352	-	37,352	37,352	-	37,352
Advertising Revenue	53,004	125,000	(71,996)	104,286	250,000	(145,714)
Miscellaneous Revenue	46,910	35,000	11,910	71,910	60,000	11,910
<b>Total Operating Revenue</b>	<b>137,266</b>	<b>160,000</b>	<b>(22,734)</b>	<b>213,548</b>	<b>310,000</b>	<b>(96,452)</b>
Virginia TRIP Program	-	-	-	1,782,577	1,782,577	
City Contribution - King Street Trolley	658,231	658,233	(2)	1,128,400	1,128,400	(0)
City Contribution - Regular Subsidy	16,613,898	16,613,900	(2)	28,480,971	28,480,971	(0)
Fall SAO for CBA	639,223	639,223	-	639,223	639,223	-
<b>Total Revenue</b>	<b>18,048,618</b>	<b>18,071,356</b>	<b>(22,738)</b>	<b>32,244,718</b>	<b>32,341,171</b>	<b>(96,453)</b>
<b>EXPENDITURES:</b>						
Operations	10,060,138	10,131,867	71,729	18,640,256	18,611,500	(28,756)
Maintenance	4,272,775	4,059,300	(213,475)	7,345,153	7,169,519	(175,633)
Administration	3,481,572	3,566,353	84,781	6,225,080	6,360,652	135,572
Capital Outlay	38,327	37,637	(690)	38,327	199,500	161,173
<b>Total Expenditures</b>	<b>17,852,812</b>	<b>17,795,157</b>	<b>(57,656)</b>	<b>32,248,815</b>	<b>32,341,171</b>	<b>92,356</b>
<b>Net Surplus (Deficit)</b>	<b>195,806</b>	<b>276,199</b>	<b>(80,394)</b>	<b>(4,097)</b>	<b>-</b>	<b>(4,097)</b>

This statement is unaudited and prepared for the sole use of management and the Board of Directors of ATC.

## ATC Board Agenda Detail

Item #: 5c

Item Title: Budget vs. Actual

Contact: Edward Ryder, Director of Finance & Administration

Board Action: FYI/Discussion



### ALEXANDRIA TRANSIT COMPANY Summary Income Statement for the Month Ended January 31, 2024

Budget vs Actual									
Description	Jan Actuals	Jan	Variance	YTD Actuals	YTD Forecast	Variance	FY 24 Projected	FY 24 Budget	Variance
<b>REVENUE</b>									
Passenger Revenue	-	-	-	-	-	-	-	-	-
Other Charter Revenue	-	-	-	37,352	-	37,352	37,352	-	37,352
Advertising Revenue	1,727	-	1,727	53,004	125,000	(71,996)	104,286	250,000	(145,714)
Miscellaneous Revenue	14,128	5,000	9,128	46,910	35,000	11,910	71,910	60,000	11,910
<b>TOTAL OPERATING REVENUE</b>	<b>15,855</b>	<b>5,000</b>	<b>10,855</b>	<b>137,266</b>	<b>160,000</b>	<b>(22,734)</b>	<b>213,548</b>	<b>310,000</b>	<b>(96,452)</b>
Virginia TRIP Program	-	-	-	-	-	-	1,782,577	1,782,577	-
City Contribution - Regular Subsidy	2,373,414	2,373,414	(0)	16,613,898	16,613,900	(2)	28,480,971	28,480,971	(0)
City Contribution - King Street Trolley	94,033	94,033	(0)	658,231	658,233	(2)	1,128,400	1,128,400	(0)
Fall SAO for CBA	639,223	639,223	-	639,223	639,223	-	639,223	639,223	-
<b>TOTAL REVENUE</b>	<b>3,122,525</b>	<b>3,111,671</b>	<b>10,854</b>	<b>18,048,618</b>	<b>18,071,356</b>	<b>(22,738)</b>	<b>32,244,718</b>	<b>32,341,171</b>	<b>(96,453)</b>
<b>OPERATING EXPENDITURES</b>									
<b>OPERATIONS</b>									
Wages - O	1,010,062	976,472	(33,589)	6,492,075	6,835,307	343,232	12,400,950	12,718,600	317,650
Overtime - O	112,787	100,796	(11,991)	1,102,275	705,569	(396,707)	1,792,275	1,304,500	(487,775)
Fringe Benefits - O	73,769	191,083	117,315	1,250,068	1,337,583	87,515	2,205,485	2,293,000	87,515
Payroll Taxes - O	87,407	83,471	(3,936)	580,440	584,298	3,858	1,074,742	1,078,600	3,858
Retirement Contributions - O	90,026	83,861	(6,165)	591,528	587,026	(4,501)	1,091,301	1,086,800	(4,501)
<b>Total Operations Personnel</b>	<b>1,374,051</b>	<b>1,435,683</b>	<b>61,632</b>	<b>10,016,386</b>	<b>10,049,783</b>	<b>33,398</b>	<b>18,564,754</b>	<b>18,481,500</b>	<b>(83,254)</b>
Operating Materials and Supplies	198	3,750	3,552	8,099	26,250	18,151	26,849	45,000	18,151
Operator Training	1,560	3,333	1,773	16,114	23,333	7,219	29,114	40,000	10,886
Training and Travel - O	306	2,500	2,194	19,539	32,500	12,961	19,539	45,000	25,461
<b>TOTAL OPERATIONS EXPENDITURES</b>	<b>1,376,115</b>	<b>1,445,267</b>	<b>69,152</b>	<b>10,060,138</b>	<b>10,131,867</b>	<b>71,729</b>	<b>18,640,256</b>	<b>18,611,500</b>	<b>(28,756)</b>
<b>MAINTENANCE</b>									
Wages - M	185,414	204,408	18,994	1,273,283	1,430,859	157,576	2,492,123	2,649,699	157,576
Overtime - M	4,749	10,112	5,363	67,339	70,781	3,442	127,658	131,100	3,442
Fringe Benefits - M	31,140	33,915	2,775	207,956	237,405	29,449	377,531	406,980	29,449
Payroll Taxes - M	14,306	16,091	1,785	100,877	112,639	11,762	196,938	208,700	11,762
Retirement Contributions - M	14,985	16,837	1,852	102,727	117,860	15,133	203,167	218,300	15,133
<b>Total Maintenance Personnel</b>	<b>250,594</b>	<b>281,363</b>	<b>30,770</b>	<b>1,752,183</b>	<b>1,969,544</b>	<b>217,361</b>	<b>3,397,418</b>	<b>3,614,779</b>	<b>217,361</b>
Fuel & Lubricants	138,386	131,733	(6,653)	1,267,347	1,157,200	(110,147)	2,029,889	1,952,400	(77,489)
Repair Parts & Supplies	72,021	74,383	2,362	762,785	520,683	(242,101)	1,162,785	892,600	(270,185)
Maintenance Services	14,359	28,795	14,436	211,739	201,565	(10,174)	340,714	345,540	4,826
Building Maintenance	42,247	26,541	(15,706)	272,599	198,641	(73,958)	408,225	344,200	(64,025)
Training and Travel - M	119	1,667	1,548	6,122	11,667	5,545	6,122	20,000	13,878
<b>TOTAL MAINTENANCE EXPENDITURES</b>	<b>517,727</b>	<b>544,483</b>	<b>26,756</b>	<b>4,272,775</b>	<b>4,059,300</b>	<b>(213,475)</b>	<b>7,345,153</b>	<b>7,169,519</b>	<b>(175,633)</b>
<b>ADMINISTRATION</b>									
Wages - A	221,714	205,991	(15,723)	1,502,755	1,441,937	(60,818)	2,784,755	2,661,300	(123,455)
Fringe Benefits - A	33,248	29,163	(4,085)	207,254	204,140	(3,115)	353,069	349,954	(3,115)
Payroll Taxes - A	15,533	15,723	190	110,732	110,062	(670)	204,270	203,600	(670)
Retirement Contributions - A	17,054	16,465	(589)	120,050	115,253	(4,797)	217,997	213,200	(4,797)
<b>Total Administrative Personnel</b>	<b>287,548</b>	<b>267,342</b>	<b>(20,207)</b>	<b>1,940,791</b>	<b>1,871,392</b>	<b>(69,399)</b>	<b>3,560,090</b>	<b>3,428,054</b>	<b>(132,036)</b>
Insurance	(74,994)	82,567	157,561	516,603	577,967	61,364	882,628	990,800	108,172
Professional Services	61,610	92,242	30,632	540,987	645,692	104,705	1,002,195	1,106,900	104,705
Utilities	46,832	28,775	(18,057)	218,546	201,424	(17,122)	351,771	345,298	(6,473)
Telecommunications	6,358	10,167	3,809	51,944	71,167	19,223	102,777	122,000	19,223
Printing & Advertising	9,568	6,375	(3,193)	37,844	44,625	6,781	69,719	76,500	6,781
Training, Travel, Events	1,520	3,111	1,591	43,680	37,444	(6,235)	43,680	53,000	9,320
Office Equipment and Supplies	4,418	10,533	6,115	62,431	73,733	11,303	107,958	126,400	18,442
Employee Recognition	274	-	(274)	23,618	14,700	(8,918)	23,618	14,700	(8,918)
Dues and Subscriptions	4,521	1,917	(2,605)	11,130	13,417	2,287	20,713	23,000	2,287
Grant Local Match	723	-	(723)	33,999	14,793	(19,206)	59,930	74,000	14,070
<b>TOTAL ADMIN EXPENDITURES</b>	<b>348,380</b>	<b>503,028</b>	<b>154,648</b>	<b>3,481,572</b>	<b>3,566,353</b>	<b>84,781</b>	<b>6,225,080</b>	<b>6,360,652</b>	<b>135,572</b>
<b>CAPITAL OUTLAYS (non-CIP)</b>									
Computer and Office Equipment	-	-	-	690	-	(690)	690	-	(690)
Maintenance Equipment	-	-	-	-	-	-	-	63,000	63,000
Other Equipment Investments	-	-	-	37,637	37,637	-	37,637	136,500	98,863
<b>TOTAL CAPITAL OUTLAYS (non-CIP)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>38,327</b>	<b>37,637</b>	<b>(690)</b>	<b>38,327</b>	<b>199,500</b>	<b>161,173</b>
<b>TOTAL OPERATING EXPENDITURES</b>	<b>2,242,221</b>	<b>2,492,777</b>	<b>250,556</b>	<b>17,852,812</b>	<b>17,795,157</b>	<b>(57,656)</b>	<b>32,248,815</b>	<b>32,341,171</b>	<b>92,356</b>
<b>NET SURPLUS (DEFICIT)</b>	<b>880,304</b>	<b>618,894</b>	<b>261,410</b>	<b>195,806</b>	<b>276,199</b>	<b>(80,394)</b>	<b>(4,097)</b>	<b>-</b>	<b>(4,097)</b>

## ATC Board Agenda Detail

**Item #:** 5d  
**Item Title:** Budget Forecast  
**Contact:** Edward Ryder, Director of Finance & Administration  
**Board Action:** FYI/Discussion



### ALEXANDRIA TRANSIT COMPANY Summary Income Statement for the Month Ended January 31, 2024 With Application of I-395 Reimbursements

Description	Jul	Aug	Sep*	Oct	Nov	Dec	Jan	Feb	Mar*	Apr	May	Jun*	FY 24 Projected	FY 24 Budget	Variance
<b>REVENUE</b>															
Passenger Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Charter Revenue	374	-	18,107	2,701	7,393	8,776	-	-	-	-	-	-	37,352	-	37,352
Advertising Revenue	1,727	19,218	1,727	-	1,727	26,880	1,727	30,452	1,727	1,727	15,650	1,727	104,286	250,000	(145,714)
Miscellaneous Revenue	5,485	5,253	2,407	-	8,452	11,185	14,128	5,000	5,000	5,000	5,000	5,000	71,910	60,000	11,910
<b>TOTAL OPERATING REVENUE</b>	<b>7,586</b>	<b>24,471</b>	<b>22,241</b>	<b>2,701</b>	<b>17,572</b>	<b>46,841</b>	<b>15,855</b>	<b>35,452</b>	<b>6,727</b>	<b>6,727</b>	<b>20,650</b>	<b>6,727</b>	<b>213,548</b>	<b>310,000</b>	<b>(96,452)</b>
Virginia TRIP Program	-	-	-	-	-	-	-	356,515	356,515	356,515	356,515	356,515	1,792,577	1,792,577	-
City Contribution - Regular Subsidy	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	2,373,414	28,480,971	28,480,971	(0)
City Contribution - King Street Trolley	94,033	94,033	94,033	94,033	94,033	94,033	94,033	94,033	94,033	94,033	94,033	94,033	1,128,400	1,128,400	(0)
Fall SAO for CBA	-	-	-	-	-	-	639,223	-	-	-	-	-	639,223	639,223	-
<b>TOTAL REVENUE</b>	<b>2,475,033</b>	<b>2,491,918</b>	<b>2,489,688</b>	<b>2,470,148</b>	<b>2,485,019</b>	<b>2,514,288</b>	<b>3,122,525</b>	<b>2,859,415</b>	<b>2,830,690</b>	<b>2,830,690</b>	<b>2,844,613</b>	<b>2,830,693</b>	<b>32,244,718</b>	<b>32,341,171</b>	<b>(96,453)</b>
<b>OPERATING EXPENDITURES</b>															
<b>OPERATIONS</b>															
Wages - O	468,212	975,416	1,365,080	947,821	864,990	860,493	1,010,062	985,000	1,440,938	985,000	985,000	1,512,938	12,400,950	12,718,600	317,650
Overtime - M	80,286	179,950	256,782	170,068	166,302	136,102	112,787	120,000	165,000	120,000	120,000	165,000	1,792,275	1,304,500	(487,775)
Fringe Benefits - O	183,862	175,040	132,937	164,440	158,192	361,829	73,769	191,083	191,083	191,083	191,083	191,083	2,205,485	2,293,000	87,515
Payroll Taxes - O	41,648	87,513	122,952	85,041	78,764	77,114	87,407	83,471	121,944	83,471	83,471	121,944	1,074,742	1,078,600	3,858
Retirement Contributions - O	42,017	91,853	125,146	85,441	78,051	78,994	90,026	83,861	124,096	83,861	83,861	124,096	1,091,301	1,086,800	(4,501)
<b>Total Operations Personnel</b>	<b>816,025</b>	<b>1,509,772</b>	<b>2,002,898</b>	<b>1,452,812</b>	<b>1,346,298</b>	<b>1,514,531</b>	<b>1,374,051</b>	<b>1,463,415</b>	<b>2,043,061</b>	<b>1,463,415</b>	<b>1,463,415</b>	<b>2,115,061</b>	<b>18,564,754</b>	<b>18,481,500</b>	<b>(83,254)</b>
Operating Materials and Supplies	230	437	1,006	3,830	(673)	3,071	198	3,750	3,750	3,750	3,750	3,750	26,849	45,000	18,151
Operator Training	2,303	3,814	2,814	1,586	2,302	1,734	1,560	2,600	2,600	2,600	2,600	2,600	29,114	40,000	10,886
Training and Travel - O	2,547	5,101	5,773	3,679	1,239	894	306	-	-	-	-	-	19,539	45,000	25,461
<b>TOTAL OPERATIONS EXPENDITURES</b>	<b>821,105</b>	<b>1,519,124</b>	<b>2,012,491</b>	<b>1,461,906</b>	<b>1,349,167</b>	<b>1,520,230</b>	<b>1,376,115</b>	<b>1,469,765</b>	<b>2,049,411</b>	<b>1,469,765</b>	<b>1,469,765</b>	<b>2,121,411</b>	<b>18,640,256</b>	<b>18,611,500</b>	<b>(28,756)</b>
<b>MAINTENANCE</b>															
Wages - M	97,294	168,088	272,362	188,875	175,721	185,528	185,414	204,408	302,807	204,408	204,408	302,807	2,492,123	2,649,699	157,576
Overtime - M	4,380	13,584	14,285	8,802	12,467	9,071	4,749	10,112	14,992	10,112	10,112	14,992	127,658	131,100	3,442
Fringe Benefits - M	32,096	28,730	29,751	28,322	28,958	28,960	31,140	33,915	33,915	33,915	33,915	33,915	377,531	406,980	29,449
Payroll Taxes - M	7,655	13,669	21,566	14,881	14,155	14,645	14,306	16,091	23,894	16,091	16,091	23,894	196,938	208,700	11,762
Retirement Contributions - M	8,134	14,235	21,279	14,588	14,503	15,003	14,985	16,837	24,964	16,837	16,837	24,964	203,167	218,300	15,133
<b>Total Maintenance Personnel</b>	<b>149,559</b>	<b>238,306</b>	<b>359,243</b>	<b>255,468</b>	<b>245,804</b>	<b>253,208</b>	<b>250,594</b>	<b>281,363</b>	<b>400,572</b>	<b>281,363</b>	<b>281,363</b>	<b>400,572</b>	<b>3,397,418</b>	<b>3,614,779</b>	<b>217,361</b>
Fuel & Lubricants	175,247	217,029	217,444	177,696	175,356	166,189	138,386	152,508	152,508	152,508	152,508	152,508	2,029,889	1,952,400	(77,489)
Repair Parts & Supplies	75,635	130,256	141,357	152,535	20,828	170,153	72,021	80,000	80,000	80,000	80,000	80,000	1,162,785	892,600	(270,185)
Maintenance Services	16,868	56,826	48,500	45,349	85,910	(56,074)	14,359	25,795	25,795	25,795	25,795	25,795	340,714	345,540	4,826
Building Maintenance	19,942	40,628	42,025	55,514	45,709	26,534	42,247	27,125	27,125	27,125	27,125	27,125	408,225	344,200	(64,025)
Training and Travel - M	1,035	984	567	1,577	1,835	5	119	-	-	-	-	-	6,122	20,000	13,878
<b>TOTAL MAINTENANCE EXPENDITURES</b>	<b>438,286</b>	<b>684,029</b>	<b>809,136</b>	<b>688,140</b>	<b>575,443</b>	<b>560,015</b>	<b>517,727</b>	<b>566,792</b>	<b>686,001</b>	<b>566,792</b>	<b>566,792</b>	<b>686,001</b>	<b>7,345,153</b>	<b>7,169,519</b>	<b>(175,633)</b>
<b>ADMINISTRATION</b>															
Wages - A	110,922	192,446	333,484	196,761	229,040	218,389	221,714	220,000	311,000	220,000	220,000	311,000	2,784,755	2,661,300	(123,455)
Fringe Benefits - A	26,536	28,499	29,832	29,718	28,197	31,225	33,248	29,163	29,163	29,163	29,163	29,163	353,069	349,954	(3,115)
Payroll Taxes - A	8,332	14,473	25,120	14,928	17,252	15,094	15,533	15,723	23,185	15,723	15,723	23,185	204,270	203,600	(670)
Retirement Contributions - A	9,375	17,127	24,862	16,372	17,282	17,978	17,054	16,465	16,465	16,465	16,465	24,276	217,997	213,200	(4,797)
<b>Total Administrative Personnel</b>	<b>155,164</b>	<b>252,544</b>	<b>413,298</b>	<b>257,779</b>	<b>291,771</b>	<b>282,685</b>	<b>287,544</b>	<b>281,351</b>	<b>387,624</b>	<b>281,351</b>	<b>281,351</b>	<b>387,624</b>	<b>3,560,090</b>	<b>3,428,054</b>	<b>(132,036)</b>
Insurance	72,441	77,372	77,372	70,682	70,682	223,048	(74,994)	73,205	73,205	73,205	73,205	73,205	882,628	990,800	108,172
Professional Services	56,087	75,782	107,054	74,078	80,155	86,221	61,610	92,242	92,242	92,242	92,242	92,242	1,002,195	1,106,900	104,705
Utilities	25,636	24,983	29,316	31,033	3,515	57,231	46,832	26,645	26,645	26,645	26,645	26,645	351,771	345,298	(6,473)
Telecommunications	6,400	8,681	4,822	9,843	6,498	9,342	6,358	10,167	10,167	10,167	10,167	10,167	102,777	122,000	19,223
Printing & Advertising	1,813	8,376	1,572	19,110	844	(3,439)	9,568	6,375	6,375	6,375	6,375	6,375	69,719	76,500	6,781
Training, Travel, Events	8,019	9,346	9,753	10,874	2,396	1,772	1,520	-	-	-	-	-	43,680	53,000	9,320
Office Equipment and Supplies	8,103	6,010	30,338	2,787	7,485	3,290	4,418	9,105	9,105	9,105	9,105	9,105	107,958	126,400	18,442
Employee Recognition	-	11,718	4,039	5,589	129	1,869	274	-	-	-	-	-	23,618	14,700	(8,918)
Dues and Subscriptions	1,423	630	3,698	6,676	(7,327)	1,507	4,521	1,917	1,917	1,917	1,917	1,917	20,713	23,000	2,287
Grant Local Match	-	29,621	-	3,655	-	-	723	-	14,793	-	-	11,138	59,930	74,000	14,070
<b>TOTAL ADMIN EXPENDITURES</b>	<b>335,087</b>	<b>505,064</b>	<b>681,263</b>	<b>492,106</b>	<b>456,147</b>	<b>663,526</b>	<b>348,380</b>	<b>501,006</b>	<b>622,072</b>	<b>501,006</b>	<b>501,006</b>	<b>618,417</b>	<b>6,225,080</b>	<b>6,360,652</b>	<b>135,572</b>
<b>CAPITAL OUTLAYS (non-CIP)</b>															
Computer and Office Equipment	-	-	673	17	-	-	-	-	-	-	-	-	690	-	(690)
Maintenance Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	63,000	63,000
Other Equipment Investments	-	-	-	37,637	-	-	-	-	-	-	-	-	37,637	136,500	98,863
<b>TOTAL CAPITAL OUTLAYS (non-CIP)</b>	<b>-</b>	<b>-</b>	<b>673</b>	<b>37,654</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>38,327</b>	<b>199,500</b>	<b>161,173</b>
<b>TOTAL OPERATING EXPENDITURES</b>	<b>1,594,479</b>	<b>2,708,217</b>	<b>3,503,562</b>	<b>2,679,806</b>	<b>2,380,756</b>	<b>2,743,771</b>	<b>2,242,221</b>	<b>2,537,563</b>	<b>3,357,484</b>	<b>2,537,563</b>	<b>2,537,563</b>	<b>3,425,829</b>	<b>32,248,815</b>	<b>32,341,171</b>	<b>92,356</b>
<b>NET SURPLUS (DEFICIT)</b>	<b>880,554</b>	<b>(216,299)</b>	<b>(1,013,874)</b>	<b>(209,658)</b>	<b>104,262</b>	<b>(229,482)</b>	<b>880,304</b>	<b>321,851</b>	<b>(526,794)</b>	<b>293,126</b>	<b>307,050</b>	<b>(595,136)</b>	<b>(4,097)</b>	<b>-</b>	<b>(4,097)</b>

## **ATC Board Agenda Detail**

**Item #:** 6a  
**Item Title:** Onboard Survey Report  
**Contact:** Martin Barna, Director of Planning & Scheduling  
**Board Action:** FYI



Last fall, DASH hired a survey contractor to perform a customer intercept survey with questions ranging from customer demographics and travel patterns to overall satisfaction with DASH services and reasons for riding. This origin and destination (O-D) study was conducted on all DASH bus lines and the King Street Trolley. Interviewers administered intercept surveys via tablet computers, asking riders questions specific to their current trip, as well as questions regarding DASH services overall and additional sociodemographic questions. In total, 2,983 surveys were completed during October and November 2023.

Notable survey results are summarized below. A full report on the survey is provided as an attachment to this packet.

### **Rider Demographics:**

- Around three-fourths of customers were persons of color or non-white (74%) with the largest proportion of customers identifying as African American or Black (38%). By comparison, 50 percent of total population of Alexandria residents are persons of color, including 20 percent who identify as African American or Black.
- When asked their gender identity, customers systemwide were roughly evenly split between male (51%) and female (48%), with an additional 1% stating they were nonbinary.
- Customers, on average, were 37 years of age with children and teenagers under the age of 18 representing 8 percent of riders and seniors (65 years or older) accounting for 5 percent of all riders.
- The median household income reported by DASH customers is \$38,800. Around two-thirds of all DASH customers (64%) were below 100% of the poverty level, as compared to 18 percent of all city residents.
- DASH riders represent a broad range of educational attainment levels, with 36 percent possessing a bachelor's degree or higher, compared to the citywide average of 56 percent.

### **Free Fares:**

- 54 percent of DASH riders have started riding DASH since the launch of the New DASH Network and Free Fares in September 2021.
- 62 percent of customers who started riding DASH in the last two years reported that free fares had an impact on their decision to start riding DASH.
- 53 percent of customers who were riding DASH prior to free fares reported that they are riding DASH more often now that the system is free to ride.

### **Customer Satisfaction:**

- 95 percent of total riders indicated that they are satisfied with DASH.
- 79 percent of riders said that they were "very satisfied" with DASH service.
- 2 percent of riders were dissatisfied with DASH.

Additional details, tables and graphs are provided in the full survey report, which is provided as an attachment to the packet.

### **ATC Board Agenda Detail**

**Item #:** 7  
**Item Title:** Next Meeting Date & Adjournment  
**Board Action:** Discussion/Consideration of Approval

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**The next regular meeting of the Alexandria Transit Company Board of Directors  
is scheduled for Wednesday, April 10, 2024, at 5:30pm**

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*Consider Adjournment*





# **Alexandria Transit Company**

## **Board of Directors Docket Attachment**

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- **DASH 2023 Onboard Survey Report**

# DASH On-Board Customer Survey Summary Report

February 1, 2024



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# Background and Purpose

In 2023, the Alexandria Transit Company, or DASH, conducted a comprehensive customer intercept survey to provide information on customer demographics, travel patterns, and overall satisfaction with DASH services. This origin and destination (O-D) study was conducted on all DASH bus lines and the King Street Trolley. Interviewers administered intercept surveys via tablet computers, asking riders questions specific to their current trip, as well as questions regarding DASH services overall and additional sociodemographic questions. In total, 2,983 surveys were completed during the fielding period of October 11 to November 19<sup>1</sup>.

Large scale O-D surveys can provide detailed information about travel patterns within the DASH system, including origin to destination trip data, boarding and alighting stops, modes of access and egress, number of transfers and transfer points, and the impact of fare-free service. Additionally, findings from O-D surveys can help DASH make decisions and service changes while ensuring rider populations protected under Title VI of the Civil Rights Act of 1964 are not negatively impacted.

This document summarizes the findings of this survey. Specifically, it will review:

- **Summary of Findings**, including the entirety of the survey in total and broken out by mode, and key questions by demographic categories;
- **Methodology**, including the timeline and process from launch to reporting, covering survey and sampling plan development, training procedures, data collection, trip validation, and weighting and data processing;
- **Lessons Learned**, reviewing areas of potential methodological improvement when conducting future DASH O-D studies;
- **Appendix 1**, Tables for Minority and Geographical Areas
- **Appendix 2**, Rider Profiles for rider groups of interest and detailed demographic figures;
- **Appendix 3**, Mode and Line Profiles for lines;
- **Appendix 4**, a copy of the final intercept questionnaire;
- **Appendix 5**, a copy of the sampling plan; and
- **Appendix 6**, a detailed outline of the weighting plan with the final weighting tables.

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<sup>1</sup> Note that data collection was not conducted on November 11, due to the holiday schedule for Veterans Day.

## Summary of Findings

This section summarizes the results of the O-D survey conducted from October 11 to November 19 at the systemwide and mode levels. All statistics, unless otherwise stated, represent responses weighted up to an average month of ridership. The majority of these findings are presented systemwide and by:

- Bus
- King Street Trolley

Additionally, where applicable, Census data for Alexandria City has been used for demographic comparison, using the ACS 1-Year Estimate PUMS Microdata sample, vintage 2022.

Due to rounding, all columns may not add up to exactly 100 percent. Please note that in the cases of a small sample size (n<50), statistical significance is not shown.

## DASH Customer Base

Table 1 shows the highest proportions of home ZIP codes by system overall, by bus, and by King Street Trolley, with the subsequent maps showing an overlay of these regions of operation.

**Table 1: Home or Local Zip Code**

ZIP Codes					
System (A) (n=2,596)		Bus (B) (n=2,327)		King St Trolley (C) (n=269)	
ZIP CODE	%	ZIP CODE	%	ZIP CODE	%
22304	17%	22304	18%	22314	22%
22314	17%	22314	16%	22301	9%
22311	13%	22311	14%	22304	6%
22302	9%	22302	9%	22302	3%
22312	7%	22312	7%	All others*	60%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

\*No other single ZIP code represented >2% of riders

Figure 1 - Home ZIP Code by Weighted Response

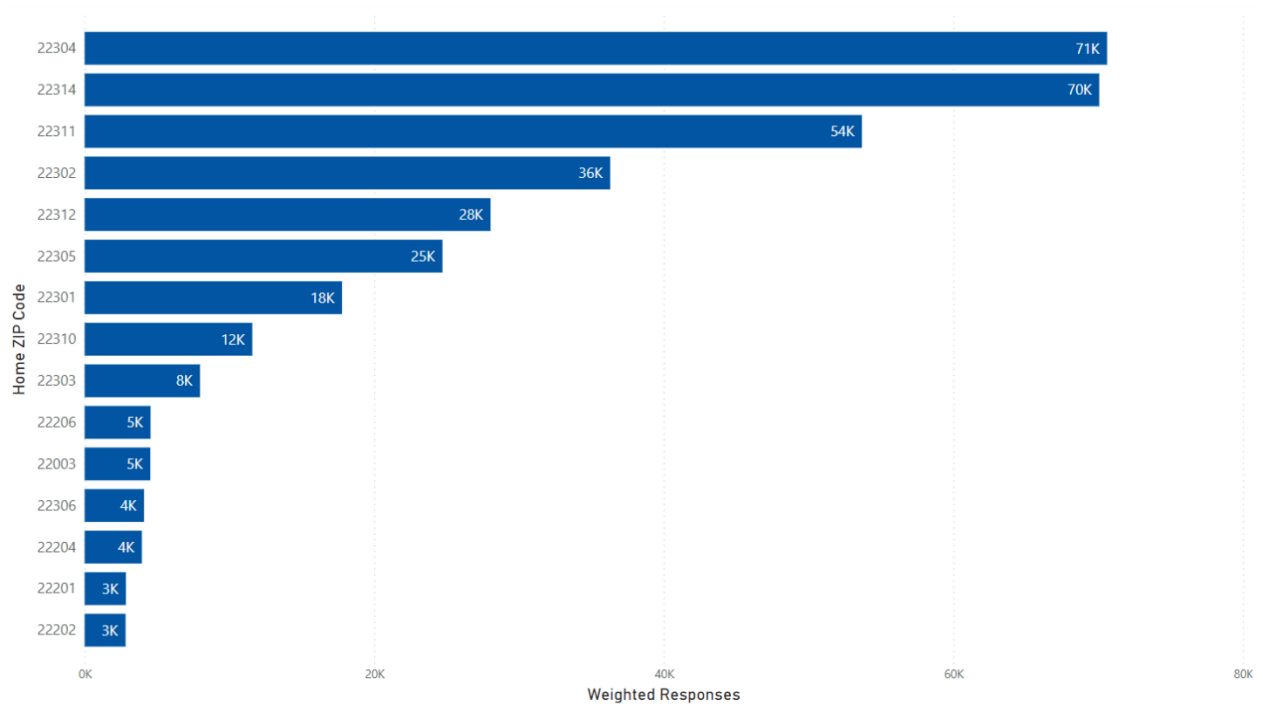
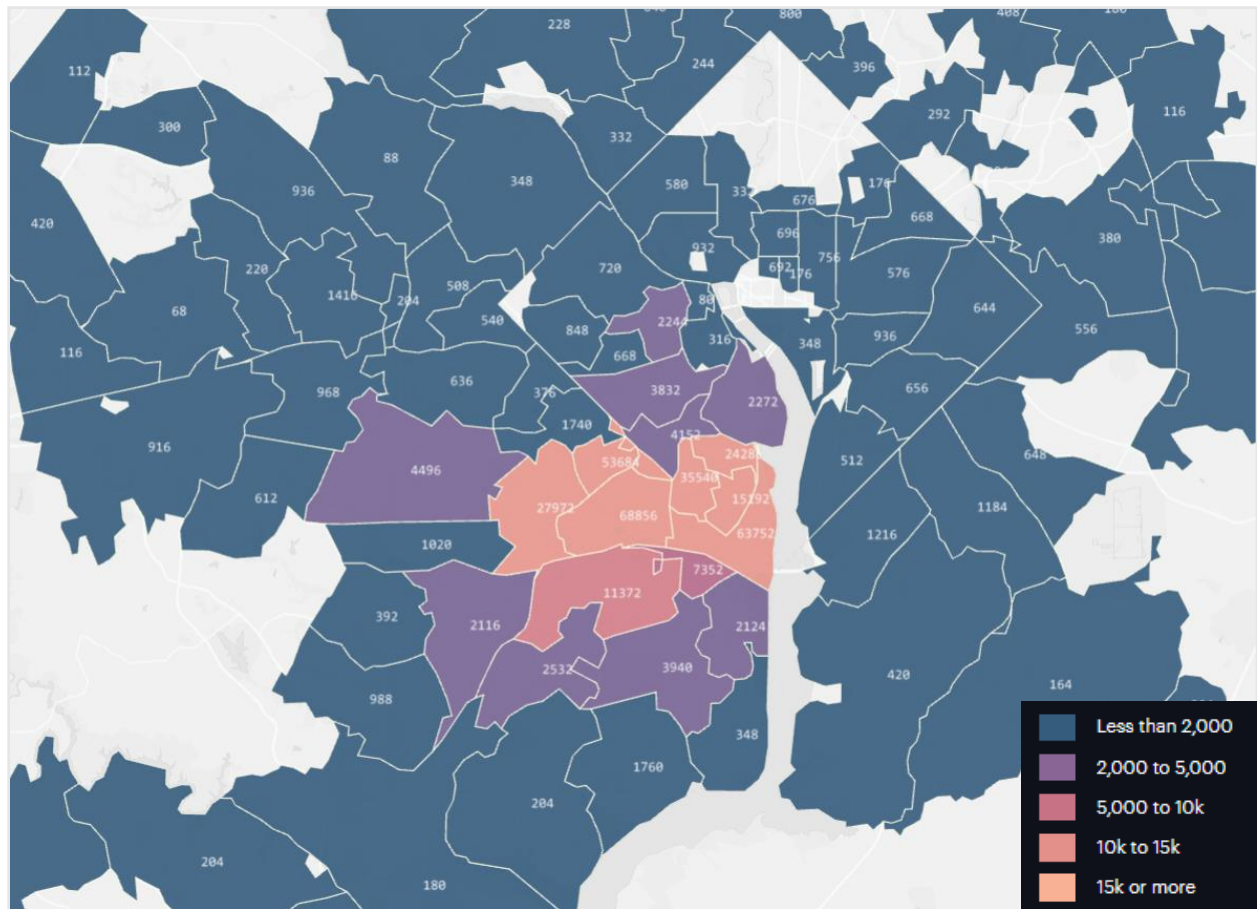
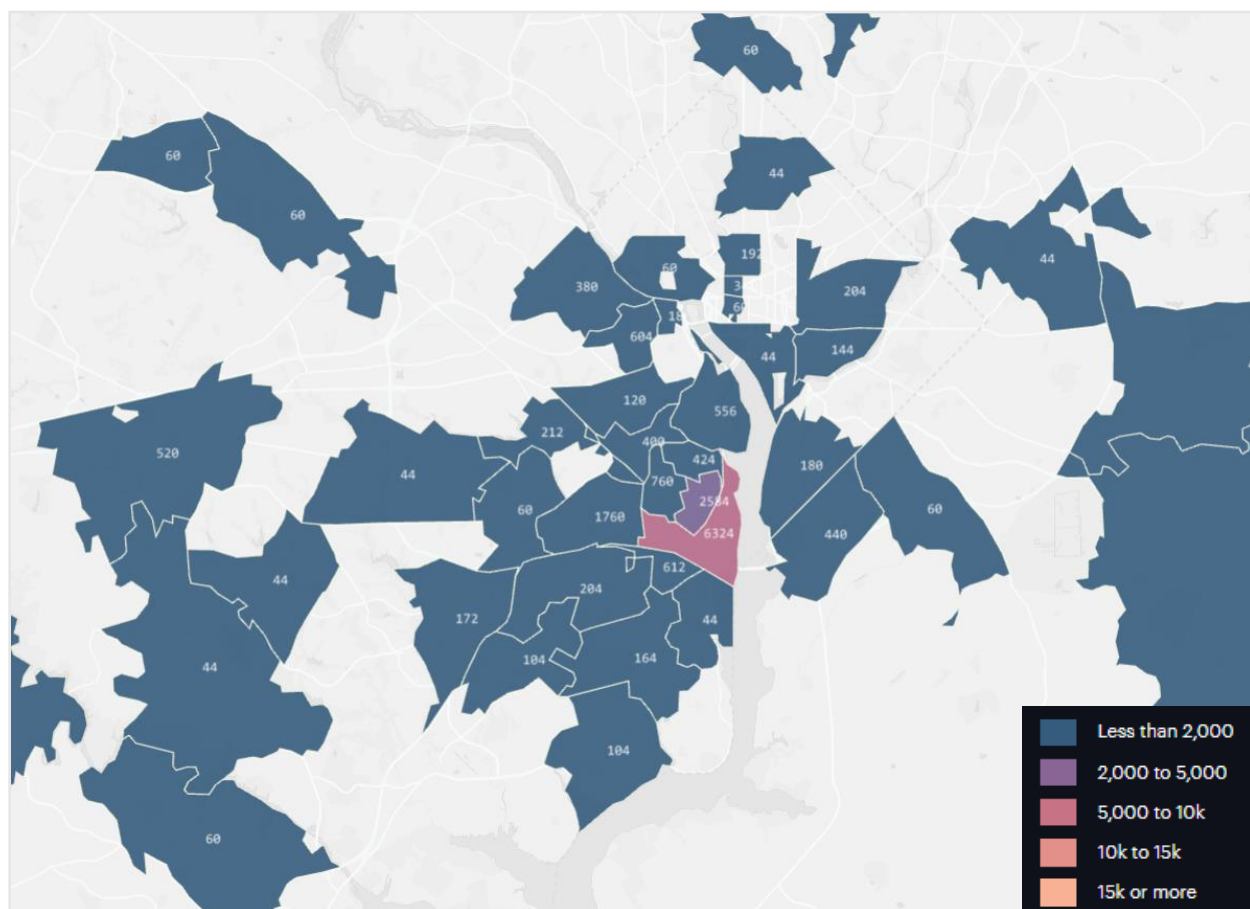






Figure 3 - Weighted Responses by Home ZIP Code (Bus)





## Trip Demographics

Overall, around three-fourths of customers were POC or non-white (74%); however, this proportion was greater among Bus customers (77%) than King Street Trolley customers (32%). Riders were asked to identify their race and ethnicity. Overall, the largest proportion of DASH customers are African American or Black (38%), although bus customers were significantly more likely to be Black or African American (40%) than King Street Trolley customers (15%). Similarly, bus customers were more likely than King Street Trolley customers to identify as Hispanic or Latino (24%, compared to 11%), Middle Eastern or North African (4%, compared to 1%), or multi-racial (2%, compared to <1%).

**Table 2: Race and Ethnicity**

Q22. What is your race or ethnicity?	Census (Alexandria City PUMS) (n=155,460)*	System (n=2,436)	Bus (B) (n=2,185)	King St Trolley (C) (n=251)
African American or Black	20%	38%	40% <sup>C</sup>	15%
Caucasian or White	50%	26%	23%	68% <sup>B</sup>
Hispanic or Latino	17%	23%	24% <sup>C</sup>	11%
Asian	6%	6%	6%	5%
Middle Eastern/North African	NA	4%	4% <sup>C</sup>	1%
Multi-racial	6%	2%	2% <sup>C</sup>	<1%
American Indian or Alaska Native	0%	1%	1%	-
Native Hawaiian or other Pacific Islander	0%	<1%	<1%	-
Other	1%	1%	1%	<1%
Net: POC/Non-white	50%	74%	77% <sup>C</sup>	32%

Base=Those answering

Responses are tabulated to match Census format. Categories shown do not overlap as a result.

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Census data is formatted as Hispanic/Latino alone, then by other solo codes.

Figure 5 - Race and Ethnicity by Weighted Response

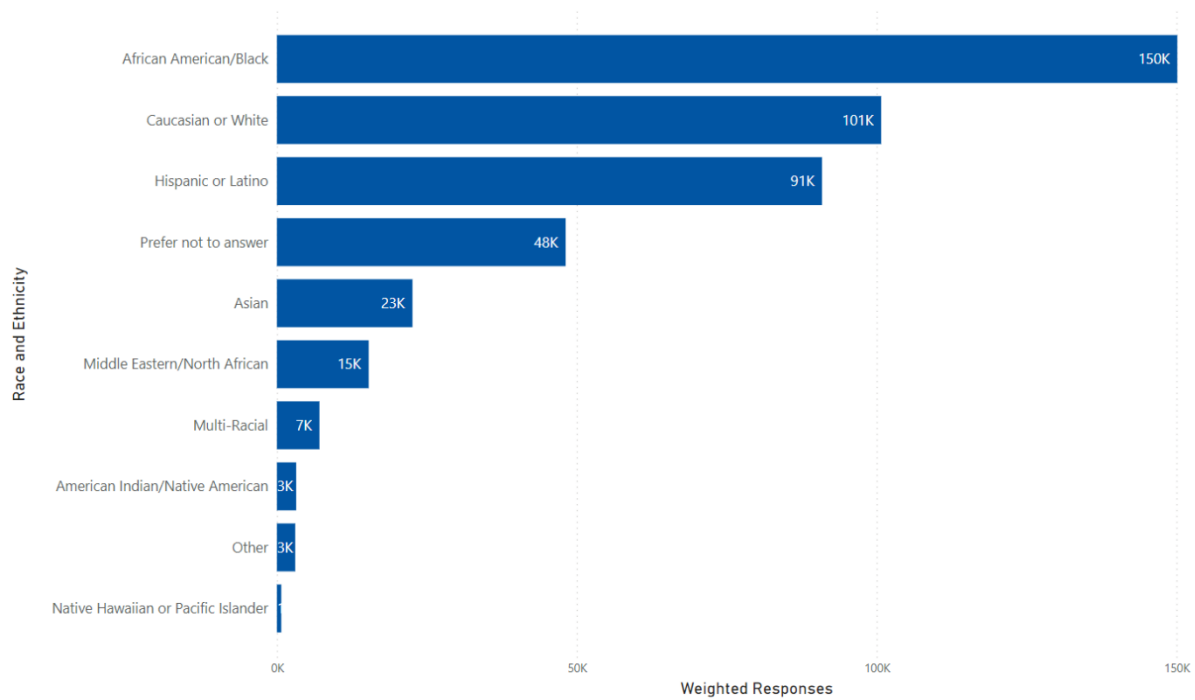
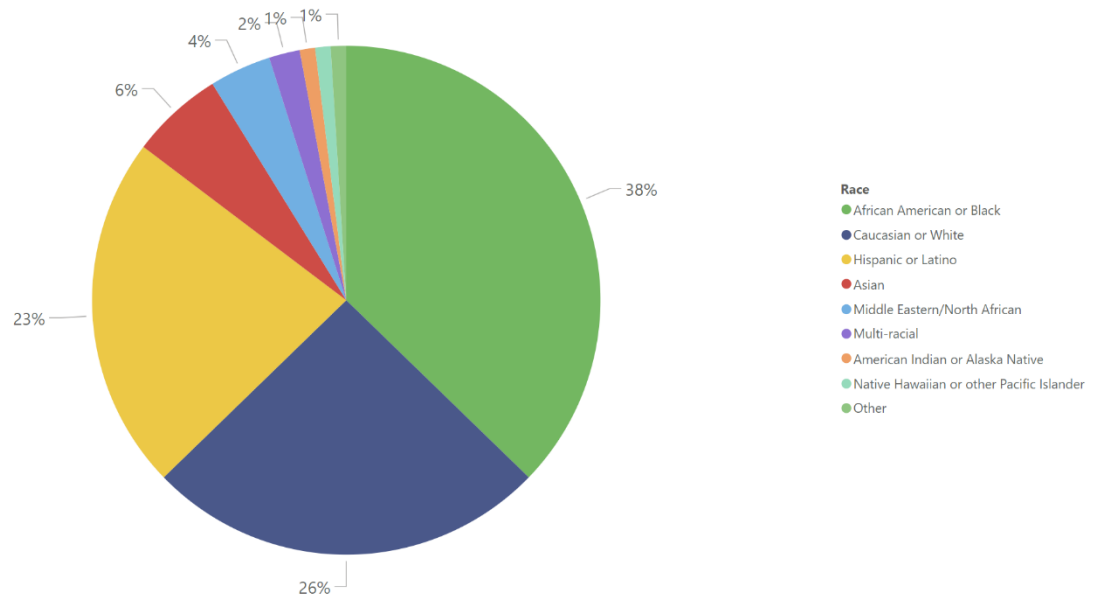


Figure 6 - Race and Ethnicity by Weighted Responses and Percentage



When asked their gender identity, customers systemwide were roughly evenly split between male (51%) and female (48%), with an additional 1% stating they were nonbinary. While bus customers had the same near even split (51% male, 48% female), King Street Trolley had significantly more male customers (61%, compared to 51% for bus).

**Table 3: Gender**

Q23. What is your gender identity?	Census (Alexandria City PUMS) (n=155,460)	System (n=2,545)	Bus (B) (n=2,285)	King St Trolley (C) (n=260)
Male	49%	51%	51%	61% <sup>B</sup>
Female	51%	48%	48% <sup>C</sup>	39%
Nonbinary	NA	1%	1%	-

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

*Figure 7 - Gender Identity by Weighted Response*

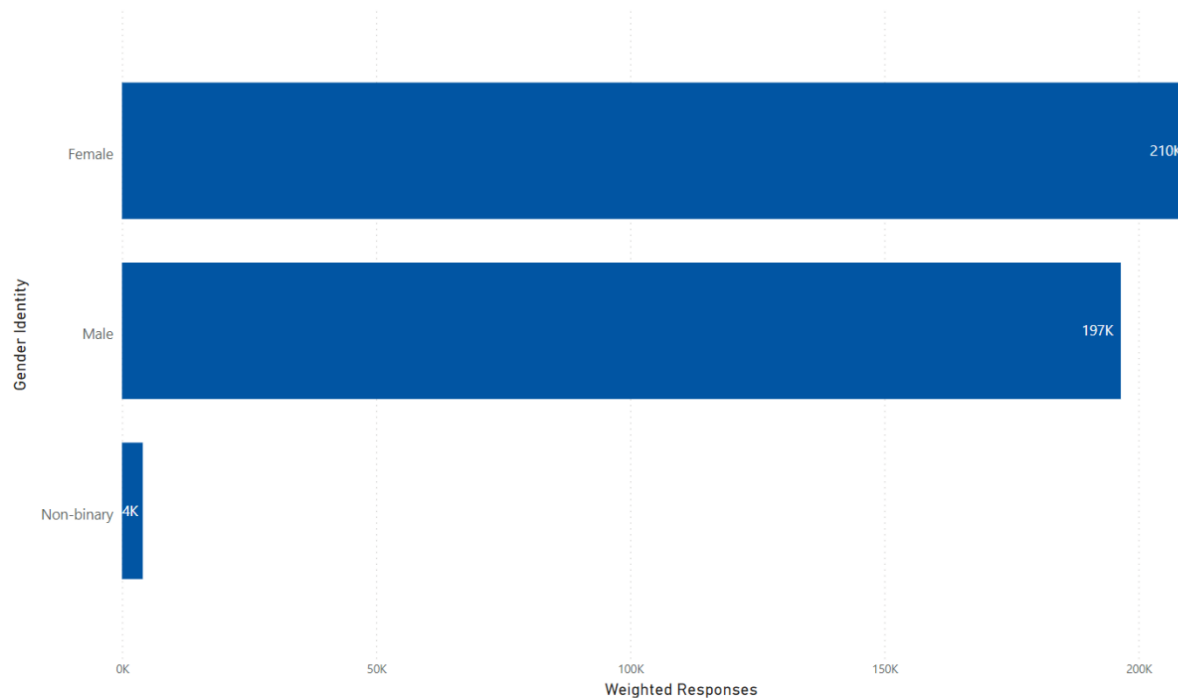
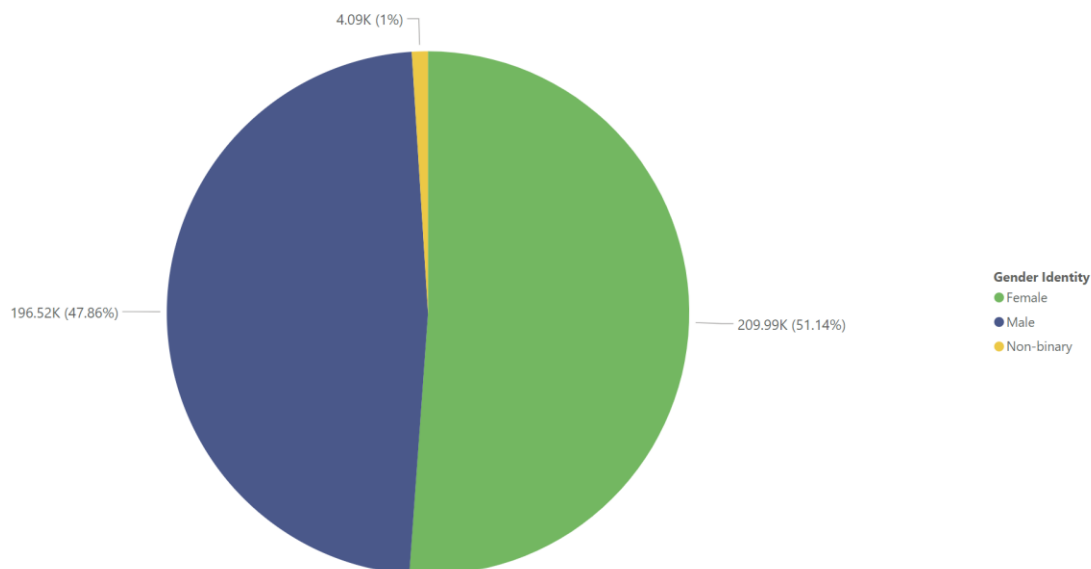


Figure 8 - Gender Identity by Weighted Responses and Percentage



Customers, on average, were 37 years of age. However, customers on the King Street Trolley tended to be slightly older (44.2 years of age on average) compared to bus customers (36.7 years of age on average). Reflecting this, bus customers were more likely to fall into the 23-34 age range (26%, compared to 18%), while King Street Trolley customers were more likely to fall into the 55-64 (19%, compared to 11%) and 65-74 (12%, compared to 4%) age ranges.

**Table 4: Age**

Q24. What is your age?	Census (Alexandria City PUMS) (n=)	System (n=2,432)	Bus (B) (n=2,187)	King St Trolley (C) (n=245)
Under 16	16%	1%	1%	-
16-17	2%	7%	7%	-
18-24	6%	19%	19%	16%
25-34	19%	26%	26% <sup>C</sup>	18%
35-44	20%	20%	20%	18%
45-54	13%	12%	11%	15%
55-64	11%	11%	11%	19% <sup>B</sup>
65-74	7%	5%	4%	12% <sup>B</sup>
75 or over	6%	1%	1%	2%
Average	NA	37.1	36.7	44.2 <sup>B</sup>
Median	NA	33.4	33.0	42.6

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Figure 9 - Age by Weighted Responses

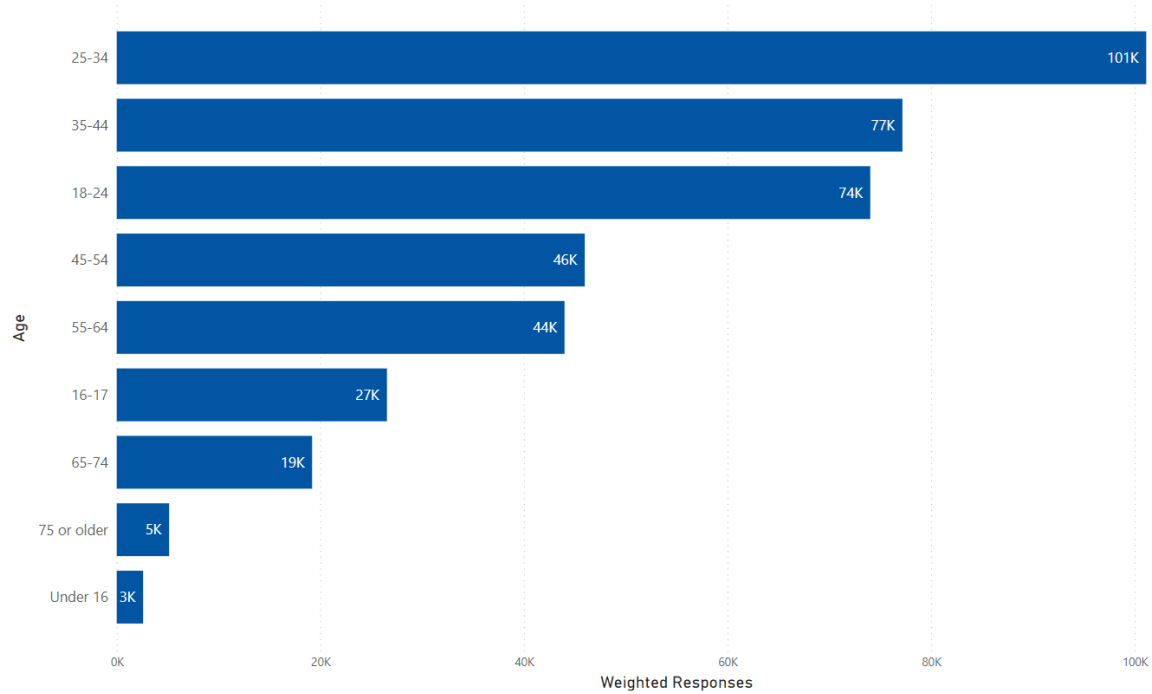
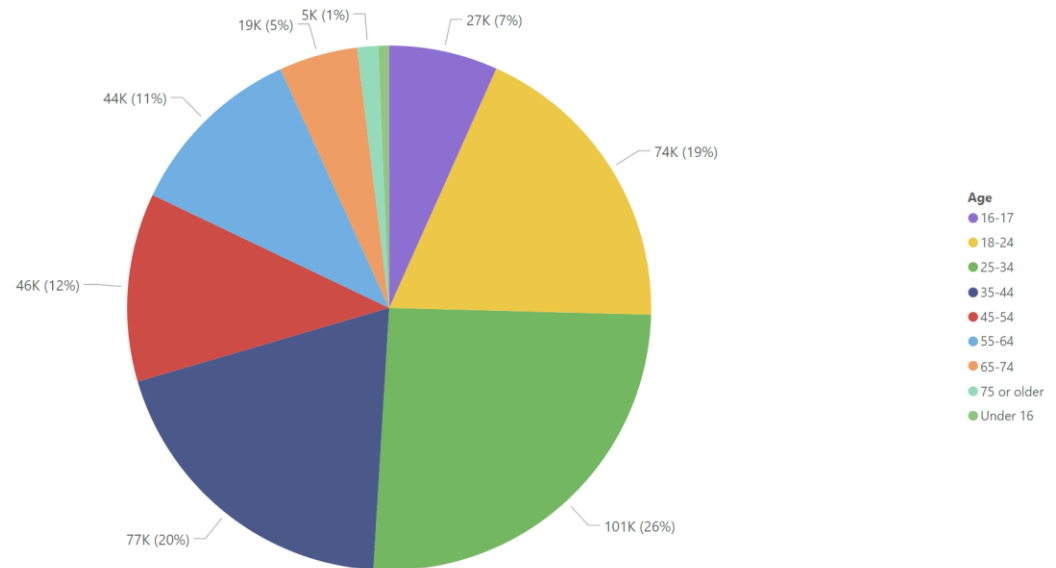


Figure 10 - Age by Weighted Responses and Percentage



While DASH system riders overall represent a broad range of educational attainment levels, King Street Trolley customers are significantly more likely than bus customers to have a Bachelor's degree or higher (70% vs. 34%).

**Table 5: Level of Education**

Q25. What is your highest level of education?	Census (Alexandria City PUMS) (n=155,460)	System (n=2,335)	Bus (B) (n=2,098)	King St Trolley (C) (n=237)
Less than high school	22%	11%	12%	-
High school diploma or GED	9%	26%	27% <sup>C</sup>	6%
Some college	9%	20%	21% <sup>C</sup>	13%
Associate's or technical school degree	4%	7%	7%	10%
<b>Net: Bachelor's Degree or more</b>	<b>56%</b>	<b>36%</b>	<b>34%</b>	<b>70%<sup>B</sup></b>
Bachelor's or undergraduate degree	28%	18%	18%	26% <sup>B</sup>
Some graduate school	NA	4%	4%	9% <sup>B</sup>
Graduate or professional degree	28%	14%	12%	35% <sup>B</sup>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

*Figure 11 - Level of Education by Weighted Responses*

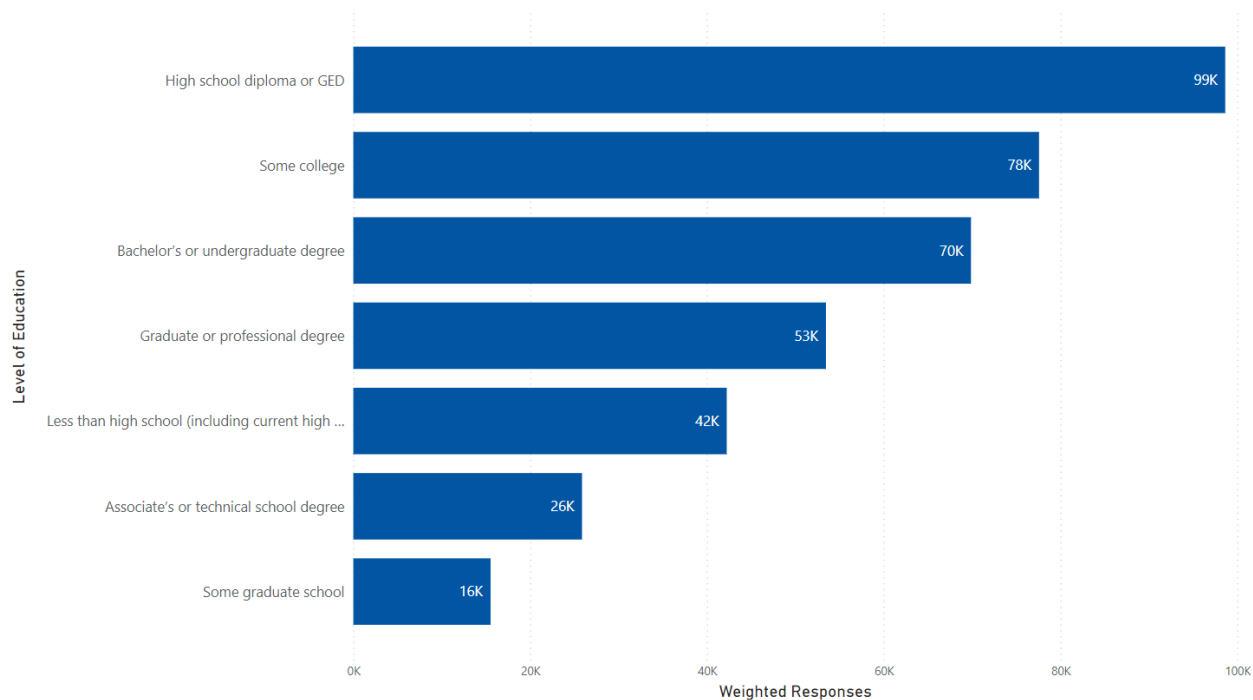
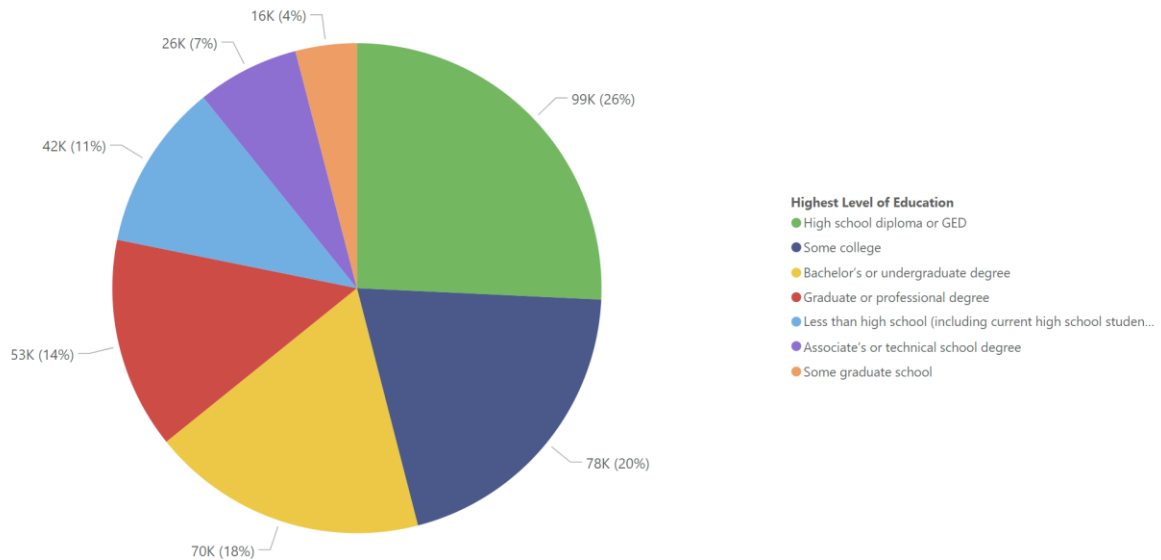




Figure 12 - Level of Education by Weighted Responses and Percentage



The median household income reported by DASH customers is \$38,800. However, King Street Trolley customers reported a significantly greater average household income (median of \$105,600) compared to bus customers (\$37,300). Unsurprisingly, then, King Street Trolley customers were more likely than bus customers to report a household income of \$100,000 or more (52% vs. 14%). In comparison, around two-thirds of all DASH customers (64%) were below 100% of the poverty level<sup>2</sup>, with this being significantly greater among bus customers (66%) than King Street Trolley customers (31%).

<sup>2</sup> Calculated as two times the federal poverty threshold, or  $2 * \$29,950 = \$59,900$ . The closest comparable income break was Q26(09), \$50,000 to less than \$75,000. Any customer who responded Q26(01-08) was therefore considered under 100% of Poverty Level, and any who responded Q26(09-13) was considered above 100% of the Poverty Level.

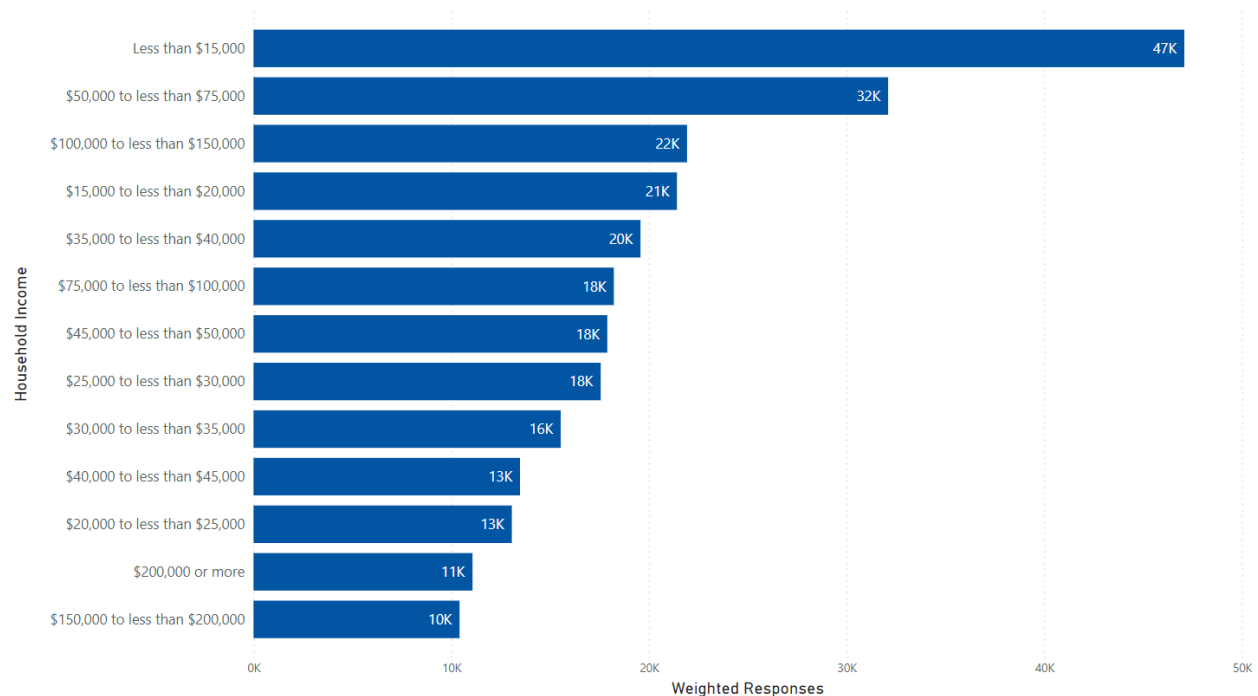
**Table 6: Household Income**

Q26. Which of the following BEST describes your TOTAL ANNUAL HOUSEHOLD INCOME in 2022 before taxes?	Census (Alexandria City PUMS) (n=80,342)	System (A) (n=1,587)	Bus (B) (n=1,416)	King St Trolley (C) (n=171)
Less than \$15,000	4%	18%	19% <sup>C</sup>	6%
\$15,000 to less than \$20,000	2%	8%	9% <sup>C</sup>	3%
\$20,000 to less than \$25,000	2%	5%	5%	3%
\$25,000 to less than \$30,000	2%	7%	7% <sup>C</sup>	2%
\$30,000 to less than \$35,000	3%	6%	6% <sup>C</sup>	1%
\$35,000 to less than \$40,000	1%	8%	8%	7%
\$40,000 to less than \$45,000	2%	5%	5%	6%
\$45,000 to less than \$50,000	2%	7%	7%	3%
\$50,000 to less than \$75,000	13%	12%	12%	11%
\$75,000 to less than \$100,000	12%	7%	7%	6%
\$100,000 to less than \$150,000	19%	8%	8%	20% <sup>B</sup>
\$150,000 to less than \$200,000	12%	4%	3%	11% <sup>B</sup>
\$200,000 or more	21%	4%	3%	21% <sup>B</sup>
Average	NA	\$58.2K	\$53.9K	\$113.0K <sup>B</sup>
Median	NA	\$38.8K	\$37.3K	\$105.6K
Below 100% of Poverty Level	18%	64%	66% <sup>C</sup>	31%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

**Figure 13 - Household Income by Weighted Responses**



Nearly eight in ten (79%) trips are taken by customers who report they are employed. This was similar across both bus and King Street Trolley (79% and 77%, respectively). However, King Street Trolley did see a greater percentage of customers who were retired (17%, compared to 5% bus), while a greater percentage of bus customers were students, either employed (8%, compared to 4% King Street Trolley) or unemployed (9%, compared to 5% King Street Trolley). Additionally, bus customers were more likely to report being unemployed, retired, or furloughed (5%) compared to King Street Trolley customers (1%). Other employment breakouts are shown in Table 7.

**Table 7: Employment Status**

Q21. What is your current employment status?	Census (Alexandria City PUMS) (n=155,460)	System (A) (n=2,465)	Bus (B) (n=2,208)	King St Trolley (C) (n=257)
<b>Net: Employed</b>	<b>63%</b>	<b>79%</b>	<b>79%</b>	<b>77%</b>
Employed full-time	NA	59%	58%	64%
Employed part-time	NA	13%	13%	9%
Student and also employed	NA	8%	8% <sup>C</sup>	4%
Self-Employed	NA	<1%	<1%	1%
<b>Net: Not Employed</b>	<b>37%</b>	<b>21%</b>	<b>21%</b>	<b>23%</b>
Student and not employed	NA	9%	9% <sup>C</sup>	5%
Retired	NA	6%	5%	17% <sup>B</sup>
Unemployed, furloughed, or disabled	NA	5%	5% <sup>C</sup>	1%
Homemaker	NA	2%	2%	1%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

As mentioned, a higher percentage of bus customers were students (17%) compared to King Street Trolley customers (8%). Overall, fewer than two in ten DASH customers were students (16%).

**Table 8: Student Status**

Q21. What is your current employment status? (Student Status)	Census (Alexandria City PUMS) (n=155,460)	System (A) (n=2,465)	Bus (B) (n=2,208)	King St Trolley (C) (n=257)
Net: Student	20%	16%	17% <sup>C</sup>	8%
Net: Not a student	80%	84%	83%	92% <sup>B</sup>

Base=Full-time students and answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Customers who were employed were asked to report which days of the week they worked from home, rather than in an office. Roughly four in ten DASH customers (39%) reported ever working from home. This proportion is significantly greater among King Street Trolley customers than bus customers (52% vs. 38%). For King Street Trolley customers, between two to three in ten reported working from home any of the days Monday through Friday (22%-27%). For Bus customers, only one to two in ten reported the same (14%-18%).

**Table 9: Commuter/Hybrid/Work from Home Status**

Q21A. On which days of the week, Sunday through Saturday, when your workplace is open do you typically work from home?	System (A) (n=1,879)	Bus (B) (n=1,689)	King St Trolley (C) (n=190)
Sunday	6%	6%	5%
Monday	18%	17%	27% <sup>B</sup>
Tuesday	15%	14%	25% <sup>B</sup>
Wednesday	16%	16%	22%
Thursday	15%	15%	23% <sup>B</sup>
Friday	18%	18%	24%
Saturday	6%	6%	5%
It varies	12%	11%	20% <sup>B</sup>
Ever work from home	39%	38%	52% <sup>B</sup>
Never work from home	61%	62% <sup>C</sup>	48%

Base=Those who are employed and answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Three questions were asked to identify Limited English Proficiency (LEP) customers. First, customers were asked whether they predominantly speak a language other than English at home. One-third of DASH customers overall (34%) do primarily speak a language other than English at home. This proportion is greater among bus customers than King Street Trolley customers (36% vs. 15%).

**Table 10: English Fluency**

Q18. Do you predominantly speak a language other than English at home?	Census (Alexandria City PUMS) (n=145,686)	System (A) (n=2,514)	Bus (B) (n=2,251)	King St Trolley (C) (n=263)
Yes	31%	34%	36% <sup>C</sup>	15%
No	69%	66%	64%	85% <sup>B</sup>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Next, customers were asked how well they speak English. Customers who responded that they predominantly speak English at home were coded as speaking English “Very well”. Overall, the vast majority of DASH customers indicated they speak English “Very well” (86%). However, bus customers were more likely than King Street Trolley customers to report speaking English less than very well (14% vs. 5%).

**Table 11: English Proficiency**

Q18/Q20. How well do you speak English?	Census (Alexandria City PUMS) (n=44,757)	System (A) (n=2,505)	Bus (B) (n=2,242)	King St Trolley (C) (n=263)
Very well	64%	86%	86%	95% <sup>B</sup>
Well	23%	9%	9% <sup>C</sup>	4%
Not well	10%	5%	5% <sup>C</sup>	1%
Not at all	3%	<1%	<1%	-
<b>Net: Less than very well</b>	<b>36%</b>	<b>14%</b>	<b>14%<sup>C</sup></b>	<b>5%</b>

Base= Those Answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Customers who reported not speaking a language other than English at home [Q18(02)] are included in “Very well”

Customers who predominantly spoke a language other than English at home were then asked what language. Overall, about two in ten (18%) DASH customers reported speaking Spanish (including all dialects). Amharic (4%) and Arabic (3%) were the next two most frequent primary languages. Other languages are shown in Table 12 below.

**Table 12: Primary Language**

Q18/Q19. Which language?	Census (Alexandria City PUMS) (n=80,342)	System (A) (n=2,361)	Bus (B) (n=2,107)	King St Trolley (C) (n=254)
English	67%	70%	69%	88% <sup>B</sup>
Spanish (including all dialects)	11%	18%	19% <sup>C</sup>	9%
Amharic	4%	4%	4% <sup>C</sup>	1%
Arabic	3%	3%	3% <sup>C</sup>	<1%
French (including all dialects)	1%	2%	2%	1%
Chinese (including all dialects)	1%	1%	1%	<1%
Korean	1%	<1%	1%	-
Vietnamese	<1%	<1%	<1%	-
Russian	<1%	<1%	<1%	1%
Other	11%	1%	1%	<1%

Base=Those who speak another language and answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

As part of the access and egress questions, customers could report the use of a mobility aid to access public transit. Overall, only 1% of customers reported using a mobility aid to access public transit, which was relatively consistent across both modes. Please note that this is for bus and trolley specifically – paratransit was not surveyed as part of this study.

**Table 13: Disability Status**

Q3/Q10. Used a mobility aid to access public transit	System (A) (n=2,672)	Bus (B) (n=2,394)	Trolley (C) (n=278)
Yes	1%	1%	<1%
No	99%	99%	100%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

About three in four customers (77%) live with at least one other person, with the median number of people in the household being 3. Bus customers were more likely to have 5 or more people in their household (17%) compared to King Street Trolley customers (8%).

**Table 14: Household Size**

Q17. Including YOU, how many people <u>live</u> in your household?	Census (Alexandria City PUMS) (n=80,342)	System (A) (n=2,307)	Bus (B) (n=2,062)	King St Trolley (C) (n=245)
1	56%	23%	23%	19%
2	24%	25%	24%	37% <sup>B</sup>
3	10%	21%	20%	22%
4	8%	16%	16%	15%
5	3%	9%	10% <sup>C</sup>	3%
6	<1%	3%	3% <sup>C</sup>	1%
7	<1%	1%	1%	2%
8 or more	<1%	3%	3%	2%
<b>Net: 2 or more</b>	<b>44%</b>	<b>77%</b>	<b>77%</b>	<b>81%</b>
<i>Average</i>	<i>NA</i>	<i>2.9</i>	<i>2.9</i>	<i>2.7</i>
<i>Median</i>	<i>NA</i>	<i>3.0</i>	<i>3.0</i>	<i>2.0</i>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

The largest proportion of DASH customer households have two adults (41%), which is greater for King Street Trolley customers (52%) than for bus customers (40%), where three in ten customers are living in a household with only one adult (31%). The median number of adults in each household is 2.

**Table 15: Number of Adults**

Q17/Q17AA. How many of these people living in your household are 18 years of age or older?	System (A) (n=2,257)	Bus (B) (n=2,015)	King St Trolley (C) (n=242)
1	31%	31% <sup>C</sup>	22%
2	41%	40%	52% <sup>B</sup>
3	18%	18%	16%
4	7%	7%	7%
5	2%	2% <sup>C</sup>	<1%
6	1%	1%	1%
7	<1%	<1%	1%
8 or more people 18 years of age or older	1%	1%	1%
<b>Net: 2 or more</b>	<b>69%</b>	<b>69%</b>	<b>78%<sup>B</sup></b>
<i>Average</i>	2.2	2.2	2.2
<i>Median</i>	2.0	2.0	2.0

Base= Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Almost four in ten DASH customers (38%) reported having children in their household, with bus customers reporting this significantly more (39%) than King Street Trolley customers (27%). The average number of children per household was just below 1 (0.1).

**Table 16: Number of Children**

Q17/Q17A. Number of children in household	System (A) (n=2,257)	Bus (B) (n=2,015)	King St Trolley (C) (n=242)
0	62%	61%	73% <sup>B</sup>
1	16%	17%	12%
2	15%	15% <sup>C</sup>	9%
3	5%	5%	5%
4	1%	1%	-
5	1%	1%	<1%
6	<1%	<1%	-
7	<1%	<1%	-
<b>Net: 1 or more</b>	<b>38%</b>	<b>39%<sup>C</sup></b>	<b>27%</b>
<i>Average</i>	0.7	0.7 <sup>C</sup>	0.5

Base= Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## Transit Reliance

Transit reliance is the level of reliance on public transportation that an individual has in order to travel. The questions used to determine transit reliance for this study were:

- Q11, “If DASH had not been available today, how would you have made this trip?”;
- Q14, “Do you have access to a vehicle you could have used to make this trip?”;
- Q15, “Do you have a valid driver’s license?”; and
- Q17B, “How many cars, motorcycles, or vehicles do you have access to in your household?”

Depending on the responses to these questions, resident customers were categorized as being either::

- Extremely Reliant – would not have made the trip if DASH was not available,
- Highly Reliant – would have made the trip another way, but do not have a valid driver’s license,
- Moderately Reliant – do have a driver's license, but do not have access to a working vehicle,
- Slightly Reliant – have a working vehicle but would not have been able to use it for this trip, and
- Not Reliant – would have driven themselves to make this trip were DASH not available.

The full logic for the coding of responses can be found in the footnotes of Table 17.

Overall, one-half of DASH customers are not transit reliant (50%). However, 38% of Bus customers are highly or extremely reliant (28% highly, 10% extremely), significantly greater than King Street Trolley customers (13% and 6%, respectively).

The lines that had the greatest proportion of extremely reliant customers were Line 34 (17%), Line 36 (15%), Line 32 (13%) and Line 33 (13%).

**Table 17: Transit Reliance**

Transit Reliance	System (A) (n=2,895)	Bus (B) (n=2,591)	King St Trolley (C) (n=304)
Extremely Reliant	9%	10% <sup>C</sup>	6%
Highly Reliant	27%	28% <sup>C</sup>	13%
Moderately Reliant	11%	11%	7%
Slightly Reliant	3%	3%	7% <sup>B</sup>
Not Reliant	50%	48%	67% <sup>B</sup>

Base=Those answering

Levels of transit reliance are defined as follows:

**Extremely:** [Q11(96)]

**Highly:** [Q11(02-95,99,NA) AND Q15(02)]

**Moderately:** [Q11(02-03,05-95,98-99,NA) AND Q17B(0) AND Q15(01,98,NA)]

**Slightly:** [Q11(02-95,NA) AND ((Q17B(1-5,98) AND Q14(02) AND Q15(01,98,NA)) OR (Q17B(98,NA) AND Q15(01,98,NA)))]

**Not:** [Q11(01,04) OR (Q11(02-95,99) AND Q17B(1-5,98) AND (Q14(01,98) OR Q15(01,98)))]

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)



One in ten customers (10%) stated that they would not have made this trip if DASH had not been available, a proportion that is greater for bus customers (10%) than for King Street Trolley customers (6%). The primary backup mode was a rideshare service, such as Uber or Lyft (30%), followed by another transit provider (26%). The latter was an option for a larger percentage of bus customers (27%) than King Street Trolley customers (14%). However, King Street Trolley customers were more likely to report that they would have walked to their destination (54%) than bus customers (19%), which makes sense given the King Street Trolley is often used to move around Oldtown, rather than making long trips. Lastly, bus customers were far more likely to report riding with someone to their final destination (14%) compared to King Street Trolley customers (2%).

**Table 18: Alternate Mode of Transportation**

Q11. If DASH had not been available today, how would you have made this trip?	System (A) (n=2,811)	Bus (B) (n=2,511)	King St Trolley (C) (n=300)
Rideshare service such as Uber, Lyft, or Taxi	30%	30%	25%
Other transit provider (that is, Metrobus, Metrorail)	26%	27% <sup>C</sup>	14%
Walk	21%	19%	54% <sup>B</sup>
Ride with someone to your final destination	13%	14% <sup>C</sup>	2%
Drive a vehicle directly to your final destination	10%	10%	6%
Bike or scooter to your final destination	3%	3%	3%
Would not make this trip	10%	10% <sup>C</sup>	6%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Customers were also asked about the number of buses, trains, or trollies they would take to reach their final destination. The majority of customers only used one route and did not transfer (61%). As expected, very few customers took three or more routes as a part of their trip (6%).

**Table 19: Number of Routes**

Q4. How many buses, trains, or trollies will you take to get to your FINAL DESTINATION?	System (A) (n=2,905)	Bus (B) (n=2,602)	King St Trolley (C) (n=303)
1 route	61%	61%	56%
2 routes	33%	33%	35%
3 routes	6%	5%	8%
4 routes	<1%	<1%	-
5 or more routes	<1%	<1%	-
<b>Net: Transferred</b>	<b>39%</b>	<b>39%</b>	<b>44%</b>
<b>Net: 3 or more routes</b>	<b>6%</b>	<b>6%</b>	<b>8%</b>
<i>Average number of routes</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>
<i>Median number of routes</i>	<i>1.0</i>	<i>1.0</i>	<i>1.0</i>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

As part of travel demographics and transit reliance, riders were asked about their access to working vehicles. Almost four in ten customers (37%) did not have access to a personal vehicle in their household. This was significantly greater for bus customers (38%) compared to King Street Trolley customers (19%), whereas the majority of King Street Trolley customers had two vehicles available (37%, significantly greater than bus customers' 19%). Unsurprisingly, this highlights the importance of the DASH bus as a mode of transit, especially considering that those who are extremely, highly, or moderately transit reliant had were significantly more likely to report not having a vehicle in their household (67%), compared to those who are not transit reliant (5%).

**Table 20: Household Vehicle Access**

Q17B. How many cars, motorcycles, or vehicles do you have access to in your household?	System (A) (n=2,292)	Bus (B) (n=2,049)	King St Trolley (C) (n=243)
0	37%	38% <sup>C</sup>	19%
1	38%	38%	34%
2	20%	19%	37% <sup>B</sup>
3	3%	3%	7%
4	1%	1%	3%
5 or more	1%	1%	-
<b>Net: 2+</b>	<b>25%</b>	<b>24%</b>	<b>47%<sup>B</sup></b>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Additionally, they were asked if they had access to a vehicle they could have used to make the trip they were surveyed on. Only about four in ten (38%) had access to a vehicle that could have been used to make this trip. Findings were similar regardless of mode.

**Table 21: Trip Vehicle Access**

Q14. Do you have access to a vehicle you could have used to make THIS TRIP?	System (A) (n=2,702)	Bus (B) (n=2,412)	King St Trolley (C) (n=290)
Yes	38%	37%	43%
No	62%	63%	57%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

When asked whether they had a valid driver's license, about four in ten customers said they do not (41%). This is significantly higher for bus customers, however (42%, compared to King Street Trolley's 17%).

**Table 22: Valid Driver's License**

Q15. Do you have a valid driver's license?	System (A) (n=2,682)	Bus (B) (n=2,396)	King St Trolley (C) (n=286)
Yes	59%	58%	83% <sup>B</sup>
No	41%	42% <sup>C</sup>	17%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## Trip-Making Characteristics

Roughly four in ten trips began at home (41%), and about three in ten (28%) started from work. This was significantly greater for bus than for King Street Trolley for both home (43% bus, 22% King Street Trolley) and work (29% bus, 16% King Street Trolley). However, King Street Trolley had the largest proportion of trips coming from recreation, social, or personal locations (44%, compared to bus's 12%).

**Table 23: Origin**

Q1. Where are you coming from now?	System (A) (n=2,906)	Bus (B) (n=2,599)	King St Trolley (C) (n=307)
Home	41%	43% <sup>C</sup>	22%
Work	28%	29% <sup>C</sup>	16%
Recreation, social, or personal	14%	12%	44% <sup>B</sup>
Shopping or errands	8%	8%	11%
School or college (students only)	6%	6% <sup>C</sup>	1%
Doctor, medical service, or hospital (non-work only)	1%	1%	<1%
<b>Net: Not coming from home</b>	<b>59%</b>	<b>57%</b>	<b>78%<sup>B</sup></b>
<b>Net: Recreation, social, or personal/church/restaurant</b>	<b>14%</b>	<b>12%</b>	<b>44%<sup>B</sup></b>
<b>Net: Home/hotel/temporary lodging</b>	<b>42%</b>	<b>43%<sup>C</sup></b>	<b>26%</b>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Home was the most common destination of trips (44%) followed by work (24%). These proportions were again greater for the bus (45% for home and 25% for work or work-related) than for King Street Trolley (37% and 6%). Again, King Street Trolley had the largest proportion of customers heading to recreation, social, or personal locations (39%, compared to 13% for buses).

**Table 24: Destination**

Q8. What type of place is your final destination on this one-way trip?	System (A) (n=2,863)	Bus (B) (n=2,557)	King St Trolley (C) (n=306)
Home	44%	45% <sup>C</sup>	37%
Work	24%	25% <sup>C</sup>	6%
Recreation, social, or personal	15%	13%	39% <sup>B</sup>
Shopping or errands	8%	9%	6%
School or college (students only)	5%	5% <sup>C</sup>	2%
Doctor, medical service, or hospital (non-work only)	1%	1%	<1%
Hotel/Temporary lodging	1%	<1%	8% <sup>B</sup>
<b>Net: Not going to home</b>	56%	55%	63% <sup>B</sup>
<b>Net: Recreation, social, or personal/church/restaurant</b>	15%	14%	40% <sup>B</sup>
<b>Net: Home/hotel/temporary lodging</b>	45%	45%	45%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Trips were also categorized by their combined origin and destination into the following categories:

- Home-Based Work – trips that have an O-D combination of home and work;
- Home-Based Other – trips that have an O-D combination of home and another location;
- Work-Based Work – trips that have an O-D combination of work and another work or job related location;
- Work-Based Other – Trips that have an O-D combination of work and another location; and
- Other-Based Other – Trips that have an O-D combination of two non-work, non-home locations.

The majority of trips were either home-based work (43%) or home-based other (42%). For bus, the most frequent trips were home-based work (45%, significantly greater than King Street Trolley customers' 14%), while for King Street Trolley the most frequent were home-based other (43%), followed by other-based other (35%, significantly higher than bus customers' 6%). To see trips by trip-type mapped out on the Alexandria area, please see the maps in Appendix 2.

**Table 25: Trip Type**

Trip Type	System (A) (n=2,851)	Bus (B) (n=2,546)	King St Trolley (C) (n=305)
Home-Based Work	<b>43%</b>	<b>45%<sup>C</sup></b>	14%
Home-Based Other	42%	42%	<b>43%</b>
Work-Based Work	3%	3% <sup>C</sup>	1%
Work-Based Other	4%	4%	7% <sup>B</sup>
Other-Based Other	8%	6%	35% <sup>B</sup>

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

On average, three in four customers reported that they are a frequent rider (75%), riding three or more days per week. Bus customers were significantly more likely to report being frequent riders (78%) compared to King Street Trolley customers (31%). Notably, one-third of King Street Trolley customers reported it was their first time riding (34%), considerably higher than bus customers (3%).

**Table 26: Trip Frequency**

Q12. How frequently do you ride dash?	System (A) (n=2,816)	Bus (B) (n=2,521)	King St Trolley (C) (n=295)
<b>Net: Frequent Rider</b>	75%	78% <sup>C</sup>	31%
6 or 7 days per week	29%	31% <sup>C</sup>	11%
5 days per week	27%	28% <sup>C</sup>	5%
3 or 4 days per week	18%	19%	15%
<b>Net: Infrequent Rider</b>	25%	22%	69% <sup>B</sup>
1 or 2 days per week	11%	11% <sup>C</sup>	7%
Less than once a week, but at least once a month	4%	4%	10% <sup>B</sup>
Less than once a month	5%	4%	19% <sup>B</sup>
This is your first time riding	6%	3%	34% <sup>B</sup>
Average	4.3	4.4 <sup>C</sup>	2.5
Median	4.7	4.8	1.7

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## Access and Egress to Transit

Customers primarily walked to access public transit (91%). This was true across both DASH modes.

**Table 27: Mode of Access**

Q3. How did you get FROM your origin to the FIRST BUS, TRAIN, OR TROLLEY on THIS ONE-WAY TRIP?	System (A) (n=2,737)	Bus (B) (n=2,453)	King St Trolley (C) (n=284)
Walked only	91%	91%	90%
Rode with someone who drove	3%	3% <sup>C</sup>	1%
Rideshare service such as Uber, Lyft, or Taxi	3%	3%	3%
Drove a car	2%	2%	4%
Mobility aid (cane, walker, wheelchair, etc.)	1%	1%	<1%
Personal bicycle or scooter	<1%	<1%	1%
Bikeshare or scootershare	<1%	-	1%
Some other way	<1%	<1%	1%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Walking is also the primary mode of egress from public transit (94%), which speaks to the area's public transit system's ease of accessibility.

**Table 28: Mode of Egress**

Q10. When you GET OFF the bus or train, how will you get to your destination	System (A) (n=2,833)	Bus (B) (n=2,533)	King St Trolley (C) (n=300)
Walk only	94%	94%	92%
Will ride with someone who will drive	2%	2%	1%
Rideshare service such as Uber, Lyft, or Taxi	2%	2%	2%
Drive a car	1%	1%	2%
Bikeshare or scootershare	1%	1%	2%
Personal bicycle or scooter	<1%	<1%	1%
Mobility aid (cane, walker, wheelchair, etc.)	<1%	<1%	<1%
Some other way	<1%	<1%	1%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## Transfers

While the majority of trips did not involve a transfer (61%), those that did had customers report their trip chain with all routes taken from their boarding to their alighting stop. These unlinked trips were then turned into transfer pairs, with any directly linked routes creating a single pair (e.g., if a customer took the 30 to the 31 to the 32, that trip would be assigned the transfer pairs 30-31 and 31-32, signifying the routes that directly connected to one another). When categorizing trip pairs, route order is not taken into consideration, so trip pairs are always listed with the lower numbered route first.

Transfer pair analyses were run for all lines to identify the most frequent transfer pairs for any given line.

**Table 29: Riders by Number of Transfers**

Q4. How many buses, trolleys, and/or ferries will you take to get to your FINAL DESTINATION?	System (A) (n=2,905)	Bus (B) (n=2,602)	King St Trolley (C) (n=303)
0 transfers	61%	61%	56%
1 transfer	33%	33%	35%
2 transfers	6%	5%	8%
3 transfers	<1%	<1%	-
4 or transfers or more	<1%	<1%	-
<b>Net: Transferred</b>	<b>39%</b>	<b>39%</b>	<b>44%</b>
Average number of transfers	0.5	0.5	0.5

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Those who made a transfer as part of their trip were assigned trip pairs, the linked lines they took as a part of their trip<sup>3</sup>. The most common transfer pair for DASH overall and bus specifically was 35-Metrorail (11% and 12%, respectively). For King Street Trolley, it was King Street Trolley-Metrorail (65%).

**Table 30: Most Frequent Transfer Pairs (Top 5)**

Most Used Route					
System (A) (n=839)		Bus (B) (n=764)		King St Trolley (C) (n=75)	
Trip Pair	%	Trip Pair	%	Trip Pair	%
35-Metrorail	11%	35-Metrorail	12%	King Street Trolley-Metrorail	65%
30-35	8%	30-35	9%	King Street Trolley-Metrobus	7%
31-35	7%	31-35	8%	30-King Street Trolley	5%
35-Metrobus	6%	35-Metrobus	6%	30-Metrobus	5%
31-Metrorail	5%	31-Metrorail	6%	32-King Street Trolley	5%

Base=Those answering

Overall, the line with the highest proportion of customers (including lines transferred to/from) was line 35 (37%), which was also true for bus customers, specifically (40%). King Street Trolley customers had a greater proportion of trips connecting to Metrorail (16%) compared to bus customers (9%).

<sup>3</sup> Note that these transfer pairs do not account for directionality, and as such, trips that went from route 30-31 would be identified the same as route 31-30. Transfer pairs are always listed with the lower numbered route first. Additionally, as records could have multiple transfer pairs, the weighting was adjusted for each record when running analyses on transfer pairs. For information on how transfer pairs were weighted, please see **Appendix 5: Weighting Methodology**.

**Table 31: Most Used Route (Top 5)**

Most Used Route					
System (A) (n=2,920)		Bus (B) (n=2,612)		King St Trolley (C) (n=308)	
Route	%	Route	%	Route	%
Line 35	37%	Line 35	40% <sup>C</sup>	King St Trolley	100% <sup>B</sup>
Line 30	21%	Line 30	22% <sup>C</sup>	Metrorail	16% <sup>B</sup>
Line 31	18%	Line 31	19% <sup>C</sup>	Metrobus	4%
Line 36	16%	Line 36	17%	Line 30	1%
Metrorail	9%	Metrorail	9%	Line 33	1%

Base=Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## DASH Free Fare, Attributes, and Satisfaction

In September 2021, DASH implemented the New Network, offering free fares across all its services.

DASH wanted to examine the impact free fares and the New Network had on customers' decision to ride DASH, and whether customers made more trips as a result of free fares.

To start, customers were asked whether they rode DASH before September 2021, when free fares and the New Network were implemented. Slightly less than one-half of the surveyed customers reported that they had (46%), although this was higher for bus customers (47%) than for King Street Trolley customers (26%), unsurprising given the higher proportion of King Street Trolley customers who were riding for the first time.

**Table 32: Riding Before September 2021**

Q12/13. How frequently do you ride DASH/Did you ride DASH before September 2021 when free fares and the New Network were implemented?	System (A) (n=2,779)	Bus (B) (n=2,392)	King St Trolley (C) (n=196)
Yes	46%	47% <sup>C</sup>	26%
No	54%	53%	74% <sup>B</sup>

Base= Those answering, with new riders coded as "No"

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)



Those who did not ride DASH before free fares were then asked if it impacted their decision to start riding DASH services. Almost two-thirds of customers (62%) said yes.

**Table 33: Impact of Free Fares on Decision to Start Riding DASH**

Q13A. Did free fares impact your decision to start riding DASH?	System (A) (n=1,513)	Bus (B) (n=1,299)	King St Trolley (C) (n=214)
Yes	62%	62%	54%
No	38%	38%	46%

Base= Those who did not ride DASH before free fares and answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Those who did ride DASH before free fares were asked *how* free fares impacted how often they ride DASH. The majority (53%) stated that they ride more frequently than they did before free fares, although about four in ten (41%) said they ride the same amount as before free fares. This proportion was similar across modes.

**Table 34: Impact of Free Fares on Frequency of Riding DASH**

Q13B. How did free fares impact how often you ride DASH?	System (A) (n=1,234)	Bus (B) (n=1,157)	King St Trolley (C) (n=77)
I ride more frequently than before free fares	53%	53%	46%
I ride the same amount as before free fares	41%	41%	48%
I ride less frequently than before free fares	6%	6%	6%

Base= Those who rode before free fares and answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## Riding DASH

Several questions were asked pertaining to how customers get information regarding transit services, important attributes in their decision to ride DASH, and their opinions on DASH overall, in order to identify where DASH can focus efforts to improve their service and disseminate information and updates.

When asked where they primarily received transit service information, about four in ten customers said by smartphone app (i.e., SmarTrip app, Transit app, Google maps, etc.) (44%), while one-third said they received transit information from the DASH website or trip planner (34%). Bus customers were significantly more likely to utilize DASH sources, such as the website (36%, compared to King Street Trolley 12%), DASH social media (4%, compared to King Street Trolley 1%), DASH Telephone Information Center (3%, compared to King Street Trolley <1%), and DASH email or text alerts (2%, compared to King Street Trolley <1%). King Street Trolley customers, however, were far more likely to simply wait at the bus stop (27%, compared to bus customers 1%). Again, given the large proportion of first time and low-frequency King Street Trolley riders, this makes sense.

**Table 35: Primary Transit Service Information**

Q27. Where do you primarily get transit service information?	System (A) (n=2,272)	Bus (B) (n=2,041)	King St Trolley (C) (n=231)
Smartphone app (i.e., SmarTrip app, Transit app, Google maps, etc.)	44%	44%	40%
DASH website or trip planner	34%	36% <sup>C</sup>	12%
Printed Ride Guide brochure	5%	5%	8%
DASH social media	4%	4% <sup>C</sup>	1%
Another transit agency website (e.g., WMATA Trip Planner)	3%	3%	6%
Just wait at the bus stop	3%	1%	27% <sup>B</sup>
DASH Telephone Information Center	3%	3% <sup>C</sup>	<1%
DASH e-mail/text alerts	1%	2% <sup>C</sup>	<1%
Word of mouth/Friends/Family	1%	1%	2%

Base= Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Customers were then asked to pick up to three attributes that were most important in making their decision to ride or not ride DASH. Of those who could be encouraged to ride DASH more often (98%), the primary importance attribute was free fares (58%), followed by routes that go places they need to go (49%) and service reliability (36%), consistent across all modes.

**Table 36: Trip Distribution by Attribute of Importance**

Q13C. Please pick which three of the following are the most important in your decision to ride or not ride DASH.	System (A) (n=2,776)	Bus (B) (n=2482)	King St Trolley (C) (n=294)
Affordability, that is, free fares	58%	58%	59%
Routes that go places you need to go	49%	49%	52%
Service reliability	36%	36%	42%
Frequency of service (how often the buses are running)	29%	29%	33%
Service hours (buses running during early mornings, late nights, and weekends)	21%	21%	18%
Feeling of personal safety and security	15%	15%	15%
Cleanliness of buses and bus stops	13%	12%	15%
Environmental sustainability or climate concerns	11%	12% <sup>C</sup>	7%
Bus stop amenities (benches, shelters, lighting, real-time information)	7%	7%	5%
Fuel prices	6%	6%	5%
Other	1%	<1%	1%

Base= Those answering who could be encouraged to ride DASH more often

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

Overall, the majority of customers are satisfied with DASH (95%), with more than three in four (79%) reporting being very satisfied. This is higher for King Street Trolley customers (98% satisfied and 87% very satisfied) compared to bus customers (94% satisfied and 79% very satisfied), but as King Street Trolley is mostly used for home-based other and other-based other trips, is a system that runs simply and frequently, and is often used for leisure rather than commuting, it makes sense that satisfaction would be higher.

That said, this does not detract from the fact that DASH customers are generally satisfied with the service they receive. Customers who stated they were dissatisfied (2%) listed their most important attributes they consider in riding DASH to be routes going to places they need to go (45%), service reliability (36%), and affordability (32%).

**Table 37: Overall Satisfaction with DASH**

Q13D. How would you rate your overall satisfaction with DASH service?	System (A) (n=2,784)	Bus (B) (n=2,489)	King St Trolley (C) (n=295)
<b>Net: Satisfied</b>	95%	94%	98% <sup>B</sup>
Very satisfied	79%	79%	87% <sup>B</sup>
Somewhat satisfied	15%	16%	11%
Neither satisfied nor dissatisfied	3%	3%	1%
<b>Net: Dissatisfied</b>	2%	2% <sup>C</sup>	1%
Somewhat dissatisfied	1%	1%	-
Very dissatisfied	1%	1%	1%

Base= Those answering

Superscript letters (e.g., A, B, or C) indicate that the labeled percentage is significantly higher than the percentage in the corresponding segment (i.e., B for Bus, C for King St Trolley, etc.)

## Methodology

The interviewer administered survey was developed between DASH staff and the research team. It contained 37 questions for customers and took approximately ten minutes to complete. The survey was conducted in English, Spanish, and Amharic, and was conducted entirely through a tablet with assistance from the interviewer.

In order to capture short trips, where an interviewer would not have time to conduct the full survey, the survey was also converted to web and paper formats. The paper survey allowed customers to complete the survey after leaving the bus and was marked with pre-paid postage. Once the survey was completed, it could be dropped into any USPS mailbox for delivery to the research team. In total, 1,100 English paper surveys, 675 Spanish surveys, and 450 Amharic surveys were printed (2,225 printed surveys in total) for interviewer use to capture these short trips if it was not possible to complete a tablet survey. Additionally, the web version allowed customers to use a unique ID from the paper copy of the survey to complete the survey online via a QR code or web link, both printed on the paper survey. Those completing online were required to enter the unique ID from their paper survey. This unique ID allowed the research team to link paper and web surveys back to the trip on which it was received.

The survey covered the following key topics:

- Residency,
- Trip origin and destination,
- Mode of access and egress,
- Number of transfers and trip chain information,
- Impact of New Network and free fares on customers' decision to ride DASH,
- Frequency of DASH use,
- Overall satisfaction with DASH,
- Transit reliance, and
- Demographics and Title VI information.

Once the survey was completed, customers were invited to enter a drawing to win one of several \$50 gift cards as a thank you for participating. This incentive was also advertised by interviewers to help improve response rates.

The survey was programmed to minimize invalid responses, such as invalid routes, out of range responses, or illogical responses. For example, route questions included a drop-down list of all possible routes, and stop questions included a drop-down list of all possible stops limited by the route(s) used, reducing invalid responses.

For questions where an address was needed, the tablet- and online based surveys incorporated a mapping feature, allowing address data to be collected in a cleaner and more efficient manner. For paper surveys, they were asked to provide an address or nearest intersection manually, which was then entered into the data through the online mapping feature by the research team. This allowed the team to collect more precise geocoding data in real time, rather than relying on riders' ability to provide accurate addresses or intersections.

## Sampling Plan

A sampling plan was designed based on ridership from June 2023 to determine the target number of completed surveys for each line by weekday, Saturday, and Sunday, and the estimated number of interviewer shifts needed to collect those surveys. Additionally, once the sampling plan was approved, the research team further divided each quota by time period (Early AM, AM Peak, Midday, PM Peak, and Evening).

The sampling plan is located in **Appendix 5: Sampling Plan**.

## Survey Methodology

Survey data was collected between October 11 and November 19<sup>4</sup>. Interviewers boarded buses and trolleys and conducted surveys via tablets, or handed out paper surveys to those who were taking a short trip.

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<sup>4</sup> Note that data collection was not conducted on November 11, due to the holiday schedule for Veterans Day.

## Data Cleaning and Quality Control

### Data Cleaning and Geolocation Validation

The survey team reviewed the intercept data daily, reviewing the previous day's data to identify outliers or errors, and worked with interviewers to improve the quality of incoming data. Additionally, these datafiles were used to track quotas set by the sampling plan.

The mapping software used in the intercept study made it possible to verify the geocoded location of the origins, destinations, and boarding and alighting stops. Any stop that was part of DASH or a linking system had its geocoded position programmed into the system, based on the GTFS files, and any origins, destinations, or unlisted stops or stations were geocoded through the mapping software in real time as the survey was conducted. Interviewers were instructed to include the city and state when entering these addresses, to ensure the locations were accurate. Supervisors also reviewed this geocoded data to ensure there were no outliers.

Following the end of data collection, initial tabs were run to examine the data in total and identify any remaining outliers or entry errors.

### Survey Expansion

In order to adjust the data to be representative of the system as a whole, expansion weights were created and applied to each record to make them representative of the system at the line and day of week (Weekday by time period, Saturday, and Sunday) levels. These weights were calculated using October 2023 average ridership data provided by DASH. An additional adjustment was then applied to these weights to account for the proportion of weekdays to weekend days within an average month. A full explanation of the process and the final weights can be found in **Appendix 6: Weighting Methodology**.

## Data Limitations

While the data collected has valuable use to DASH, there are several limitations to be aware of. Firstly, while customers in the intercept study were not given an explicit opportunity to opt out of questions, if they refused to answer, interviewers were instructed to move on in order to collect as much information as possible without alienating the respondent. Additionally, for paper or web surveys, participants could opt out of questions they did not feel comfortable answering. As a result, response rates vary by question. The same weights were applied to all responses in a survey, such that the weighted sums of a specific question do not necessarily equal the weighted sum of trips the survey represents. Because of this, percentages provide a more accurate reflection of what the data represents, rather than the absolute total weighted counts.

Additionally, due to differing response rates, the standard error varies from question to question and from segment to segment. The systemwide standard error is  $\pm 1.8$  percentage points at the 95% confidence level, but that will increase for individual questions or segmented analyses with smaller base sizes.

Lastly, although efforts were taken to reduce bias as much as possible, there are still likely some underrepresented groups in the sample. For example, the survey team has limited ability to gather surveys from minors, so statistics for riders under 18 years of age are not representative of the rider

population. In addition, while the survey was translated into English, Spanish, and Amharic in order to reduce possible language barriers, the Alexandria area is very diverse, and it is possible that there were respondents who do not speak English, Spanish, or Amharic, and were therefore unable to respond.

## Final Survey Totals

In total, 2,920 surveys were completed. The disposition breakout of intercept surveys and total surveys by paper and web is below. Qualified intercept responses are defined as surveys that are fully completed. Qualified partial intercept responses are defined as surveys that meet the minimum question threshold to be counted as “complete”, that is that they have finished the trip chain questions and reached Q10. An unqualified partial intercept response started the survey but did not reach the minimum question threshold. Responses removed by data cleaning reflect records that, due to errors in entry, suspected satisficing, or other data irregularities, could not be fixed, and were therefore removed to preserve the validity of the data. In total, there were 2,898 completed intercept responses, 5 completed paper responses, and 17 completed web responses, for a total of 2,920 qualified responses.

**Table 38: Final Response Rates**

	Response Count	Response Percentage
Qualified Intercept Responses	2,655	66.3%
Qualified Partial Intercept Responses	243	6.1%
Unqualified Partial Intercept Responses	1,040	26.0%
Responses Removed By Data Cleaning	68	1.7%
Total Qualified Intercept Responses	2,898	72.3%
Total Paper Completes	5	
Total Web Completes	17	
Total Qualified Responses	2,920	

## Lessons Learned

- Typically, Saturday and Sunday daypart quotas are not calculated or considered when collecting O-D data, as it does not impact final weighting schemes. However, in order to improve the validity of this data, soft daypart quotas were added in order to ensure the collected surveys were representative of Saturday and Sunday across the whole day, rather than one specific daypart. This proved beneficial to fielding, as it allowed for a wider range of possible shifts available over the weekend, and ensured the majority of minimum Saturday and Sunday quotas were hit in an attempt to cover dayparts.
- There was a limited window for fielding, to ensure the study would not overlap with holidays. Additional lead time prior to the next O&D study could expand possible fielding dates without overlapping holidays.
- For the next O&D, DASH may consider asking a follow-up question to determine why customers are satisfied or not satisfied to help determine what is driving customer satisfaction.
- Internal and external outreach was conducted at the beginning of data collection, with operators being made aware of interviewers on board buses and trolleys and ads running on the buses to alert customers that a survey was in progress. These are beneficial, but the effectiveness can wane as the study progresses. WBA recommends additional outreach to operators initially to explain why interviewers are on board, and follow-up outreach to operators and customers to continue to encourage survey engagement.