City of Alexandria, VA

2023 Resident Transportation Needs Assessment Survey

Report of Results

January 2024

Polco NRC

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Contents

Executive Summary 2
Survey Background 4
Survey Findings 5
Frequency of Different Modes of Transportation 5
Modal Share of the Work Commute 6
Mode Choices for Non-Commute Trips 9
Active Transportation (Walking and Bicycling) 11
Public Transportation 14
Factors Influencing Mode Choices 15
Transportation of School-Aged Children 17
Traveling Tools and Amenities 19
Appendix A: Complete Set of Responses for the Address-based Sample Survey 20
Appendix B: Verbatim Answers to Open-Ended Questions 36
Appendix C: Selected Survey Responses by Area of Residence 38
Understanding the Crosstabulation Tables 38
Appendix D: Selected Survey Responses by Respondent Characteristics 51
By Travel Amenities 51
By Presence of School-age Children in Household and Respondent Age 69
By Respondent Gender, Race, and Ethnicity 81
Appendix E: Selected Survey Responses by Year 93
Appendix F: Results by Outreach Type (Addressed-Based Sample vs Open Participation) 105
Appendix G: Complete Set of Responses for the Open Participation Survey 116
Appendix H: Survey Methodology 132
Appendix I: Survey Materials 135

Figures

Figure 1: Modes of Transportation's Frequency of Use 5
Figure 2: Use of Modes for Work Commute Trips (Percent of employed respondents who made at least one work commute trip via each mode) 6
Figure 3: Modal Share of Work Commute Trips 7
Figure 4: Motivations for Driving to Work 8
Figure 5: Transportation Modes Used for Various Activities 9
Figure 6: Proportion of Respondents Bicycling, Walking or Running for Fun or Exercise 11
Figure 7: What Might Increase Walking for Transportation 12
Figure 8: What Might Increase Bicycling for Transportation 13
Figure 9: What Might Increase Use of Public Transportation 14
Figure 10: Availability of Private Vehicles and Bicycles in the Household 15
Figure 11: Average percent of employed respondents' work trips made by driving alone and Metrorail by possession of vehicles 15
Figure 12: Percent of respondents who drive for at least some non-commute destination trips by respondent characteristics 16
Figure 13: Percent of respondents who use Metrorail for at least some non-commute destination trips by respondent characteristics 16
Figure 14: Percent of respondents who bike for at least some non-commute destination trips by respondent characteristics 16
Figure 15: Modes of Transportation for Children Traveling To/From School 17
Figure 16: Barriers to Using Modes Other Than Driving for Children's School Transportation 18
Figure 17: Traveling Tools to Assist Drivers 19
Figure 18: Employer Traveling Benefits 19

Executive Summary

SURVEY BACKGROUND

The City of Alexandria's Department of Transportation and Environmental Services contracted with Polco to conduct a survey on city-wide multimodal transportation trends and preferences. The 2023 survey is the third iteration (conducted by Polco), allowing comparisons of modal use by year. The data from the survey will be used for several purposes, including performance measurement and planning.

All households located within Alexandria city limits were eligible to be a part of the 2023 survey; 4,200 households were selected at random to receive the survey. Each selected household was contacted at least three times via mail starting November 2, 2023, and data collection closed on December 14, 2023. A total of 667 residents completed a survey, resulting in a response rate of 16%. Typical response rates for a survey of this type range between 12% and 24%. With 667 responses, the 95% confidence interval is plus or minus four percentage points. Further details on the survey methodology can be found in *Appendix H: Survey Methodology.*

KEY FINDINGS

- **Walking and driving remain the most common travel modes in Alexandria.**

  When asked how frequently they used a variety of transportation modes in the month prior to the survey, almost half had walked or driven alone daily (or nearly daily), and only 10% had not walked or driven alone in that past month. Rail (Metro rail, commuter rail) was the most used public transportation mode; about 2 in 10 respondents had used this in the month prior to the survey. The least-used modes were motorcycle/moped/scooter (96% never used these), carshares (97%) and paratransit (98%). About 75% never used bikes or the metrobus.

- **The majority of employed residents still drive a single-occupancy vehicle to work, and this rate has increased since 2021.**

  Employed survey respondents, who represented 79% of all respondents, were asked what modes they had used to go to and from work each day of the previous week. About 6 in 10 employed respondents said they had driven alone at least once in the week for their commute - similarly to previous years - while about 37% of all work commute trips were made by driving alone (up from 25% in 2021).

- **The proportion of employees tele-working remained stable from 2021, although they report working fewer days from home.**

  The proportion of survey respondents working from home at least once a week remained stable, but the *number* of times working from home decreased, suggesting that employees are now going to the office more often than 2 years ago.

- **Driving remains the most convenient transportation mode and is a popular choice for commuting to work.**

  For those who often drive to work, over half (52%) cited quickness and convenience as the primary reason. About one-quarter said that they work an irregular work schedule, and another 23%

indicated that they need or want to make stops or run errands on their commute. Each of these proportions were similar to those observed in 2021.

- **Private vehicles were once again the most common choice of transportation for grocery store trips and non-grocery errands.**

Respondents were asked what forms of transportation they used for seven different types of non-commuting destination trips. Driving was by far the most popular choice for grocery store trips and non-grocery errands, with about 8 in 10 survey participants saying they made at least some of these types of trips by driving. Walking was the next most popular option, with about 4 in 10 respondents saying they made at least some of these types of trips on foot.

- **Walking was more often used for visiting parks and recreation centers and fun or fitness.**

When choosing to visit parks or recreation centers or engage in an activity for fun or fitness, many residents chose to walk more often than drive alone. For other social activities like going to restaurants driving alone was the most popular choice although followed closely by walking.

- **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. Additionally, about 6 in 10 respondents said they would bike more if there were more off-street multi-use paths and trails.

- **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.

- **Compared to 2021, school-aged children were more likely to be driven to school by a caregiver in 2023.**

About half of respondents with children indicated that their child or children were driven to school by a caregiver, which was a 12-point increase from 2021 (39%). Meanwhile, 44% of respondents said their child or children walked to school, up from 40% in 2021.The use of school buses decreased from 41% in 2021 to the current 32%.

Distance to the school, inconvenience of using other modes, safety, and the time needed to use non-driving modes were the most frequently cited reasons for not using alternatives to driving. In the last two years, time and distance became lesser barriers, while inconvenience and safety became greater barriers.

Survey Background

The City of Alexandria's Department of Transportation and Environmental Services contracted with Polco to conduct a third iteration of a survey previously conducted in 2016 and 2021 to assess City-wide multimodal transportation trends and preferences.

Results from this survey will be used for performance measurement, assessment, and planning; tracking mode share goals for Transportation Management Plans; informing and justifying capital projects throughout the city; and providing data insights for relevant transportation studies and reports.

Outreach for this survey used multiple communications channels to ensure a robust response through two efforts. The first was an address-based sample outreach effort. A total of 4,200 household addresses were randomly selected from a US Postal Service (USPS) list of all residential addresses in the city to receive a mailed survey and a mailed invitation to an online survey. Mailings were sent over a three-week period with the initial invitation mailed on November 2, 2023. Data collection closed December 14, 2023. These 4,200 selected households received a series of three mailings over the course of three weeks. The initial contact was a postcard invitation to complete the survey online. The second contact was a packet containing a paper copy of the survey, a cover letter with instructions, and a postage-paid reply envelope for returning the completed survey. Finally, a reminder postcard was sent to all households. All of these mailed materials included a web link so that residents could complete the survey online, if desired. The online survey was available in English and Spanish.

Additionally, a second online survey was programmed that included the same questions as the address-based sampled survey. This survey was available in English and Spanish to all Alexandria residents and was promoted by the City via City social media and other communication channels. This open-participation effort was conducted during the first two weeks of December 2023.

Overall, there were 667 responses to the mailed invitations/surveys from the sampled outreach effort, for a response rate of 16% and a margin of error of ±4%. More information about how the survey was conducted can be found in *Appendix H: Survey Methodology.* A copy of the questionnaire can be found *Appendix I: Survey* .

Additionally, 203 residents responded to the open participation outreach effort. The results of these responses are summarized in *Appendix G: Complete Set of Responses for the Open Participation Survey.*

This report summarizes the results of the responses to the sampled outreach effort. A complete set of responses to each multiple-response survey question can be found in *Appendix A: Complete Set of Responses*, while the verbatim responses to the open-ended questions (which could be answered in the respondent's own words) are found in *Appendix B: Verbatim Answers to Open-Ended Questions*. Cross-tabulations of selected survey questions by respondent characteristics are found in *Appendix C: Selected Survey Responses by Area of Residence* and *Appendix D: Selected Survey Responses by Respondent Characteristics*. For all cross-tabulations, ANOVA significance testing was used to identify statistical differences. An explanation of how statistical differences are noted (e.g., how to interpret the cross-tabulation tables) is included at the beginning of *Appendix C: Selected Survey Responses by Area of Residence* on page 38).

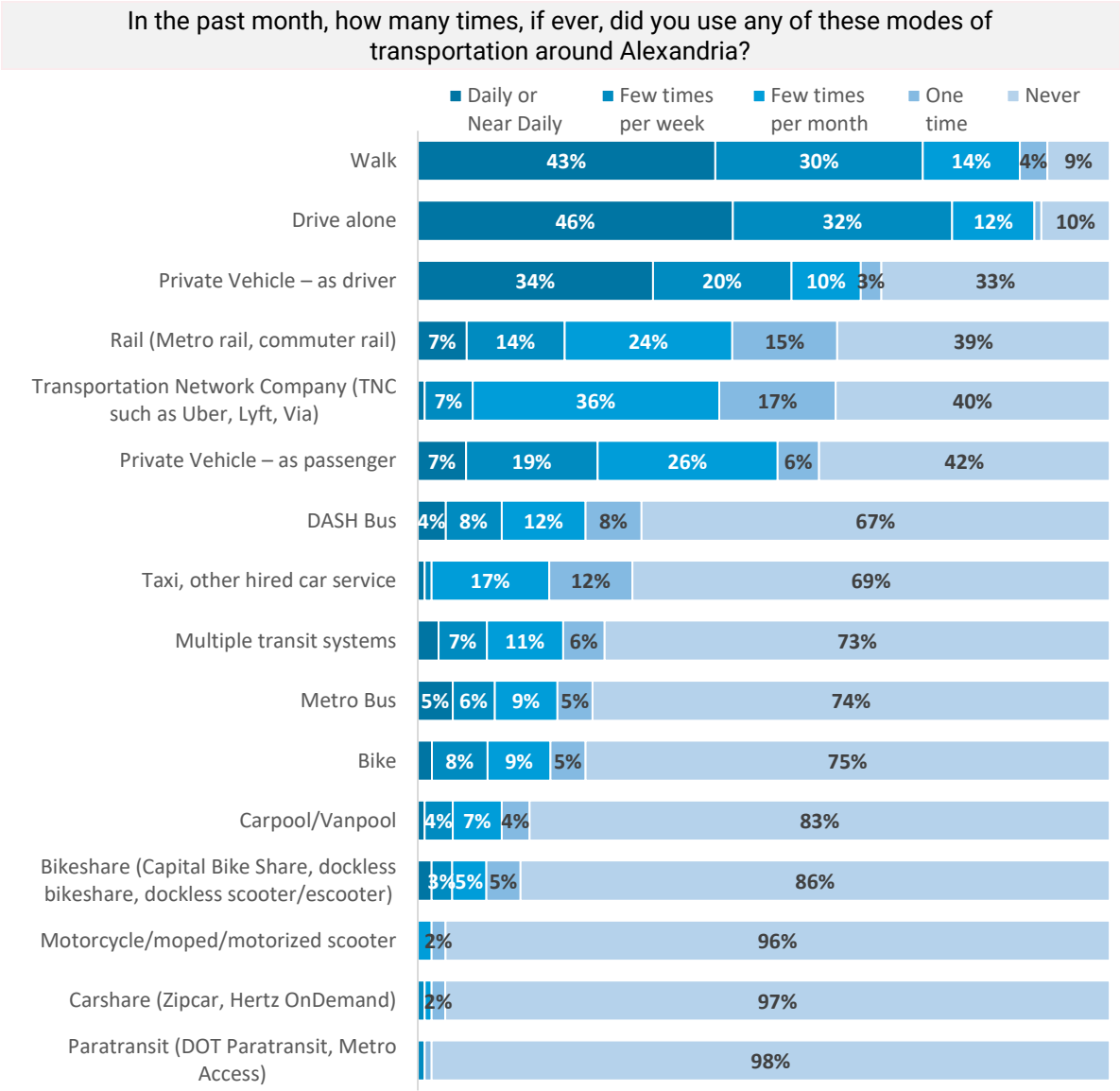
Survey Findings

Frequency of Different Modes of Transportation

Respondents were asked how often they had used various forms of transportation around the City of Alexandria in the month prior to the survey. Walking and driving alone were used at least once by about 9 in 10 respondents although less than half used any one of those modes daily. Among public transportation modes, the rail was the most frequently used with about 6 in 10 respondents using it at least once in the previous 30 days.

Residents of the West End and Central areas were less likely to walk, bike and use rail than residents living in other parts of Alexandria (see *Appendix C: Selected Survey Responses by Area of Residence*) while Hispanic residents were more likely than non-Hispanic to use DASH Bus and Metrobus (see *Appendix D: Selected Survey Responses by Respondent Characteristics*)

Figure 1: Modes of Transportation's Frequency of Use



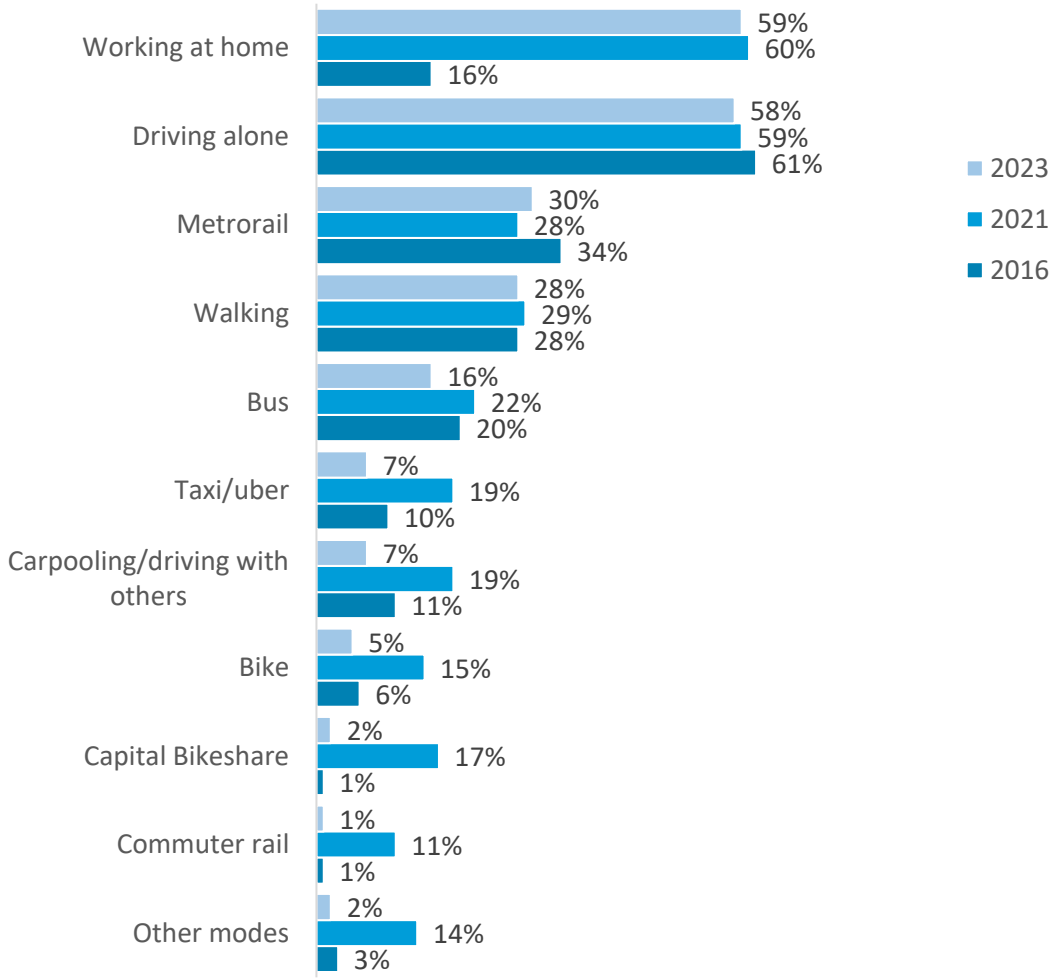
Modal Share of the Work Commute

Seventy-nine percent of respondents were employed full or part-time when they completed the survey (see *Appendix A: Complete Set of Responses*). These employed respondents were asked to record all the modes they used to get to work on each day in the week prior to completing the survey. This question was used to assess the modal share of the work commute.

As in 2021, about 6 in 10 respondents worked from home at least once a week. The proportion of employed respondents who drove alone at least once also remained stable when comparing 2023 (58%) to 2021 (59%) and 2016 (61%). The next most common modes used for work commuting were Metrorail (30% at least once in the week) and walking (28%). Statistically significant changes from 2021 to 2023 included a decreased number of commuters using bus, taxi, bike, bikeshare, carpooling, commuter rail, and "other" modes.

Figure 2: Use of Modes for Work Commute Trips
(Percent of employed respondents who made at least one work commute trip via each mode)

In the last week that you worked, please indicate all the mode(s) you used as part of how you got to work on each day (please select all that apply). For example, if you rode Capital Bikeshare to the metro and then walked to your building on Monday, you would select Capital Bikeshare, Metro and Walk as your modes for Monday.

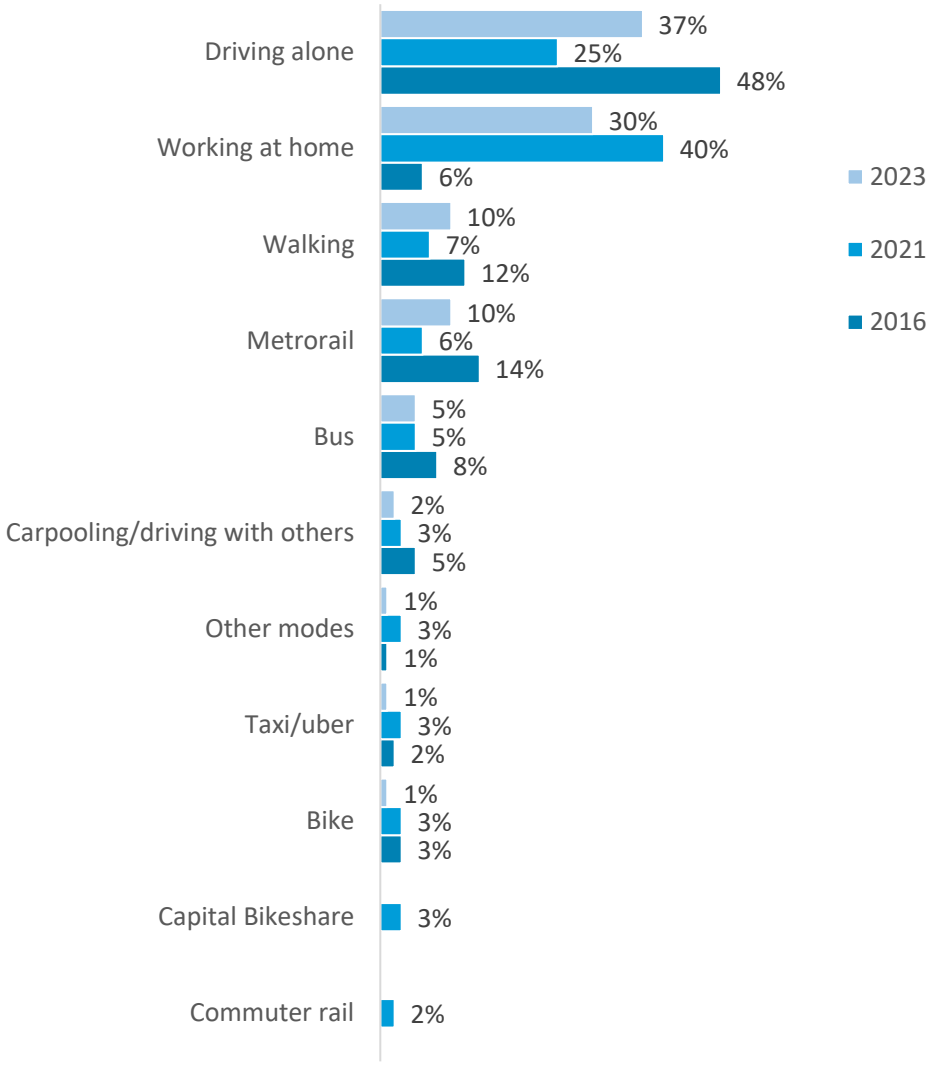


An alternative way of interpreting the mode share data from this question is to take the proportion of times a mode was used over the week for each person and to then average those proportions across all employed respondents. While Figure 2 shows that a similar proportion of people commuted by driving alone at least once a week in all three years, from 2021 to 2023 there was an increase in the proportion of all the work commute trips that were done via driving alone. There were also slight increases in walking and Metrorail use.

Reported rates of working from home at least once a week remained stable (Figure 2 on the previous page) but the *number* of times per week working from home decreased from 2021 to 2023, suggesting that employees with hybrid positions are going to the office more frequently than they were two years ago.

Figure 3: Modal Share of Work Commute Trips

In the last week that you worked, please indicate all of the mode(s) you used as part of how you got to work on each day (please select all that apply). For example, if you rode Capital Bikeshare to the metro and then walked to your building on Monday, you would select Capital Bikeshare, Metro and Walk as your modes for Monday.

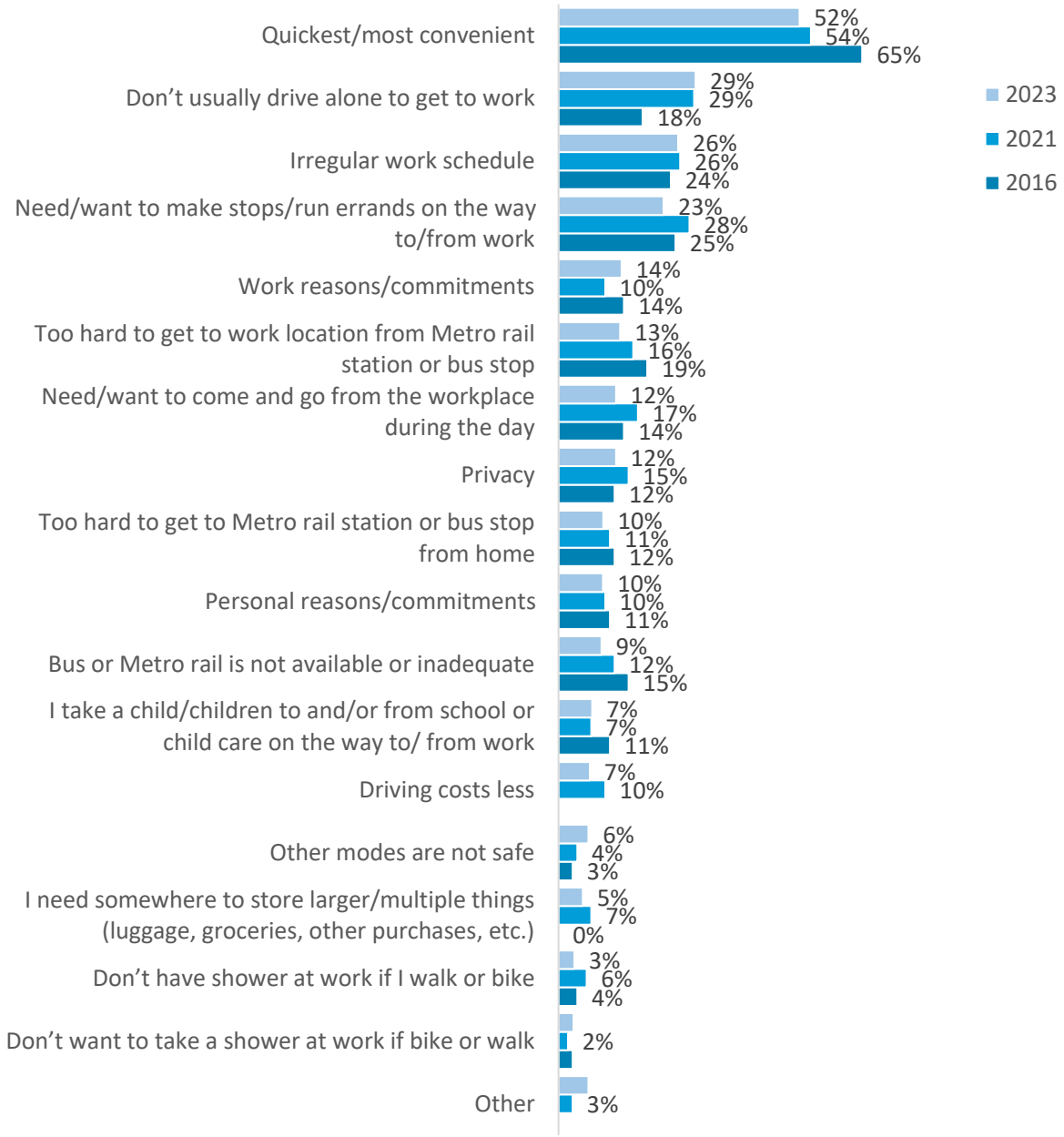


**Percents for a given year may not sum to exactly 100% due to rounding.*

Survey participants who most commonly commuted to work by driving alone were asked what influenced this. The most common response was that it was the quickest or most convenient way to get to work (52% of those who answered the question). This was the top reason in 2021 and 2016 as well. The second most common response was that they usually don't drive alone to get to work (suggesting the prior week had not been a typical week for these respondents). The next most common motivations were having an irregular schedule or needing to make stops. Respondents had the opportunity to write in a response in their own words if their reason was not included on the list; those responses can be found in *Appendix B: Verbatim Answers to Open-Ended Questions*.

Figure 4: Motivations for Driving to Work

If you typically drive alone to get to work, which of the following are the main reasons? (Please select all that apply.)



Mode Choices for Non-Commute Trips

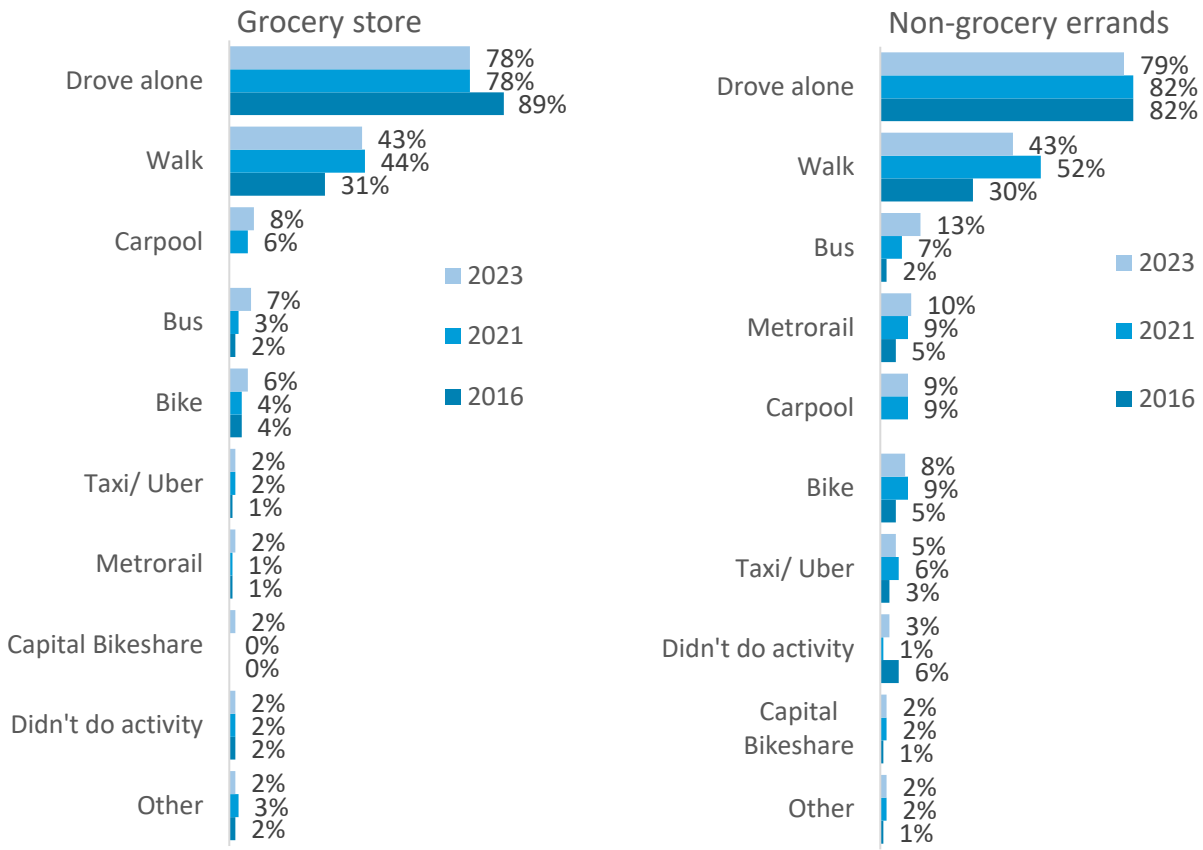
All respondents were asked what forms of transportation they used for seven different types of non-commuting destination trips, such as shopping at the grocery store, dining at a restaurant, or visiting friends or family. The figures on the next two pages display the proportions of all respondents who indicated that they used each mode for each particular type of trip.

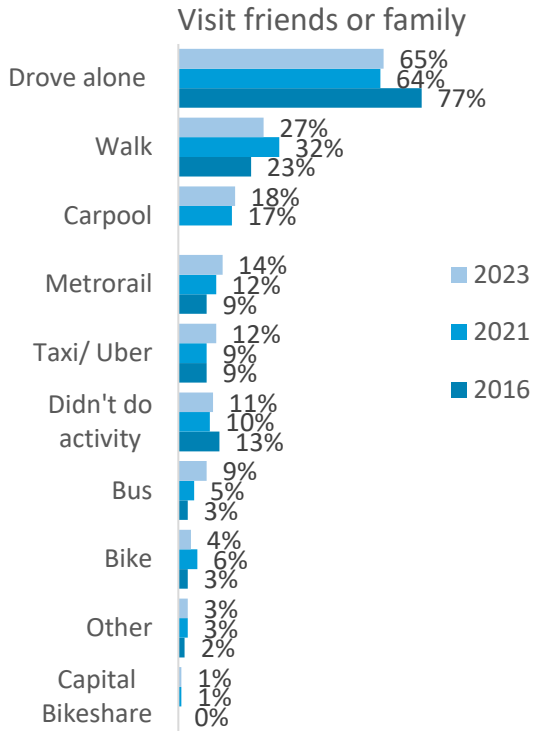
Driving was by far the most popular choice for grocery store trips, non-grocery errands, and visiting friends or family, with 65% or more of survey participants saying they made at least some of these types of trips by driving. About 40% of respondents said they walked for grocery or non-grocery errands in 2023, while about 1 in 4 said they did so for visiting friends and family.

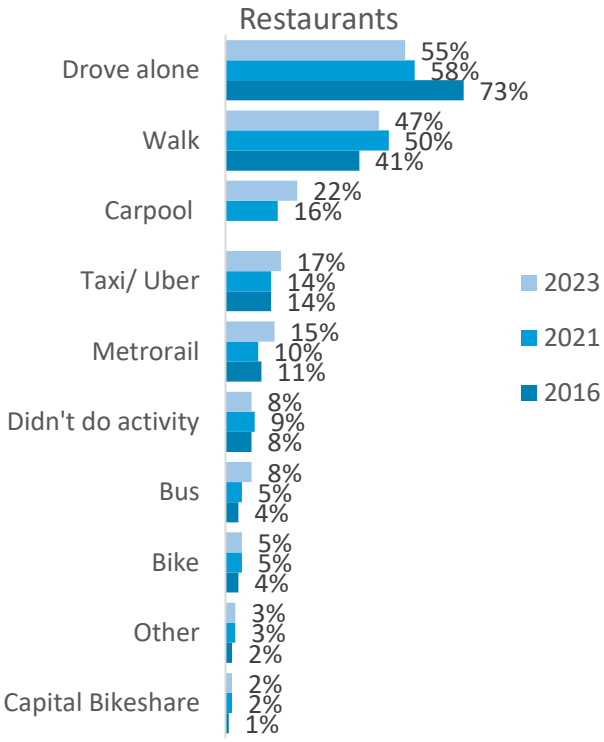
When choosing to visit parks or recreation centers or to engage in an activity for fun or fitness, over half of respondents said they walked for some of these trips, at rates similar to 2021. Also, when going to restaurants, over half of respondents drove alone while a slightly lower proportion walked. Finally, when participating in social activities not listed in the questionnaire, about 6 in 10 respondents declared that they drove alone, while one-fourth walked.

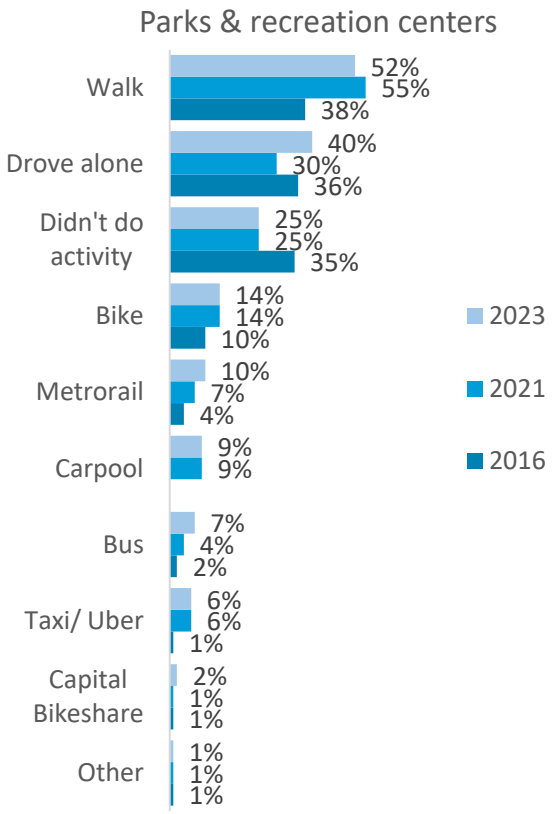
Figure 5: Transportation Modes Used for Various Activities

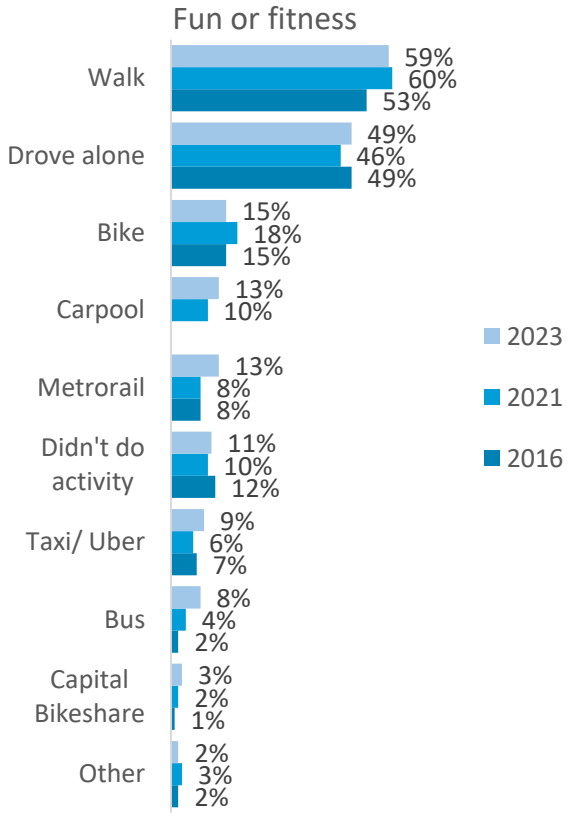
In the last month, please indicate which mode(s) you used to complete or participate in each of the following. (Please select all that apply.)
Percent of respondents reporting using each mode for each activity




Visit friends or family
Drove alone
65%
64%
77%
Walk
27%
32%
23%
Carpool
18%
17%
Metrorail
14%
12%
9%
Taxi/ Uber
12%
9%
9%
Didn't do activity
11%
10%
13%
Bus
9%
5%
3%
Bike
4%
6%
3%
Other
3%
3%
2%
Capital Bikeshare
1%
1%
0%
2023
2021
2016


Restaurants
Drove alone
55%
58%
73%
Walk
47%
50%
41%
Carpool
22%
16%
Taxi/ Uber
17%
14%
14%
Metrorail
15%
10%
11%
Didn't do activity
8%
9%
8%
Bus
8%
5%
4%
Bike
5%
5%
4%
Other
3%
3%
2%
Capital Bikeshare
2%
2%
1%
2023
2021
2016


Parks & recreation centers
Walk
52%
55%
38%
Drove alone
40%
30%
36%
Didn't do activity
25%
25%
35%
Bike
14%
14%
10%
Metrorail
10%
7%
4%
Carpool
9%
9%
Bus
7%
4%
2%
Taxi/ Uber
6%
6%
1%
Capital Bikeshare
2%
1%
1%
Other
1%
1%
1%
2023
2021
2016

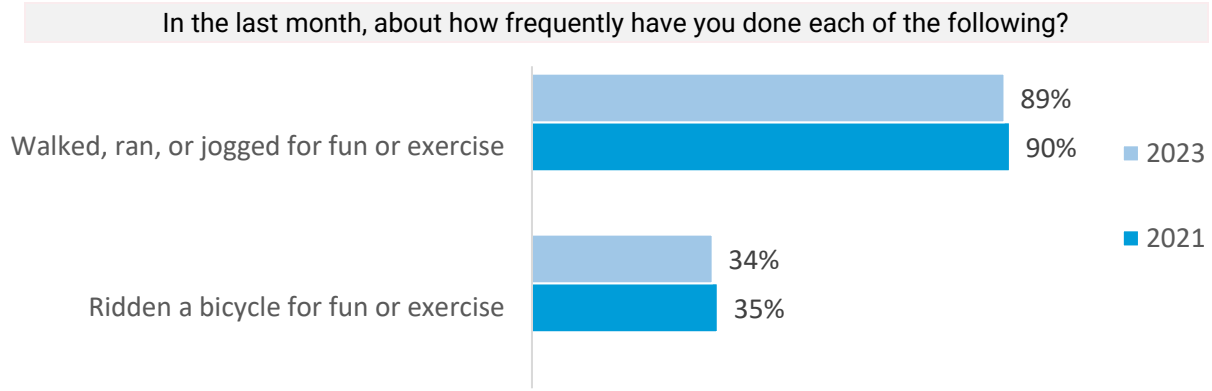

Fun or fitness
Walk
59%
60%
53%
Drove alone
49%
46%
49%
Bike
15%
18%
15%
Carpool
13%
10%
Metrorail
13%
8%
8%
Didn't do activity
11%
10%
12%
Taxi/ Uber
9%
6%
7%
Bus
8%
4%
2%
Capital Bikeshare
3%
2%
1%
Other
2%
3%
2%
2023
2021
2016

Active Transportation (Walking and Bicycling)

Several questions were included in the survey to assess residents' current use of active transportation modes (e.g., walking and bicycling) and to identify barriers to using specific forms of transportation.

As in 2021, a large majority of respondents had walked, run, or jogged for fun or exercise, while only about one-third had ridden a bicycle for fun or exercise.

Figure 6: Proportion of Respondents Bicycling, Walking or Running for Fun or Exercise



Those in the West End were less likely to have ridden a bike or walked for fun or exercise than those in the North Ridge/ Arlandia/ Potomac Yard/ Carelyle and Del Ray areas (see *Appendix C: Selected Survey Responses by Area of Residence*). Also, younger and middle-aged adults were more likely than older adults to run or jog for fun or exercise (see *Appendix D: Selected Survey Responses by Respondent Characteristics*).

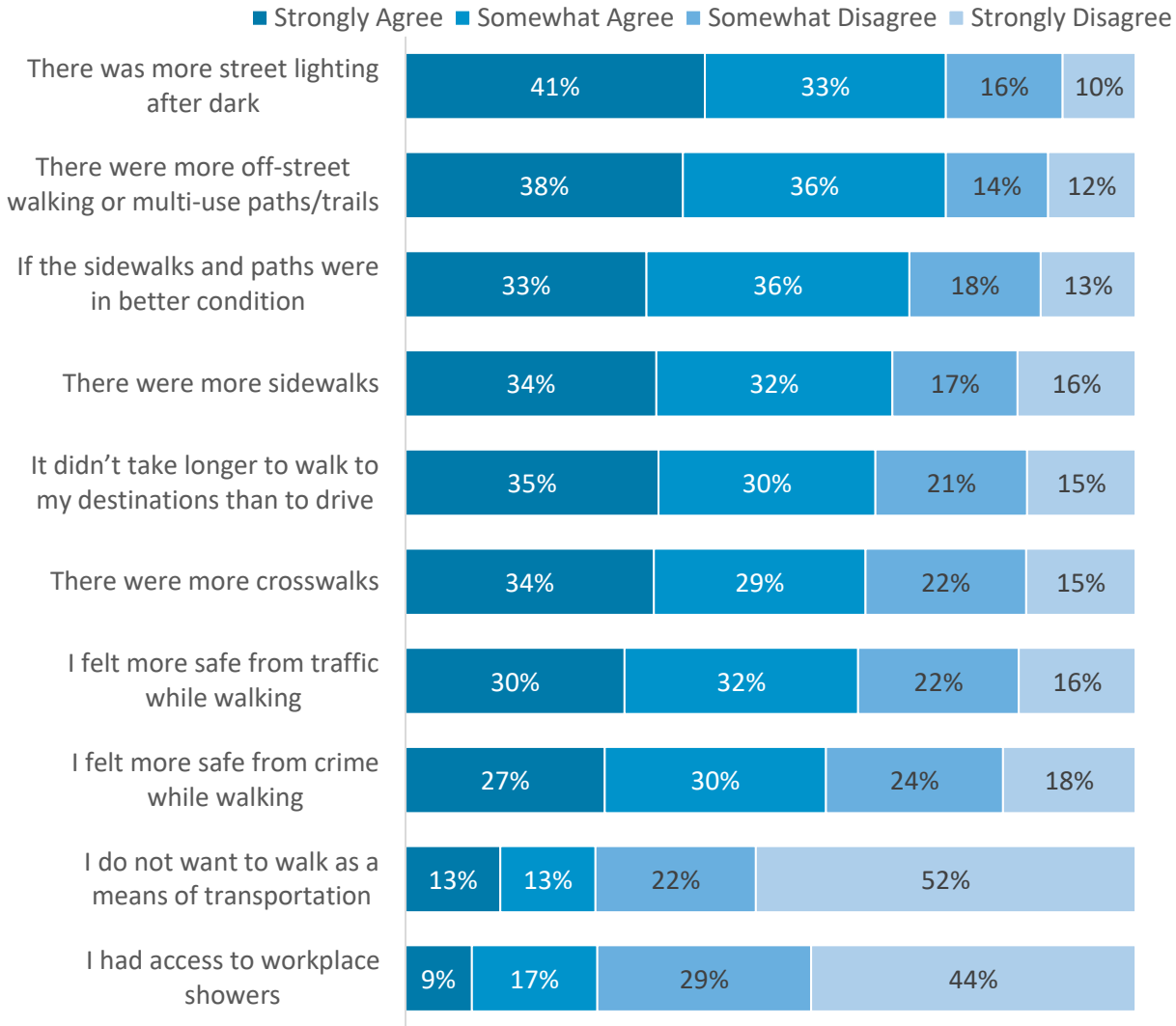
Finally, male respondents were more likely than their female counterparts to have ridden a bicycle for fun or exercise (see *Appendix D: Selected Survey Responses by Respondent Characteristics*).

Respondents were also asked what would increase their use of walking as a means of transportation. About 3 in 4 respondents strongly or somewhat agreed they would walk more if there was more street lighting after dark and if there were more off-street walking options such as multi-use trails/paths. Meanwhile, 2 in 3 respondents strongly or somewhat agreed they would walk more if sidewalks and paths were in better condition or if there were more sidewalks and crosswalks.

Those in who lived in Old Town were more likely than others in Alexandria to say they would walk more if they felt safer from crime while walking (see Appendix C: *Selected Survey Responses by Area of Residence*).

Figure 7: What Might Increase Walking for Transportation

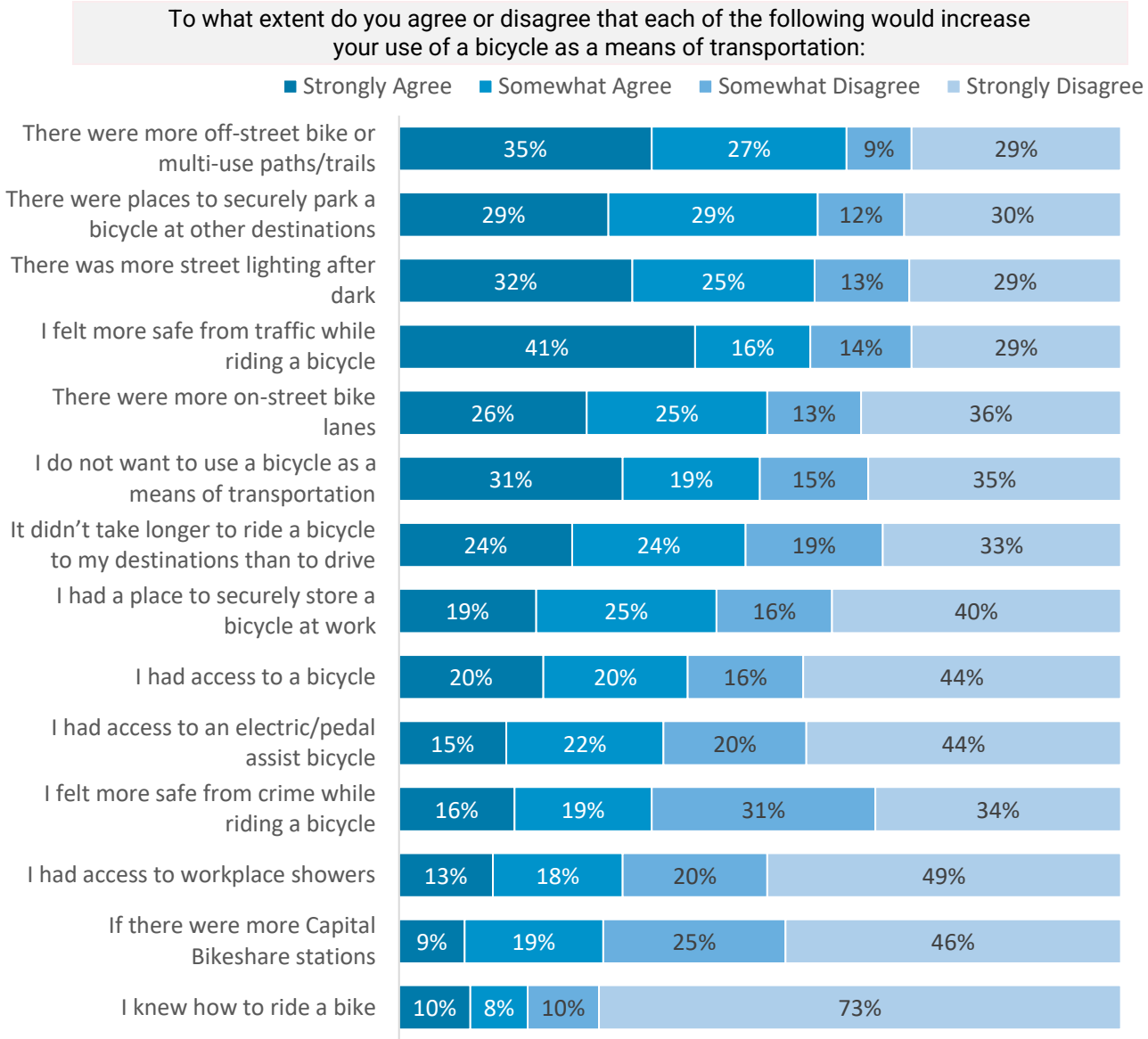
To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation:



Additionally, about 6 in 10 respondents said they would bike more if there were more off-street multi-use paths and trails. Almost the same proportion said they would bike more frequently if there were places to securely park a bicycle at other destinations (59%), there was more street lighting after dark (58%), or they felt safer from traffic while riding a bicycle (57%). On the other hand, half of residents said they didn't want to bicycle as a means of transportation. The proportion of residents that did not want to bicycle as a means of transportation was lower among residents aged 35-54 than among younger and older residents (see *Appendix D: Selected Survey Responses by Respondent Characteristics*).

Older adults and black residents were more likely than their counterparts to name multiple barriers to use a bicycle as a means of transportation (see *Appendix D: Selected Survey Responses by Respondent Characteristics*).

Figure 8: What Might Increase Bicycling for Transportation

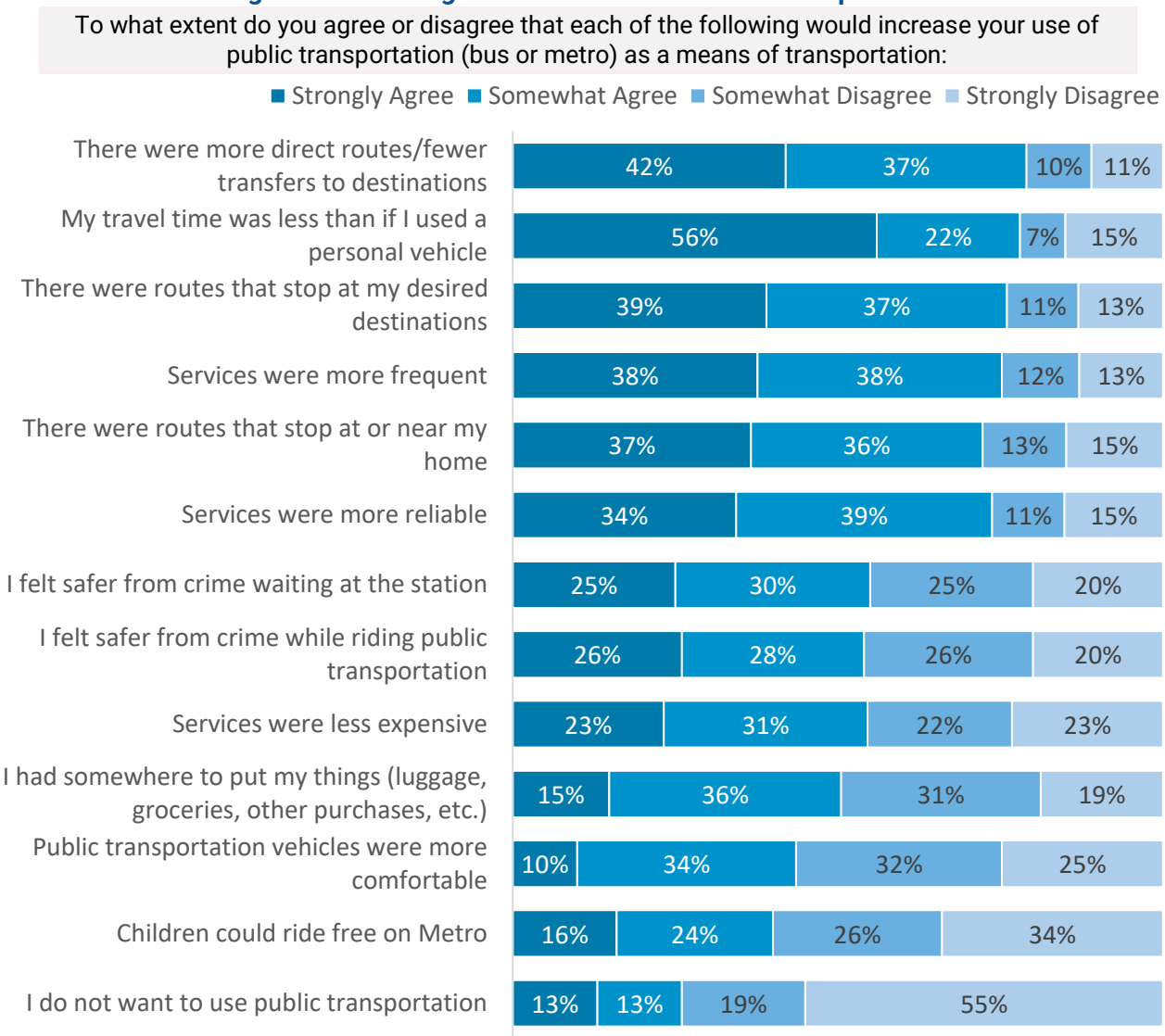


Public Transportation

When asked what might increase their use of public transportation, survey participants said that time and convenience were the biggest barriers, with crime, cost, comfort, and child accommodations as lesser concerns. Nearly 80% of respondents strongly or somewhat agreed that they might use public transportation if the travel time were less than using a personal vehicle, if there were more direct routes, or if the routes stopped closer to their desired destinations. Over 70% agreed that having more frequent and reliable services would influence them to consider using public transportation. Just under 6 in 10 respondents thought feeling safe from crime while waiting at a station or while riding public transportation would make them more likely to use it.

West End's residents tended to rated comfort and children's free tickets as higher incentives to use public transportation than residents living in other parts of the city (see *Appendix C: Selected Survey Responses by Area of Residence*).

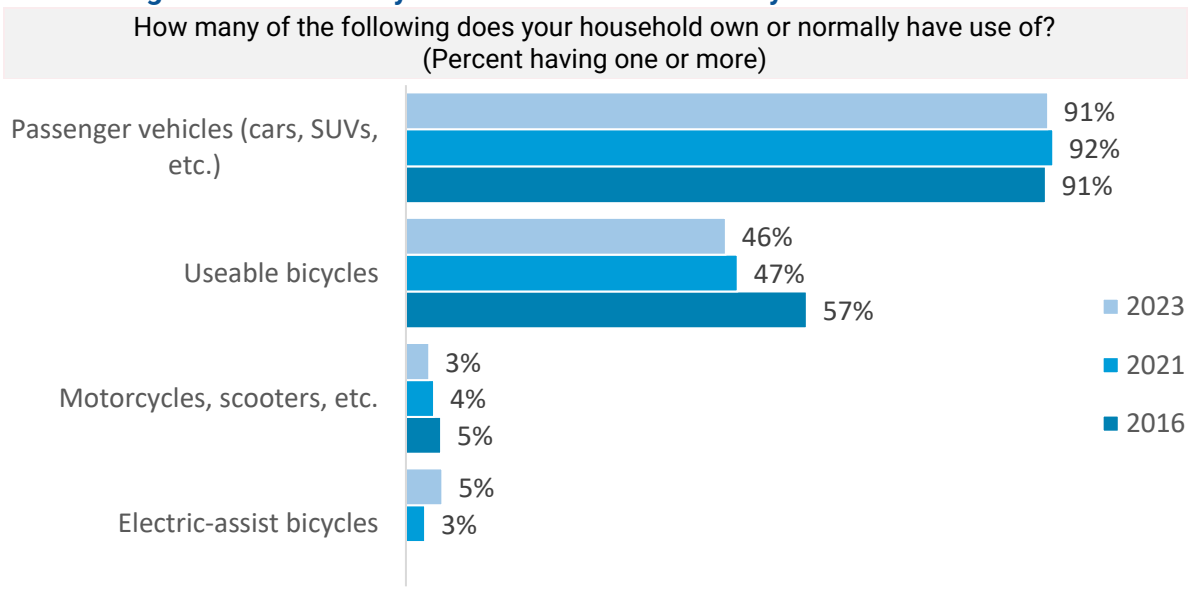
Figure 9: What Might Increase Use of Public Transportation



Factors Influencing Mode Choices

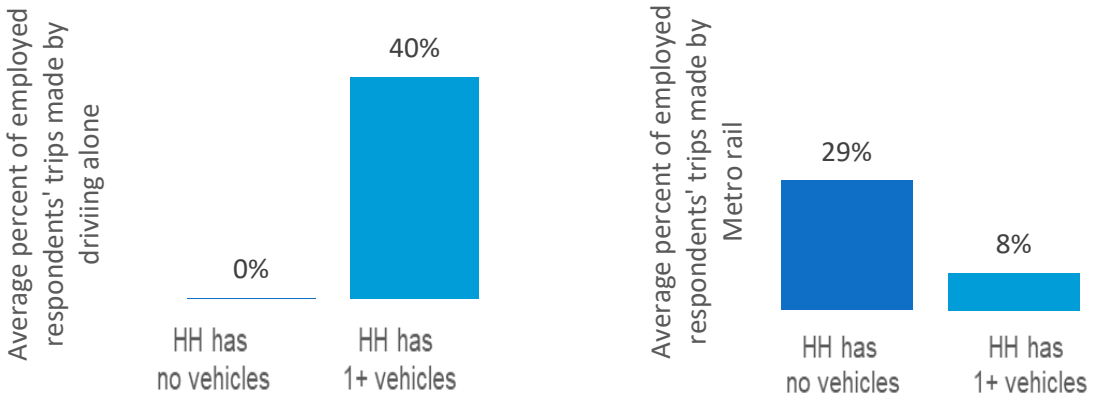
Respondents were asked whether they or anyone in their household owned or had use of passenger vehicles, bicycles, motorcycles or electric-assist bicycles. About 9 in 10 respondent households had access to one or more automobiles. Nearly half had access to one or more usable bicycles, which was down from 2016, while 57% had access to a bicycle. Only 3% of households had a motorcycle or scooter, while 5% of households reported having an electric-assisted bicycle (up from 3% in 2021).

Figure 10: Availability of Private Vehicles and Bicycles in the Household



As shown in Figure 11, lack of access to a motor vehicle among employed respondents was associated with a lower proportion of work commute trips being made by driving alone, and a higher proportion of trips made by Metrorail.

Figure 11: Average percent of employed respondents' work trips made by driving alone and Metrorail by possession of vehicles



The figures below display the proportion of respondents who reported making trips to non-commute destinations by driving, bicycling, or using Metrorail by respondent characteristics. Those living in households without motor vehicles were much less likely to make trips by driving (11%) than were those who lived in households with automobiles (92%). Similarly, those living in households without motor vehicles were more likely to make Metrorail trips (60%) than those who lived in households with automobiles (32%). Finally, 43% of people in households with one or more bicycles indicated that they made non-work commute trips by bicycle.

Figure 12: Percent of respondents who drive for at least some non-commute destination trips by respondent characteristics

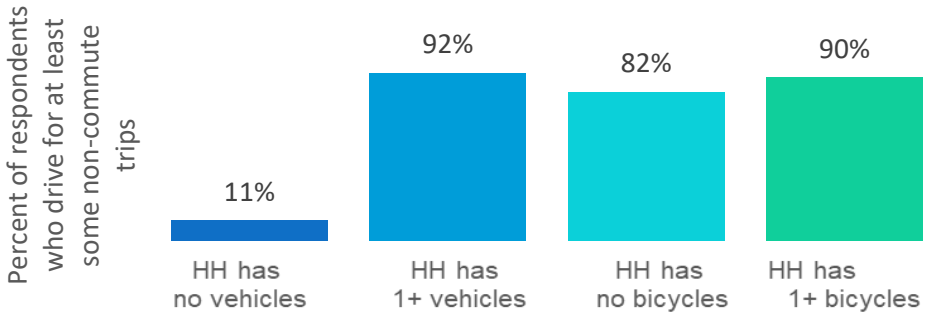


Figure 13: Percent of respondents who use Metrorail for at least some non-commute destination trips by respondent characteristics

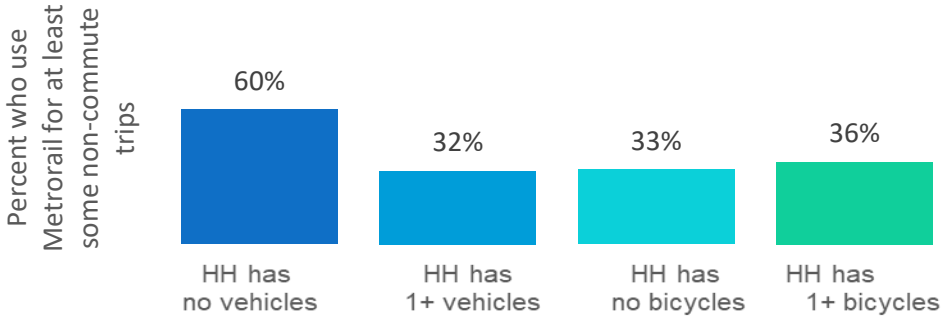
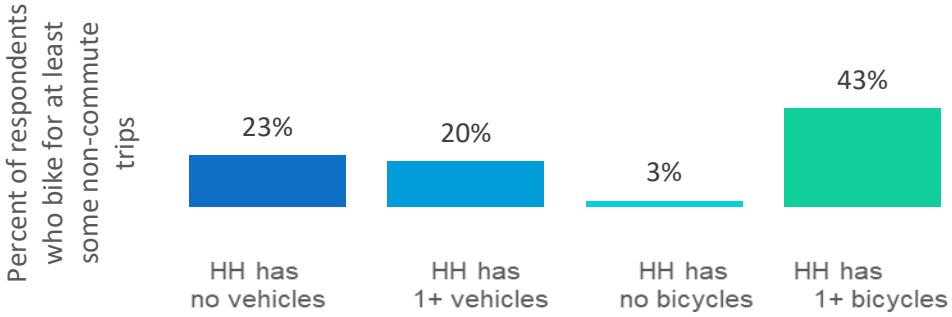


Figure 14: Percent of respondents who bike for at least some non-commute destination trips by respondent characteristics



Transportation of School-Aged Children

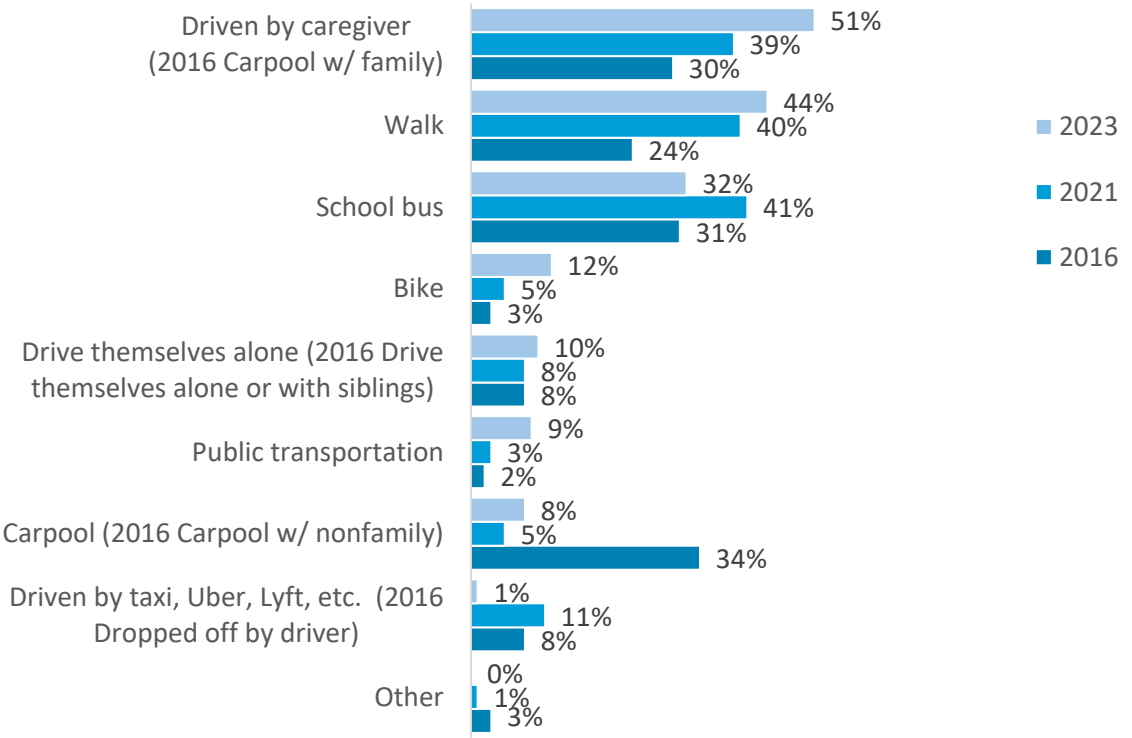
A set of questions on the survey addressed school commute modes for children. Respondents who had children were asked what modes of transportation were used by their children to get to and from school. As with work commutes, respondents could choose more than one mode, which may indicate that a child gets to school using various modes of transportation or, in households with more than one child, that different children use different modes.

About half of respondents with children indicated that their child or children were driven to school by a caregiver, which was a 12-point increase from 2021 (39%). Meanwhile, 44% of respondents said their child or children walked to school, up from 40% in 2021.The use of school buses decreased from 41% in 2021 to the current 32%. Finally, about 10% reported their child was driven by a driving service, drove themselves, or used public transportation to get to and from school. Noted in the figure below are wording changes made in 2021 that may affect the accuracy of comparisons between 2016 and the follow-up years.

Respondents with school age children who lived in the West End reported using the school bus for the school commute more than in any other area of Alexandria (see *Appendix C: Selected Survey Responses by Area of Residence*). Black, multi-racial and Hispanic respondents were more likely than white and non-Hispanic respondents to say their children commuted by bus (see *Appendix D: Selected Survey Responses by Respondent Characteristics*).

Figure 15: Modes of Transportation for Children Traveling To/From School

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply)*



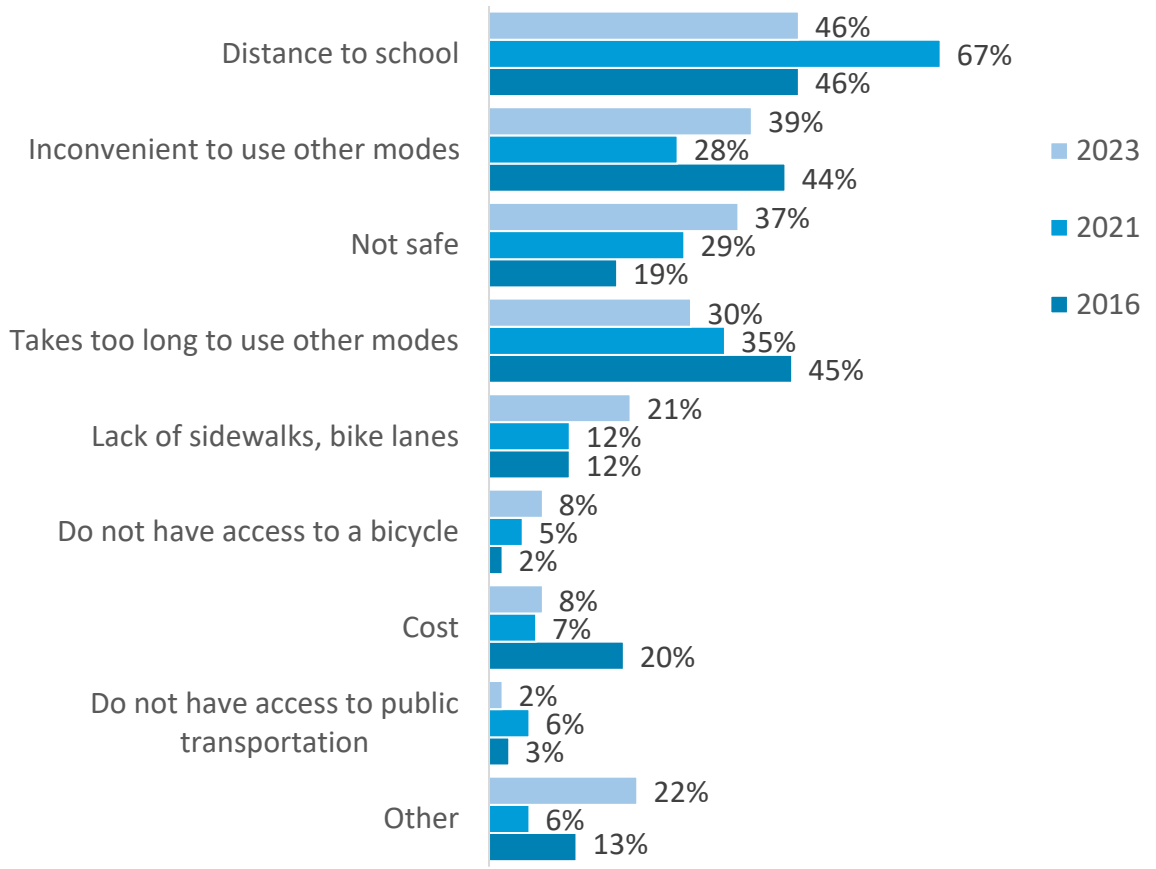
**Percents may add to more than 100% as respondents could choose more than one travel mode.*

*** The responses of those who wrote something in the "other" space can be found in Appendix B: Verbatim Answers to Open-Ended Questions.*

Parents were asked about barriers to using modes other than driving for their children's school transportation. Distance to the school, inconvenience of using other modes, safety, and the time needed to use non-driving modes were the most frequently cited reasons for not using alternatives to driving in 2023, 2021 and 2016. Time and distance became lesser barriers in the last two years, while inconvenience and safety became greater barriers from 2021 to 2023.

Figure 16: Barriers to Using Modes Other Than Driving for Children's School Transportation

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (Select all that apply):



**Percents may add to more than 100% as respondents could choose more than one travel mode.*

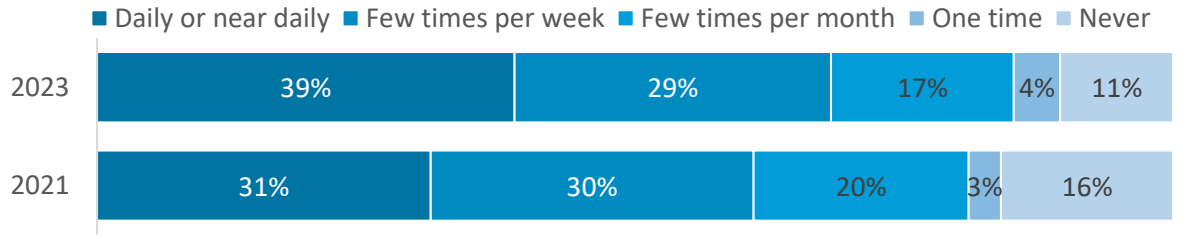
*** The responses of those who wrote something in the "other" space can be found in Appendix B: Verbatim Answers to Open-Ended Questions*

Traveling Tools and Amenities

Figure 18 shows the frequency that residents used GPS apps to determine their route. About 70% of residents used them at least a few times a week, and only 11% said they had never used such applications. Male residents or those aged 54 or younger used GPS apps more frequently than female residents and those aged 55 or older (see *Appendix D: Selected Survey Responses by Respondent Characteristics*).

Figure 17: Traveling Tools to Assist Drivers

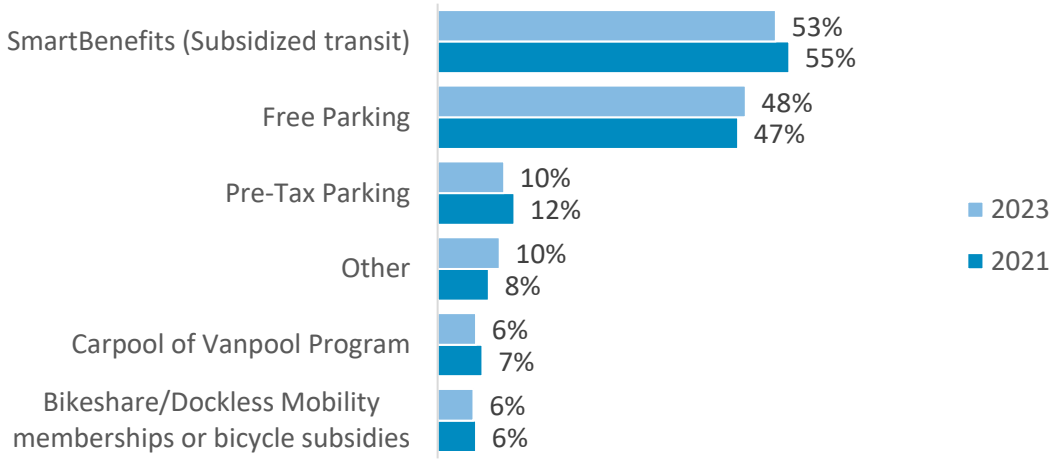
In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?



About half of employed residents received SmartBenefits (subsidized transit) or free parking, while 10 percent or fewer of employed residents received the other employer-provided commuter benefits listed in the survey question.

Figure 18: Employer Traveling Benefits

Does your employer offer any of the following commuter benefits? (Select all that apply)



**Percents add to more than 100% as respondents could choose more than one response.*

Appendix A: Complete Set of Responses for the Address-based Sample Survey

The following pages contain a complete set of responses to each question on the survey.

Table 1: Question #1

What is your employment status?	Percent	Number
Employed full- or part-time	79%	N=519
Not employed, not looking for work (retired, stay-at-home parent, etc.)	17%	N=111
Currently not employed	4%	N=24
Total	100%	N=654

Table 2: Work Commute Mode Share

Work Commute Mode Share	Average percent of work trips	Number
Average percent of work trips made by walking	10%	N=667
Average percent of work trips made by bike	1%	N=667
Average percent of work trips made by Capital Bikeshare	0%	N=667
Average percent of work trips made by bus	5%	N=667
Average percent of work trips made by driving alone	37%	N=667
Average percent of work trips made by carpooling/driving with others	2%	N=667
Average percent of work trips made Metro rail	10%	N=667
Average percent of work trips made taxi/uber	1%	N=667
Average percent of work trips made by VRE commuter rail	0%	N=667
Average percent of work trips made by working at home	30%	N=667
Average percent of work trips made by other modes	1%	N=667

Table 3: Commute Trips by Employed Respondents via Each Mode in Previous Week

Percent of Employed Respondents Who Made At least One Work Commute Trip via Each Mode in Previous Week	Percent	Number
Percent making any work trips in last week by walking	28%	N=667
Percent making any work trips in last week by bike	5%	N=667
Percent making any work trips in last week by Capital Bikeshare	2%	N=667
Percent making any work trips in last week by bus	16%	N=667
Percent making any work trips in last week by driving alone	58%	N=667
Percent making any work trips in last week by carpooling/driving with others	7%	N=667
Percent making any work trips in last week by Metro rail	30%	N=667
Percent making any work trips in last week by taxi/uber	7%	N=667
Percent making any work trips in last week by VRE commuter rail	1%	N=667
Percent making any work trips in last week by working at home	59%	N=667
Percent making any work trips in last week by other modes	2%	N=667

Table 4: Commute Trips by Employed Respondents via Transit in Previous Week

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Percent of respondents	Number
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	36%	N=667
Took transit AND walked on same day on any day in previous week	20%	N=667
Took transit AND biked on same day on any day in previous week	2%	N=667
Took transit AND biked or walked on same day on any day in previous week	0%	N=667

Table 5: Question #2

Monday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	16%	N=667
Bike	2%	N=667
Capital Bikeshare	1%	N=667
Bus	7%	N=667
Drove alone	37%	N=667
Carpool (drove or rode in a car with others	3%	N=667
Metro rail	14%	N=667
Taxi/ Uber	2%	N=667
VRE commuter rail	1%	N=667
Worked at home	40%	N=667
I did not work	2%	N=667
Other	1%	N=667

Table 6: Question #2

Tuesday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	19%	N=667
Bike	2%	N=667
Capital Bikeshare	0%	N=667
Bus	10%	N=667
Drove alone	41%	N=667
Carpool (drove or rode in a car with others	3%	N=667
Metro rail	18%	N=667
Taxi/ Uber	2%	N=667
VRE commuter rail	1%	N=667
Worked at home	30%	N=667
I did not work	1%	N=667
Other	1%	N=667

Table 7: Question #2

Wednesday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	20%	N=667
Bike	2%	N=667
Capital Bikeshare	1%	N=667
Bus	11%	N=667
Drove alone	42%	N=667
Carpool (drove or rode in a car with others	3%	N=667
Metro rail	20%	N=667
Taxi/ Uber	2%	N=667
VRE commuter rail	0%	N=667
Worked at home	27%	N=667
I did not work	1%	N=667
Other	1%	N=667

Table 8: Question #2

Thursday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	18%	N=667
Bike	2%	N=667
Capital Bikeshare	1%	N=667
Bus	11%	N=667
Drove alone	40%	N=667
Carpool (drove or rode in a car with others	4%	N=667
Metro rail	17%	N=667
Taxi/ Uber	3%	N=667
VRE commuter rail	0%	N=667
Worked at home	30%	N=667
I did not work	2%	N=667
Other	1%	N=667

Table 9: Question #2

Friday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	13%	N=667
Bike	1%	N=667
Capital Bikeshare	1%	N=667
Bus	6%	N=667
Drove alone	33%	N=667
Carpool (drove or rode in a car with others	3%	N=667
Metro rail	10%	N=667
Taxi/ Uber	2%	N=667
VRE commuter rail	0%	N=667
Worked at home	44%	N=667
I did not work	4%	N=667
Other	1%	N=667

Table 10: Question #2

Saturday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	5%	N=667
Bike	0%	N=667
Capital Bikeshare	1%	N=667
Bus	3%	N=667
Drove alone	16%	N=667
Carpool (drove or rode in a car with others	2%	N=667
Metro rail	1%	N=667
Taxi/ Uber	2%	N=667
VRE commuter rail	0%	N=667
Worked at home	4%	N=667
I did not work	99%	N=667
Other	1%	N=667

Table 11: Question #2

Sunday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	6%	N=667
Bike	1%	N=667
Capital Bikeshare	0%	N=667
Bus	2%	N=667
Drove alone	15%	N=667
Carpool (drove or rode in a car with others	2%	N=667
Metro rail	1%	N=667
Taxi/ Uber	1%	N=667
VRE commuter rail	0%	N=667
Worked at home	3%	N=667
I did not work	71%	N=667
Other	1%	N=667

Table 12: Question #3

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Percent	Number
SmartBenefits (Subsidized transit)	53%	N=223
Free Parking	48%	N=203
Pre-Tax Parking	10%	N=44
Other	10%	N=41
Carpool of Vanpool Program	6%	N=25
Bikeshare/Dockless Mobility memberships or bicycle subsidies	6%	N=24

Table 13: Question #4

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Percent	Number
Quickest/most convenient	52%	N=247
Don't usually drive alone to get to work	29%	N=140
Irregular work schedule	26%	N=122
Need/want to make stops/run errands on the way to/from work	22%	N=108
Work reasons/commitments	14%	N=65
Too hard to get to work location from Metro rail station or bus stop	13%	N=63
Need/want to come and go from the workplace during the day	12%	N=59
Privacy	12%	N=59
Too hard to get to Metro rail station or bus stop from home	10%	N=46
Personal reasons/commitments	10%	N=46
Bus or Metro rail is not available or inadequate	9%	N=44
I take a child/children to and/or from school or child care on the way to/ from work	7%	N=34
Driving costs less	7%	N=32
Other:	6%	N=31
Other modes are not safe	6%	N=31
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	5%	N=25
Don't have shower at work if I walk or bike	3%	N=16
Don't want to take a shower at work if bike or walk	3%	N=15

Table 14: Travel Mode for 7 Kinds of Trips

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Percent of respondents	Number
Percent who ever walk	77%	N=667
Percent who ever bike	20%	N=667
Percent who ever use Capital Bikeshare	7%	N=667
Percent who ever bus	20%	N=667
Percent who ever drive	85%	N=667
Percent who ever carpool	32%	N=667
Percent who ever use Metro rail	34%	N=667
Percent who ever use a taxi/uber	31%	N=667
Percent who ever do something else	8%	N=667

Table 15: Question #5

Parks & recreation centers	Percent of respondents	Number
I did not do this activity	25%	N=667
Walk	52%	N=667
Bike	14%	N=667
Capital Bikeshare	2%	N=667
Bus	7%	N=667
Drove alone	40%	N=667
Carpool	9%	N=667
Metro rail	10%	N=667
Taxi/ Uber	6%	N=667
Other	1%	N=667

Table 16: Question #5

Grocery store	Percent of respondents	Number
I did not do this activity	2%	N=667
Walk	43%	N=667
Bike	6%	N=667
Capital Bikeshare	2%	N=667
Bus	7%	N=667
Drove alone	78%	N=667
Carpool	8%	N=667
Metro rail	2%	N=667
Taxi/ Uber	2%	N=667
Other	2%	N=667

Table 17: Question #5

Non-grocery errands	Percent of respondents	Number
I did not do this activity	3%	N=667
Walk	43%	N=667
Bike	8%	N=667
Capital Bikeshare	2%	N=667
Bus	13%	N=667
Drove alone	79%	N=667
Carpool	9%	N=667
Metro rail	10%	N=667
Taxi/ Uber	5%	N=667
Other	2%	N=667

Table 18: Question #5

Restaurants	Percent of respondents	Number
I did not do this activity	8%	N=667
Walk	47%	N=667
Bike	5%	N=667
Capital Bikeshare	2%	N=667
Bus	8%	N=667
Drove alone	55%	N=667
Carpool	22%	N=667
Metro rail	15%	N=667
Taxi/ Uber	17%	N=667
Other	3%	N=667

Table 19: Question #5

Fun or fitness	Percent of respondents	Number
I did not do this activity	11%	N=667
Walk	59%	N=667
Bike	15%	N=667
Capital Bikeshare	3%	N=667
Bus	8%	N=667
Drove alone	49%	N=667
Carpool	13%	N=667
Metro rail	13%	N=667
Taxi/ Uber	9%	N=667
Other	2%	N=667

Table 20: Question #5

Visit friends or family	Percent of respondents	Number
I did not do this activity	11%	N=667
Walk	27%	N=667
Bike	4%	N=667
Capital Bikeshare	1%	N=667
Bus	9%	N=667
Drove alone	65%	N=667
Carpool	18%	N=667
Metro rail	14%	N=667
Taxi/ Uber	12%	N=667
Other	3%	N=667

Table 21: Question #5

Other social activities	Percent of respondents	Number
I did not do this activity	24%	N=667
Walk	26%	N=667
Bike	6%	N=667
Capital Bikeshare	2%	N=667
Bus	11%	N=667
Drove alone	58%	N=667
Carpool	13%	N=667
Metro rail	18%	N=667
Taxi/ Uber	12%	N=667
Other	3%	N=667

Table 22: Question #6

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	Percent	Number
Daily or Near Daily	39%	N=257
Few times per week	29%	N=195
Few times per month	17%	N=112
Never	10%	N=70
One time	4%	N=29
Total	100%	N=662

Table 23: Question #7

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria?	Daily or Near Daily		Few times per week		Few times per month		One time		Never	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Walk	43%	N=271	30%	N=186	14%	N=91	4%	N=25	9%	N=55
Bike	2%	N=14	8%	N=47	9%	N=54	5%	N=29	75%	N=442
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter)	2%	N=9	3%	N=16	5%	N=26	5%	N=28	86%	N=486
Drive alone	46%	N=287	32%	N=200	12%	N=72	1%	N=7	10%	N=61
Private Vehicle – as driver	34%	N=209	20%	N=121	10%	N=63	3%	N=19	33%	N=203
Private Vehicle – as passenger	7%	N=41	19%	N=115	26%	N=154	6%	N=36	42%	N=251
Motorcycle/moped/motorized scooter	0%	N=1	0%	N=2	2%	N=10	2%	N=12	96%	N=560
Taxi, other hired car service	1%	N=5	1%	N=8	17%	N=102	12%	N=74	69%	N=412
Carshare (Zipcar, Hertz OnDemand)	0%	N=2	1%	N=4	1%	N=4	2%	N=9	97%	N=565
Transportation Network Company (TNC such as Uber, Lyft, Via)	1%	N=4	7%	N=39	36%	N=215	17%	N=100	40%	N=241
Rail (Metro rail, commuter rail)	7%	N=44	14%	N=87	24%	N=147	15%	N=94	39%	N=234
DASH Bus	4%	N=27	8%	N=51	12%	N=75	8%	N=46	67%	N=408
Metro Bus	5%	N=29	6%	N=36	9%	N=55	5%	N=32	74%	N=443
Multiple transit systems	3%	N=15	7%	N=42	11%	N=66	6%	N=38	73%	N=426
Carpool/Vanpool	1%	N=7	4%	N=25	7%	N=44	4%	N=25	83%	N=488

Table 24: Question #8

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation:	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Services were more reliable	34%	N=210	39%	N=239	11%	N=69	15%	N=91
Services were more frequent	38%	N=231	38%	N=229	12%	N=72	13%	N=77
There were more direct routes/fewer transfers to destinations	42%	N=257	37%	N=226	10%	N=62	11%	N=70
Services were less expensive	23%	N=137	31%	N=187	22%	N=134	23%	N=139
My travel time was less than if I used a personal vehicle	56%	N=342	22%	N=138	7%	N=41	15%	N=93
There were routes that stop at my desired destinations	39%	N=238	37%	N=223	11%	N=69	13%	N=76
There were routes that stop at or near my home	37%	N=222	36%	N=217	13%	N=79	15%	N=90
I felt safer from crime while riding public transportation	26%	N=159	28%	N=172	26%	N=159	20%	N=123
I felt safer from crime waiting at the station	25%	N=155	30%	N=181	25%	N=153	20%	N=124
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	15%	N=88	36%	N=214	31%	N=183	19%	N=111
Children could ride free on Metro	16%	N=94	24%	N=139	26%	N=153	34%	N=202
Public transportation vehicles were more comfortable	10%	N=58	34%	N=203	32%	N=190	25%	N=148
I do not want to use public transportation	13%	N=78	13%	N=82	19%	N=115	55%	N=337

Table 25: Question #9

In the last month, about how frequently have you done each of the following?	Never		1-10 times a month		11-20 times a month		More than 20 times a month	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Ridden a bicycle for fun or exercise	66%	N=418	27%	N=172	5%	N=30	2%	N=14
Walked, ran, or jogged for fun or exercise	11%	N=71	39%	N=248	23%	N=146	28%	N=179

Table 26: Question #10

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation:	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
There were more sidewalks	34%	N=211	32%	N=197	17%	N=106	16%	N=98
There were more crosswalks	34%	N=208	29%	N=177	22%	N=132	15%	N=90
If the sidewalks and paths were in better condition	33%	N=198	36%	N=221	18%	N=111	13%	N=79
There were more off-street walking or multi-use paths/trails	38%	N=227	36%	N=216	14%	N=86	12%	N=75
There was more street lighting after dark	41%	N=255	33%	N=204	16%	N=96	10%	N=61
I had access to workplace showers	9%	N=56	17%	N=102	29%	N=172	44%	N=263
I felt more safe from traffic while walking	30%	N=187	32%	N=199	22%	N=133	16%	N=98
I felt more safe from crime while walking	27%	N=169	30%	N=189	24%	N=149	18%	N=114
It didn’t take longer to walk to my destinations than to drive	35%	N=212	30%	N=182	21%	N=129	15%	N=91
I do not want to walk as a means of transportation	13%	N=82	13%	N=80	22%	N=133	52%	N=321

Table 27: Question #11

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation:	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
There were more on-street bike lanes	26%	N=150	25%	N=141	13%	N=76	36%	N=202
There were more off-street bike or multi-use paths/trails	35%	N=198	27%	N=151	9%	N=54	29%	N=162
There was more street lighting after dark	32%	N=183	25%	N=145	13%	N=74	29%	N=166
I had access to a bicycle	20%	N=113	20%	N=113	16%	N=89	44%	N=246
I had access to an electric/pedal assist bicycle	15%	N=86	22%	N=121	20%	N=110	44%	N=245
I had access to workplace showers	13%	N=72	18%	N=104	20%	N=114	49%	N=273
I had a place to securely store a bicycle at work	19%	N=107	25%	N=139	16%	N=87	40%	N=226
There were places to securely park a bicycle at other destinations	29%	N=165	29%	N=164	12%	N=66	30%	N=167
I felt more safe from traffic while riding a bicycle	41%	N=235	16%	N=88	14%	N=82	29%	N=164
I felt more safe from crime while riding a bicycle	16%	N=92	19%	N=109	31%	N=173	34%	N=190
It didn't take longer to ride a bicycle to my destinations than to drive	24%	N=137	24%	N=134	19%	N=109	33%	N=184
I knew how to ride a bike	10%	N=55	8%	N=43	10%	N=54	73%	N=403
If there were more Capital Bikeshare stations	9%	N=51	19%	N=106	25%	N=136	46%	N=254
I do not want to use a bicycle as a means of transportation	31%	N=186	19%	N=114	15%	N=89	35%	N=212

Table 28: Question #12

Do you have school-aged children?	Percent	Number
No	88%	N=570
Yes	12%	N=78
Total	100%	N=649

Table 29: Question #13

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Percent	Number
Driven by caregiver	51%	N=40
Walk	44%	N=34
School bus	32%	N=25
Bike	12%	N=10
Drive themselves alone	10%	N=8
Public transportation	9%	N=7
Carpool	8%	N=6
Driven by taxi, Uber, Lyft, etc.	1%	N=1
Other	0%	N=0

Table 30: Question #14

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Percent	Number
Distance to school	46%	N=28
Inconvenient to use other modes	39%	N=24
Not safe	37%	N=23
Takes too long to use other modes	30%	N=19
Other	22%	N=14
Lack of sidewalks, bike lanes	21%	N=13
Cost	8%	N=5
Do not have access to a bicycle	8%	N=5
Do not have access to public transportation	2%	N=1

Appendix B: Verbatim Answers to Open-Ended Questions

Following are verbatim responses to open-ended questions. Because these responses were written by survey participants, they are presented here in verbatim form, including any typographical, grammatical or other mistakes. Within each question the responses are in alphabetical order.

Q4 If you typically drive alone to get to work, which of the following are the main reasons?

- A 15 minute drive takes 1 to 1 1/2 hours and one or two bus changes depend on the route bus take.
- Day care drop off / pick-up.
- Don't drive to work. Commuter.
- Don't drive.
- Don't have a car.
- Drive alone.
- Driving is nearly same cost as metro, and almost more time efficient.
- I commute from VA to MD via Woodrow Wilson Bridge and MD rt 210. There is currently no options for public transit to and from where I need to go. I would gladly take a train or bus if possible.
- I have multiple work locations & not all of them are metro accessible.
- I need mobility help. I can park in my office building's garage and use their electric scooter inside the building.
- I never drive to work.
- I ride a motorcycle
- I ridie a motorcycle year round, I do not have a car. And when I do need to take alternative transportation it is always bus and metro because I will always prefer public transportation over being in
- I work from home full-time
- I would actually prefer to take Metro to work (would need to bus to the Braddock Station), but certain health restrictions make this difficult.
- Metro takes 3x as long.
- Metro takes longer, is too unreliable with massive disruptions that can impact my ability to pick up my kids, and is still a Covid risk for me
- Most weeks I work out of town, so most travel is to the airport from and then air travel to destination.
- Need to commute to other work sites throughout the city frequently
- Need to travel throughout the city for work during the day.
- No bike lanes (dedicated) x my husband drives me so he can use the car.
- NO CAR EVER.
- No safe place to park bike at work (theft & weather), 22202.
- Retired.
- Retired.
- Retired.
- Security of high dollar equipment - ie. multiple laptops
- SELF-EMPLOYED AS A RETIREE - HUBBY BUSINESS.
- Strict start times require faster transportation (daycare open time + commute)
- Takes too long
- The buses run too far apart
- Transport mode varies by season / early darkness.
- Weather
- Work remotely as employer is in Georgia

Q15: If your children are driven to school or drive themselves, which, if any, of the following factors keep your child(ren) from walking, biking, or taking school bus or public transportation to/from school (Select all that apply):

- Age, they're young.
- Back pack too heavy.
- Bookbag load is too much
- General Age of Children
- I'd can't drive.
- non-school age younger children who cannot be left alone during drop off and for whom any other form of transportation is highly inconvenient
- NONE.
- Only drive when we are running behind schedule.
- School bus is very crowded
- SOMETIMES TRANSIT APP SCHEDULE NOT ACCURATE.
- There isn't enough space for school public bus so I drive them to school and they don't feel safe in the bus because it doesn't have seats belts in case if it crashes
- Too young to travel independently.
- We enjoy having the commute time together.
- Weather
- WEATHER DEPENDENT.

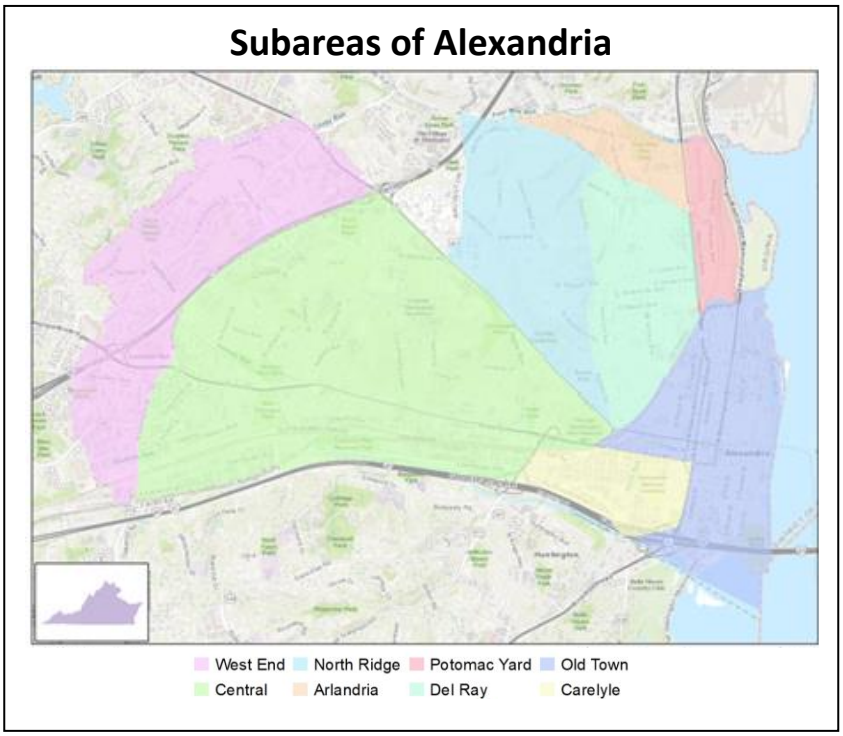
Appendix C: Selected Survey Responses by Area of Residence

Understanding the Crosstabulation Tables

The subgroup comparison tables contain the cross tabulations of the resident survey questions by various respondent demographic characteristics, in this appendix area of residence. Chi-square or ANOVA tests of significance were applied to these breakdowns of survey questions. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of the sample represent "real" differences among those populations. As subgroups vary in size and each group has a unique margin of error, statistical testing is used to determine whether differences between subgroups are statistically significant.

Each column in the following tables is labeled with a letter for each subgroup being compared. The letters start over with "A" for each different characteristic. (For example, the Areas below are marked "A" through "E".)

For each pair of subgroup ratings within a characteristic within a row that has a statistically significant difference, an uppercase letter denoting significance is shown in the cell with the larger column proportion. The letter denotes the subgroup with the smaller column proportion from which it is statistically different. Subgroups that have no uppercase letter denotation in their column and that are also not referred to in any other column were not statistically different.



This survey used 8 different geographical areas, although 4 of them (North Ridge, Arlandia, Potomac Yard and Carelyle) were grouped for analysis purposes.

Looking at Table 31: Question #1 by Area the next page, the responses were not statistically significantly different, as there are no Upper-Case Letters denoting difference. However, in Table 32: Work Commute Mode Share by Area, the "Average percent of work trips made by walking" (first row) shows that Old Town (E) was statistically higher than Central (B) and North Ridge/ Arlandia/ Potomac Yard/ Carelyle (C).

Table 31: Question #1 by Area

What is your employment status?	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Employed full- or part-time	76%	77%	82%	86%	79%	79%
Not employed, not looking for work (retired, stay-at-home parent, etc.)	20%	20%	14%	11%	17%	17%
Currently not employed	4%	3%	4%	3%	4%	4%

Table 32: Work Commute Mode Share by Area

Work Commute Mode Share	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Average percent of work trips made by walking	11%	6%	8%	11%	15% B C	10%
Average percent of work trips made by bike	0%	1%	2%	4%	1%	1%
Average percent of work trips made by Capital Bikeshare	0%	1%	0%	0%	0%	0%
Average percent of work trips made by bus	11% C D E	5%	5%	3%	3%	5%
Average percent of work trips made by driving alone	41%	43%	34%	32%	35%	37%
Average percent of work trips made by carpooling/driving with others	3%	2%	4%	3%	1%	2%
Average percent of work trips made Metro rail	5%	6%	13% A	12%	12%	10%
Average percent of work trips made taxi/uber	1%	1%	1%	1%	1%	1%
Average percent of work trips made by VRE commuter rail	0%	0%	0%	0%	0%	0%
Average percent of work trips made by working at home	26%	33%	32%	33%	29%	30%
Average percent of work trips made by other modes	1%	0%	1%	0%	2%	1%

Table 33: Commute Trips by Employed Respondents via Each Mode in Previous Week by Area

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Percent making any work trips in last week by walking	29%	23%	25%	30%	34%	28%
Percent making any work trips in last week by bike	3%	3%	8%	10%	2%	5%
Percent making any work trips in last week by Capital Bikeshare	3%	3%	0%	2%	3%	2%
Percent making any work trips in last week by bus	25% C	13%	11%	22%	13%	16%
Percent making any work trips in last week by driving alone	62%	66%	52%	55%	55%	58%
Percent making any work trips in last week by carpooling/driving with others	8%	6%	11%	8%	4%	7%
Percent making any work trips in last week by Metro rail	19%	25%	34%	40% A	35%	30%
Percent making any work trips in last week by taxi/uber	8%	5%	10%	8%	5%	7%
Percent making any work trips in last week by VRE commuter rail	0%	1%	3%	0%	1%	1%
Percent making any work trips in last week by working at home	50%	62%	58%	70%	58%	59%
Percent making any work trips in last week by other modes	1%	3%	1%	1%	5%	2%

Table 34: Commute Trips by Employed Respondents via Transit in Previous Week by Area

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	30%	32%	38%	41%	41%	36%
Took transit AND walked on same day on any day in previous week	19%	12%	17%	26%	25%	20%
Took transit AND biked on same day on any day in previous week	3%	0%	2%	4%	2%	2%
Took transit AND biked or walked on same day on any day in previous week	0%	0%	1%	0%	0%	0%

Table 35: Question #3 by Area

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
SmartBenefits (Subsidized transit)	41%	51%	67% A	53%	54%	53%
Free Parking	52%	47%	42%	52%	49%	48%
Pre-Tax Parking	8%	17%	5%	5%	15%	10%
Other	16%	8%	8%	11%	7%	10%
Carpool of Vanpool Program	8%	2%	9%	5%	5%	6%
Bikeshare/Dockless Mobility memberships or bicycle subsidies	3%	13%	4%	6%	2%	6%

Table 36: Question #4 by Area

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Quickest/most convenient	47%	60%	57%	45%	48%	52%
Don't usually drive alone to get to work	27%	18%	30%	40% B	33%	29%
Irregular work schedule	22%	22%	23%	33%	30%	26%
Need/want to make stops/run errands on the way to/from work	22%	28%	12%	27%	25%	22%
Work reasons/commitments	14%	10%	6%	12%	23% C	14%
Too hard to get to work location from Metro rail station or bus stop	13%	16%	14%	8%	13%	13%
Need/want to come and go from the workplace during the day	6%	18%	9%	16%	14%	12%
Privacy	5%	16%	14%	10%	15%	12%
Too hard to get to Metro rail station or bus stop from home	11%	14%	5%	9%	8%	10%
Personal reasons/commitments	8%	11%	5%	8%	14%	10%
Bus or Metro rail is not available or inadequate	10%	12%	12%	4%	7%	9%
I take a child/children to and/or from school or child care on the way to/ from work	1%	9%	8%	19% A E	4%	7%
Driving costs less	4%	12%	8%	6%	5%	7%
Other:	5%	5%	12%	8%	3%	6%
Other modes are not safe	7%	8%	6%	7%	5%	6%
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	6%	8%	2%	6%	5%	5%
Don't have shower at work if I walk or bike	3%	2%	2%	11%	2%	3%
Don't want to take a shower at work if bike or walk	1%	1%	2%	7%	6%	3%

Table 37: Travel Mode for 7 Kinds of Trips by Area

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Percent who ever walk	64%	67%	78% A	86% A B	91% A B C	77%
Percent who ever bike	10%	17%	26% A	33% A B	20%	20%
Percent who ever use Capital Bikeshare	0%	7%	7%	7%	11% A	7%
Percent who ever bus	29% B	15%	17%	22%	18%	20%
Percent who ever drive	83%	91%	86%	79%	86%	85%
Percent who ever carpool	37%	34%	28%	39%	27%	32%
Percent who ever use Metro rail	18%	28%	44% A	39% A	42% A	34%
Percent who ever use a taxi/uber	23%	25%	30%	31%	44% A B	31%
Percent who ever do something else	8%	4%	7%	10%	8%	8%

Table 38: Question #6 by Area

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic? (Percent daily or a few times week)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Daily or Near Daily	37%	44%	35%	48%	35%	39%
Few times per week	38% D	29%	32%	18%	25%	29%
Few times per month	9%	12%	21%	26% A	21% A	17%
Never	11%	12%	9%	3%	14%	10%
One time	4%	3%	3%	6%	5%	4%

Table 39: Question #7 by Area

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Walk	85%	83%	94% B	98% A B	97% A B	91%
Bike	13%	19%	31% A	38% A B	27%	25%
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter, escooter)	6%	13%	19% A	11%	18%	14%
Drive alone	88%	94%	92%	88%	89%	90%
Private Vehicle – as driver	60%	70%	62%	75%	70%	67%
Private Vehicle – as passenger	52%	63%	51%	60%	64%	58%
Motorcycle, moped, motorized scooter	2%	7%	1%	5%	6%	4%
Taxi, other hired car service	24%	27%	29%	32%	43% A B	31%
Carshare (Zipcar, Hertz OnDemand)	1%	4%	4%	1%	5%	3%
Transportation Network Company (TNC such as Uber, Lyft, Via)	54%	49%	62%	65%	69% B	60%
Rail (Metro rail, commuter rail)	49%	54%	71% A	61%	68% A	61%
DASH Bus	45% B E	23%	35%	32%	28%	33%
Metro Bus	30%	17%	25%	37% B	24%	26%
Multiple transit systems	25%	26%	29%	31%	26%	27%
Carpool, Vanpool	27%	16%	16%	12%	14%	17%

Table 40: Question #8 by Area

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation: (Percent somewhat or strongly agree)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Services were more reliable	80%	71%	78%	72%	68%	74%
Services were more frequent	75%	69%	84% B	76%	74%	76%
There were more direct routes/fewer transfers to destinations	76%	76%	87%	76%	77%	79%
Services were less expensive	65% D	56%	56%	39%	50%	54%
My travel time were less than if I used a personal vehicle	72%	83%	83%	76%	77%	78%
There were routes that stop at my desired destinations	78%	74%	82%	66%	77%	76%
There were routes that stop at or near my home	76%	71%	80%	62%	68%	72%
I felt safer from crime while riding public transportation	65% D	54%	51%	42%	53%	54%
I felt safer from crime waiting at the station	66% D	55%	53%	40%	53%	55%
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	60%	59%	45%	42%	44%	51%
Children could ride free on Metro	57% C D E	48% E	36%	31%	26%	40%
Public transportation vehicles were more comfortable	61% B D E	41%	45% D	22%	39%	44%
I do not want to use public transportation	27%	40% C E	18%	23%	24%	26%

Table 41: Question #9 by Area

In the last month, about how frequently have you done each of the following? (Percent ever)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Ridden a bicycle for fun or exercise	22%	32%	42% A	43% A	34%	34%
Walked, ran, or jogged for fun or exercise	84%	86%	92%	95%	90%	89%

Table 42: Question #10 by Area

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation: (Percent somewhat or strongly agree)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
There were more sidewalks	77%	62%	67%	60%	64%	67%
There were more crosswalks	72%	61%	62%	58%	62%	63%
If the sidewalks and paths were in better condition	76%	69%	67%	64%	66%	69%
There was more off-street walking or multi-use paths,trails	71%	68%	73%	73%	80%	73%
There was more street lighting after dark	78%	75%	70%	68%	79%	75%
I had access to public or workplace showers	32%	34% E	23%	29%	18%	27%
I felt more safe from traffic while walking	63%	60%	64%	65%	61%	63%
I felt more safe from crime while walking	64%	51%	49%	58%	65% C	58%
It didn’t take longer to walk to my destinations than to drive	68%	72%	58%	65%	59%	64%
I do not want to walk as a means of transportation	29%	35%	22%	19%	25%	26%

Table 43: Question #11 by Area

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
There were more on-street bike lanes	47%	47%	52%	64%	50%	51%
There was more off-street bike or multi-use paths, trails	55%	58%	66%	69%	63%	62%
There was more street lighting after dark	53%	58%	57%	61%	60%	58%
I had access to a bicycle	53% B	31%	38%	37%	39%	40%
I had access to an electric/pedal assist bicycle	42%	35%	40%	33%	33%	37%
I had access to public or workplace showers	34%	33%	29%	30%	30%	31%
I had a place to securely store a bicycle at work	52%	38%	45%	41%	42%	44%
There were places to securely park a bicycle at other destinations	61%	46%	63%	64%	60%	59%
I felt more safe from traffic while riding a bicycle	43%	51%	64% A	67% A	61% A	57%
I felt more safe from crime while riding a bicycle	39%	31%	35%	36%	36%	36%
It didn't take longer to ride a bicycle to my destinations than to drive	51%	47%	47%	46%	48%	48%
I knew how to ride a bike	20%	26%	17%	10%	13%	18%
If there were more Capital Bikeshare stations	33%	35%	27%	26%	23%	29%
I do not want to use a bicycle as a means of transportation	66% C D E	54%	40%	42%	47%	50%

Table 44: Question #12 by Area

Do you have school-aged children?	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
No	95% C D	86%	83%	77%	93% D	88%
Yes	5%	14%	17% A	23% A E	7%	12%

Table 45: Question #13 by Area

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Driven by caregiver	40%	54%	33%	69%	57%	51%
Walk	0%	41%	47%	60%	42%	44%
School bus	60%	41%	39%	21%	4%	32%
Bike	0%	21%	11%	19%	0%	12%
Drive themselves alone	14%	9%	9%	6%	18%	10%
Public transportation	26%	13%	6%	0%	13%	9%
Carpool	0%	8%	9%	16%	0%	8%
Driven by taxi, Uber, Lyft, etc.	0%	5%	0%	0%	0%	1%
Other	0%	0%	0%	0%	0%	0%

Table 46: Question #14 by Area

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Area					Overall
	West End	Central	North Ridge/ Arlandia/ Potomac Yard/ Carelyle	Del Ray	Old Town	(A)
	(A)	(B)	(C)	(D)	(E)	
Distance to school	75%	39%	55%	47%	16%	46%
Inconvenient to use other modes	35%	17%	43%	57%	53%	39%
Not safe	60%	58%	29%	10%	28%	37%
Takes too long to use other modes	12%	20%	50%	41%	16%	30%
Other	35%	22%	7%	32%	22%	22%
Lack of sidewalks, bike lanes	22%	17%	36%	20%	5%	21%
Cost	22%	0%	16%	7%	0%	8%
Do not have access to a bicycle	40%	0%	4%	7%	0%	8%
Do not have access to public transportation	0%	0%	8%	0%	0%	2%

Appendix D: Selected Survey Responses by Respondent Characteristics

The tables in this Appendix display survey results by selected respondent characteristics. An explanation of how to interpret statistical differences can be found in *Appendix C: Selected Survey Responses by Area of Residence* on page 38.

Note that there are five variables used for cross-tabulations in this appendix (Household has private vehicle(s); Household has bicycle(s); Use Google Maps or Waze monthly; Commuter free or pre-tax parking (Employed only); Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)), statistical tests compare the two categories within the variable (i.e., whether those who say yes (A) are different from those who say no (B)), they do not compare across variables (i.e., tests do not indicate if those with a private vehicle have a statistically different response than those who don't have a bicycle).

By Travel Amenities

Table 47: Question #1 by Travel Amenities

What is your employment status?	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Employed full- or part-time	81% B	66%	83%	78%	85%	89%	100%	100%	100%	100%	79%
Not employed, not looking for work (retired, stay-at-home parent, etc.)	16%	21%	14%	18%	11%	10%	.	.	.	.	17%
Currently not employed	3%	13% A	3%	4%	4%	1%	.	.	.	.	4%

Table 48: Work Commute Mode Share by Travel Amenities

Work Commute Mode Share	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Average percent of work trips made by walking	10%	23% A	10%	11%	7%	14% A	6%	13% A	12% B	8%	10%
Average percent of work trips made by bike	1%	0%	3% B	0%	0%	2% A	2%	1%	2% B	1%	1%
Average percent of work trips made by Capital Bikeshare	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Average percent of work trips made by bus	4%	19% A	4%	6%	3%	5%	4%	6%	6%	5%	5%
Average percent of work trips made by driving alone	40% B	0%	41% B	32%	47% B	28%	54% B	23%	27%	46% A	37%
Average percent of work trips made by carpooling/driving with others	2%	0%	3%	2%	2%	3%	3%	2%	2%	2%	2%
Average percent of work trips made Metro rail	8%	28% A	8%	11%	7%	12% A	4%	14% A	15% B	5%	10%
Average percent of work trips made taxi/uber	1%	3% A	1%	2%	1% B	0%	0%	2% A	1%	1%	1%
Average percent of work trips made by VRE commuter rail	0%	0%	0%	0%	0%	0%	0%	0%	0% B	0%	0%
Average percent of work trips made by working at home	31%	24%	28%	34% A	30%	34%	25%	36% A	32%	30%	30%
Average percent of work trips made by other modes	1%	2%	0%	1%	1%	0%	1%	1%	0%	1%	1%

Table 49: Commute Trips by Employed Respondents via Each Mode in Previous Week by Travel Amenities

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Percent making any work trips in last week by walking	26%	64% A	30%	27%	21%	37% A	17%	37% A	37% B	20%	28%
Percent making any work trips in last week by bike	5%	0%	11% B	0%	3%	6%	5%	5%	7% B	3%	5%
Percent making any work trips in last week by Capital Bikeshare	2%	0%	3%	2%	2%	3%	2%	2%	3% B	1%	2%
Percent making any work trips in last week by bus	12%	64% A	15%	17%	13%	15%	11%	20% A	22% B	12%	16%
Percent making any work trips in last week by driving alone	62% B	4%	67% B	49%	69% B	50%	80% B	40%	49%	66% A	58%
Percent making any work trips in last week by carpooling/driving with others	8%	4%	9%	7%	6%	11%	6%	9%	10%	6%	7%
Percent making any work trips in last week by Metro rail	27%	77% A	30%	31%	24%	38% A	16%	42% A	45% B	19%	30%
Percent making any work trips in last week by taxi/uber	6%	21% A	6%	9%	8%	4%	3%	10% A	9%	6%	7%
Percent making any work trips in last week by VRE commuter rail	1%	0%	2%	0%	0%	2%	0%	2% A	2% B	0%	1%
Percent making any work trips in last week by working at home	59%	65%	56%	62%	57%	63%	53%	65% A	70% B	51%	59%
Percent making any work trips in last week by other modes	2%	2%	1%	4%	4% B	0%	4%	1%	1%	3%	2%

Table 50: Commute Trips by Employed Respondents via Transit in Previous Week by Travel Amenities

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	32%	88% A	34%	39%	28%	44% A	22%	49% A	51% B	25%	36%
Took transit AND walked on same day on any day in previous week	17%	56% A	21%	19%	14%	25% A	10%	28% A	32% B	10%	20%
Took transit AND biked on same day on any day in previous week	2%	0%	4% B	0%	1%	3%	2%	2%	2%	2%	2%
Took transit AND biked or walked on same day on any day in previous week	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%	0%

Table 51: Question #3 by Travel Amenities

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
SmartBenefits (Subsidized transit)	52%	71%	49%	57%	42%	61% A	34%	79% A	95%	0%	53%
Free Parking	50% B	16%	60% B	39%	56% B	41%	83%	0%	27%	76% A	48%
Pre-Tax Parking	11%	0%	7%	9%	9%	8%	18%	0%	10%	10%	10%
Other	9%	20%	9%	11%	8%	11%	4%	19% A	4%	17% A	10%
Carpool of Vanpool Program	6%	2%	7%	6%	8%	5%	6%	7%	11%	0%	6%
Bikeshare/Dockless Mobility memberships or bicycle subsidies	6%	0%	6%	5%	3%	9% A	4%	8%	10%	0%	6%

Table 52: Question #4 by Travel Amenities

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Quickest/most convenient	54% B	8%	59% B	44%	64% B	38%	63% B	41%	43%	59% A	52%
Don't usually drive alone to get to work	26%	82% A	27%	35%	18%	39% A	14%	45% A	40% B	22%	29%
Irregular work schedule	27% B	2%	32% B	20%	33% B	22%	34% B	18%	21%	30% A	26%
Need/want to make stops/run errands on the way to/from work	24% B	3%	24%	19%	24%	18%	29% B	15%	23%	21%	22%
Work reasons/commitments	14%	5%	10%	15%	20% B	7%	18% B	9%	13%	14%	14%
Too hard to get to work location from Metro rail station or bus stop	14%	0%	14%	13%	16%	10%	17% B	9%	9%	17% A	13%
Need/want to come and go from the workplace during the day	13%	0%	14%	9%	17% B	8%	18% B	7%	13%	12%	12%
Privacy	13%	7%	13%	12%	16% B	9%	13%	12%	11%	14%	12%
Too hard to get to Metro rail station or bus stop from home	10%	0%	9%	11%	15% B	6%	13% B	6%	10%	9%	10%
Personal reasons/commitments	10%	2%	9%	8%	10%	8%	15% B	5%	12%	8%	10%
Bus or Metro rail is not available or inadequate	10%	0%	10%	10%	13%	7%	12% B	7%	6%	12% A	9%
I take a child/children to and/or from school or child care on the way to/ from work	8%	0%	14% B	2%	10%	5%	10%	5%	9%	6%	7%
Driving costs less	7%	3%	10% B	4%	10%	5%	12% B	2%	6%	7%	7%

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Other:	6%	10%	6%	6%	8%	5%	6%	7%	6%	6%	6%
Other modes are not safe	7%	0%	10% B	4%	8%	7%	9%	4%	7%	6%	6%
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	5%	0%	6%	5%	6%	3%	7%	3%	6%	5%	5%
Don't have shower at work if I walk or bike	4%	0%	5%	2%	5%	2%	4%	3%	2%	4%	3%
Don't want to take a shower at work if bike or walk	3%	0%	4%	2%	2%	3%	5% B	1%	3%	3%	3%

Table 53: Travel Mode for 7 Kinds of Trips by Travel Amenities

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Percent who ever walk	77%	86%	86% B	73%	77%	82%	76%	77%	82% B	72%	77%
Percent who ever bike	20%	23%	43% B	3%	23%	21%	22%	21%	24%	19%	20%
Percent who ever use Capital Bikeshare	6%	17% A	9% B	4%	8%	8%	8%	7%	9%	6%	7%
Percent who ever bus	15%	74% A	17%	22%	18%	19%	16%	21%	20%	17%	20%
Percent who ever drive	92% B	11%	90% B	82%	91%	90%	90% B	83%	87%	86%	85%
Percent who ever carpool	33% B	20%	32%	34%	32%	40%	33%	34%	42% B	27%	32%
Percent who ever use Metro rail	32%	60% A	36%	33%	28%	38% A	30%	43% A	48% B	28%	34%
Percent who ever use a taxi/uber	28%	63% A	28%	34%	36%	30%	32%	35%	35%	33%	31%
Percent who ever do something else	7%	19% A	8%	8%	5%	4%	8%	7%	7%	7%	8%

Table 54: Question #6 by Travel Amenities

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Daily or Near Daily	40% B	26%	43%	36%	100%	0%	48% B	37%	35%	48% A	39%
Few times per week	31% B	11%	30%	30%	0%	100%	28%	38% A	39% B	29%	29%
Few times per month	17%	17%	16%	16%	0%	0%	16%	15%	17%	14%	17%
Never	8%	33% A	7%	11%	0%	0%	5%	7%	6%	6%	10%
One time	3%	13% A	3%	6%	0%	0%	3%	4%	4%	4%	4%

Table 55: Question #7 by Travel Amenities

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Walk	91%	95%	94% B	89%	92%	93%	93%	92%	94%	91%	91%
Bike	24%	34%	52% B	2%	26%	26%	28%	24%	26%	26%	25%
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter, e-scooter)	13%	24% A	18% B	10%	18%	12%	15%	16%	18%	13%	14%
Drive alone	96% B	21%	96% B	85%	96%	93%	95% B	87%	91%	91%	90%
Private Vehicle – as driver	70% B	26%	73% B	61%	73%	67%	70% B	61%	67%	64%	67%
Private Vehicle – as passenger	56%	74% A	64% B	52%	60%	58%	60%	54%	59%	55%	58%
Motorcycle, moped, motorized scooter	4%	4%	5%	3%	5%	4%	4%	4%	4%	5%	4%
Taxi, other hired car service	27%	72% A	33%	28%	35% B	24%	31%	31%	26%	35%	31%
Carshare (Zipcar, Hertz OnDemand)	2%	11% A	3%	3%	4%	2%	1%	4%	2%	4%	3%
Transportation Network Company (TNC such as Uber, Lyft, Via)	57%	85% A	57%	61%	68%	61%	63%	66%	70% B	60%	60%
Rail (Metro rail, commuter rail)	60%	84% A	64%	59%	57%	71% A	57%	73% A	81% B	54%	61%
DASH Bus	28%	79% A	33%	33%	29%	42% A	29%	39% A	43% B	27%	33%
Metro Bus	20%	83% A	26%	25%	26%	22%	20%	30% A	34% B	18%	26%
Multiple transit systems	24%	65% A	31% B	23%	25%	29%	24%	32%	39% B	19%	27%

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Carpool, Vanpool	17%	16%	16%	18%	16%	22%	24% B	15%	22%	17%	17%
Paratransit (DOT Paratransit, Metro Access)	2%	5%	2% B	0%	2%	2%	2%	2%	1%	2%	2%

Table 56: Question #8 by Travel Amenities

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation: (Percent somewhat or strongly agree)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Services were more reliable	73%	86% A	72%	76%	77%	79%	78%	79%	82%	75%	74%
Services were more frequent	74%	90% A	75%	77%	79%	80%	78%	82%	85% B	76%	76%
There were more direct routes/fewer transfers to destinations	78%	86%	77%	80%	82%	82%	81%	83%	87% B	78%	79%
Services were less expensive	52%	78% A	49%	59% A	58%	56%	60%	53%	49%	61% A	54%
My travel time were less than if I used a personal vehicle	81% B	49%	80%	77%	87% B	78%	84%	78%	83%	79%	78%
There were routes that stop at my desired destinations	77%	68%	72%	79% A	77%	78%	80%	78%	81%	77%	76%
There were routes that stop at or near my home	71%	82%	69%	75%	76%	75%	74%	74%	75%	73%	72%
I felt safer from crime while riding public transportation	54%	52%	46%	61% A	58%	53%	55%	53%	51%	57%	54%
I felt safer from crime waiting at the station	55%	50%	49%	61% A	57%	58%	59%	54%	54%	58%	55%
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	50%	53%	43%	56% A	55%	54%	51%	51%	50%	51%	51%
Children could ride free on Metro	39%	45%	39%	40%	49% B	36%	42%	37%	37%	41%	40%
Public transportation vehicles were more comfortable	43%	47%	38%	48% A	47%	47%	46%	42%	40%	47%	44%
I do not want to use public transportation	27% B	14%	25%	27%	28%	22%	31% B	15%	14%	29% A	26%

Table 57: Question #9 by Travel Amenities

In the last month, about how frequently have you done each of the following? (Percent ever)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Ridden a bicycle for fun or exercise	33%	46% A	63% B	11%	41%	32%	40%	32%	37%	35%	34%
Walked, ran or jogged for fun or exercise	89%	86%	93% B	87%	92%	93%	91%	90%	91%	89%	89%

Table 58: Question #10 by Travel Amenities

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation: (Percent somewhat or strongly agree)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
There were more sidewalks	66%	67%	64%	69%	67%	73%	66%	67%	66%	67%	67%
There were more crosswalks	62%	76% A	64%	62%	66%	68%	62%	64%	64%	62%	63%
If the sidewalks and paths were in better condition	67%	83% A	67%	70%	69%	74%	68%	69%	72%	66%	69%
There was more off-street walking or multi-use paths, trails	72%	88% A	73%	72%	74%	79%	80%	72%	77%	74%	73%
There was more street lighting after dark	74%	75%	69%	79% A	75%	84% A	79%	75%	79%	75%	75%
I had access to public or workplace showers	27%	17%	29%	23%	32%	27%	30%	28%	32%	27%	27%
I felt more safe from traffic while walking	62%	64%	61%	64%	62%	69%	65%	65%	66%	64%	63%
I felt more safe from crime while walking	58%	55%	48%	66% A	58%	61%	59%	58%	52%	64% A	58%
It didn't take longer to walk to my destinations than to drive	65%	55%	57%	71% A	66%	72%	69%	65%	69%	65%	64%
I do not want to walk as a means of transportation	26%	25%	20%	29% A	27% B	17%	25%	20%	19%	25%	26%

Table 59: Question #11 by Travel Amenities

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
There were more on-street bike lanes	50%	60%	62% B	42%	54%	53%	55%	52%	58%	50%	51%
There was more off-street bike or multi-use paths, trails	62%	63%	74% B	50%	66%	62%	69%	62%	69%	63%	62%
There was more street lighting after dark	57%	69%	66% B	49%	63%	57%	63%	57%	60%	59%	58%
I had access to a bicycle	38%	61% A	27%	52% A	42%	47%	42%	44%	44%	43%	40%
I had access to an electric/pedal assist bicycle	37%	37%	30%	43% A	38%	42%	38%	41%	44%	35%	37%
I had access to public or workplace showers	32%	20%	33%	29%	34%	31%	40%	32%	37%	35%	31%
I had a place to securely store a bicycle at work	44%	44%	47%	40%	49%	44%	46%	49%	48%	47%	44%
There were places to securely park a bicycle at other destinations	59%	52%	67% B	51%	64%	58%	64%	61%	65%	60%	59%
I felt more safe from traffic while riding a bicycle	55%	75% A	66% B	49%	59%	57%	62%	58%	60%	60%	57%
I felt more safe from crime while riding a bicycle	35%	45%	38%	34%	42% B	32%	42%	37%	30%	47% A	36%
It didn't take longer to ride a bicycle to my destinations than to drive	48%	51%	51%	46%	51%	50%	59% B	42%	52%	48%	48%
I knew how to ride a bike	17%	26%	13%	22% A	20%	14%	17%	16%	11%	21% A	18%
If there were more Capital Bikeshare stations	28%	33%	27%	31%	31%	30%	33%	30%	34%	29%	29%

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
I do not want to use a bicycle as a means of transportation	49%	59%	29%	67% A	39%	52% A	42%	50%	46%	46%	50%

Table 60: Question #12 by Travel Amenities

Do you have school-aged children?	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
No	87%	96%	79%	96% A	84%	88%	89%	85%	87%	87%	88%
Yes	13%	4%	21% B	4%	16%	12%	11%	15%	13%	13%	12%

Table 61: Question #13 by Travel Amenities

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Driven by caregiver	52%	19%	51%	48%	58%	42%	59%	41%	51%	45%	51%
Walk	45%	0%	53% B	18%	44%	43%	47%	48%	58%	39%	44%
School bus	30%	100%	29%	40%	26%	40%	29%	29%	19%	37%	32%
Bike	13%	0%	16%	0%	13%	12%	3%	22% A	26% B	4%	12%
Drive themselves alone	11%	0%	13%	0%	13%	5%	11%	10%	10%	11%	10%
Public transportation	9%	0%	9%	14%	2%	23% A	8%	12%	12%	9%	9%
Carpool	8%	0%	10%	0%	13%	4%	7%	11%	8%	10%	8%
Driven by taxi, Uber, Lyft, etc.	1%	0%	2%	0%	2%	0%	0%	0%	0%	0%	1%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 62: Question #14 by Travel Amenities

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Household has private vehicle(s)		Household has bicycle(s)		Use Google Maps or Waze monthly		Commuter free or pre-tax parking (Employed only)		Commuter SmartBenefits, Car/Vanpool or Bikeshare or Bike subsidies (Employed Only)		Overall
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	(A)
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	
Distance to school	48%	19%	45%	54%	36%	72% A	47%	42%	47%	42%	46%
Inconvenient to use other modes	42%	0%	45%	30%	33%	40%	42%	47%	29%	55%	39%
Not safe	37%	0%	31%	55%	38%	32%	34%	28%	26%	34%	37%
Takes too long to use other modes	31%	19%	40% B	8%	29%	27%	25%	39%	32%	33%	30%
Other	23%	0%	23%	31%	24%	22%	20%	18%	27%	14%	22%
Lack of sidewalks, bike lanes	22%	19%	23%	24%	13%	39% A	23%	23%	25%	22%	21%
Cost	6%	81% A	1%	39% A	3%	15%	10%	3%	3%	9%	8%
Do not have access to a bicycle	8%	0%	1%	24% A	3%	24% A	10%	3%	3%	9%	8%
Do not have access to public transportation	2%	0%	3%	0%	2%	4%	5%	0%	6%	0%	2%

By Presence of School-age Children in Household and Respondent Age

Table 63: Question #1 by Children and Age

What is your employment status?	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Employed full- or part-time	87%	79%	92% C	95% C	46%	79%
Not employed, not looking for work (retired, stay-at-home parent, etc.)	4%	18% A	6%	2%	49% A B	17%
Currently not employed	9% B	3%	2%	4%	5%	4%

Table 64: Work Commute Mode Share by Children and Age

Work Commute Mode Share	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Average percent of work trips made by walking	9%	10%	14% C	9%	7%	10%
Average percent of work trips made by bike	4% B	1%	1%	1%	2%	1%
Average percent of work trips made by Capital Bikeshare	0%	0%	0%	0%	1%	0%
Average percent of work trips made by bus	3%	6%	6%	4%	8%	5%
Average percent of work trips made by driving alone	44%	37%	32%	41%	39%	37%
Average percent of work trips made by carpooling/driving with others	4%	2%	2%	2%	2%	2%
Average percent of work trips made Metro rail	9%	10%	12% C	9%	6%	10%
Average percent of work trips made taxi/uber	2%	1%	1%	1%	2%	1%
Average percent of work trips made by VRE commuter rail	0%	0%	0%	0%	1%	0%
Average percent of work trips made by working at home	22%	32% A	31%	30%	31%	30%
Average percent of work trips made by other modes	1%	1%	0%	1%	1%	1%

Table 65: Commute Trips by Employed Respondents via Each Mode in Previous Week by Children and Age

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Percent making any work trips in last week by walking	29%	29%	36% C	27%	16%	28%
Percent making any work trips in last week by bike	11% B	4%	5%	4%	3%	5%
Percent making any work trips in last week by Capital Bikeshare	3%	2%	3%	2%	2%	2%
Percent making any work trips in last week by bus	15%	16%	18%	15%	15%	16%
Percent making any work trips in last week by driving alone	67%	57%	52%	63%	58%	58%
Percent making any work trips in last week by carpooling/driving with others	18% B	6%	6%	9%	6%	7%
Percent making any work trips in last week by Metro rail	32%	30%	37% C	29%	18%	30%
Percent making any work trips in last week by taxi/uber	13% B	6%	6%	7%	10%	7%
Percent making any work trips in last week by VRE commuter rail	0%	1%	0%	1%	3%	1%
Percent making any work trips in last week by working at home	55%	60%	63% C	61%	47%	59%
Percent making any work trips in last week by other modes	4%	2%	1%	3%	5%	2%

Table 66: Commute Trips by Employed Respondents via Transit in Previous Week by Children and Age

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	33%	37%	43% C	34%	28%	36%
Took transit AND walked on same day on any day in previous week	21%	20%	25% C	18%	13%	20%
Took transit AND biked on same day on any day in previous week	3%	2%	4%	1%	0%	2%
Took transit AND biked or walked on same day on any day in previous week	0%	0%	1%	0%	0%	0%

Table 67: Question #3 by Children and Age

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
SmartBenefits (Subsidized transit)	62%	53%	54%	58%	42%	53%
Free Parking	42%	48%	49%	42%	62% B	48%
Pre-Tax Parking	16%	10%	7%	16% A	5%	10%
Other	16%	9%	9%	10%	10%	10%
Carpool of Vanpool Program	4%	6%	7%	7%	4%	6%
Bikeshare/Dockless Mobility memberships or bicycle subsidies	9%	5%	6%	7%	1%	6%

Table 68: Question #4 by Children and Age

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Quickest/most convenient	61%	50%	47%	53%	55%	52%
Don't usually drive alone to get to work	31%	29%	38% B C	26%	21%	29%
Irregular work schedule	24%	26%	18%	29% A	36% A	26%
Need/want to make stops/run errands on the way to/from work	33% B	21%	18%	26%	24%	22%
Work reasons/commitments	10%	14%	9%	17%	14%	14%
Too hard to get to work location from Metro rail station or bus stop	11%	14%	15%	11%	16%	13%
Need/want to come and go from the workplace during the day	22% B	11%	8%	13%	17%	12%
Privacy	16%	12%	9%	14%	13%	12%
Too hard to get to Metro rail station or bus stop from home	10%	10%	12%	10%	5%	10%
Personal reasons/commitments	10%	10%	9%	10%	9%	10%
Bus or Metro rail is not available or inadequate	10%	9%	6%	9%	13%	9%
I take a child/children to and/or from school or child care on the way to/ from work	39% B	2%	2%	14% A C	1%	7%
Driving costs less	3%	7%	5%	7%	7%	7%
Other:	7%	6%	4%	9%	8%	6%
Other modes are not safe	11%	6%	3%	9% A	6%	6%
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	5%	5%	3%	7%	5%	5%
Don't have shower at work if I walk or bike	4%	3%	2%	5%	4%	3%
Don't want to take a shower at work if bike or walk	5%	3%	4%	3%	4%	3%

Table 69: Travel Mode for 7 Kinds of Trips by Children and Age

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Percent who ever walk	82%	77%	83% C	79% C	67%	77%
Percent who ever bike	26%	19%	20%	26% C	12%	20%
Percent who ever use Capital Bikeshare	4%	7%	12% C	7% C	0%	7%
Percent who ever bus	12%	21%	27% B C	15%	17%	20%
Percent who ever drive	88%	85%	85%	87%	83%	85%
Percent who ever carpool	39%	32%	39% C	32%	25%	32%
Percent who ever use Metro rail	24%	37% A	45% B C	34%	23%	34%
Percent who ever use a taxi/uber	24%	32%	36% C	34% C	21%	31%
Percent who ever do something else	7%	8%	5%	8%	9%	8%

Table 70: Question #6 by Children and Age

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Daily or Near Daily	52% B	37%	43% C	48% C	23%	39%
Few times per week	29%	30%	43% B C	25%	18%	29%
Few times per month	13%	18%	8%	19% A	25% A	17%
Never	3%	11% A	5%	3%	27% A B	10%
One time	2%	5%	1%	5%	7% A	4%

Table 71: Question #7 by Children and Age

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Walk	88%	92%	96% C	92% C	85%	91%
Bike	40% B	23%	22%	32% C	17%	25%
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter, escooter)	12%	14%	19% C	16% C	3%	14%
Drive alone	97% B	89%	89%	94%	88%	90%
Private Vehicle – as driver	72%	66%	63%	66%	73%	67%
Private Vehicle – as passenger	61%	57%	59%	53%	61%	58%
Motorcycle, moped, motorized scooter	3%	4%	2%	6%	5%	4%
Taxi, other hired car service	38%	30%	25%	33%	37%	31%
Carshare (Zipcar, Hertz OnDemand)	0%	3%	1%	5%	4%	3%
Transportation Network Company (TNC such as Uber, Lyft, Via)	58%	60%	71% C	63% C	41%	60%
Rail (Metro rail, commuter rail)	51%	63%	79% B C	57%	48%	61%
DASH Bus	34%	33%	39%	31%	27%	33%
Metro Bus	27%	25%	32% C	24%	20%	26%
Multiple transit systems	22%	28%	36% B C	24%	21%	27%
Carpool, Vanpool	21%	17%	20% C	19%	10%	17%
Paratransit (DOT Paratransit, Metro Access)	1%	2%	1%	2%	3%	2%

Table 72: Question #8 by Children and Age

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation: (Percent somewhat or strongly agree)	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Services were more reliable	68%	75%	85% C	79% C	51%	74%
Services were more frequent	73%	76%	84% C	80% C	58%	76%
There were more direct routes/fewer transfers to destinations	72%	80%	87% C	83% C	62%	79%
Services were less expensive	31%	58% A	66% B C	52%	42%	54%
My travel time were less than if I used a personal vehicle	81%	78%	82% C	82% C	67%	78%
There were routes that stop at my desired destinations	64%	78% A	83% C	78% C	64%	76%
There were routes that stop at or near my home	64%	73%	81% C	75% C	57%	72%
I felt safer from crime while riding public transportation	36%	56% A	58%	54%	48%	54%
I felt safer from crime waiting at the station	36%	57% A	60%	55%	48%	55%
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	36%	53% A	60% C	49%	40%	51%
Children could ride free on Metro	57% B	37%	40%	43%	34%	40%
Public transportation vehicles were more comfortable	32%	45% A	47%	45%	37%	44%
I do not want to use public transportation	37% B	24%	15%	25% A	38% A B	26%

Table 73: Question #9 by Children and Age

In the last month, about how frequently have you done each of the following? (Percent ever)	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Ridden a bicycle for fun or exercise	52% B	31%	32%	44% A C	22%	34%
Walked, ran, or jogged for fun or exercise	92%	89%	93% C	91% C	81%	89%

Table 74: Question #10 by Children and Age

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation: (Percent somewhat or strongly agree)	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
There were more sidewalks	70%	66%	73% C	69% C	56%	67%
There were more crosswalks	69%	62%	71% C	69% C	47%	63%
If the sidewalks and paths were in better condition	78%	67%	78% C	67%	60%	69%
There was more off-street walking or multi-use paths, trails	74%	73%	86% B C	73% C	59%	73%
There was more street lighting after dark	66%	75%	88% B C	73% C	62%	75%
I had access to public or workplace showers	27%	27%	28%	30% C	18%	27%
I felt more safe from traffic while walking	60%	63%	70% C	60%	58%	63%
I felt more safe from crime while walking	37%	60% A	69% B	48%	57%	58%
It didn't take longer to walk to my destinations than to drive	49%	66% A	80% B C	56%	55%	64%
I do not want to walk as a means of transportation	23%	27%	15%	30% A	35% A	26%

Table 75: Question #11 by Children and Age

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
There were more on-street bike lanes	55%	50%	60% C	54% C	35%	51%
There was more off-street bike or multi-use paths, trails	71%	60%	73% C	62% C	45%	62%
There was more street lighting after dark	58%	58%	68% C	59% C	41%	58%
I had access to a bicycle	21%	43% A	58% B C	36% C	24%	40%
I had access to an electric/pedal assist bicycle	32%	38%	47% C	38% C	22%	37%
I had access to public or workplace showers	30%	32%	40% C	35% C	13%	31%
I had a place to securely store a bicycle at work	39%	45%	56% C	45% C	25%	44%
There were places to securely park a bicycle at other destinations	53%	60%	70% C	60% C	42%	59%
I felt more safe from traffic while riding a bicycle	56%	57%	66% C	57%	45%	57%
I felt more safe from crime while riding a bicycle	32%	36%	38%	38%	30%	36%
It didn't take longer to ride a bicycle to my destinations than to drive	44%	49%	59% B C	47%	36%	48%
I knew how to ride a bike	13%	18%	20%	15%	18%	18%
If there were more Capital Bikeshare stations	26%	29%	39% B C	26%	18%	29%
I do not want to use a bicycle as a means of transportation	33%	52% A	52% B	40%	61% B	50%

Table 76: Question #13 by Children and Age

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Driven by caregiver	51%	0%	64%	51%	42%	51%
Walk	44%	0%	0%	49%	35%	44%
School bus	32%	0%	36%	30%	54%	32%
Bike	12%	0%	0%	15%	0%	12%
Drive themselves alone	10%	0%	0%	8%	51% B	10%
Public transportation	9%	0%	0%	10%	11%	9%
Carpool	8%	0%	0%	8%	0%	8%
Driven by taxi, Uber, Lyft, etc.	1%	0%	0%	0%	16%	1%
Other	0%	0%	0%	0%	0%	0%

Table 77: Question #14 by Children and Age

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Do you have school-aged children?		Age of Respondent			Overall
	Yes	No	18-34	35-54	55+	(A)
	(A)	(B)	(A)	(B)	(C)	
Distance to school	47%	0%	64%	42%	53%	46%
Inconvenient to use other modes	40%	0%	0%	42%	37%	39%
Not safe	36%	0%	100%	26%	58%	37%
Takes too long to use other modes	31%	0%	0%	28%	55%	30%
Other	22%	0%	64%	19%	7%	22%
Lack of sidewalks, bike lanes	22%	0%	0%	24%	25%	21%
Cost	8%	0%	0%	11%	0%	8%
Do not have access to a bicycle	8%	0%	0%	7%	24%	8%
Do not have access to public transportation	2%	0%	0%	1%	11%	2%

By Respondent Gender, Race, and Ethnicity

Table 78: Question #1 by Respondent Gender, Race and Ethnicity

What is your employment status?	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Employed full- or part-time	81%	78%	79%	81%	82%	80%	79%	79%
Not employed, not looking for work (retired, stay-at-home parent)	16%	18%	17%	15%	13%	17%	11%	17%
Currently not employed	4%	4%	3%	4%	5%	2%	10% A	4%

Table 79: Work Commute Mode Share by Respondent Gender, Race and Ethnicity

Work Commute Mode Share	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Average percent of work trips made by walking	10%	11%	9%	14%	11%	10%	12%	10%
Average percent of work trips made by bike	2% B	1%	2%	0%	1%	1%	0%	1%
Average percent of work trips made by Capital Bikeshare	0%	1%	1%	0%	0%	0%	1%	0%
Average percent of work trips made by bus	6%	6%	3%	8% A	9% A	4%	11% A	5%
Average percent of work trips made by driving alone	39%	34%	35%	40%	39%	38%	32%	37%
Average percent of work trips made by carpooling/driving with others	3%	2%	2%	1%	6% A B	2%	2%	2%
Average percent of work trips made Metro rail	11%	8%	11%	7%	10%	9%	11%	10%
Average percent of work trips made taxi/uber	1%	1%	1%	1%	1%	1%	1%	1%
Average percent of work trips made by VRE commuter rail	0%	0%	0%	0%	0%	0%	0%	0%
Average percent of work trips made by working at home	27%	36% A	34% C	29%	21%	31%	30%	30%
Average percent of work trips made by other modes	1%	1%	1%	0%	2%	1%	0%	1%

Table 80: Commute Trips by Employed Respondents via Each Mode in Previous Week by Respondent Gender, Race and Ethnicity

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Percent making any work trips in last week by walking	31%	26%	26%	35%	32%	27%	37%	28%
Percent making any work trips in last week by bike	7% B	2%	6% B	0%	6%	5%	4%	5%
Percent making any work trips in last week by Capital Bikeshare	3%	2%	3%	0%	3%	2%	4%	2%
Percent making any work trips in last week by bus	19%	13%	14%	21%	18%	14%	30% A	16%
Percent making any work trips in last week by driving alone	61%	53%	57%	57%	58%	60%	48%	58%
Percent making any work trips in last week by carpooling/driving with others	10%	5%	7%	4%	13% B	7%	9%	7%
Percent making any work trips in last week by Metro rail	32%	28%	32%	26%	30%	30%	31%	30%
Percent making any work trips in last week by taxi/uber	8%	7%	8%	7%	5%	7%	10%	7%
Percent making any work trips in last week by VRE commuter rail	1%	1%	1%	1%	0%	1%	0%	1%
Percent making any work trips in last week by working at home	58%	62%	63% C	59%	46%	59%	59%	59%
Percent making any work trips in last week by other modes	3%	2%	2%	2%	4%	3%	0%	2%

Table 81: Commute Trips by Employed Respondents via Transit in Previous Week by Respondent Gender, Race and Ethnicity

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	38%	35%	36%	33%	43%	34%	51% A	36%
Took transit AND walked on same day on any day in previous week	23%	17%	18%	22%	24%	18%	33% A	20%
Took transit AND biked on same day on any day in previous week	3%	1%	2%	0%	3%	1%	4%	2%
Took transit AND biked or walked on same day on any day in previous week	0%	1%	1%	0%	0%	0%	0%	0%

Table 82: Question #3 by Respondent Gender, Race and Ethnicity

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
SmartBenefits (Subsidized transit)	51%	56%	57%	51%	42%	54%	53%	53%
Free Parking	53% B	42%	49%	50%	44%	50% B	35%	48%
Pre-Tax Parking	9%	12%	8%	14%	18% A	11%	6%	10%
Other	10%	10%	11%	4%	11%	8%	17% A	10%
Carpool of Vanpool Program	6%	7%	5%	4%	12%	5%	12% A	6%
Bikeshare/Dockless Mobility memberships or bicycle subsidies	7%	4%	5%	8%	7%	5%	8%	6%

Table 83: Question #4 by Respondent Gender, Race and Ethnicity

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Quickest/most convenient	52%	49%	49%	50%	55%	51%	47%	52%
Don't usually drive alone to get to work	29%	31%	32%	24%	29%	29%	35%	29%
Irregular work schedule	27%	24%	25%	34%	19%	26%	24%	26%
Need/want to make stops/run errands on the way to/from work	23%	23%	24%	15%	26%	23%	16%	22%
Work reasons/commitments	18% B	8%	11%	15%	20%	13%	13%	14%
Too hard to get to work location from Metro rail station or bus stop	11%	15%	15% B	5%	15%	12%	17%	13%
Need/want to come and go from the workplace during the day	13%	10%	13%	11%	12%	12%	6%	12%
Privacy	11%	13%	12%	7%	15%	11%	16%	12%
Too hard to get to Metro rail station or bus stop from home	9%	11%	10%	4%	16% B	10%	7%	10%
Personal reasons/commitments	11%	7%	7%	12%	12%	10%	3%	10%
Bus or Metro rail is not available or inadequate	10%	6%	11%	6%	6%	9%	7%	9%
I take a child/children to and/or from school or child care on the way to/ from work	8%	6%	10%	0%	7%	7%	9%	7%
Driving costs less	8%	5%	6%	8%	5%	7%	4%	7%
Other:	4%	9% A	6%	6%	6%	6%	12%	6%
Other modes are not safe	5%	6%	5%	4%	11%	6%	5%	6%
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	4%	6%	5%	4%	8%	5%	2%	5%
Don't have shower at work if I walk or bike	5%	2%	4%	1%	3%	4%	2%	3%
Don't want to take a shower at work if bike or walk	4%	3%	4%	0%	4%	4%	0%	3%

Table 84: Travel Mode for 7 Kinds of Trips by Respondent Gender, Race and Ethnicity

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Percent who ever walk	80%	74%	81% B	67%	77%	77%	80%	77%
Percent who ever bike	29% B	10%	24% B	14%	15%	19%	25%	20%
Percent who ever use Capital Bikeshare	9% B	4%	7%	4%	9%	7%	8%	7%
Percent who ever bus	19%	21%	16%	26% A	23%	18%	26%	20%
Percent who ever drive	85%	86%	88% B	80%	81%	86%	80%	85%
Percent who ever carpool	33%	31%	33%	36%	26%	33%	29%	32%
Percent who ever use Metro rail	36%	33%	36%	39%	27%	36%	30%	34%
Percent who ever use a taxi/uber	28%	35%	31%	29%	33%	31%	37%	31%
Percent who ever do something else	8%	7%	8%	7%	9%	8%	3%	8%

Table 85: Question #6 by Respondent Gender, Race and Ethnicity

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Daily or Near Daily	43% B	35%	37%	33%	51% A B	38%	45%	39%
Few times per week	27%	32%	29%	34%	27%	30%	30%	29%
Few times per month	18%	16%	20%	16%	10%	19%	11%	17%
Never	10%	11%	10%	13%	6%	10% B	2%	10%
One time	2%	6% A	4%	4%	6%	3%	12% A	4%

Table 86: Question #7 by Respondent Gender, Race and Ethnicity

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Walk	94% B	88%	91%	92%	89%	93% B	83%	91%
Bike	34% B	14%	28%	18%	19%	23%	30%	25%
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter, escooter)	19% B	9%	15%	11%	17%	14%	15%	14%
Drive alone	91%	89%	93% B	82%	89%	91%	86%	90%
Private Vehicle – as driver	72% B	62%	68%	67%	63%	69% B	49%	67%
Private Vehicle – as passenger	57%	58%	55%	63%	59%	59%	52%	58%
Motorcycle, moped, motorized scooter	4%	4%	4%	3%	6%	4%	4%	4%
Taxi, other hired car service	31%	31%	30%	31%	36%	30%	39%	31%
Carshare (Zipcar, Hertz OnDemand)	4%	2%	2%	7% A	4%	3%	3%	3%
Transportation Network Company (TNC such as Uber, Lyft, Via)	62%	58%	61%	57%	60%	59%	67%	60%
Rail (Metro rail, commuter rail)	67% B	56%	65%	55%	60%	62%	65%	61%
DASH Bus	35%	32%	33%	28%	41%	31%	46% A	33%
Metro Bus	29%	23%	23%	23%	39% A B	23%	39% A	26%
Multiple transit systems	29%	26%	27%	31%	27%	27%	28%	27%
Carpool, Vanpool	15%	18%	17%	18%	18%	17%	14%	17%
q7pdi	2%	3%	2%	3%	4%	1%	3%	2%

Table 87: Question #8 by Respondent Gender, Race and Ethnicity

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation: (Percent somewhat or strongly agree)	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Services were more reliable	73%	75%	72%	77%	79%	73%	78%	74%
Services were more frequent	76%	76%	77%	72%	78%	76%	78%	76%
There were more direct routes/fewer transfers to destinations	76%	83% A	79%	71%	88% B	78%	83%	79%
Services were less expensive	56%	52%	47%	77% A C	54%	54%	52%	54%
My travel time were less than if I used a personal vehicle	77%	80%	79%	75%	77%	78%	79%	78%
There were routes that stop at my desired destinations	73%	80% A	75%	76%	80%	76%	75%	76%
There were routes that stop at or near my home	69%	77% A	71%	78%	75%	72%	77%	72%
I felt safer from crime while riding public transportation	47%	62% A	51%	59%	54%	53%	55%	54%
I felt safer from crime waiting at the station	49%	62% A	53%	60%	52%	54%	55%	55%
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	48%	53%	41%	72% A	57% A	51%	49%	51%
Children could ride free on Metro	38%	42%	33%	59% A	45%	36%	57% A	40%
Public transportation vehicles were more comfortable	41%	46%	39%	55% A	46%	43%	43%	44%
I do not want to use public transportation	23%	28%	22%	29%	35% A	25%	21%	26%

Table 88: Question #9 by Respondent Gender, Race and Ethnicity

In the last month, about how frequently have you done each of the following? (Percent ever)	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Ridden a bicycle for fun or exercise	42% B	25%	36%	29%	31%	33%	41%	34%
Walked, ran or jogged for fun or exercise	89%	88%	90%	90%	84%	90% B	83%	89%

Table 89: Question #10 by Respondent Gender, Race and Ethnicity

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation: (Percent somewhat or strongly agree)	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
There were more sidewalks	62%	73% A	67%	62%	73%	65%	76% A	67%
There were more crosswalks	60%	69% A	62%	60%	77% A B	62%	73%	63%
If the sidewalks and paths were in better condition	65%	73% A	66%	68%	80% A	68%	75%	69%
There was more off-street walking or multi-use paths,trails	75%	72%	76% B	65%	77%	73%	73%	73%
There was more street lighting after dark	67%	83% A	75%	76%	74%	75%	72%	75%
I had access to public or workplace showers	29%	23%	24%	33%	30%	25%	33%	27%
I felt more safe from traffic while walking	59%	67% A	64%	57%	64%	62%	63%	63%
I felt more safe from crime while walking	50%	66% A	59%	56%	58%	59%	49%	58%
It didn’t take longer to walk to my destinations than to drive	54%	75% A	61%	76% A C	60%	66%	57%	64%
I do not want to walk as a means of transportation	23%	29%	20%	33% A	38% A	24%	33%	26%

Table 90: Question #11 by Respondent Gender, Race and Ethnicity

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
There were more on-street bike lanes	56% B	46%	50%	57%	55%	51%	57%	51%
There was more off-street bike or multi-use paths, trails	65%	58%	63%	62%	65%	62%	62%	62%
There was more street lighting after dark	57%	58%	54%	62%	69% A	57%	62%	58%
I had access to a bicycle	39%	42%	35%	52% A	53% A	40%	41%	40%
I had access to an electric/pedal assist bicycle	35%	39%	33%	51% A	36%	38%	32%	37%
I had access to public or workplace showers	30%	32%	29%	40%	31%	31%	34%	31%
I had a place to securely store a bicycle at work	47%	40%	38%	62% A C	45%	44%	42%	44%
There were places to securely park a bicycle at other destinations	60%	57%	58%	66%	57%	60%	55%	59%
I felt more safe from traffic while riding a bicycle	54%	61%	60%	53%	54%	57%	57%	57%
I felt more safe from crime while riding a bicycle	29%	43% A	35%	35%	44%	36%	34%	36%
It didn't take longer to ride a bicycle to my destinations than to drive	45%	52%	45%	59% A	52%	50%	42%	48%
I knew how to ride a bike	16%	19%	12%	23% A	33% A	16%	25% A	18%
If there were more Capital Bikeshare stations	28%	31%	26%	35%	38%	28%	35%	29%
I do not want to use a bicycle as a means of transportation	40%	61% A	45%	60% A	53%	50%	45%	50%

Table 91: Question #12 by Respondent Gender, Race and Ethnicity

Do you have school-aged children?	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
No	88%	88%	86%	98% A C	84%	90% B	78%	88%
Yes	12%	12%	14% B	2%	16% B	10%	22% A	12%

Table 92: Question #13 by Respondent Gender, Race and Ethnicity

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Driven by caregiver	48%	51%	56%	0%	42%	58%	34%	51%
Walk	43%	47%	49%	0%	38%	48%	37%	44%
School bus	29%	38%	26%	59%	48%	26%	50%	32%
Bike	18%	8%	15%	0%	7%	11%	18%	12%
Drive themselves alone	14%	8%	9%	41%	0%	11%	6%	10%
Public transportation	11%	8%	9%	0%	11%	5%	20% A	9%
Carpool	13%	2%	9%	0%	4%	10%	0%	8%
Driven by taxi, Uber, Lyft, etc.	0%	3%	0%	0%	0%	2%	0%	1%
Other	0%	0%	0%	0%	0%	0%	0%	0%

Table 93: Question #14 by Respondent Gender, Race and Ethnicity

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Gender		Race			Ethnicity		Overall
	Male	Female	White	Black	Multi/Other	Not Hispanic	Hispanic	(A)
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	
Distance to school	46%	43%	48%	59%	40%	48%	40%	46%
Inconvenient to use other modes	37%	38%	33%	41%	43%	45% B	12%	39%
Not safe	37%	36%	34%	41%	29%	26%	57% A	37%
Takes too long to use other modes	31%	28%	31%	0%	15%	35%	10%	30%
Other	27%	16%	26%	0%	14%	20%	27%	22%
Lack of sidewalks, bike lanes	21%	26%	26%	0%	17%	20%	31%	21%
Cost	0%	19%	2%	0%	30% A	3%	24% A	8%
Do not have access to a bicycle	0%	18%	2%	59% A	17%	7%	12%	8%
Do not have access to public transportation	2%	2%	2%	0%	4%	3%	0%	2%

Appendix E: Selected Survey Responses by Year

The tables in this Appendix display survey results by year. An explanation of how to interpret statistical differences can be found in *Appendix C: Selected Survey Responses by Area of Residence* on page 38.

Table 94: Question #1

What is your employment status?	2016	2021	2023
	(A)	(B)	(C)
Employed full- or part-time	84%	79%	79%
Currently not employed	2%	5% A	4%
Not employed, not looking for work (retired, stay-at-home parent, etc.)	14%	16%	17%
Total	100%	100%	100%

Table 95: Work Commute Mode Share

Work Commute Mode Share	2016	2021	2023
	(A)	(B)	(C)
Average percent of work trips made by walking	12% B	7%	10% B
Average percent of work trips made by bike	3% C	3%	1%
Average percent of work trips made by Capital Bikeshare	0%	3% A C	0%
Average percent of work trips made by bus	8% B C	5%	5%
Average percent of work trips made by driving alone	48% B C	25%	37% B
Average percent of work trips made by carpooling/driving with others	5% C	3%	2%
Average percent of work trips made Metro rail	14% B C	6%	10% B
Average percent of work trips made taxi/uber	2%	3% A C	1%
Average percent of work trips made by VRE commuter rail	0%	2% A C	0%
Average percent of work trips made by working at home	6%	40% A C	30% A
Average percent of work trips made by other modes	1%	3% A C	1%

Table 96: Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	2016	2021	2023
	(A)	(B)	(C)
Percent making any work trips in last week by walking	28%	29%	28%
Percent making any work trips in last week by bike	6%	15% A C	5%
Percent making any work trips in last week by Capital Bikeshare	1%	17% A C	2%
Percent making any work trips in last week by bus	20%	22%	16%
Percent making any work trips in last week by driving alone	61%	59%	58%
Percent making any work trips in last week by carpooling/driving with others	11%	19% A C	7%
Percent making any work trips in last week by Metro rail	34%	28%	30%
Percent making any work trips in last week by taxi/uber	10%	19% A C	7%
Percent making any work trips in last week by VRE commuter rail	1%	11% A C	1%
Percent making any work trips in last week by working at home	16%	60% A	59% A
Percent making any work trips in last week by other modes	3%	14% A C	2%

Table 97: Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	2016	2021	2023
	(A)	(B)	(C)
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	39%	33%	36%
Took transit AND walked on same day on any day in previous week	20% B	10%	20% B
Took transit AND biked on same day on any day in previous week	0%	1%	2% A
Took transit AND biked or walked on same day on any day in previous week	0%	0%	0%

Table 98: Question #3

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	2016	2021	2023
	(A)	(B)	(C)
Free Parking	.	47%	48%
Pre-Tax Parking	.	12%	10%
SmartBenefits (Subsidized transit)	.	55%	53%
Carpool of Vanpool Program	.	7%	6%
Bikeshare/Dockless Mobility memberships or bicycle subsidies	.	6%	6%
Other	.	8%	10%

Table 99: Question #4

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	2016 (A)	2021 (B)	2023 (C)
Don't usually drive alone to get to work	17%	32% A	29% A
Quickest/most convenient	59% B	51%	52%
Privacy	12%	15%	12%
Irregular work schedule	21%	21%	26%
I take a child/children to and/or from school or child care on the way to/ from work	11% B	6%	7%
Need/want to make stops/run errands on the way to/from work	22%	25%	22%
Need/want to come and go from the workplace during the day	12%	16%	12%
Personal reasons/commitments	12%	11%	10%
Work reasons/commitments	12%	9%	14%
Don't have shower at work if I walk or bike	5%	6%	3%
Don't want to take a shower at work if bike or walk	4%	2%	3%
Too hard to get to work location from Metro rail station or bus stop	17%	15%	13%
Too hard to get to Metro rail station or bus stop from home	11%	13%	10%
Bus or Metro rail is not available or inadequate	16% C	11%	9%
Driving costs less	0%	10%	7%
Other modes are not safe	2%	3%	6% A
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	0%	6%	5%
Other:	13% B C	6%	6%

Table 100: Travel Mode for 7 Kinds of Trips by Year

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	2016 (A)	2021 (B)	2023 (C)
Percent who ever walk	71%	84% A C	77% A
Percent who ever bike	17%	41% A C	20%
Percent who ever use Capital Bikeshare	2%	29% A C	7% A
Percent who ever bus	11%	25%A C	20% A
Percent who ever drive	92% B C	86%	85%
Percent who ever carpool	.	39% C	32%
Percent who ever use Metro rail	31%	41% A C	34%
Percent who ever use a taxi/uber	31%	36%	31%
Percent who ever do something else	6%	26% A C	8%

While the comparison to 2016 is shown, it should be noted that "carpool" was added to the list of travel mode options in the 2021.

Table 101: Question #6

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	2016 (A)	2021 (B)	2023 (C)
Daily or Near Daily	.	31%	39% B
Few times per week	.	30%	29%
Few times per month	.	20%	17%
One time	.	3%	4%
Never	.	16% C	10%
Total	.	100%	100%

Table 102: Question #7

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria?	2016	2021	2023
	(A)	(B)	(C)
Walk	.	92%	91%
Bike	.	26%	25%
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter, escooter)	.	12%	14%
Drive alone	.	89%	90%
Private Vehicle – as driver	.	71%	67%
Private Vehicle – as passenger	.	56%	58%
Motorcycle, moped, motorized scooter	.	2%	4%
Taxi, other hired car service	.	22%	31% B
Carshare (Zipcar, Hertz OnDemand)	.	3%	3%
Transportation Network Company (TNC such as Uber, Lyft, Via)	.	49%	60% B
Rail (Metro rail, commuter rail)	.	43%	61% B
DASH Bus	.	20%	33% B
Metro Bus	.	18%	26% B
Multiple transit systems	.	16%	27% B
Carpool, Vanpool	.	13%	17%
Paratransit (DOT Paratransit, Metro Access)	.	.	2%

Table 103: Question #8

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation:	2016 (A)	2021 (B)	2023 (C)
Services were more reliable	80% C	75%	74%
Services were more frequent	81% C	77%	76%
There were more direct routes/fewer transfers to destinations	78%	78%	79%
Services were less expensive	62% B C	55%	54%
My travel time were less than if I used a personal vehicle	85% C	83%	78%
There were routes that stop at my desired destinations	74%	78%	76%
There were routes that stop at or near my home	69%	76% A	72%
I felt safer from crime while riding public transportation	46%	51%	54% A
I felt safer from crime waiting at the station	48%	53%	55% A
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	.	52%	51%
Children could ride free on Metro	.	42%	40%
Public transportation vehicles were more comfortable	27%	26%	44% A B
I do not want to use public transportation	.	32% C	26%

Table 104: Question #9

In the last month, about how frequently have you done each of the following?	2016 (A)	2021 (B)	2023 (C)
Ridden a bicycle or walked for fun or exercise	.	35%	34%
Ran or jogged for fun or exercise	.	90%	89%

Table 105: Question #10

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation:	2016 (A)	2021 (B)	2023 (C)
There were more sidewalks	57%	68% A	67% A
There were more crosswalks	55%	65% A	63% A
If the sidewalks and paths were in better condition	57%	68% A	69% A
There was more off-street walking or multi-use paths, trails	65%	72% A	73% A
There was more street lighting after dark	73%	76%	75%
I had access to public or workplace showers	27%	31%	27%
I felt more safe from traffic while walking	58%	64%	63%
I felt more safe from crime while walking	52%	54%	58%
It didn’t take longer to walk to my destinations than to drive	54%	60%	64% A
I do not want to walk as a means of transportation	29%	27%	26%

Table 106: Question #11

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation:	2016 (A)	2021 (B)	2023 (C)
There were more on-street bike lanes	55%	56%	51%
There was more off-street bike or multi-use paths, trails	65%	66%	62%
There was more street lighting after dark	59%	63%	58%
I had access to a bicycle	36%	45% A	40%
I had access to an electric/pedal assist bicycle	.	33%	37%
I had access to public or workplace showers	30%	35%	31%
I had a place to securely store a bicycle at work	42%	46%	44%
There were places to securely park a bicycle at other destinations	56%	61%	59%
I felt more safe from traffic while riding a bicycle	61%	67% C	57%
I felt more safe from crime while riding a bicycle	36%	37%	36%
It didn't take longer to ride a bicycle to my destinations than to drive	44%	48%	48%
I knew how to ride a bike	15%	17%	18%
If there were more Capital Bikeshare stations	25%	30%	29%
I do not want to use a bicycle as a means of transportation	43%	45%	50% A

Table 107: Question #12

Do you have school-aged children?	2016 (A)	2021 (B)	2023 (C)
Yes	15%	13%	12%
No	85%	87%	88%
Total	100%	100%	100%

Table 108: Question #13

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	2016 (A)	2021 (B)	2023 (C)
Walk	24%	40% A	44% A
Driven by caregiver	30%	39%	51% A
Driven by taxi, Uber, Lyft, etc.	8%	5%	1%
Bike	3%	5%	12% A
Carpool	34% B C	11%	8%
Public transportation	2%	3%	9%
School bus	31%	41%	32%
Drive themselves alone	8%	8%	10%
Other	3%	1%	0%

Table 109: Question #14

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):	2016 (A)	2021 (B)	2023 (C)
Distance to school	46%	67% A	46%
Takes too long to use other modes	45%	35%	30%
Inconvenient to use other modes	44%	28%	39%
Not safe	19%	29%	37% A
Cost	20%	7%	8%
Do not have access to a bicycle	2%	5%	8%
Do not have access to public transportation	3%	6%	2%
Lack of sidewalks, bike lanes	12%	12%	21%
Other	13%	6%	22% B

Appendix F: Results by Outreach Type (Addressed-Based Sample versus Open Participation)

The tables in this Appendix display survey results by outreach type. An explanation of how to interpret statistical differences can be found in *Appendix C: Selected Survey Responses by Area of Residence* on page 38.

Table 110: Question #1 by Sample Type

What is your employment status?	Address-based	Open Participation
	(A)	(B)
Employed full- or part-time	79%	84%
Not employed, not looking for work (retired, stay-at-home parent, etc.)	17% B	11%
Currently not employed	4%	5%

Table 111: Work Commute Mode Share by Sample Type

Work Commute Mode Share	Address-based	Open Participation
	(A)	(B)
Average percent of work trips made by walking	10%	9%
Average percent of work trips made by bike	1%	6% A
Average percent of work trips made by Capital Bikeshare	0%	0%
Average percent of work trips made by bus	5%	6%
Average percent of work trips made by driving alone	37% B	22%
Average percent of work trips made by carpooling/driving with others	2%	2%
Average percent of work trips made Metro rail	10%	11%
Average percent of work trips made taxi/uber	1%	1%
Average percent of work trips made by VRE commuter rail	0%	0%
Average percent of work trips made by working at home	30%	43% A

Work Commute Mode Share	Address-based	Open Participation
	(A)	(B)
Average percent of work trips made by other modes	1%	0%

Table 112: Commute Trips by Employed Respondents via Each Mode in Previous Week by Sample Type

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Address-based	Open Participation
	(A)	(B)
Percent making any work trips in last week by walking	28%	27%
Percent making any work trips in last week by bike	5%	11% A
Percent making any work trips in last week by Capital Bikeshare	2%	2%
Percent making any work trips in last week by bus	16%	24% A
Percent making any work trips in last week by driving alone	58% B	40%
Percent making any work trips in last week by carpooling/driving with others	7%	7%
Percent making any work trips in last week by Metro rail	30%	33%
Percent making any work trips in last week by taxi/uber	7%	6%
Percent making any work trips in last week by VRE commuter rail	1%	1%
Percent making any work trips in last week by working at home	59%	65%
Percent making any work trips in last week by other modes	2%	2%

Table 113: Commute Trips by Employed Respondents via Transit in Previous Week by Sample Type

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Address-based	Open Participation
	(A)	(B)
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	36%	42%
Took transit AND walked on same day on any day in previous week	20%	19%
Took transit AND biked on same day on any day in previous week	2%	4%
Took transit AND biked or walked on same day on any day in previous week	0%	0%

Table 114: Commute Trips by Employed Respondents via Each Mode in Previous Week by Sample Type

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Address-based (A)	Open Participation (B)
Percent making any work trips in last week by walking	28%	27%
Percent making any work trips in last week by bike	5%	11% A
Percent making any work trips in last week by Capital Bikeshare	2%	2%
Percent making any work trips in last week by bus	16%	24% A
Percent making any work trips in last week by driving alone	58% B	40%
Percent making any work trips in last week by carpooling/driving with others	7%	7%
Percent making any work trips in last week by Metro rail	30%	33%
Percent making any work trips in last week by taxi/uber	7%	6%
Percent making any work trips in last week by VRE commuter rail	1%	1%
Percent making any work trips in last week by working at home	59%	65%
Percent making any work trips in last week by other modes	2%	2%

Table 115: Question #3 by Sample Type

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Address-based (A)	Open Participation (B)
SmartBenefits (Subsidized transit)	53%	54%
Free Parking	48%	42%
Other	10%	22% A
Pre-Tax Parking	10%	11%
Bikeshare/Dockless Mobility memberships or bicycle subsidies	6%	13% A
Carpool of Vanpool Program	6%	4%

Table 116: Question #4 by Sample Type

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Address-based (A)	Open Participation (B)
Quickest/most convenient	52% B	41%
Don't usually drive alone to get to work	29%	38% A
Irregular work schedule	26%	22%
Need/want to make stops/run errands on the way to/from work	22%	16%
Work reasons/commitments	14%	17%
Too hard to get to work location from Metro rail station or bus stop	13%	11%
Need/want to come and go from the workplace during the day	12%	13%
Personal reasons/commitments	10%	17% A
Privacy	12% B	6%
I take a child/children to and/or from school or child care on the way to/ from work	7%	21% A
Other:	6%	22% A
Other modes are not safe	6%	18% A
Bus or Metro rail is not available or inadequate	9%	6%
Too hard to get to Metro rail station or bus stop from home	10% B	4%
Driving costs less	7%	5%
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	5%	7%
Don't want to take a shower at work if bike or walk	3%	5%
Don't have shower at work if I walk or bike	3%	2%

Table 117: Travel Mode for 7 Kinds of Trips by Sample Type

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Address-based	Open Participation
	(A)	(B)
Percent who ever walk	77%	90% A
Percent who ever bike	20%	45% A
Percent who ever use Capital Bikeshare	7%	22% A
Percent who ever bus	20%	47% A
Percent who ever drive	85%	80%
Percent who ever carpool	32%	44% A
Percent who ever use Metro rail	34%	52% A
Percent who ever use a taxi/uber	31%	47% A
Percent who ever do something else	8%	9%

Table 118: Question #6 by Sample Type

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	Address-based	Open Participation
	(A)	(B)
Daily or Near Daily	39%	39%
Few times per week	29% B	21%
Few times per month	17%	18%
Never	10%	17% A
One time	4%	5%

Table 119: Question #7 by Sample Type

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Address-based	Open Participation
	(A)	(B)
Walk	91%	95%
Bike	25%	46% A
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter, e-scooter)	14%	22% A
Drive alone	90%	89%
Private Vehicle – as driver	67%	77% A
Private Vehicle – as passenger	58%	64%
Motorcycle, moped, motorized scooter	4%	13% A
Taxi, other hired car service	31% B	24%
Carshare (Zipcar, Hertz OnDemand)	3%	2%
Transportation Network Company (TNC such as Uber, Lyft, Via)	60%	59%
Rail (Metro rail, commuter rail)	61%	78% A
DASH Bus	33%	58% A
Metro Bus	26%	35% A
Multiple transit systems	27%	49% A
Carpool, Vanpool	17%	16%
Paratransit (DOT Paratransit, Metro Access)	2% B	0%

Table 120: Question #8 by Sample Type

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation: (Percent somewhat or strongly agree)	Address-based	Open Participation
	(A)	(B)
Services were more reliable	74%	77%
Services were more frequent	76%	83% A
There were more direct routes/fewer transfers to destinations	79%	82%
Services were less expensive	54% B	43%
My travel time were less than if I used a personal vehicle	78% B	61%
There were routes that stop at my desired destinations	76%	80%
There were routes that stop at or near my home	72% B	56%
I felt safer from crime while riding public transportation	54%	54%
I felt safer from crime waiting at the station	55%	52%
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	51%	51%
Children could ride free on Metro	40%	47%
Public transportation vehicles were more comfortable	44%	51%
I do not want to use public transportation	26% B	17%

Table 121: Question #9 by Sample Type

In the last month, about how frequently have you done each of the following? (Percent ever)	Address-based	Open Participation
	(A)	(B)
Ridden a bicycle for fun or exercise	34%	54% A
Walked, ran or jogged for fun or exercise	89%	84%

Table 122: Question #10 by Sample Type

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation: (Percent somewhat or strongly agree)	Address-based	Open Participation
	(A)	(B)
There were more sidewalks	67%	66%
There were more crosswalks	63%	68%
If the sidewalks and paths were in better condition	69%	72%
There was more off-street walking or multi-use paths, trails	73%	72%
There was more street lighting after dark	75%	74%
I had access to public or workplace showers	27%	24%
I felt more safe from traffic while walking	63%	75% A
I felt more safe from crime while walking	58%	63%
It didn't take longer to walk to my destinations than to drive	64%	62%
I do not want to walk as a means of transportation	26%	22%

Table 123: Question #11 by Sample Type

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Address-based	Open Participation
	(A)	(B)
There were more on-street bike lanes	51%	67% A
There was more off-street bike or multi-use paths, trails	62%	74% A
There was more street lighting after dark	58%	67% A
I had access to a bicycle	40%	35%
I had access to an electric/pedal assist bicycle	37%	43%
I had access to public or workplace showers	31%	29%
I had a place to securely store a bicycle at work	44%	46%
There were places to securely park a bicycle at other destinations	59%	71% A
I felt more safe from traffic while riding a bicycle	57%	76% A
I felt more safe from crime while riding a bicycle	36%	44% A
It didn't take longer to ride a bicycle to my destinations than to drive	48%	48%
I knew how to ride a bike	18%	33% A
If there were more Capital Bikeshare stations	29%	45% A
I do not want to use a bicycle as a means of transportation	50% B	31%

Table 124: Question #12 by Sample Type

Do you have school-aged children?	Address-based	Open Participation
	(A)	(B)
No	88% B	69%
Yes	12%	31% A

Table 125: Question #13 by Sample Type

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Address-based	Open Participation
	(A)	(B)
Driven by caregiver	51%	44%
School bus	32%	44%
Walk	44% B	18%
Bike	12%	26%
Public transportation	9%	31% A
Drive themselves alone	10%	3%
Carpool	8%	7%
Other	0%	4%
Driven by taxi, Uber, Lyft, etc.	1%	0%

Table 126: Question #14 by Sample Type

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Address-based (A)	Open Participation (B)
Distance to school	46%	30%
Inconvenient to use other modes	39%	37%
Other	22%	56% A
Takes too long to use other modes	30%	37%
Not safe	37%	20%
Lack of sidewalks, bike lanes	21%	17%
Cost	8%	5%
Do not have access to a bicycle	8%	0%
Do not have access to public transportation	2%	1%

Appendix G: Complete Set of Responses for the Open Participation Survey

Table 127: Question #1 (Open Participation Survey)

What is your employment status?	Percent	Number
Employed full- or part-time	84%	N=170
Not employed, not looking for work (retired, stay-at-home parent, etc.)	11%	N=23
Currently not employed	5%	N=9
Total	100%	N=202

Table 128: Work Commute Mode Share (Open Participation Survey)

Work Commute Mode Share	Average percent of work trips	Number
Average percent of work trips made by walking	9%	N=203
Average percent of work trips made by bike	6%	N=203
Average percent of work trips made by Capital Bikeshare	0%	N=203
Average percent of work trips made by bus	6%	N=203
Average percent of work trips made by driving alone	22%	N=203
Average percent of work trips made by carpooling/driving with others	2%	N=203
Average percent of work trips made Metro rail	11%	N=203
Average percent of work trips made taxi/uber	1%	N=203
Average percent of work trips made by VRE commuter rail	0%	N=203
Average percent of work trips made by working at home	43%	N=203
Average percent of work trips made by other modes	0%	N=203

Table 129: Commute Trips by Employed Respondents via Each Mode in Previous Week (Open Participation Survey)

Percent of Employed Respondents Who Made at least One Work Commute Trip via Each Mode in Previous Week	Percent	Number
Percent making any work trips in last week by walking	27%	N=203
Percent making any work trips in last week by bike	11%	N=203
Percent making any work trips in last week by Capital Bikeshare	2%	N=203
Percent making any work trips in last week by bus	24%	N=203
Percent making any work trips in last week by driving alone	40%	N=203
Percent making any work trips in last week by carpooling/driving with others	7%	N=203
Percent making any work trips in last week by Metro rail	33%	N=203
Percent making any work trips in last week by taxi/uber	6%	N=203
Percent making any work trips in last week by VRE commuter rail	1%	N=203
Percent making any work trips in last week by working at home	65%	N=203
Percent making any work trips in last week by other modes	2%	N=203

Table 130: Commute Trips by Employed Respondents via Transit in Previous Week (Open Participation Survey)

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Transit in Previous Week	Percent of respondents	Number
Took transit (bus, Metro rail and/or VRE commuter rail) any day in previous week	42%	N=203
Took transit AND walked on same day on any day in previous week	19%	N=203
Took transit AND biked on same day on any day in previous week	4%	N=203
Took transit AND biked or walked on same day on any day in previous week	0%	N=203

Table 131: Commute Trips by Employed Respondents via Each Mode in Previous Week (Open Participation Survey)

Percent of Employed Respondents Who Made at Least One Work Commute Trip via Each Mode in Previous Week	Percent	Number
Percent making any work trips in last week by walking	27%	N=203
Percent making any work trips in last week by bike	11%	N=203
Percent making any work trips in last week by Capital Bikeshare	2%	N=203
Percent making any work trips in last week by bus	24%	N=203
Percent making any work trips in last week by driving alone	40%	N=203
Percent making any work trips in last week by carpooling/driving with others	7%	N=203
Percent making any work trips in last week by Metro rail	33%	N=203
Percent making any work trips in last week by taxi/uber	6%	N=203
Percent making any work trips in last week by VRE commuter rail	1%	N=203
Percent making any work trips in last week by working at home	65%	N=203
Percent making any work trips in last week by other modes	2%	N=203

Table 132: Question #2 (Open Participation Survey)

Monday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	14%	N=203
Bike	6%	N=203
Capital Bikeshare	1%	N=203
Bus	6%	N=203
Drove alone	28%	N=203
Carpool (drove or rode in a car with others	1%	N=203
Metro rail	8%	N=203
Taxi/ Uber	1%	N=203
VRE commuter rail	1%	N=203
Worked at home	55%	N=203
I did not work	2%	N=203
Other	1%	N=203

Table 133: Question #2 (Open Participation Survey)

Tuesday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	16%	N=203
Bike	9%	N=203
Capital Bikeshare	1%	N=203
Bus	11%	N=203
Drove alone	29%	N=203
Carpool (drove or rode in a car with others	4%	N=203
Metro rail	24%	N=203
Taxi/ Uber	1%	N=203
VRE commuter rail	1%	N=203
Worked at home	44%	N=203
I did not work	2%	N=203
Other	1%	N=203

Table 134: Question #2 (Open Participation Survey)

Wednesday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	18%	N=203
Bike	6%	N=203
Capital Bikeshare	2%	N=203
Bus	17%	N=203
Drove alone	29%	N=203
Carpool (drove or rode in a car with others	3%	N=203
Metro rail	26%	N=203
Taxi/ Uber	3%	N=203
VRE commuter rail	1%	N=203
Worked at home	38%	N=203
I did not work	1%	N=203
Other	0%	N=203

Table 135: Question #2 (Open Participation Survey)

Thursday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	16%	N=203
Bike	4%	N=203
Capital Bikeshare	1%	N=203
Bus	11%	N=203
Drove alone	26%	N=203
Carpool (drove or rode in a car with others	3%	N=203
Metro rail	23%	N=203
Taxi/ Uber	0%	N=203
VRE commuter rail	0%	N=203
Worked at home	48%	N=203
I did not work	0%	N=203
Other	0%	N=203

Table 136: Question #2 (Open Participation Survey)

Friday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	10%	N=203
Bike	5%	N=203
Capital Bikeshare	0%	N=203
Bus	7%	N=203
Drove alone	28%	N=203
Carpool (drove or rode in a car with others	2%	N=203
Metro rail	17%	N=203
Taxi/ Uber	0%	N=203
VRE commuter rail	0%	N=203
Worked at home	56%	N=203
I did not work	0%	N=203
Other	1%	N=203

Table 137: Question #2 (Open Participation Survey)

Saturday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	5%	N=203
Bike	2%	N=203
Capital Bikeshare	0%	N=203
Bus	3%	N=203
Drove alone	5%	N=203
Carpool (drove or rode in a car with others	3%	N=203
Metro rail	4%	N=203
Taxi/ Uber	1%	N=203
VRE commuter rail	0%	N=203
Worked at home	2%	N=203
I did not work	86%	N=203
Other	0%	N=203

Table 138: Question #2 (Open Participation Survey)

Sunday (Percent of respondents who used each mode)	Percent of respondents	Number
Walk	4%	N=203
Bike	2%	N=203
Capital Bikeshare	0%	N=203
Bus	3%	N=203
Drove alone	3%	N=203
Carpool (drove or rode in a car with others	3%	N=203
Metro rail	2%	N=203
Taxi/ Uber	0%	N=203
VRE commuter rail	0%	N=203
Worked at home	1%	N=203
I did not work	89%	N=203
Other	0%	N=203

Table 139: Question #3 (Open Participation Survey)

Does your employer offer any of the following commuter benefits? (Select all that apply.)*	Percent	Number
SmartBenefits (Subsidized transit)	54%	N=76
Free Parking	42%	N=59
Other	22%	N=30
Bikeshare/Dockless Mobility memberships or bicycle subsidies	13%	N=18
Pre-Tax Parking	11%	N=15
Carpool of Vanpool Program	4%	N=5
Total	100%	N=140

Table 140: Question #4 (Open Participation Survey)

If you most often drive to get to work, which of the following are the main reasons? (Please select all that apply.)*	Percent	Number
Quickest/most convenient	41%	N=65
Don't usually drive alone to get to work	38%	N=59
Other:	22%	N=35
Irregular work schedule	22%	N=34
I take a child/children to and/or from school or child care on the way to/ from work	21%	N=32
Other modes are not safe	18%	N=29
Personal reasons/commitments	17%	N=27
Work reasons/commitments	17%	N=26
Need/want to make stops/run errands on the way to/from work	16%	N=26
Need/want to come and go from the workplace during the day	13%	N=20
Too hard to get to work location from Metro rail station or bus stop	11%	N=17
I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)	7%	N=10
Privacy	6%	N=10
Bus or Metro rail is not available or inadequate	6%	N=9
Driving costs less	5%	N=8
Don't want to take a shower at work if bike or walk	5%	N=8
Too hard to get to Metro rail station or bus stop from home	4%	N=6
Don't have shower at work if I walk or bike	2%	N=3
Total	100%	N=156

Table 141: Travel Mode for 7 Kinds of Trips (Open Participation Survey)

Percent of respondents using each mode to complete any of 7 kinds of trips (parks & recreation centers, grocery store, non-grocery errands, restaurants, fun or fitness, visit friends or family, other social activities)	Percent	Number
Percent who ever walk	90%	N=203
Percent who ever bike	45%	N=203
Percent who ever use Capital Bikeshare	22%	N=203
Percent who ever bus	47%	N=203
Percent who ever drive	80%	N=203
Percent who ever carpool	44%	N=203
Percent who ever use Metro rail	52%	N=203
Percent who ever use a taxi/uber	47%	N=203
Percent who ever do something else	9%	N=203

Table 142: Question #5 (Open Participation Survey)

Parks & recreation centers	Percent of respondents	Number
I did not do this activity	19%	N=203
Walk	54%	N=203
Bike	38%	N=203
Capital Bikeshare	5%	N=203
Bus	24%	N=203
Drove alone	39%	N=203
Carpool	7%	N=203
Metro rail	21%	N=203
Taxi/ Uber	14%	N=203
Other	0%	N=203

Table 143: Question #5 (Open Participation Survey)

Grocery store	Percent of respondents	Number
I did not do this activity	1%	N=203
Walk	47%	N=203
Bike	24%	N=203
Capital Bikeshare	2%	N=203
Bus	11%	N=203
Drove alone	70%	N=203
Carpool	16%	N=203
Metro rail	4%	N=203
Taxi/ Uber	5%	N=203
Other	7%	N=203

Table 144: Question #5 (Open Participation Survey)

Non-grocery errands	Percent of respondents	Number
I did not do this activity	1%	N=203
Walk	58%	N=203
Bike	31%	N=203
Capital Bikeshare	9%	N=203
Bus	36%	N=203
Drove alone	67%	N=203
Carpool	21%	N=203
Metro rail	17%	N=203
Taxi/ Uber	10%	N=203
Other	2%	N=203

Table 145: Question #5 (Open Participation Survey)

Restaurants	Percent of respondents	Number
I did not do this activity	3%	N=203
Walk	51%	N=203
Bike	20%	N=203
Capital Bikeshare	1%	N=203
Bus	36%	N=203
Drove alone	40%	N=203
Carpool	16%	N=203
Metro rail	28%	N=203
Taxi/ Uber	21%	N=203
Other	3%	N=203

Table 146: Question #5 (Open Participation Survey)

Fun or fitness	Percent of respondents	Number
I did not do this activity	4%	N=203
Walk	66%	N=203
Bike	37%	N=203
Capital Bikeshare	9%	N=203
Bus	29%	N=203
Drove alone	38%	N=203
Carpool	14%	N=203
Metro rail	29%	N=203
Taxi/ Uber	8%	N=203
Other	7%	N=203

Table 147: Question #5 (Open Participation Survey)

Visit friends or family	Percent of respondents	Number
I did not do this activity	4%	N=203
Walk	38%	N=203
Bike	26%	N=203
Capital Bikeshare	1%	N=203
Bus	21%	N=203
Drove alone	66%	N=203
Carpool	32%	N=203
Metro rail	27%	N=203
Taxi/ Uber	18%	N=203
Other	8%	N=203

Table 148: Question #5 (Open Participation Survey)

Other social activities	Percent of respondents	Number
I did not do this activity	17%	N=203
Walk	43%	N=203
Bike	22%	N=203
Capital Bikeshare	15%	N=203
Bus	31%	N=203
Drove alone	58%	N=203
Carpool	27%	N=203
Metro rail	36%	N=203
Taxi/ Uber	28%	N=203
Other	2%	N=203

Table 149: Question #6 (Open Participation Survey)

In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid traffic?	Percent	Number
Daily or Near Daily	39%	N=79
Few times per week	21%	N=43
Few times per month	18%	N=36
Never	17%	N=35
One time	5%	N=10
Total	100%	N=203

Table 150: Question #7 (Open Participation Survey)

In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria? (Percent once a month or more)	Daily or Near Daily		Few times per week		Few times per month		One time		Never	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Walk	49%	N=94	28%	N=53	15%	N=30	3%	N=6	5%	N=10
Bike	24%	N=43	12%	N=21	8%	N=14	3%	N=5	54%	N=97
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter/e-scooter)	0%	N=1	4%	N=6	15%	N=27	3%	N=6	78%	N=136
Drive alone	27%	N=49	34%	N=62	25%	N=46	3%	N=6	11%	N=20
Private Vehicle – as driver	25%	N=48	37%	N=69	14%	N=26	1%	N=2	23%	N=43
Private Vehicle – as passenger	13%	N=23	14%	N=26	33%	N=60	4%	N=7	36%	N=66
Motorcycle/moped/motorized scooter	0%	N=0	3%	N=6	10%	N=18	0%	N=0	87%	N=155
Taxi, other hired car service	0%	N=0	1%	N=3	18%	N=34	5%	N=9	76%	N=145
Carshare (Zipcar, Hertz OnDemand)	0%	N=0	0%	N=0	0%	N=0	2%	N=3	98%	N=172
Transportation Network Company (TNC such as Uber, Lyft, Via)	0%	N=0	2%	N=4	41%	N=69	16%	N=27	41%	N=70
Rail (Metro rail, commuter rail)	5%	N=9	23%	N=40	26%	N=46	23%	N=41	22%	N=39
DASH Bus	4%	N=7	19%	N=36	29%	N=56	6%	N=11	42%	N=80
Metro Bus	3%	N=5	9%	N=16	12%	N=22	11%	N=20	65%	N=120
Multiple transit systems	4%	N=6	6%	N=11	21%	N=37	19%	N=35	51%	N=91
Carpool/Vanpool	0%	N=0	3%	N=6	10%	N=18	3%	N=5	84%	N=151

Table 151: Question #8 (Open Participation Survey)

To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro) as a means of transportation: (Percent somewhat or strongly agree)	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Services were more reliable	33%	N=60	44%	N=80	7%	N=13	16%	N=29
Services were more frequent	43%	N=78	40%	N=73	5%	N=8	12%	N=22
There were more direct routes/fewer transfers to destinations	37%	N=67	45%	N=81	7%	N=12	12%	N=22
Services were less expensive	21%	N=39	21%	N=38	33%	N=59	25%	N=45
My travel time was less than if I used a personal vehicle	46%	N=84	14%	N=26	10%	N=19	29%	N=53
There were routes that stop at my desired destinations	46%	N=84	34%	N=63	10%	N=18	10%	N=19
There were routes that stop at or near my home	39%	N=70	17%	N=30	24%	N=42	20%	N=36
I felt safer from crime while riding public transportation	32%	N=58	22%	N=40	24%	N=44	22%	N=40
I felt safer from crime waiting at the station	33%	N=60	19%	N=35	29%	N=53	18%	N=33
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	12%	N=22	39%	N=72	28%	N=50	21%	N=38
Children could ride free on Metro	16%	N=27	32%	N=56	25%	N=43	28%	N=49
Public transportation vehicles were more comfortable	8%	N=14	43%	N=77	29%	N=52	20%	N=37
I do not want to use public transportation	12%	N=21	5%	N=9	5%	N=9	78%	N=142

Table 152: Question #9 (Open Participation Survey)

In the last month, about how frequently have you done each of the following? (Percent ever)	Never		1-10 times a month		11-20 times a month		More than 20 times a month	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Ridden a bicycle for fun or exercise	46%	N=83	35%	N=62	9%	N=16	10%	N=19
Walked, ran, or jogged for fun or exercise	16%	N=29	45%	N=81	15%	N=27	25%	N=45

Table 153: Question #10 (Open Participation Survey)

To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation: (Percent somewhat or strongly agree)	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
There were more sidewalks	40%	N=73	26%	N=48	15%	N=27	19%	N=34
There were more crosswalks	41%	N=74	27%	N=48	15%	N=27	18%	N=31
If the sidewalks and paths were in better condition	47%	N=83	25%	N=45	14%	N=25	14%	N=25
There were more off-street walking or multi-use paths/trails	49%	N=88	23%	N=42	12%	N=21	16%	N=29
There was more street lighting after dark	27%	N=50	47%	N=85	18%	N=33	8%	N=14
I had access to workplace showers	8%	N=15	16%	N=28	31%	N=55	45%	N=81
I felt more safe from traffic while walking	46%	N=84	29%	N=53	11%	N=20	14%	N=25
I felt more safe from crime while walking	36%	N=65	27%	N=48	23%	N=41	14%	N=25
It didn’t take longer to walk to my destinations than to drive	25%	N=45	37%	N=67	18%	N=32	20%	N=36
I do not want to walk as a means of transportation	10%	N=18	12%	N=21	11%	N=19	66%	N=116

Table 154: Question #11 (Open Participation Survey)

To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation: (Percent somewhat or strongly agree)	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
There were more on-street bike lanes	44%	N=78	23%	N=41	10%	N=18	23%	N=41
There were more off-street bike or multi-use paths/trails	51%	N=89	23%	N=41	7%	N=12	19%	N=34
There was more street lighting after dark	33%	N=58	34%	N=59	12%	N=21	21%	N=37
I had access to a bicycle	21%	N=36	14%	N=24	19%	N=33	46%	N=79
I had access to an electric/pedal assist bicycle	28%	N=49	15%	N=27	16%	N=28	41%	N=72
I had access to workplace showers	24%	N=42	5%	N=9	28%	N=49	43%	N=76
I had a place to securely store a bicycle at work	31%	N=55	15%	N=26	16%	N=28	37%	N=65
There were places to securely park a bicycle at other destinations	48%	N=85	22%	N=40	9%	N=16	20%	N=36
I felt more safe from traffic while riding a bicycle	67%	N=118	9%	N=16	6%	N=10	18%	N=33
I felt more safe from crime while riding a bicycle	31%	N=54	14%	N=24	26%	N=45	30%	N=53
It didn't take longer to ride a bicycle to my destinations than to drive	31%	N=55	17%	N=30	25%	N=44	27%	N=49
I knew how to ride a bike	21%	N=38	12%	N=21	10%	N=17	58%	N=103
If there were more Capital Bikeshare stations	8%	N=15	37%	N=64	20%	N=36	34%	N=61
I do not want to use a bicycle as a means of transportation	20%	N=36	11%	N=19	13%	N=24	56%	N=101

Table 155: Question #12 (Open Participation Survey)

Do you have school-aged children?	Percent	Number
No	69%	N=138
Yes	31%	N=63
Total	100%	N=201

Table 156: Question #13 (Open Participation Survey)

Please indicate how your child(ren) typically travel to/from school? (Please select all that apply.)*	Percent	Number
School bus	44%	N=21
Driven by caregiver	44%	N=20
Public transportation	31%	N=14
Bike	26%	N=12
Walk	18%	N=8
Carpool	7%	N=3
Other	4%	N=2
Drive themselves alone	3%	N=2
Driven by taxi, Uber, Lyft, etc.	0%	N=0
Total	100%	N=47

Table 157: Question #14 (Open Participation Survey)

If your children are driven to school or drive themselves, please indicate which, if any, of the following factors discourage you from using other modes of transportation for your child(ren) to/from school (please select all that apply):*	Percent	Number
Other	56%	N=17
Takes too long to use other modes	37%	N=11
Inconvenient to use other modes	37%	N=11
Distance to school	30%	N=9
Not safe	20%	N=6
Lack of sidewalks, bike lanes	17%	N=5
Cost	5%	N=1
Do not have access to public transportation	1%	N=0
Do not have access to a bicycle	0%	N=0
Total	100%	N=30

Appendix H: Survey Methodology

Survey Purpose

The City of Alexandria's Department of Transportation and Environmental Services contracted with Polco to conduct a survey on City-wide multimodal transportation trends and preferences. The City initially worked with Polco to conduct the survey in 2016 and 2021, and this 2023 survey serves to continue to add important data to the trend line to help assess the impact of polices, programs and plans.

Developing the Questionnaire

The three-page questionnaire was developed through an iterative process between the staff of the City of Alexandria's Department of Transportation and Environmental Services and Polco. The 2023 survey was developed by starting with the 2016 and 2021 questionnaires to ensure comparisons could be made. Most 2021 questions were kept as-is and only a few received small updates. The goal was to craft a survey instrument that would be easy to complete by recipients and that would provide the City with the information needed for the various purposes stated above. The questionnaires was available in English and Spanish. A copy of the English questionnaire can be found in *Appendix I: Survey .*

Selecting Survey Recipients

"Sampling" refers to the method by which survey recipients are chosen. The "sample" refers to all those who were given a chance to participate in the survey. Ideally, the chosen survey recipients should be representative of all eligible survey recipients. Randomly selecting survey recipients ensures that this will occur.

All households located in the Alexandria city limits were eligible to be a part the survey; 4,200 were selected at random to receive the survey. Because local governments generally do not have inclusive lists of all the residences in the jurisdiction (tax assessor and utility billing databases often omit rental units), lists from the United States Postal Service (USPS), updated every three months, usually provide the best representation of all households in a specific geographic location. Polco used the USPS data to select the sample of households. Addresses from the zip codes serving the city were geocoded (mapped to a specific latitude and longitude). Addresses outside the city limits were excluded, while addresses within each of eight areas (West End, Central, North Ridge, Arlandria, Potomac Yard, Del Ray, Old Town and Carlyle) were coded to permit results to be compared geographically.

Administering the Survey

The database of selected household addresses was processed for certification and verification, using use CASS™/NCOA software that relies on the USPS National Directory information to verify and standardize the address elements and assign each a complete, nine-digit zip code where possible.

A total of 4,200 household addresses were randomly selected from a US Postal Service (USPS) list of all residential addresses in the City to receive a mailed survey or a mailed invitation to an online survey on Polco. Mailings were sent over a three-week period starting November 2, 2023, and data collection was closed December 14, 2023.

The 4,200 selected households received three mailings over three weeks. The initial contact was a postcard invitation to complete the survey online. The second contact was a paper survey, with a postage-paid reply envelope for returning the completed survey. Finally, a reminder postcard was sent to all households.

Additionally, a second online survey was programmed (with the same questions as the address-based sampled survey) and invitations were made available to residents via City social media and other communication channels. This open participation effort was conducted during the first two weeks of December 2023.

Overall, there were 667 responses to the mailed invitations/surveys from the sampled outreach effort: for a response rate of 16% and a margin of error of ±4%. A total of 223 completed surveys were returned by mail and 444 surveys were completed online. Of the 4,200 households mailed surveys, 150 were determined to be vacant or otherwise undeliverable by the post office. Thus, the response rate from the 4,050 households who received a survey was 16%. This is a good response rate; typical response rates for a survey of this type range from 12% to 24%.

The 95% confidence interval (or "margin of error") quantifies the "sampling error" or precision of the estimates made from the survey results. A 95% confidence interval can be calculated for any sample size and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within a certain range if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite the best efforts to boost participation and ensure potential inclusion of all households, some selected households will decline participation in the survey (referred to as non-response error) and some eligible households may be unintentionally excluded from the listed sources for the sample (referred to as coverage error). Coverage error is very low for this survey, as the USPS delivery sequence file is used to select addresses, which has nearly complete coverage of all households. For this survey, with 667 responses, the 95% confidence interval is plus or minus 4 percentage points.

The 95% confidence interval is lower for respondent subgroups. As an example, the table below shows the 95% confidence interval for results from the various geographic areas within the city; overall, the margin of error for comparisons between respondents based on geographic area was about 9% (4 of these areas were combined for analysis, as the number of responses for each was less than 85.) In the appendices with cross-tabulations by area or other household and respondent characteristics, statistical differences are noted with a lettering system explained on page 38 of *Appendix C: Selected Survey Responses by Area of Residence*

Area	Number of responses	95% confidence interval (plus or minus)
West End	105	9.5%
Central	144	8.2%
North Ridge/Arlandria/Potomac Yard/Carlyle	147	8.1%
Del Ray	85	10.6%
Old Town	186	7.2%
Total	**667**	**3.8%**

Additionally, 203 residents responded to the open participation outreach effort. The results of these responses are summarized in *Appendix G: Complete Set of Responses for the Open Participation Survey* and compared to the Sample Outreach responses in *Appendix F: Results by Outreach Type.*

Survey Processing (Data Entry)

Mailed surveys were returned to Polco directly via postage-paid business reply envelopes. Once received, staff assigned a unique identification number to each questionnaire. Additionally, each survey was reviewed and "cleaned" as necessary. For example, a question may have asked a respondent to pick two items out of a list of five, but the respondent checked three; two of the three selected items would be randomly chosen to be entered in the dataset.

Once all surveys were assigned a unique identification number, they were entered into an electronic dataset. This dataset was subject to a data entry protocol of "key and verify," in which survey data were entered twice into an electronic dataset and then compared. Discrepancies were evaluated against the original survey form and corrected. Range checks as well as other forms of quality control were also performed.

Analyzing the Results

One of the first steps in the data analysis was to statistically adjust the survey results so that the demographic profile of the respondents mirrored that of the population as a whole. This process is known as "weighting" the data. The primary objective of weighting survey data is to make the survey sample reflective of the larger population of the community. This is done by: 1) reviewing the sample demographics and comparing them to the population norms from the most recent sources and 2) comparing the responses to different questions for demographic subgroups. The demographic characteristics that are least similar to the known demographic profile and yield the most different results are the best candidates for data weighting. For this project, the population norms came from the US Census and American Community Survey data for the city of Alexandria. The results of the weighting scheme are presented in the table on the next page.

The electronic dataset was analyzed using the Statistical Package for the Social Sciences (SPSS). For the most part, frequency distributions and average (mean) ratings are presented in the body of the report. A complete set of frequencies for each survey question is presented in *Appendix A: Complete Set of Responses*. Chi-square or ANOVA tests of significance were applied to these breakdowns of selected survey questions. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of the sample represent "real" differences among those populations.

Table 158: Weighting Table

			Address-based		Open Participation	
		Census	Unweighted	Weighted	Unweighted	Weighted
Type of Housing Unit	Detached	15%	19%	15%	41%	16%
	Attached	85%	81%	85%	59%	84%
Tenure (Own or Rent)	Own	43%	64%	44%	84%	45%
	Rent	57%	36%	56%	16%	55%
Ethnicity	Not Hispanic	85%	92%	85%	91%	84%
	Hispanic	15%	8%	15%	9%	16%
Gender of Respondent	Male	47%	46%	51%	37%	51%
	Female	53%	54%	49%	63%	49%
Age of Respondent	18-34	38%	18%	33%	16%	34%
	35-54	38%	34%	38%	37%	39%
	55+	24%	48%	29%	48%	26%

Appendix I: Survey Materials

The following pages contain copies of the survey materials sent to randomly selected households within the City of Alexandria.

Presorted
First Class Mail
US Postage
PAID
Boulder, CO
Permit NO. 94

City of Alexandria Transportation & Environmental Services
Transportation Planning Division
421 King Street, Suite 235
Alexandria, VA 22314

Dear City of Alexandria Resident,

It won't take much of your time to make a big difference!

Your household has been randomly selected to participate in City of Alexandria's 2023 Transportation Needs Assessment Survey. In order to hear from a diverse group of residents, the member of your family who had the most recent birthday (who is also over 18) should complete this survey. You can go online and complete the confidential survey at the link below (enter the survey link exactly as it appears into your address bar of your web browser):

https://polco.us/xxplaceholder

Please do not share your survey link. This survey is for randomly selected households only. The City will conduct a separate survey that is open to all residents just a few weeks from now. You can also wait a few days for the survey to arrive in the mail.

If you have any questions about the survey please call 703.746.4083.

The City of Alexandria is committed to compliance with the Americans with Disabilities Act, as amended. To request a reasonable accommodation, call the number above.

Thank you for your time and participation!

Sincerely,

Adriana - Adriana Castaneda
Adriana Castaneda (Oct 26, 2023 12:07 EDT)

Adriana Castañeda
Director of Transportation and Environmental Services

City of Alexandria Transportation & Environmental Services
Transportation Planning Division
421 King Street, Suite 235
Alexandria, VA 22314

Presorted
First Class Mail
US Postage
PAID
Boulder, CO
Permit NO.94

DEPARTMENT OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES
421 King Street, Suite 235
Alexandria, VA 22314
703.746.4083
alexandriava.gov

October 2023

Dear City of Alexandria Resident:

You have been selected at random to participate in the City of Alexandria 2023 Transportation Needs Assessment Survey. Please take a few minutes to fill out the enclosed survey. Your participation in this survey is very important since your feedback will help Alexandria better understand transportation trends and needs. **(If you already completed the online, we thank you for your time and ask you to recycle this survey. Please do not respond twice.)**

A few things to remember:

- **Your responses are completely confidential.** No identifying information will be shared.
- In order to hear from a diverse group of residents, the member of your family who had the most recent birthday (who is also over 18) should complete this survey.
- **You may return the survey by mail in the enclosed postage-paid envelope, or you can complete the survey online at the link below (enter the survey link exactly as it appears into your address bar of your web browser):**

https://polco.us/xxplaceholder

Please do not share your survey link. This survey is for randomly selected households only. The City will conduct a separate survey that is open to all residents just a few weeks from now. If you have any questions about the survey please call 703.746.4083.

The City of Alexandria is committed to compliance with the Americans with Disabilities Act, as amended. To request a reasonable accommodation, call the number above.

Thank you for your time and participation!

Sincerely,

Adriana Castaneda
Adriana Castaneda (Oct 26, 2023 12:07 EDT)

Adriana -

Adriana Castañeda
Director of Transportation and Environmental Services

2023 City of Alexandria Transportation Needs Assessment Survey

Please complete this questionnaire if you are the adult (age 18 or older) in the household who most recently had a birthday. Your responses are completely confidential and no identifying information will be shared.

1. What is your employment status?

- ❍ Employed full- or part-time
- ❍ Currently not employed → skip to question 5
- ❍ Not employed, not looking for work (retired, stay-at-home parent, etc.) → skip to question 5

2. In the last week that you worked, please indicate all of the mode(s) you used as part of how you got to work on each day (please select all that apply). For example, if you rode Capital Bikeshare to the metro and then walked to your building on Monday, you would select Capital Bikeshare, Metro and Walk as your modes for Monday.

	Walk	Bike	Capital Bikeshare/ dockless scooters/ e-bikes	Bus	Drove alone	Carpool (drove or rode in a car with others)	Metro rail	Taxi/ Uber	VRE commuter rail	Worked at home	I did not work	Other
Monday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Tuesday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Wednesday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Thursday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Friday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Saturday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Sunday	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑

3. Does your employer offer any of the following commuter benefits? (Select all that apply.)

- ❍ Free parking
- ❍ Pre-tax parking
- ❍ SmartBenefits (Subsidized transit)
- ❍ Carpool of vanpool program
- ❍ Bikeshare/dockless mobility memberships or bicycle subsidies
- ❍ Other

4. If you typically drive alone to get to work, which of the following are the main reasons? (Select all that apply.)

- ❑ Don't usually drive alone to get to work
- ❑ Quickest/most convenient
- ❑ Privacy
- ❑ Irregular work schedule
- ❑ I take a child/children to and/or from school or child care on the way to/ from work
- ❑ Need/want to make stops/run errands on the way to/from work
- ❑ Need/want to come and go from the workplace during the day
- ❑ Personal reasons/commitments
- ❑ Work reasons/commitments
- ❑ Don't have shower at work if I walk or bike
- ❑ Don't want to take a shower at work if bike or walk
- ❑ Too hard to get to work location from Metro rail station or bus stop
- ❑ Too hard to get to Metro rail station or bus stop from home
- ❑ Bus or Metro rail is not available or inadequate
- ❑ Driving costs less
- ❑ Other modes are not safe
- ❑ I need somewhere to store larger/multiple things (luggage, groceries, other purchases, etc.)
- ❑ Other: _____

5. Please check all the mode(s) you used in the last month to access or do each of the following. (Select all that apply.)

	Did not do this activity	Walk	Bike	Capital Bikeshare/ dockless scooters/e-bikes	Bus	Drove alone	Carpool	Metro rail	Taxi/ Uber	Other
Parks & recreation centers	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Grocery store	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Non-grocery errands	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Restaurants	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Fun or fitness	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Visit friends or family	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑
Other non-work commute trips	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑

6. In the past month, how often did you use a GPS app like Google Maps or Waze to help determine your route to avoid congestion?

❍ Daily/nearly daily ❍ Few times per week ❍ Few times per month ❍ 1 time ❍ Never

7. In the past month, how many times, if ever, did you use any of these modes of transportation around Alexandria?

	Daily/ nearly daily	Few times per week	Few times per month	1 time	Never
Walk	1	2	3	4	5
Bike	1	2	3	4	5
Bikeshare (Capital Bike Share, dockless bikeshare, dockless scooter/escooter)	1	2	3	4	5
Drive alone	1	2	3	4	5
Private Vehicle – as driver	1	2	3	4	5
Private Vehicle – as passenger	1	2	3	4	5
Motorcycle/moped/motorized scooter	1	2	3	4	5
Taxi, other hired car service	1	2	3	4	5
Carshare (Zipcar, Hertz OnDemand)	1	2	3	4	5
Transportation Network Company (TNC such as Uber, Lyft, Via)	1	2	3	4	5
Rail (Metro rail, commuter rail)	1	2	3	4	5
DASH Bus	1	2	3	4	5
Metro Bus	1	2	3	4	5
Multiple transit systems	1	2	3	4	5
Carpool/Vanpool	1	2	3	4	5
Paratransit (DOT Paratransit, Metro Access)	1	2	3	4	5

8. To what extent do you agree or disagree that each of the following would increase your use of public transportation (bus or metro):

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
Services were more reliable	1	2	3	4
Services were more frequent	1	2	3	4
There were more direct routes/fewer transfers to destinations	1	2	3	4
Services were less expensive	1	2	3	4
My travel time was less than if I used a personal vehicle	1	2	3	4
There were routes that stop at my desired destinations	1	2	3	4
There were routes that stop at or near my home	1	2	3	4
I felt safer from crime while riding public transportation	1	2	3	4
I felt safer from crime waiting at the station	1	2	3	4
I had somewhere to put my things (luggage, groceries, other purchases, etc.)	1	2	3	4
Children could ride free on Metro	1	2	3	4
Public transportation vehicles were more comfortable (seat comfort, severity of acceleration and braking, vehicle sway, odors, noise and lighting)	1	2	3	4
I do not want to use public transportation	1	2	3	4

9. In the last month, about how frequently have you done each of the following?

	Never	1-10 times a month	11-20 times a month	More than 20 times a month
Ridden a bicycle for fun or exercise	1	2	3	4
Walked, ran, or jogged for fun or exercise	1	2	3	4

10. To what extent do you agree or disagree that each of the following would increase your use of walking as a means of transportation:

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
There were more sidewalks	1	2	3	4
There were more crosswalks	1	2	3	4
If the sidewalks and paths were in better condition	1	2	3	4
There was more off-street walking or multi-use paths/trails	1	2	3	4
There was more street lighting after dark	1	2	3	4
I had access to workplace showers	1	2	3	4
I felt more safe from traffic while walking	1	2	3	4
I felt more safe from crime while walking	1	2	3	4
It didn't take longer to walk to my destinations than to drive	1	2	3	4
I do not want to walk as a means of transportation	1	2	3	4

11. To what extent do you agree or disagree that each of the following would increase your use of a bicycle as a means of transportation:

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
There were more on-street bike lanes	1	2	3	4
There was more off-street bike or multi-use paths/trails	1	2	3	4
There was more street lighting after dark	1	2	3	4
I had access to a bicycle	1	2	3	4
I had access to an electric/pedal assist bicycle	1	2	3	4
I had access to workplace showers	1	2	3	4
I had a place to securely store a bicycle at work	1	2	3	4
There were places to securely park a bicycle at other destinations	1	2	3	4
I felt more safe from traffic while riding a bicycle	1	2	3	4
I felt more safe from crime while riding a bicycle	1	2	3	4
It didn't take longer to ride a bicycle to my destinations than to drive	1	2	3	4
I knew how to ride a bike	1	2	3	4
If there were more Capital Bikeshare stations	1	2	3	4
I do not want to use a bicycle as a means of transportation	1	2	3	4

12. Do you have school-aged children?

❍ Yes → go to question 13 ❍ No → skip to question 15

13. How do your child(ren) typically travel to/from school? (Select all that apply.)

❑ Walk ❑ Bike ❑ School bus
❑ Driven by caregiver ❑ Carpool ❑ Drive themselves alone
❑ Driven by taxi, Uber, Lyft, etc. ❑ Public transportation ❑ Other _____

14. If your children are driven to school or drive themselves, which, if any, of the following factors keep your child(ren) from walking, biking, or taking school bus or public transportation to/from school (Select all that apply):

❑ Distance to school
❑ Takes too long to use other modes
❑ Inconvenient to use other modes
❑ Not safe
❑ Other _____
❑ Cost
❑ Do not have access to a bicycle
❑ Do not have access to public transportation
❑ Lack of sidewalks, bike lanes

Our last questions are about you and your household. Again, all of your responses to this survey are completely confidential and no identifying information will be shared with the City or tied to your response.

15. Which best describes the building you live in?

❍ Single-family detached house
❍ Duplex, townhouse
❍ Apartment or condominium
❍ Other

16. Is your home…

❍ Rented ❍ Owned

17. How many of the following does your household have?

	None (0)	One (1)	Two+ (2+)
Passenger vehicles (cars, SUVs, etc.)	0	1	2+
Motorcycles, scooters, etc.	0	1	2+
Useable bicycles	0	1	2+
Electric-assist bicycles	0	1	2+

18. Are you Hispanic, Latino/a/x, Spanish origin?

❍ No, not of Hispanic, Latino/a/x, Spanish origin
❍ Yes, I consider myself to be of Hispanic, Latino/a/x, Spanish origin

19. What is your race? (Mark one or more races to indicate what race you consider yourself to be.)

❑ American Indian or Alaskan Native
❑ Asian
❑ Black or African American
❑ Native Hawaiian or other Pacific Islander
❑ White
❑ A race not listed

20. What is your gender?

❍ Female ❍ Male ❍ Identify another way

21. In which category is your age?

❍ 18-24 years ❍ 45-54 years ❍ 75 years or older
❍ 25-34 years ❍ 55-64 years
❍ 35-44 years ❍ 65-74 years

Thank you for completing this survey. Please return the completed survey in the postage-paid envelope to:
National Research Center, Inc.,
PO Box 549, Belle Mead, NJ 08502

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City of Alexandria Transportation & Environmental Services
Transportation Planning Division
421 King Street, Suite 235
Alexandria, VA 22314

Dear City of Alexandria Resident,

Just a reminder—if you have not yet completed the City of Alexandria's 2023 Transportation Needs Assessment Survey, please do so. If you have completed it, thank you. Please do not respond twice.

In order to hear from a diverse group of residents, the member of your family who had the most recent birthday (who is also over 18) should complete this survey. You can go online and complete the **confidential survey** at the link below (enter the survey link exactly as it appears into your address bar of your web browser):

https://polco.us/xxplaceholder

If you have any questions about the survey please call 703.746.4083.

The City of Alexandria is committed to compliance with the Americans with Disabilities Act, as amended. To request a reasonable accommodation, call the number above.

Thank you for your time and participation!

Sincerely,

Adriana - Adriana Castañeda (Oct 26, 2023 15:36 EDT)

Adriana Castañeda
Director of Transportation and Environmental Services