WASHINGTON AREA
BUS TRANSFORMATION
PROJECT

Report on Public Input Survey Results

Bus Transformation Project

January 2019

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Bus Transformation Project – Public Input Survey Report

1. Introduction

1.1 About the Project and Survey

The Washington Area Bus Transformation Project (BTP) is an effort to transform the DC region's local bus service. Engagement with the public is critical for understanding what the public wants from bus service in the region, which is important for the project's success.

The project team conducted a mobility survey hosted on the MetroQuest platform from September 17, 2018 through November 17, 2018. The survey asked members of the public about their current travel choices, how they make those choices, and how they would prioritize future bus service improvements. The survey, which was intended for both regular bus riders and non-riders, was available in both English and Spanish through the project website.

The survey was promoted through a combination of different methods. Twenty pop-up events were held at targeted locations throughout the region to reach a diverse sample of respondents. These events consisted of encouraging people to take the survey in person on tablet computers, plus team members distributed postcards to passersby, encouraging them to take the survey at home or on their phone. To promote the survey outside of the events, the project team coordinated a paid and earned social media campaign and placed an ad in the Express newspaper. The project team also reached out to community-based organizations and jurisdictional Public Information Officers (PIOs) to spread the word about the survey to their networks. WMATA also sent an email blast to SmarTrip® card holders, which resulted in a large amount of survey responses. All survey respondents had the opportunity to share their email address for the chance to win a $50 SmarTrip® card.

1.2 About this Analysis

The purpose of this report is to provide a detailed analysis of all the survey questions and analyze their significance within the context of the BTP. The survey results will be used as public input for the BTP going forward in the formation of the strategy.

The survey questions from the MetroQuest interface are included as an appendix at the end of this report. Each question has been identified with a unique question ID, which are used throughout this report.

Demographic information was optional, as were all the questions on the survey. Not all respondents gave an answer for the demographic questions. The survey was open to anyone to take. The results shared in this report are the results of an unweighted, uncontrolled survey sample. Therefore, these results can not be interpreted as fully representative of the region.

1.3 Glossary

Respondents have been sorted into different categories for this analysis. Some of the key terms which define these different groups are described below.

- **Frequent bus riders:** Respondents who reported they ride the bus at least once per week. Across the region, 49 percent of bus riders are frequent riders, and these riders take 91 percent of all bus trips.
- **Non-frequent bus riders:** Respondents who reported they ride the bus less than once per week. Across the region, 51 percent of bus riders are non-frequent riders, and these riders take nine percent of all bus trips.
- **Low-income:** Respondents who reported their household annual income as less than $30,000, which is WMATA's definition of low-income in its Title VI Plan. Fifty-two percent of Metrobus riders are low-income.
- **Non-white:** Respondents who selected any race or ethnicity choice other than white, which includes American Indian or Alaska Native, Asian, Black or African-American, Hawaiian or other Pacific Islander, Hispanic, Two or more races, or Other. Eighty-one percent of Metrobus riders are non-white.

2. Key Findings

- There were 5,679 total survey responses, almost doubling the original goal to reach 3,000 responses.
- The District of Columbia had the largest share of respondents (43 percent). Fifty-one percent of Metrobus riders live in DC.
- About two of out five respondents (43 percent) used smartphones to complete the survey, signifying the importance of ensuring that the mobile version of the survey is easy to understand and use.
- The share of respondents who are low-income and non-white is roughly equivalent to the share of the regional population but falls short of representing the share of Metrobus riders. Pop-up events helped to expand the survey to reach these groups.
- 3,528 respondents (68%) were identified as frequent bus riders and 1,668 respondents (32%) were identified as non-frequent bus riders.
- Respondents reported that less than half of their bus trips are for work or work-related purposes, demonstrating that the bus serves much more than just a commuter market.
- The top three reasons respondents ride local bus:

  - The bus being the most affordable option was identified at higher rates by low-income respondents (compared to non-low-income respondents) and respondents aged 18-24 (compared to other age groups).

- The top three barriers to respondents riding local bus:

  - Non-low-income respondents reported frequency as a barrier more than low-income respondents did.
  - The barriers cited by regular drivers who are not frequent bus riders are very similar to the overall barriers cited by all survey respondents.
- Thirty-eight percent of respondents are using local bus more now than they were three years ago. Thirty-two percent of respondents are using local bus at about the same rate as three years ago and 21 percent are using it less often. Frequent bus riders and frequent transit riders are using the bus more often now than they were three years ago, compared to non-frequent riders.
- Respondents who said they sometimes take Metrorail instead of local bus reported the top reason for this decision being that Metrorail is faster.
- Respondents who said they sometimes take the bus instead of Metrorail reported the top reason for this decision being that the bus is more affordable, followed closely by the fact that the bus allows for less walking.
- Respondents reported that they would be most likely to use other forms of transit, drive, or use a TNC (transportation network company, like Uber or Lyft), if local bus was not available for trips they normally take by bus. Frequent bus riders reported that in this situation they would be more likely to use TNCs than drive, pointing to the fact that many frequent bus riders may not have regular access to a car. Thirty-four percent of low-income frequent bus riders would use TNCs compared to only 20 percent of non-low-income respondents, pointing to the lower likelihood of low-income riders to have access to a car.
- Respondents prioritized “More Frequent Service” and “More Reliable and Faster Service” highest when asked to invest a limited amount of theoretical money into improvements to the bus system. Affordable fares were a higher priority among some groups compared to others, including respondents to the Spanish-language survey (compared to respondents to the English-language survey), non-white respondents (compared to white respondents), and low-income respondents (compared to non-low-income respondents).

3. About the Respondents

3.1 About the Sample

Table 1 summarizes the full survey sample. There were 5,679 responses overall, the majority of which were completed using the English-language survey (96 percent) compared to the Spanish-language survey (four percent). Most of the responses were received from people who accessed the survey on their own through the internet on a phone or computer (80 percent) compared to people who filled out the survey at a live pop-up event (20 percent).

Table 1: Cumulative Responses by Survey Language and Response Method

	Web Respondents	Pop-Up Respondents	Total Respondents
English-Language Survey	4,411	1,053	**5,464**
Spanish-Language Survey	123	92	**215**
Total Respondents	**4,534**	**1,145**	**5,679**

3.2 Demographics

3.2.1 Basic Profile of Survey Respondents

Table 2 contains the basic demographic characteristics of the survey respondents, for the respondents who chose to share the information. As this survey was open to anyone to take and this sample is unweighted, the demographic characteristics are presented here to set the stage for the results of the survey, as the survey results are reflective of the sample and not necessarily of the region, bus riders, or any other population.

Forty-five percent of respondents are non-white (Table 2). Sixteen percent of respondents are low-income (defined as household annual income of less than $30,000, which is WMATA's definition of low-income in its Title VI Plan). Most survey respondents fall between the ages of 25 and 54. A higher percentage of respondents are female (58 percent).

Table 2: Demographic Characteristics of Survey Respondents

	Respondents	Percent of Respondents Who Answered the Question
Non-White	1,876	45%
White	2,270	55%
No Answer	1,712	-
Not Low-Income	3,323	84%
Low-Income	644	16%
No Answer	1,533	-
< 18	38	1%
18-24	365	9%
25-34	1,250	30%
35-54	1,498	36%
55-64	671	16%
65-79	293	7%
> 80	14	0%
No Answer	1,550	-
Male	1,726	42%
Female	2,347	58%
No Answer	1,561	-

Table 3 compares the BTP survey respondents to Metrobus riders and the region as a whole. The survey's share of respondents who are low-income (sixteen percent) exceeds the percentage of low-income people in the region (five percent) but is far lower than the percentage of Metrobus riders who are

low-income (49 percent). The survey's share of respondents who are non-white (45 percent) is lower than the percentage of non-white residents in the region (58 percent) and is far lower than the percentage of Metrobus riders who are non-white (81 percent). This demonstrates that the survey outreach did a decent job at reaching low-income and non-white people throughout the region. It came short of reaching enough low-income and non-white respondents to represent the profile of Metrobus riders, however the purpose of the survey was to achieve input from not only Metrobus riders but riders of other local buses and non-riders who might become riders if the bus service in the region better met their needs.

Table 3: Survey Respondents' Demographic Characteristics Compared to Metrobus Riders and the Region

	Survey Respondents	Metrobus Riders (2014)[1]	Region (2016)[2]
Low-Income	16%	49%	5%
Not Low-Income	84%	51%	95%
Non-White	45%	81%	58%
White	55%	19%	42%

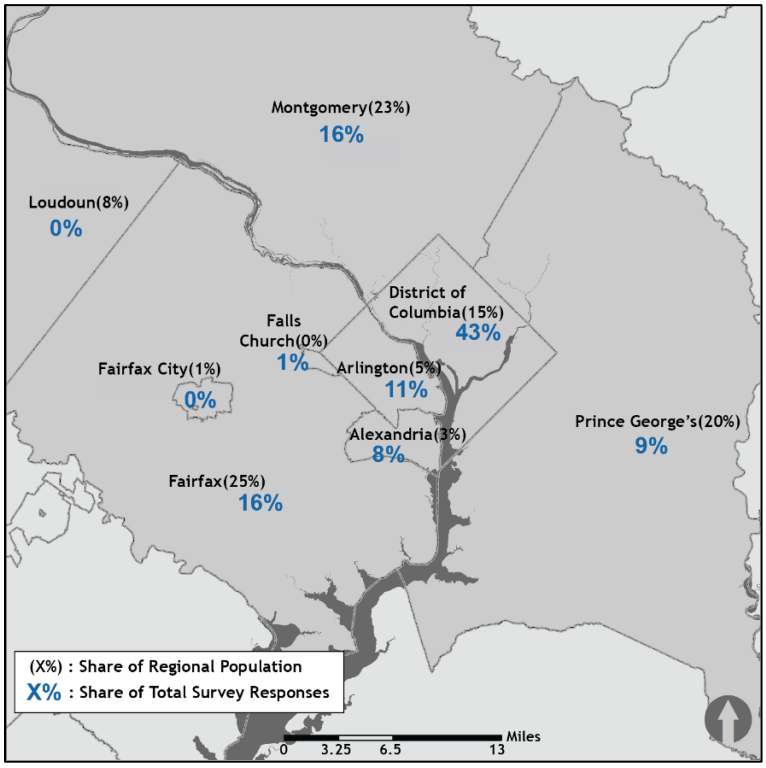
Most survey respondents who shared their home zip code live in DC (Table 4 and Figure 1), with 1,736 responses, exceeding the next highest jurisdiction by over 1,000 responses. The next highest jurisdiction was Montgomery County, followed by Arlington County, Prince George's County, Fairfax County, and the City of Alexandria. Table 4 and Figure 1 also include each jurisdiction's regional share of the population, to compare that with the share of survey respondents from each region. DC residents are overrepresented in the survey sample, as 43 percent of respondents call DC home but only 15 percent of the region's residents live in the District. Arlington and Alexandria are also overrepresented in the survey sample. The most populous jurisdictions in the region, Fairfax, Montgomery, and Prince George's Counties, are all underrepresented in the survey sample.

Table 4: Home Jurisdiction of Survey Respondents Compared to the Region

Home Jurisdiction	Survey Respondents	Percent of Survey Respondents Reporting Home Jurisdiction	Regional Share of Population
City of Alexandria	307	8%	3%
Arlington County	456	11%	5%
District of Columbia	1,736	43%	15%
Fairfax County	360	9%	25%
City of Fairfax	17	0%	1%
City of Falls Church	21	1%	0%
Loudoun County	18	0%	8%
Montgomery County	648	16%	23%
Prince George's County	374	9%	20%
Other	113	3%	-
No Answer	1,629	-	-

[1] *2014 WMATA On-Board Survey*
[2] *American Community Survey 5-year estimates (2016). Region is defined as all the jurisdictions included in this study.*

Figure 1: Map of Home Jurisdiction of Survey Respondents Compared to the Region



There are multiple possible reasons for the uneven distribution of survey responses from across the region. One possible factor examined was the large number of survey responses received on October 12, the day that WMATA sent out an email blast to part of its SmarTrip® database,[3] but analysis found that the share of responses from each jurisdiction on that day were relatively close to the responses as a whole. Other possible factors include the locations of the pop-up events (discussed in section 3.2.2), the share of bus and transit riders being more concentrated in the region's urban core, and the online outreach methods reaching certain groups of people more than others. Age may have also played a role; adults aged 25-54 were more inclined to take the survey, and Arlington and DC both have higher shares of adults in this age bracket compared to the other jurisdictions.[4]

3.2.2 Survey Responses from Pop-Up Events

For both the English and Spanish versions of the survey separate URLs were used at pop-up events, which enabled survey responses to be categorized as having been received during a pop-up event or not. Table 5 shows the breakdown of demographic characteristics of respondents from the pop-up events compared to non-pop-up respondents.

The pop-up events saw much higher shares of responses from low-income and non-white compared to responses from the web. Thirty-seven percent of responses at pop-up events were from low-income

[3] *Not all October 12 responses can be attributed to the WMATA email blast. There were 1,190 non-pop-up survey responses received on this day, almost four times higher than the night highest day (which was October 13, likely a continuation of the spike from the email blast), and over six times higher than the next highest day after that, meaning most of the responses on October 12 can be assumed to be a result of the email blast.*

[4] *Percentage of population between ages 25-54: Arlington – 55.9%, DC – 48.5%, Fairfax – 43.8%, Prince George's – 43.1%, Montgomery – 42%. American Community Survey 5-year estimates (2016).*

respondents, compared to only twelve percent of web responses. Forty-two percent of responses at pop-up events were from black respondents, compared to 18 percent of web responses.

The pop-up events also proved a valuable method for reaching both older and younger people. Seventy percent of web responses were from people aged 25-54, but the age distribution of respondents at pop-up events was much more even. There was no notable difference between female and male respondents in participating in the survey through a pop-up event or online.

Table 5: Demographic Characteristics of Survey Respondents by Responses Recorded at Pop-Up Events and Responses Recorded Through the Web (Accessing Survey on Their Own)

		Responses from Pop-up Event	% of Total by Category	Responses from the Web	% of Total by Category
Income	**Not Low-Income**	471	63%	2,852	88%
	Low-Income	271	37%	373	12%
	Total	**742**		**3,225**	
Gender	**Female**	472	58%	1,875	57%
	Male	337	41%	1,389	42%
	Other	5	1%	40	1%
	Total	**814**		**3,304**	
Age	**< 18**	20	2%	18	1%
	18-24	103	13%	262	8%
	25-34	196	24%	1,054	32%
	35-54	253	31%	1,245	38%
	55-64	168	21%	503	15%
	65-79	67	8%	226	7%
	> 80	3	0%	11	0%
	Total	**810**		**3,319**	
Race/Ethnicity	**Black**	349	42%	597	18%
	Hispanic	92	11%	231	7%
	White	249	30%	2,021	61%
	Other	140	17%	467	14%
	Total	**830**		**3,316**	

There were twenty pop-up events held across the region, displayed in Table 6 and organized by jurisdiction and date. Table 7 shows the responses recorded by jurisdiction for both pop-up and non-pop-up responses. Arlington and Alexandria residents were reached at higher rates through the pop-up events compared to other jurisdictions. Only one pop-up event was held in Alexandria and three were held in Arlington. Three of those four pop-up events were held in mid-late September when the weather was better and days were longer, which contributed to a higher rate of surveys completed on-site. Six of the twenty pop-up events were held in DC with an average of 59 responses per event, but despite the large number of pop-up responses in DC, the share of pop-up responses in DC was relatively low compared to the other jurisdictions due to the very large number of respondents from DC who completed the survey online (1,477 respondents).

Table 6: Responses Recorded by Pop-Up Event by Jurisdiction

	Pop-Up Event Location	Survey Responses Received	Date (All 2018)
City of Alexandria • Pop-ups: 1 • Avg. # Responses: 109	Braddock Road Metro Station	109	September 19
Arlington County • Pop-ups: 3 • Avg. # Responses: 90	Clarendon Day	115	September 22
	Village at Shirlington	98	September 29
	Pentagon Metro Station	56	October 22
District of Columbia • Pop-ups: 6 • Avg. # Responses: 59	H Street NE & 8th Street NE	59	October 1
	Fort Totten Metro Station	85	October 9
	Columbia Heights Metro Station	50	October 13
	Minnesota Avenue Farmers Market	44	October 18
	McPherson Square	52	October 25
	Giant Food on Alabama Ave SE, Near Congress Heights Metro Station	61	October 27
Fairfax County • Pop-ups: 2 • Avg. # Responses: 41	Reston Town Center: Live More Block Party	51	October 3
	Seven Corners Transit Center	31	November 5
Montgomery County • Pop-ups: 4 • Avg. # Responses: 43	Wheaton Metro Station	70	October 5
	Shady Grove Metro Station[1]	20	November 1
	Paul S. Sarbanes Transit Center at Silver Spring Metro Station	48	November 13
	Friendship Heights Metro Station	32	November 14
Prince George's County • Pop-ups: 4 • Avg. # Responses: 38	Takoma Langley Crossroads Transit Center	36	October 15
	Giant Food in Marlow Heights Shopping Center	53	October 28
	Prince George's Plaza Metro Station	32	November 3
	New Carrollton Metro Station	30	November 8

Table 7: Home Jurisdiction of Survey Respondents by Responses Recorded at Pop-Up Events and Responses Recorded Through the Web (Accessing Survey on Their Own)

	Response from Pop-up Events	Response from the Web	% Pop-Up	% Web	Total Responses
City of Alexandria	85	222	28%	72%	307
Arlington County	131	325	29%	71%	456
District of Columbia	259	1,477	15%	85%	1,736
Fairfax County	70	290	19%	81%	360
City of Fairfax	1	16	6%	94%	17
City of Falls Church	-	21	-	100%	21
Loudoun County	1	17	6%	94%	18
Montgomery County	110	538	17%	83%	648
Prince George's County	85	289	23%	77%	374
Other	27	86	24%	76%	113
No Answer	376	1,253	23%	77%	1,629

3.2.3 Demographic Profiles of English-Language and Spanish-Language Survey Takers

The English-language survey received many more responses than the Spanish-language survey, which received 215 responses (four percent of the overall responses). Table 8 shows the demographic breakdown comparing English-language to Spanish-language responses. Having the survey available in Spanish allowed the project team to reach more people of Hispanic ethnicity and limited-English proficiency.

Table 8: Demographic Characteristics of Survey Respondents by Responses Recorded Through English-Language Survey and Responses Recorded Through Spanish-Language Survey

		English-Language Survey Responses	% of Total by Category	Spanish-Language Survey Responses	% of Total by Category
Income	**Not Low-Income**	3,303	85%	20	22%
	Low-Income	574	15%	70	78%
	Total	**3,877**		**90**	
Gender	**Female**	2,280	57%	67	59%
	Male	1,693	42%	33	29%
	Other	44	1%	1	1%
	Total	**4,017**		**114**	
Age	**< 18**	36	1%	2	2%
	18-24	353	9%	12	12%
	25-34	1,227	30%	23	23%
	35-54	1,458	36%	40	40%
	55-64	654	16%	17	17%
	65-79	287	7%	6	6%
	> 80	14	0%	-	0%
	Total	**4,029**		**100**	
Race/Ethnicity	**Black**	946	23%	-	0%
	Hispanic	221	5%	102	96%
	White	2,268	56%	2	2%
	Other	605	15%	2	2%
	Total	**4,040**		**106**	

Table 9 shows the jurisdictional breakdown comparing English-language to Spanish-language responses. The Spanish-language survey saw higher rates of use in Fairfax, Montgomery, and Prince George's Counties compared to other jurisdictions.

Table 9: Home Jurisdiction of Survey Respondents by Responses Recorded Through English-Language Survey and Responses Recorded Through Spanish-Language Survey

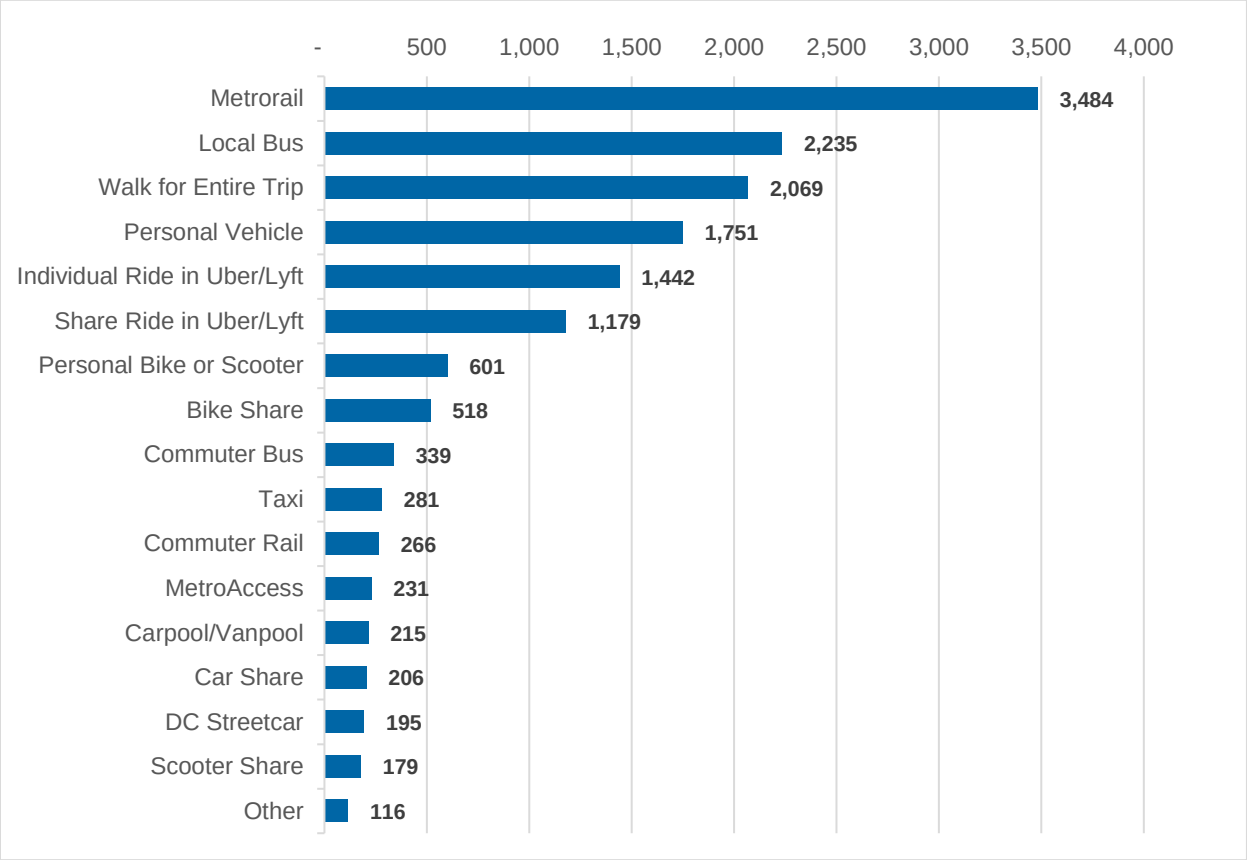
	English-Language Survey Responses	% English	Spanish-Language Survey Responses	% Spanish	Total Responses
City of Alexandria	304	99%	3	1%	307
Arlington County	450	99%	6	1%	456
District of Columbia	1,714	99%	22	1%	1,736
Fairfax County	339	94%	21	6%	360
City of Fairfax	17	100%	-	-	17
City of Falls Church	21	100%	-	-	21
Loudoun County	18	100%	-	-	18
Montgomery County	617	95%	31	5%	648
Prince George's County	358	96%	16	4%	374
Other	113	100%	-	-	113
No Answer	1,513	93%	116	7%	1,629

4. Basic Travel Information

4.1 Travel Modes

Respondents were asked to share the modes of travel they use at least once per week (Q2.2b), with no limit on the number of modes they could select (Figure 2). Sixty-eight percent of respondents who answered this question reported that they ride Metrorail at least once per week, the most commonly reported mode. Local bus followed Metrorail, with 43 percent of respondents indicating they ride local bus at least once per week. Individual and shared rides in transportation network company (TNCs, like Uber and Lyft) vehicles far outnumbered taxi trips among respondents. Commuter rail, carpooling, and MetroAccess were each selected by less than five percent of respondents.

Figure 2: Modes Respondents Use Once a Week or More



Respondents were asked which local bus services they use at least once a month (Q2.1a). They could select as many local bus services as they wanted. Table 10 shows that Metrobus is the most commonly used service among survey respondents, followed by DC Circulator and Ride On. The bus services used follow the pattern of where respondents indicated they live in the region (see the last column in Table 10).

Table 10: Local Bus Services Used At Least Once Per Month

Bus System	Respondents Who Use Bus at Least Once Per Month	Percentage of Respondents who Answered the Question	Overall Respondents' Home Jurisdiction
Metrobus (Regional)	4,203	77%	97%
Circulator (DC)	1,351	25%	43%
Ride On (Montgomery)	764	14%	16%
ART (Arlington)	388	7%	11%
TheBus (Prince George's)	354	6%	9%
DASH (Alexandria)	353	6%	8%
Fairfax Connector (Fairfax Co.)	317	6%	9%
CUE (City of Fairfax)	64	1%	0%
I don't ride local bus	814	15%	-
No Answer	189	-	-

4.2 Origins and Destinations

Respondents were asked where their most common trip (such as to work or school) begins and ends, regardless of mode of travel (Q2.3). The results in Figure 3 are largely a reflection of respondents' reported home locations (Table 4). These results are only reflective of an unweighted, uncontrolled survey sample, and therefore these results can not be interpreted as a complete regional analysis of origin-destination pairs.

Of the respondents who reported their home zip code, 43 percent live in DC, and most origins and destinations identified are within DC. After DC, the next-highest reported origin-destination pair within a jurisdiction is Montgomery County. Overall, 52 percent of trips reported are within jurisdictions. The highest reported origin-destination pairs between jurisdictions are DC to/from Arlington and Montgomery Counties; after DC, these two counties have the next highest number of survey respondents, so it follows that a large number of trips (which are presumed to be mostly work trips) would be between these jurisdictions and DC.

Figure 3: Origins and Destinations Between and Within Jurisdictions

	Alexandria	Arlington	D.C.	Fairfax City	Fairfax Co.	Falls Church	Loudoun	Montgomery	Prince George's	Other
Alexandria	85									
Arlington	108	170								
D.C.	347	451	1,742							
Fairfax City	7	13	19	12						
Fairfax Co.	29	81	203	14	114					
Falls Church	11	22	34	4	7	16				
Loudoun	3	2	9	0	8	1	16			
Montgomery	8	22	535	7	15	3	2	358		
Prince George's	22	15	356	3	8	14	1	89	158	
Other	7	17	41	3	11	1	0	16	8	84

Note: Darker shades of blue indicate higher numbers.

4.3 Transit Frequency

Respondents were asked how frequently they ride local bus (Q2.1b). There were five different answer options, shown in Table 11. Overall, the largest number of survey respondents who answered this question reported that they ride the bus five days a week or more (41 percent). Twenty-six percent of respondents ride between one and four times a week, and 33 percent ride sometimes, rarely, or never. Table 11 also shows the breakdown in answers to this question from English-language and Spanish-language survey respondents. Because the vast majority of respondents used the English-language survey, the pattern of English-language responses closely follows the pattern of overall responses. Spanish-language respondents ride the bus five days a week or more at a higher rate than English-language survey respondents.

Table 11: Frequency of Riding Local Bus

Frequency of Riding Local Bus	Overall (% of those who responded)	English-Language Survey Respondents (% of those who responded)	Spanish-Language Survey Respondents (% of those who responded)
5 or more days per week	2,130 (41%)	2,012 (40%)	118 (65%)
3 - 4 days per week	804 (15%)	778 (16%)	26 (14%)
1 - 2 days per week	594 (11%)	574 (11%)	20 (11%)
Sometimes, but less than once per week	861 (17%)	851 (17%)	10 (5%)
Rarely or never	807 (16%)	799 (16%)	8 (4%)
No Answer	483	450	33

The above results were collapsed into two categories for the sake of analysis: frequent bus riders (rides one day a week or more) and non-frequent bus riders. 3,528 respondents (68%) were identified as frequent bus riders and 1,668 respondents (32%) were identified as non-frequent bus riders.

Table 12 shows the demographic breakdown of survey respondents in terms of their frequency of riding local bus. Demographic information was optional, so not all respondents gave an answer for the demographic questions. A higher proportion of low-income respondents are frequent bus riders compared to non-low-income respondents (a difference of nineteen percent). Female respondents were categorized as frequent bus riders at a slightly higher rate than male respondents (a difference of two percent), while respondents who selected “other” for gender use the bus more frequently than female and male respondents. Respondents’ age does not directly correlate to whether they are frequent bus riders or not. Black respondents are more likely to be regular bus riders compared to other respondents.

Respondents from DC and Prince George’s County had the highest rates of frequent bus riders, each with over 70 percent of respondents (Table 12). Alexandria follows, with 68 percent of respondents categorized as frequent bus riders. Sixty-six percent of respondents from Montgomery County are frequent bus riders, 63 percent from Fairfax County are, and 59 percent from Arlington are. The City of Fairfax, the City of Falls Church, and Loudoun County all had twenty or fewer respondents answer the question about frequent bus use.

Table 12: Survey Respondent Characteristics by Frequency of Riding Local Bus

		Frequent Bus Riders	% Frequent Bus Riders	Non-Frequent Bus Riders	% Non-Frequent Bus Riders	Total
Income	**Not Low-Income**	2,028	65%	1,093	35%	3,121
	Low-Income	484	84%	92	16%	576
	No Answer	1,016	68%	483	32%	1,499
Gender	**Female**	1,517	69%	695	31%	2,212
	Male	1,058	67%	526	33%	1,584
	Other	35	81%	8	19%	43
	No Answer	918	68%	439	32%	1,357
Age	**< 18**	29	83%	6	17%	35
	18-24	234	67%	114	33%	348
	25-34	806	68%	383	32%	1,189
	35-54	929	67%	462	33%	1,391
	55-64	435	71%	174	29%	609
	65-79	170	64%	95	36%	265
	> 80	11	85%	2	15%	13
	No Answer	914	68%	432	32%	1,346
Race/ Ethnicity	**Black**	680	83%	6	17%	35
	Hispanic	217	67%	114	33%	348
	White	1,334	68%	383	32%	1,189
	Other	390	67%	462	33%	1,391
	No Answer	907	71%	174	29%	609
Home Jurisdiction	**City of Alexandria**	190	68%	89	32%	279
	Arlington County	257	59%	178	41%	435
	District of Columbia	1,221	73%	441	27%	1,662
	Fairfax County	205	63%	123	38%	328
	City of Fairfax	9	64%	5	36%	14
	City of Falls Church	9	45%	11	55%	20
	Loudoun County	8	44%	10	56%	18
	Montgomery County	396	66%	202	34%	598
	Prince George's Co.	245	71%	98	29%	343
	Other	32	37%	54	63%	86
	No Answer	956	68%	457	32%	1,413

Respondents were also asked how frequently they ride any form of public transit, including local bus, Metrorail, commuter rail, etc. (Q2.2a). There were five different answer options (the same choices as in the question that only asked about local bus use). As shown in Table 13, the majority of survey respondents who answered this question reported that they ride transit five days a week or more (52 percent). Twenty-seven percent of respondents ride between one and four times a week, and 22 percent ride sometimes, rarely, or never. Table 13 also shows the breakdown in answers to this question from English-language and Spanish-language survey respondents. Similar to the responses for the bus frequency question, because the vast majority of respondents used the English-language survey, the

pattern of English-language responses closely follows the pattern of overall responses. Spanish-language respondents use transit more frequently than English-language survey respondents. Overall, there are more survey respondents who are frequent transit riders than frequent bus riders (in comparison to Table 12).

Table 13: Frequency of Riding Any Form of Public Transit

Frequency of Riding Public Transit	Overall (% of those who responded)	English-Language Survey Respondents (% of those who responded)	Spanish-Language Survey Respondents (% of those who responded)
5 or more days per week	2,691 (52%)	2,580 (51%)	111 (62%)
3 - 4 days per week	812 (16%)	785 (16%)	27 (15%)
1 - 2 days per week	595 (11%)	579 (11%)	16 (9%)
Sometimes, but less than once per week	660 (13%)	646 (13%)	14 (8%)
Rarely or never	464 (9%)	454 (9%)	10 (6%)
No Answer	457	420	37

The above results were collapsed into two categories for the sake of analysis: frequent transit riders (rides one day a week or more) and non-frequent transit riders. 4,098 respondents (78%) were identified as frequent transit riders and 1,124 respondents (22%) were identified as non-frequent transit riders.

Table 14 shows the demographic breakdown of survey respondents in terms of their frequency of riding any form of public transit. Demographic information was optional, so not all respondents gave an answer for the demographic questions. Low-income respondents were categorized as frequent transit riders at a slightly higher rate than non-low-income respondents (a difference of only three percent). Respondents who selected “other” for gender ride transit at a higher rate than female and male respondents. Respondents who are between the ages of 18-64 are more likely to be regular transit users compared to older and younger respondents, with an exception for respondents over the age of 80 who use transit at a very high rate. There is almost no difference between white and non-white respondents’ frequency of using transit.

There are some key differences between the jurisdictions in their respondents’ frequency of transit use compared to frequency of bus use. DC and Alexandria are at the top of rates of frequent transit use, each with over 80 percent of their respondents, while DC and Prince George’s County have the highest shares of frequent bus riders. Montgomery and Prince George’s Counties follow with similar shares of frequent transit riders (78 and 77 percent, respectively), but Prince George’s County has a higher rate of frequent bus riders than Montgomery. Seventy-five percent of Arlington respondents are frequent transit riders and 70 percent of Fairfax County respondents are, but Fairfax has a higher share of frequent bus riders than Arlington. The City of Fairfax, the City of Falls Church, and Loudoun County all had twenty or fewer respondents answer the question about frequent transit use.

Table 14: Survey Respondent Characteristics by Frequency of Riding Any Transit

		Frequent Transit Riders	% Frequent Transit Riders	Non-Frequent Transit Riders	% Non-Frequent Transit Riders	Total
Income	**Not Low-Income**	2,520	79%	658	21%	3,178
	Low-Income	472	82%	104	18%	576
	No Answer	1,106	75%	362	25%	1,468
Gender	**Female**	1,749	79%	462	21%	2,211
	Male	1,305	80%	332	20%	1,637
	Other	39	91%	4	9%	43
	No Answer	1,005	76%	326	24%	1,331
Age	**< 18**	27	71%	11	29%	38
	18-24	288	82%	62	18%	350
	25-34	1,005	82%	216	18%	1,221
	35-54	1,105	78%	312	22%	1,417
	55-64	474	79%	128	21%	602
	65-79	189	71%	77	29%	266
	> 80	13	93%	1	7%	14
	No Answer	997	76%	317	24%	1,314
Race/ Ethnicity	**Black**	682	80%	174	20%	856
	Hispanic	244	80%	62	20%	306
	White	1,764	81%	427	19%	2,191
	Other	421	75%	142	25%	563
	No Answer	987	76%	319	24%	1,306
Home Jurisdiction	**City of Alexandria**	239	83%	48	17%	287
	Arlington County	332	75%	110	25%	442
	District of Columbia	1,408	84%	263	16%	1,671
	Fairfax County	236	70%	100	30%	336
	City of Fairfax	11	65%	6	35%	17
	City of Falls Church	14	70%	6	30%	20
	Loudoun County	14	78%	4	22%	18
	Montgomery County	470	78%	136	22%	606
	Prince George's Co.	264	77%	77	23%	341
	Other	68	64%	39	36%	107
	No Answer	1,042	76%	335	24%	1,377

The proportion of survey respondents who regularly use the bus or any form of public transit is much higher than that of the general population. The outreach methods used for this survey could be a contributing factor, in that the pop-up events were held mostly at Metrorail stations or transit centers. Additionally, people who do not use the bus or other transit may not have been inclined to take the survey, if they thought it was not relevant to them.

4.4 Transit Trip Purposes

Respondents were asked for what types of trip purposes they used local bus in the last month (Q2.4a). They could select as many options as they wanted. The most commonly selected trip purpose was for work, with over one-third of responses (Figure 4). Combining work and work-related trips results in almost half of all the responses, demonstrating that the bus serves much more than just a commuter market.

Figure 4: Bus Trip Purposes

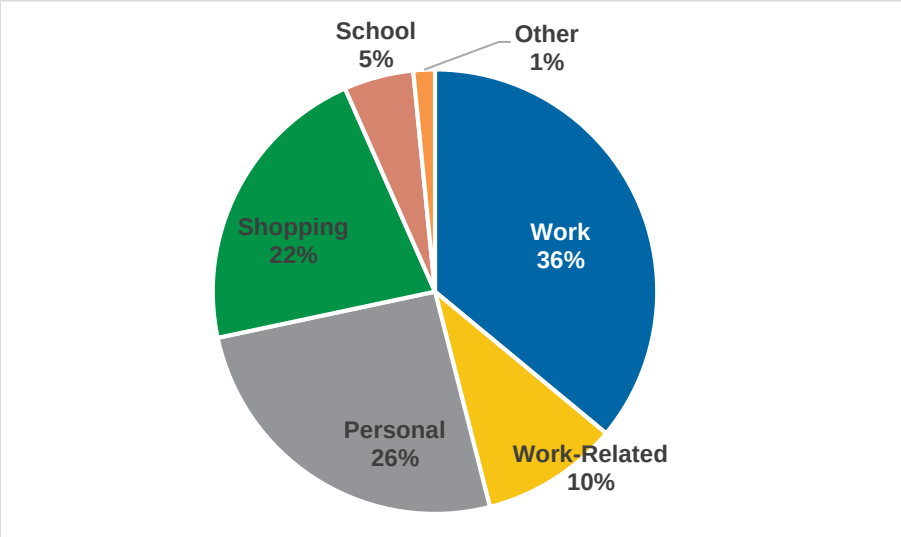


Table 15 shows the bus trip purpose responses broken down by race/ethnicity and income. Between white and non-white respondents there are not many large differences; non-white respondents reported school trips more than white respondents did, and white respondents reported work-related trips more than non-white respondents did. Non-low-income respondents reported bus trips for work three percent more than low-income respondents did. Low-income respondents reported school trips twenty percent more than non-low-income respondents.

Table 15: Bus Trip Purposes by Race/Ethnicity and Income

	Race/Ethnicity		Income	
	White	Non-White	Not Low-Income	Low-Income
Work	1,375 (61%)	1,244 (66%)	2,126 (64%)	391 (61%)
Work-Related	1,101 (49%)	817 (44%)	1,558 (47%)	302 (47%)
Personal	839 (37%)	783 (42%)	1,239 (38%)	333 (52%)
Shopping	345 (16%)	405 (22%)	587 (18%)	136 (22%)
School	109 (5%)	254 (14%)	168 (6%)	167 (26%)
Other	57 (3%)	57 (3%)	76 (3%)	37 (6%)

Respondents were also asked for what types of trip purposes they used any form of public transit in the last month (Q2.4b). They could select as many options as they wanted. The most commonly selected trip purpose was for work, with 32 percent of responses (Figure 5). Respondents reported a slightly higher proportion of personal trips on all forms of transit compared to just local bus, and a slightly lower proportion of shopping trips.

Figure 5: Transit Trip Purposes

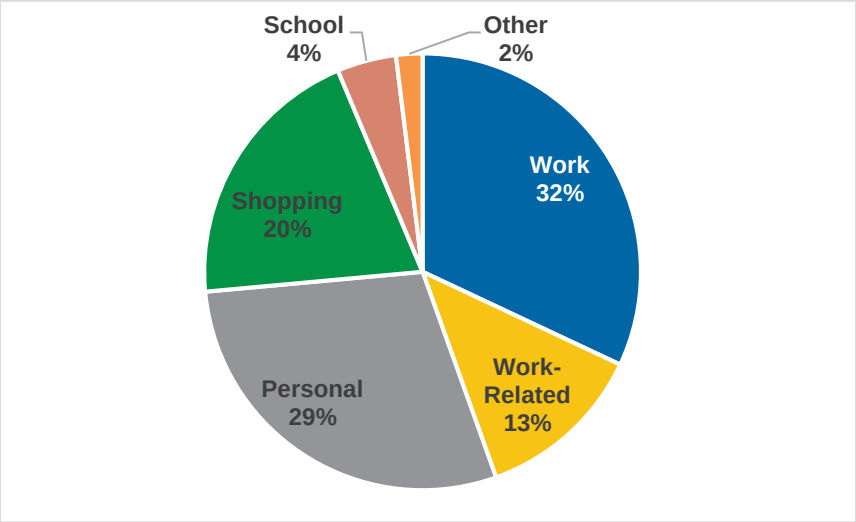


Table 16 shows the transit trip purpose responses broken down by race/ethnicity and income. The differences in transit trip purposes for white and non-white respondents, and for low-income and non-low-income respondents, follow a similar pattern as they did for bus trip purposes.

Table 16: Transit Trip Purposes by Race/Ethnicity and Income

	Race/Ethnicity		Income	
	White	Non-White	Not Low-Income	Low-Income
Work	1,394 (65%)	1,016 (61%)	2,053 (66%)	292 (53%)
Work-Related	1,426 (67%)	809 (49%)	1,886 (61%)	286 (51%)
Personal	921 (43%)	633 (38%)	1273 (41%)	234 (42%)
Shopping	568 (27%)	406 (24%)	841 (28%)	114 (21%)
School	108 (5%)	212 (13%)	161 (6%)	140 (25%)
Other	69 (4%)	65 (4%)	94 (4%)	35 (7%)

Regular bus riders use bus more for work than all regular transit riders' transit trips (Table 17). Regular bus riders also use bus for school and shopping trips at a slightly higher rate than all regular transit riders' transit trips.

Table 17: Frequent Bus and Transit Riders' Trip Purposes on Bus and Transit

	Frequent Bus Riders' Bus Trips Purposes	Frequent Transit Riders' Transit Trip Purposes
Work	84%	67%
Work-Related	22%	26%
Personal	54%	57%
Shopping	49%	42%
School	12%	9%
Other	3%	3%

5. Travel Choices

5.1 Current Travel Choices

5.1.1 Reasons for Using Local Bus

Respondents were asked to select the top three reasons they ride the bus (Q3.1a). Figure 6 shows that the top reason respondents use the bus is that it is the closest option to their home or work, followed by the bus being the most travel affordable option. Interestingly, and perhaps not surprisingly, the bus being fast and reliable are not among the most popular reasons people choose to use the bus. This could be due to respondents feeling that the bus is not fast or reliable enough, and/or respondents simply feeling that there are more compelling reasons than these which influence their use of buses.

Figure 6: Reasons for Riding Local Bus

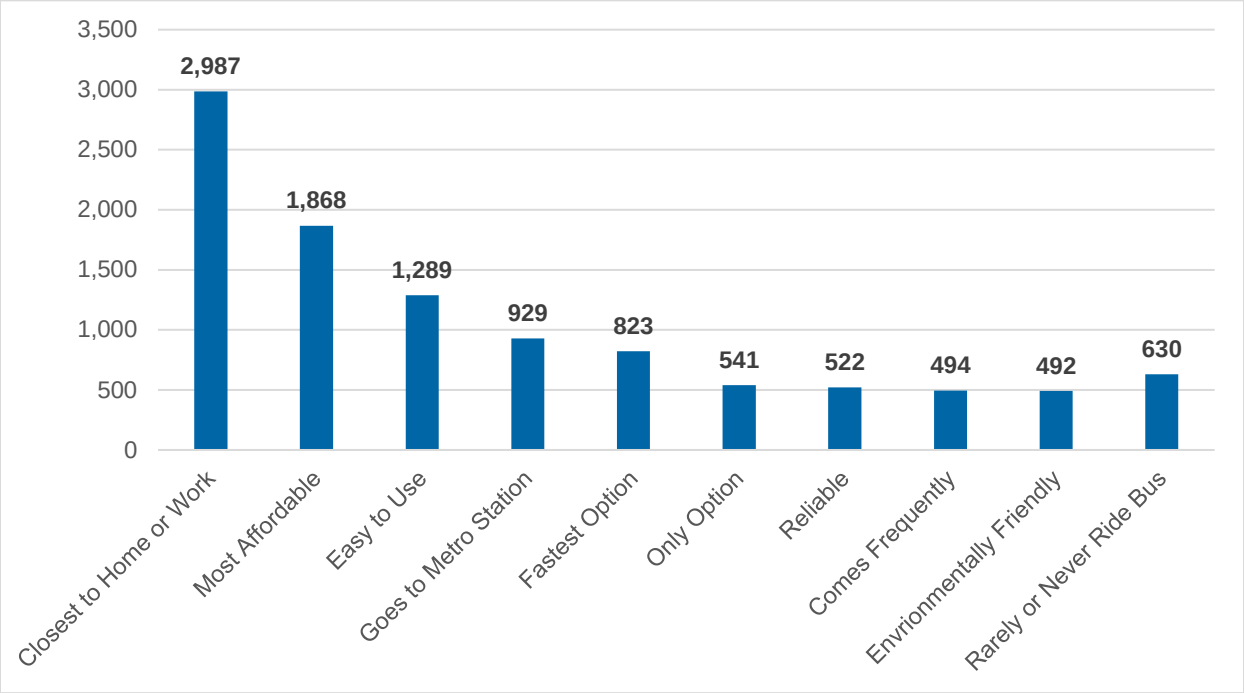


Table 18 shows the top five most selected reasons for riding the bus by the characteristics of the respondents. A few findings of note:

- Close to half (44 percent) of low-income respondents reported that one of their reasons for using the bus is that it is the most affordable option.
- Fifty-three percent of respondents between the ages of 18-24 selected affordability as a reason to ride the bus, the highest rate compared to the other age groups.
- The bus being the fastest option was selected as a reason for riding the bus at a higher rate by the youngest age group; as age increases, fewer respondents selected the bus being fast as a reason.

Table 18: Survey Respondent Characteristics and Top Five Reasons to Ride Local Bus

		Closest to Home or Work	Most Affordable	Easy to Use	Goes to Metro Station	Fastest
Income	**Not Low-Income**	2,002 (61%)	1,205 (37%)	829 (25%)	645 (20%)	545 (17%)
	Low-Income	355 (57%)	275 (44%)	172 (28%)	95 (15%)	104 (17%)
	No Answer	630 (55%)	388 (34%)	288 (25%)	189 (17%)	174 (15%)
Gender	**Female**	1,379 (60%)	887 (38%)	604 (26%)	443 (19%)	337 (15%)
	Male	1,026 (61%)	618 (37%)	432 (26%)	316 (19%)	317 (19%)
	Other	29 (64%)	21 (47%)	13 (29%)	10 (22%)	9 (20%)
	No Answer	553 (56%)	342 (34%)	240 (24%)	160 (16%)	160 (16%)
Age	**< 18**	20 (53%)	10 (26%)	18 (47%)	3 (8%)	12 (32%)
	18-24	209 (59%)	190 (53%)	81 (23%)	61 (17%)	70 (20%)
	25-34	786 (63%)	543 (44%)	326 (26%)	197 (16%)	227 (18%)
	35-54	888 (60%)	475 (32%)	364 (25%)	291 (20%)	231 (16%)
	55-64	388 (60%)	215 (33%)	185 (28%)	140 (22%)	91 (14%)
	65-79	140 (49%)	96 (34%)	81 (29%)	76 (27%)	33 (12%)
	> 80	9 (75%)	3 (25%)	4 (33%)	1 (8%)	1 (8%)
	No Answer	546 (56%)	335 (34%)	229 (23%)	159 (16%)	157 (16%)
Race/Ethnicity	**Black**	497 (54%)	349 (38%)	251 (27%)	179 (20%)	118 (13%)
	Hispanic	185 (59%)	136 (44%)	84 (27%)	46 (15%)	59 (19%)
	White	1,407 (62%)	804 (36%)	567 (25%)	426 (19%)	390 (17%)
	Other	357 (60%)	248 (42%)	152 (26%)	118 (20%)	96 (16%)
	No Answer	540 (56%)	330 (34%)	234 (24%)	159 (16%)	159 (16%)
Bus Use	**Frequent Bus Rider**	2,316 (72%)	1,467 (46%)	940 (29%)	691 (22%)	592 (18%)
	Non-Frequent Bus Rider	526 (35%)	322 (22%)	286 (19%)	203 (14%)	187 (13%)
Transit Use	**Frequent Transit Rider**	2,427 (64%)	1,496 (40%)	990 (26%)	759 (20%)	674 (18%)
	Non-Frequent Transit Rider	419 (42%)	289 (29%)	238 (24%)	119 (12%)	120 (12%)
Survey Language	**English**	2,899 (60%)	1,789 (37%)	1,248 (26%)	911 (19%)	786 (16%)
	Spanish	87 (52%)	78 (46%)	40 (24%)	17 (10%)	36 (21%)

Figure 7: #1 Reason to Ride Local Bus (Closest to Home/Work)

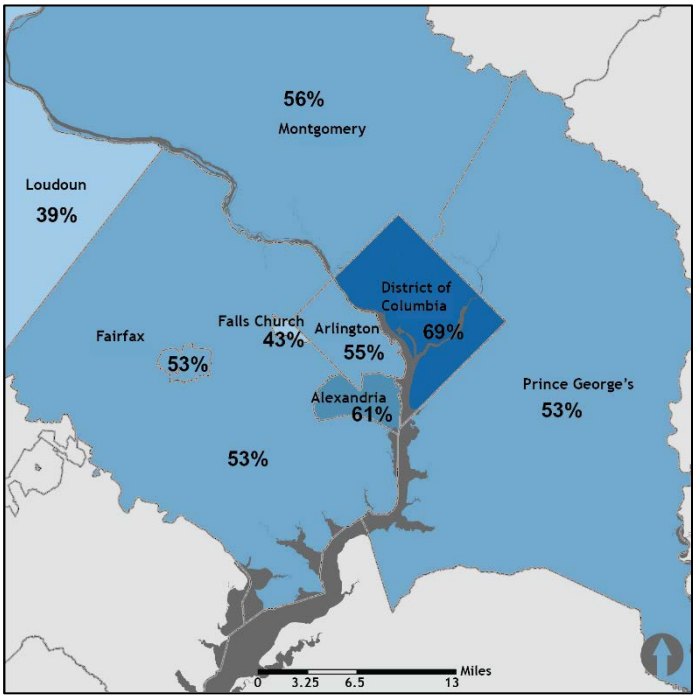


Figure 8: #2 Reason to Ride Local Bus (Most Affordable)

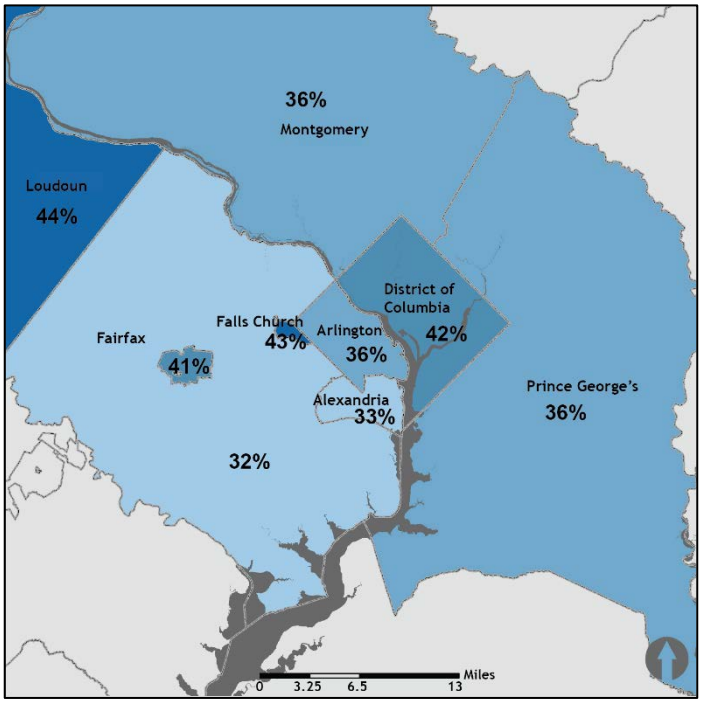
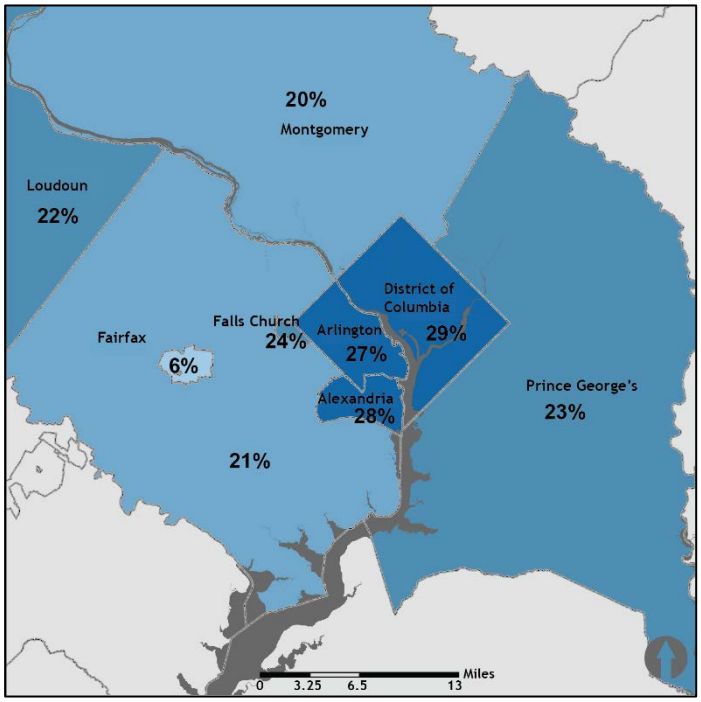


Figure 9: #3 Reason to Ride Local Bus (Easy to Use)

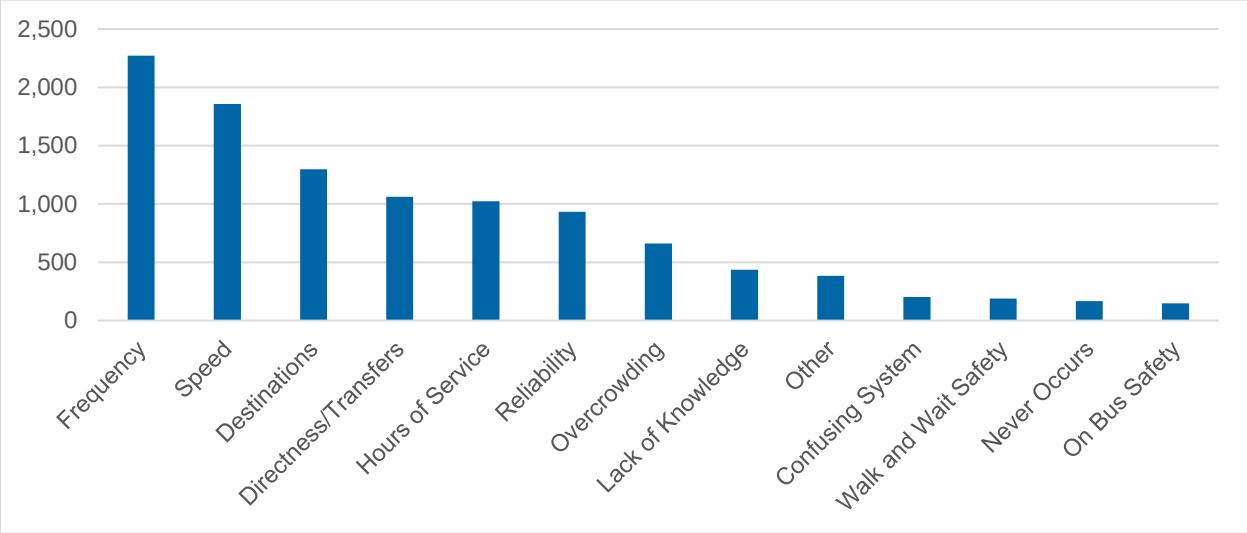


The maps in Figure 7 - Figure 9 show the top three most commonly selected reasons for riding local bus as a percentage of reasons selected by respondents in each jurisdiction. Darker shades represent higher proportions of the respondents in that jurisdiction selecting that reason to use the bus.

5.1.2 Barriers to Using Local Bus

Respondents were asked to select up to three barriers to taking local bus (Q3.2). The bus coming too infrequently was the top reason selected, followed by it being too slow, followed by the buses not going where respondents need to go (Figure 10).

Figure 10: Barriers Preventing Bus Use



The barriers question also allowed respondents to write in a response for “other.” Some of the most common comments were about Metrorail being faster than bus, which is not necessarily a barrier but is a reason many people choose not to use bus. Many stated that they prefer to drive, bike, or walk. Others said there are no barriers to using the bus – they didn’t select any barriers because they don’t feel there are any for them.

Some other commonly cited themes of barriers that respondents wrote include the bus stop is too far away from origins or destinations; it’s too difficult to carry groceries or other objects, or bring babies, strollers, or small children on the bus; the bus is too expensive; the app does not provide reliable information; there are not enough express bus options and/or the bus doesn’t have dedicated lanes; and, that there are no safe ways to reach the bus stop in places lacking sidewalks or crosswalks.

Looking only at the write-in answers to the barriers question from respondents who reported that they use a personal vehicle regularly and are not frequent bus riders can shed light onto what is causing these respondents to choose not to use the bus. The most commonly mentioned words in their comments are shown in Figure 11 in a word cloud. The more a word was mentioned by respondents, the larger the word is. Metrorail was mentioned most frequently by drivers, in the context of comments about Metrorail being faster, more reliable, and easier to use. Many drivers also mentioned the time spent riding the bus as a barrier to them choosing it. Overall, the barriers cited by regular drivers who are not frequent bus riders are very similar to the overall barriers cited by all survey respondents.

Figure 11: Barriers to Riding Local Bus for Drivers

Table 19 shows the top five most selected barriers to riding the bus by the characteristics of the respondents. A few findings of note:

- Fifty-two percent of non-low-income respondents selected frequency as a barrier to riding the bus, compared to 33 percent of low-income respondents.
- White respondents reported the top four overall barriers at higher rates than non-white respondents did.
- One quarter of frequent bus riders reported that hours of service is a barrier, compared to only sixteen percent of non-frequent bus riders.

Table 19: Survey Respondent Characteristics and Top Five Barriers to Riding Local Bus

		Frequency	Speed	Destinations	Directness/ Transfers	Hours of Service
Income	**Not Low-Income**	1,660 (52%)	1,250 (39%)	916 (29%)	795 (25%)	677 (21%)
	Low-Income	199 (33%)	233 (39%)	126 (21%)	94 (16%)	135 (22%)
	No Answer	412 (41%)	374 (37%)	254 (25%)	172 (17%)	210 (21%)
Gender	**Female**	1,045 (47%)	869 (39%)	584 (26%)	522 (23%)	467 (21%)
	Male	826 (50%)	647 (39%)	463 (28%)	371 (23%)	361 (22%)
	Other	19 (44%)	12 (28%)	14 (33%)	16 (37%)	12 (28%)
	No Answer	382 (44%)	330 (38%)	236 (27%)	153 (18%)	183 (21%)
Age	**< 18**	14 (38%)	14 (38%)	8 (22%)	5 (14%)	11 (30%)
	18-24	177 (50%)	158 (45%)	100 (28%)	65 (18%)	82 (23%)
	25-34	687 (56%)	561 (46%)	311 (25%)	342 (28%)	243 (20%)
	35-54	685 (48%)	546 (38%)	399 (28%)	335 (23%)	307 (21%)
	55-64	229 (38%)	178 (30%)	177 (29%)	115 (19%)	144 (24%)
	65-79	104 (40%)	68 (26%)	70 (27%)	45 (17%)	56 (22%)
	> 80	5 (38%)	(0%)	2 (15%)	2 (15%)	5 (38%)
	No Answer	370 (43%)	332 (39%)	229 (27%)	152 (18%)	174 (20%)
Race/Ethnicity	**Black**	294 (34%)	330 (38%)	164 (19%)	128 (15%)	206 (24%)
	Hispanic	133 (44%)	110 (36%)	72 (24%)	67 (22%)	55 (18%)
	White	1206 (55%)	875 (40%)	663 (30%)	584 (27%)	462 (21%)
	Other	268 (47%)	212 (37%)	169 (30%)	124 (22%)	126 (22%)
	No Answer	370 (43%)	330 (39%)	228 (27%)	158 (19%)	173 (20%)
Bus Use	**Frequent Bus Rider**	1,546 (52%)	1,156 (39%)	810 (27%)	652 (22%)	752 (25%)
	Non-Frequent Bus Rider	625 (43%)	590 (41%)	402 (28%)	353 (24%)	228 (16%)
Transit Use	**Frequent Transit Rider**	1,835 (51%)	1,413 (39%)	963 (27%)	805 (22%)	802 (22%)
	Non-Frequent Transit Rider	363 (38%)	370 (39%)	291 (30%)	224 (23%)	174 (18%)
Survey Language	**English**	2,221 (48%)	1,807 (39%)	1,264 (27%)	1,035 (22%)	1,004 (22%)
	Spanish	50 (32%)	50 (32%)	32 (21%)	26 (17%)	18 (12%)

Figure 12: #1 Barrier to Riding Local Bus (Frequency)

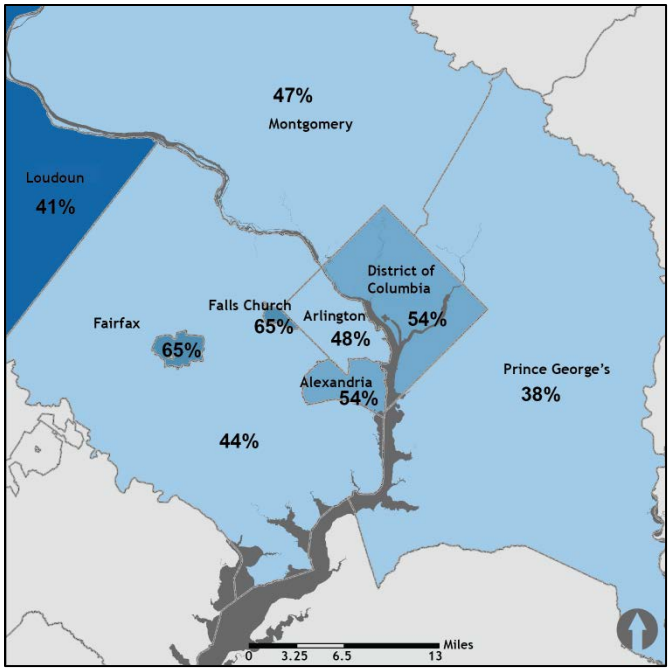


Figure 13: #2 Barrier to Riding Local Bus (Speed)

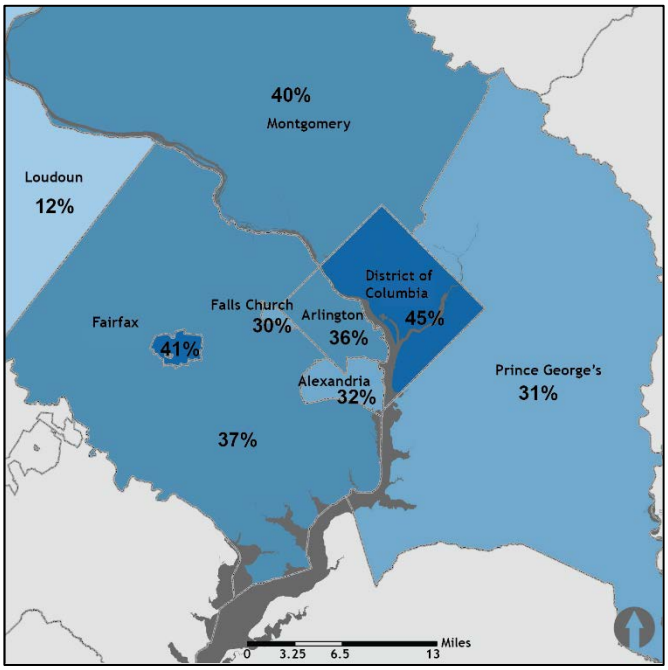
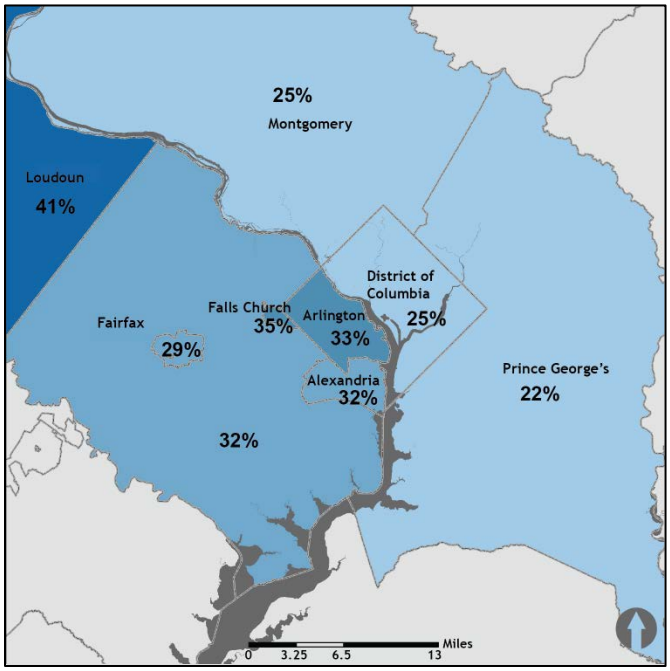


Figure 14: #3 Barrier to Riding Local Bus (Destinations)



The maps in Figure 12, Figure 13, and Figure 14 show the top three most commonly selected barriers to riding local bus as a percentage of reasons selected by respondents in each jurisdiction. Darker shades represent higher proportions of the respondents in that jurisdiction selecting that barrier to using the bus.

5.2 Bus Usage Trends

Survey respondents were asked to indicate if they are riding local bus more, less, or about the same compared to their use three years ago (Q2.5a). There was a fourth option for respondents to select "Not Applicable / Didn't Live Here." Thirty-eight percent of respondents are using local bus more now than they were three years ago (Figure 15). Thirty-two percent of respondents are using local bus at about the same rate as three years ago and 21 percent are using it less often.

Figure 15: Changes in Bus Use Over Last Three Years

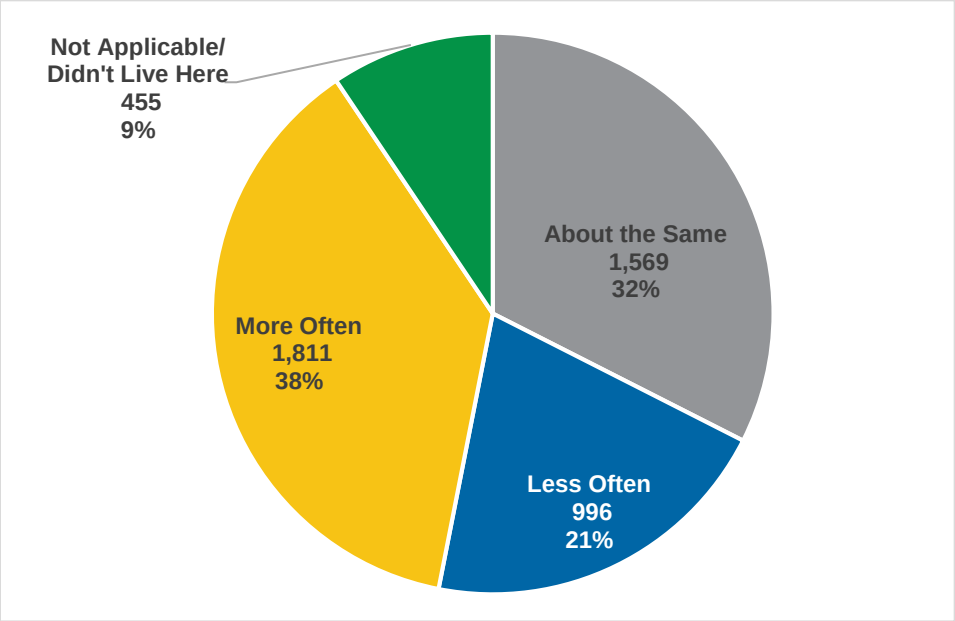


Figure 16 through Figure 19 compare the responses of using the bus "More Often" and "Less Often" between demographic groups. Figure 16 shows that low-income respondents reported they are using the bus more often now at a much higher rate than non-low-income respondents – 79 percent to 61 percent. Figure 17 shows that white respondents were more likely to report that they are using the bus more often now than they were three years ago, compared to non-white respondents. As could be expected, frequent bus riders and frequent transit riders are using the bus more often now than they were three years ago, compared to non-frequent riders (Figure 18 and Figure 19).

Figure 16: Changes in Bus Use Over Last Three Years by Income

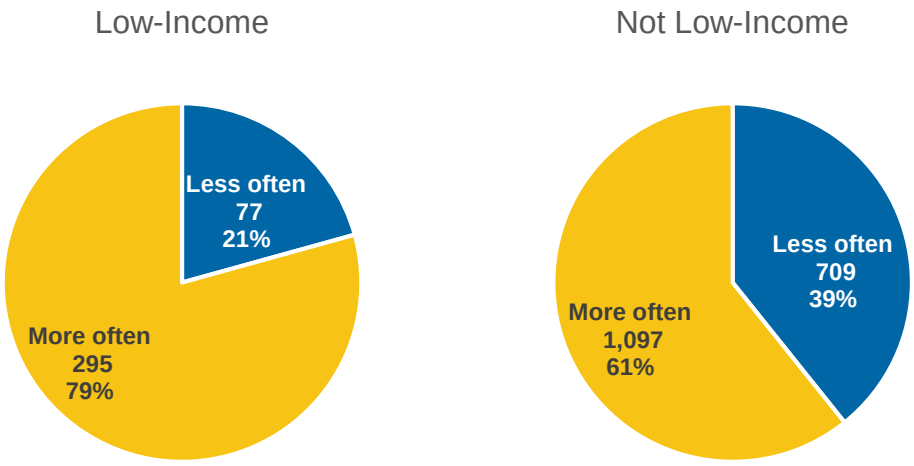


Figure 17: Changes in Bus Use Over Last Three Years by Race

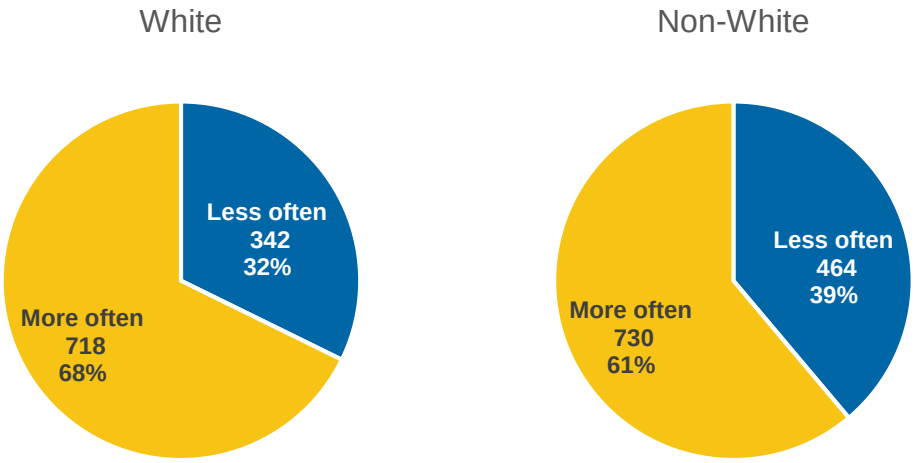


Figure 18: Changes in Bus Use Over Last Three Years by Frequent / Non-Frequent Bus Riders

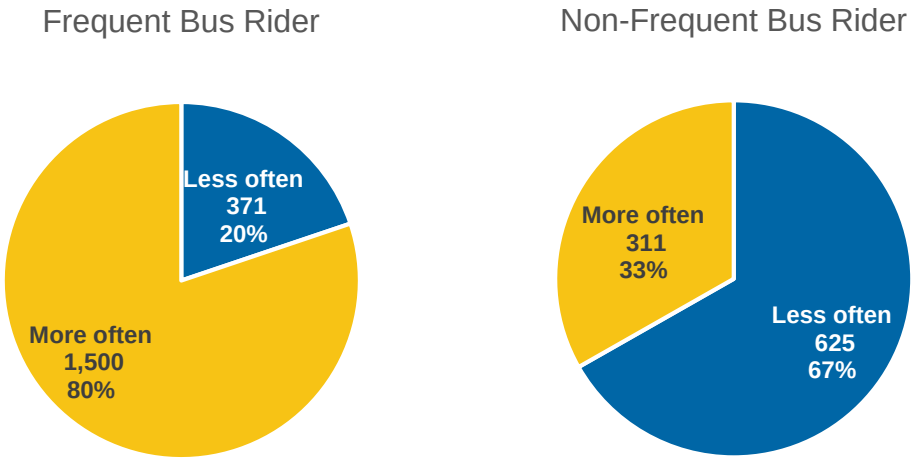


Figure 19: Changes in Bus Use Over Last Three Years by Frequent / Non-Frequent Transit Riders

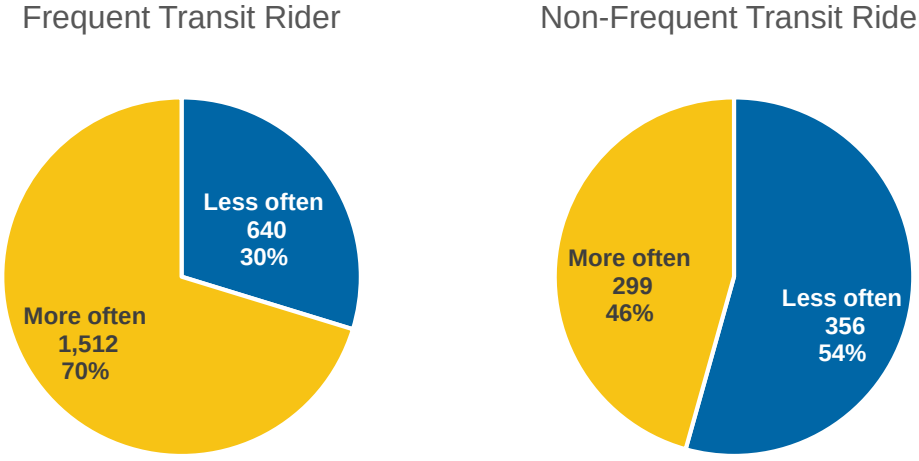
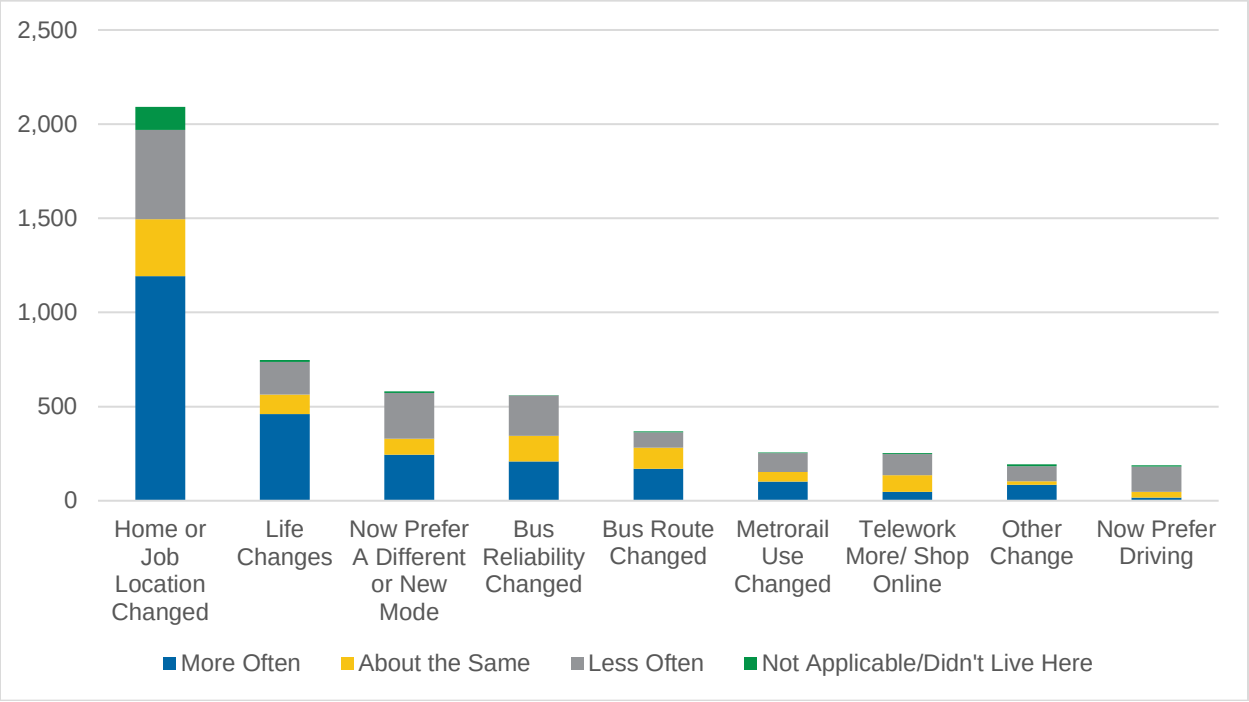


Figure 20 shows what reasons survey respondents gave for their change in bus use over the last three years (Q2.5b). A location change for respondents' home or place of work was the most frequently cited reason for changing their bus use over the last three years, for both people who ride the bus more now and people who ride the bus less now. Survey respondents who report that they are now riding the bus less than they used to have higher rates of reporting the reason for their change as due to now teleworking or shopping online more and/or that they now prefer to drive.

The option of "bus reliability changed" was selected approximately the same number of times for people who use the bus more and people who use the bus less now, indicating that for some people reliability has gotten better and for others it has gotten worse. The reliability option was the fourth most selected reason for change in bus use. This points to the importance of bus reliability as a factor in people's decision and ability to use the bus.

Figure 20: Changes in Bus Use by Reason for Change



For respondents who said they are now riding the bus more than they were three years ago the top three reasons they choose to ride local bus (Q3.1a) mirror the overall survey results (the bus is closest to their home or work, it is the most affordable option, and it is easy to use). For those same respondents, the three most commonly selected reasons for their change in bus use are "Home or Job Location Changed" (46%), "Life Changes" (18%), and "Now Prefer A Different or New Mode" (9%).

For respondents who said they are now riding the bus less than they were three years ago the top three barriers to them riding local bus (Q3.2) mirror the overall survey results (the bus is too infrequent, too slow, and doesn't go where they need to go). For those same respondents, the three most commonly selected reasons for their change in bus use are "Home or Job Location Changed" (29%), "Now Prefer A Different or New Mode" (15%), and "Bus Reliability Changed" (13%).

5.3 Choosing Between Rail and Bus

To gauge how respondents make decisions between Metrorail and local bus they were asked if they ever choose to take Metrorail rather than a more direct local bus (Q3.4a). Seventy-one percent of respondents said that they do, while 29 percent said they do not (Figure 21). For those respondents who said that they do sometimes choose Metrorail over local bus, the reasons they gave for that decision are shown in Figure 22. The top reason, selected over two times more than the next most popular choice, is that Metrorail is faster than local bus. Low-income and non-low-income respondents chose most of the reasons for taking Metrorail over local bus at similar rates to each other, except for "more comfortable," which 25 percent of low-income respondents chose compared to 21 percent of non-low-income respondents, and for "easier to understand," which 21 percent of non-low-income respondents chose compared to 14 percent of low-income respondents.

Figure 21: Responses to "Do you ever take Metrorail rather than a more direct local bus service to a destination?"

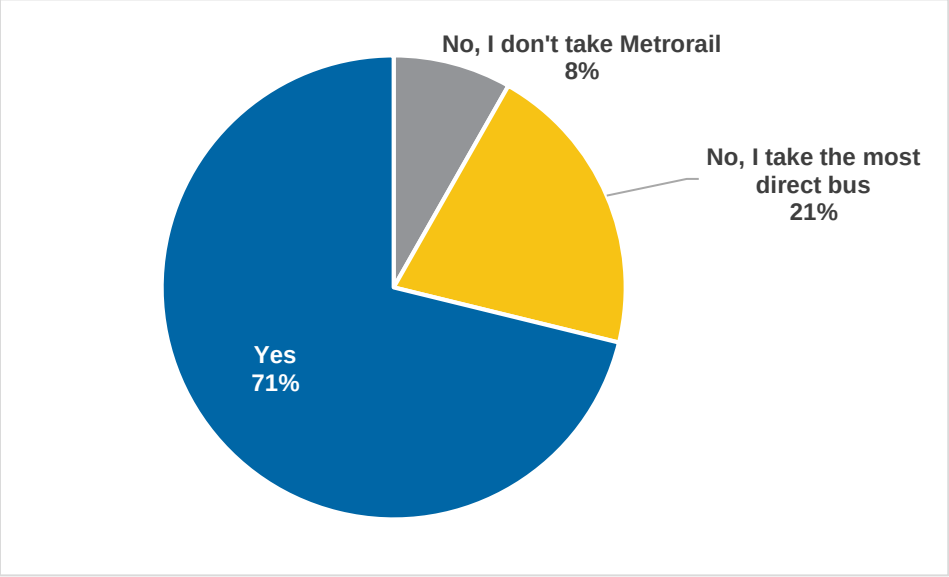
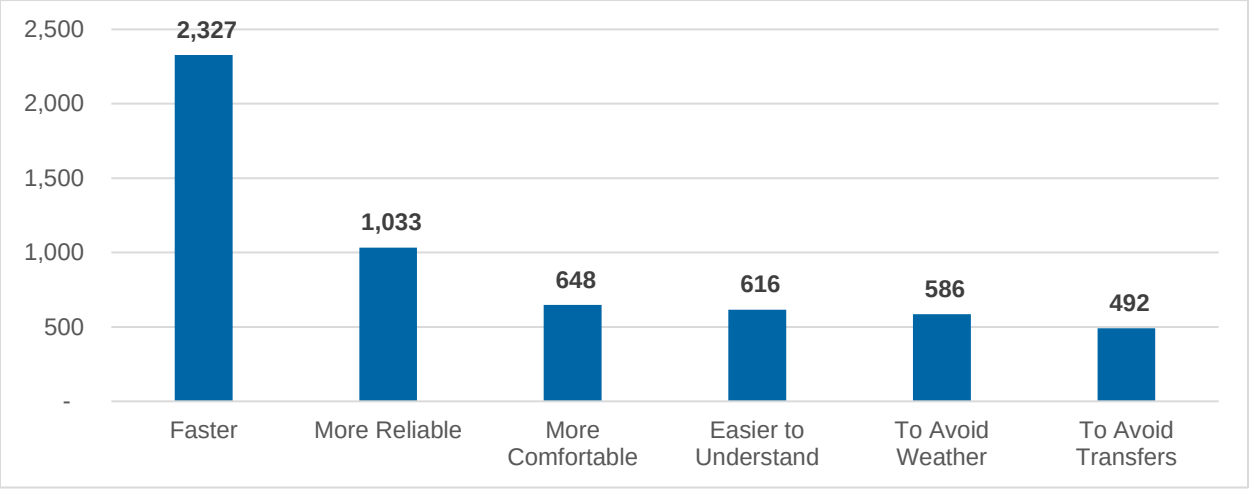
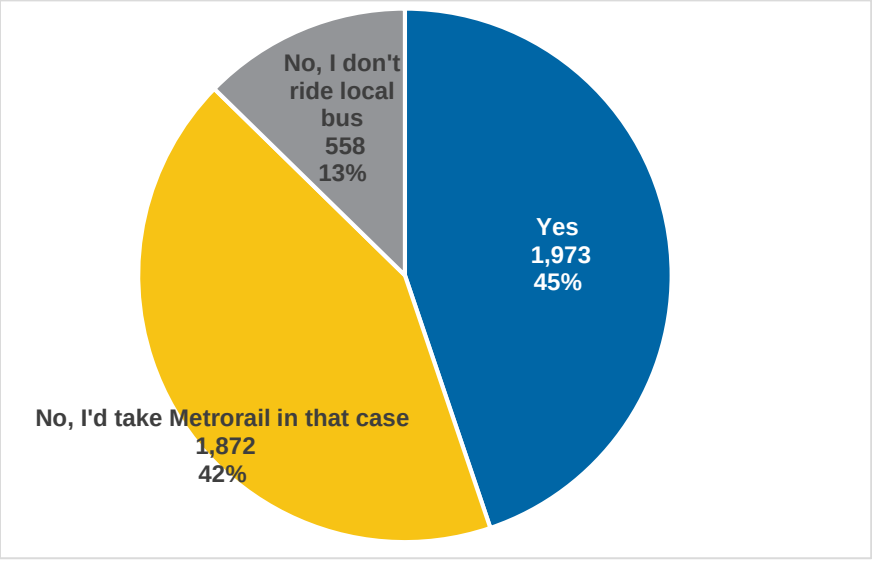


Figure 22: Reasons for Choosing Metrorail Over Local Bus



Respondents were also asked the opposite question, if they ever take local bus, even if it's slower or less direct, rather than a faster or more direct route by Metrorail to a destination (Q3.5a). A smaller amount, 45 percent, responded “yes,” (Figure 23) compared to 71 percent of respondents who said they sometimes choose Metrorail over bus (Figure 22). Forty-two percent of respondents to this question indicated they would take Metrorail when faced with the decision on whether to ride a local bus even if it was slower or less direct than Metrorail. These responses demonstrated a preference for Metrorail over local bus.

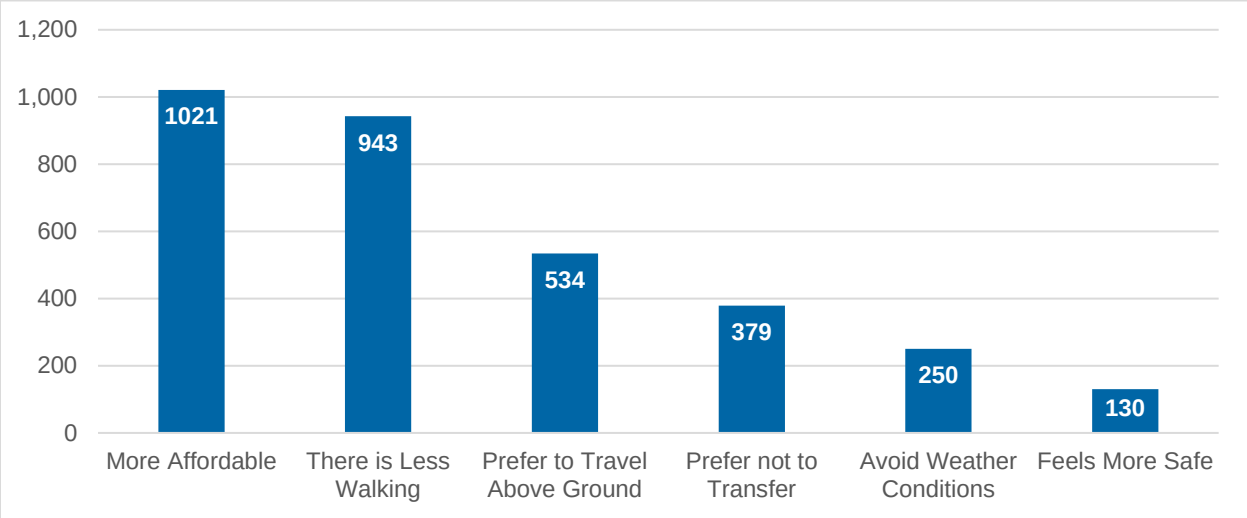
Figure 23: Responses to “Do you ever take local bus, even if it's slower or less direct, rather than a faster or more direct route by Metrorail to a destination?



For those respondents who said that they do sometimes choose bus over Metrorail, the reasons they gave for that decision are shown in Figure 24 (Q3.5b). The top reason is that the bus is more affordable, followed closely by the fact that bus allows for less walking. Female respondents chose “Prefer to Travel Above Ground” and “Feels More Safe” more than male respondents did. The top reason non-low-income people said they may choose local bus instead of Metrorail was “There is Less Walking,” which differs from the overall results and low-income respondents' preferences. Low-income respondents reported

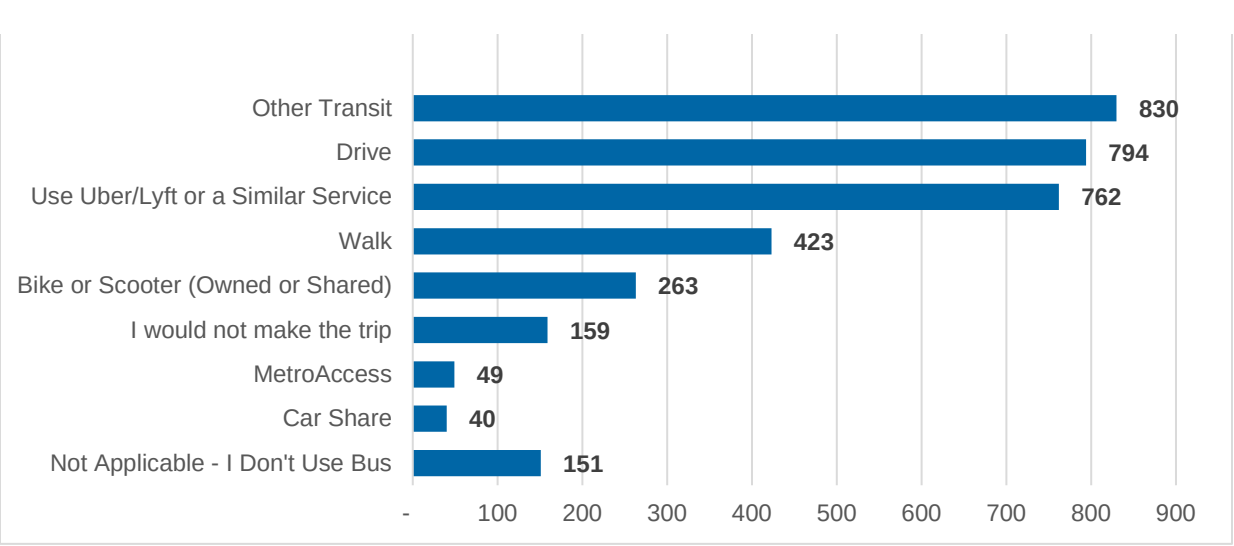
affordability in 63 percent of their responses, compared to in 50 percent of non-low-income respondents' responses.

Figure 24: Reasons for Using Local Bus Instead of Metrorail



Respondents were asked, "If local bus was not available for trips that you take by bus, how would you most likely make those trips?" (Q3.1b). Figure 25 shows the modes in order of most to least chosen. Other forms of transit, driving, and TNCs are the top three modes respondents say they would use if local bus was not available.

Figure 25: Mode if Local Bus Not Available



Considering only frequent bus riders' responses to Q3.1b, the top mode they would use if bus was not available is also other forms of transit, but frequent bus riders reported they would use TNCs more than driving, pointing to the fact that many frequent bus riders may not have regular access to a car. The following results are for further breakdowns of frequent bus riders:

- Thirty-four percent of low-income respondents would use Lyft, Uber or a similar service compared to only 20 percent of non-low-income respondents, pointing to the lower likelihood of low-income

riders to have less access to a car. Twenty-three percent of non-low-income respondents, who likely have more access to cars, reported they would drive, compared to only six percent of low-income respondents. Nineteen percent of low-income respondents would walk, compared to thirteen percent of non-low-income respondents.

- Thirty percent of non-white respondents would use Lyft, Uber or a similar service and only 17 percent of white respondents would. Twenty-eight percent of white respondents would drive, compared to 21 percent of non-white respondents. Twelve percent of white respondents would bike, compared to four percent of non-white respondents.
- Table 20 shows the breakdown of frequent bus riders from select jurisdictions. Overall, and for DC residents, other transit is the top choice for what would be used if local bus were not available. Respondents from the other jurisdictions did not select other transit as the top choice, most likely due to the lower prevalence of other transit options outside of the regional core. Driving was the top alternative for Alexandria, Arlington, and Montgomery and Fairfax Counties, while TNCs were the top choice for Prince George's County.

Table 20: Mode if Local Bus Not Available (Frequent Bus Riders Only) by Jurisdiction

	Other Transit	Drive	TNC
City of Alexandria	19%	32%	14%
Arlington County	29%	30%	16%
District of Columbia	31%	10%	25%
Fairfax County	23%	40%	18%
Montgomery County	17%	30%	22%
Prince George's County	18% (tie)	18% (tie)	36%

Color Key:	#1 Ranked Choice	#2 Ranked Choice	#3 Ranked Choice

5.4 Service Gaps

Respondents were asked about where they experience service gaps in the bus network (Q3.3). They could select one or two jurisdictions in which the desired trips would start and end. Figure 26 shows where respondents said there are gaps in bus trips they would like to make. The results in this table are largely a reflection of respondents' reported home locations (Table 4). These results are only reflective of an unweighted, uncontrolled survey sample, and therefore these results can not be interpreted as a complete regional analysis of where service gaps exist.

Of the respondents who reported their home zip code, 43 percent live in DC, and most service gaps identified are within DC. Most of the other trips with the highest reported service gaps are also within jurisdictions, with Montgomery County and Prince George's County as the highest after DC. Between jurisdictions, Arlington to/from Fairfax City and Arlington to/from Alexandria service gaps were reported by the most respondents.

Figure 26: Bus Service Gaps Between and Within Jurisdictions

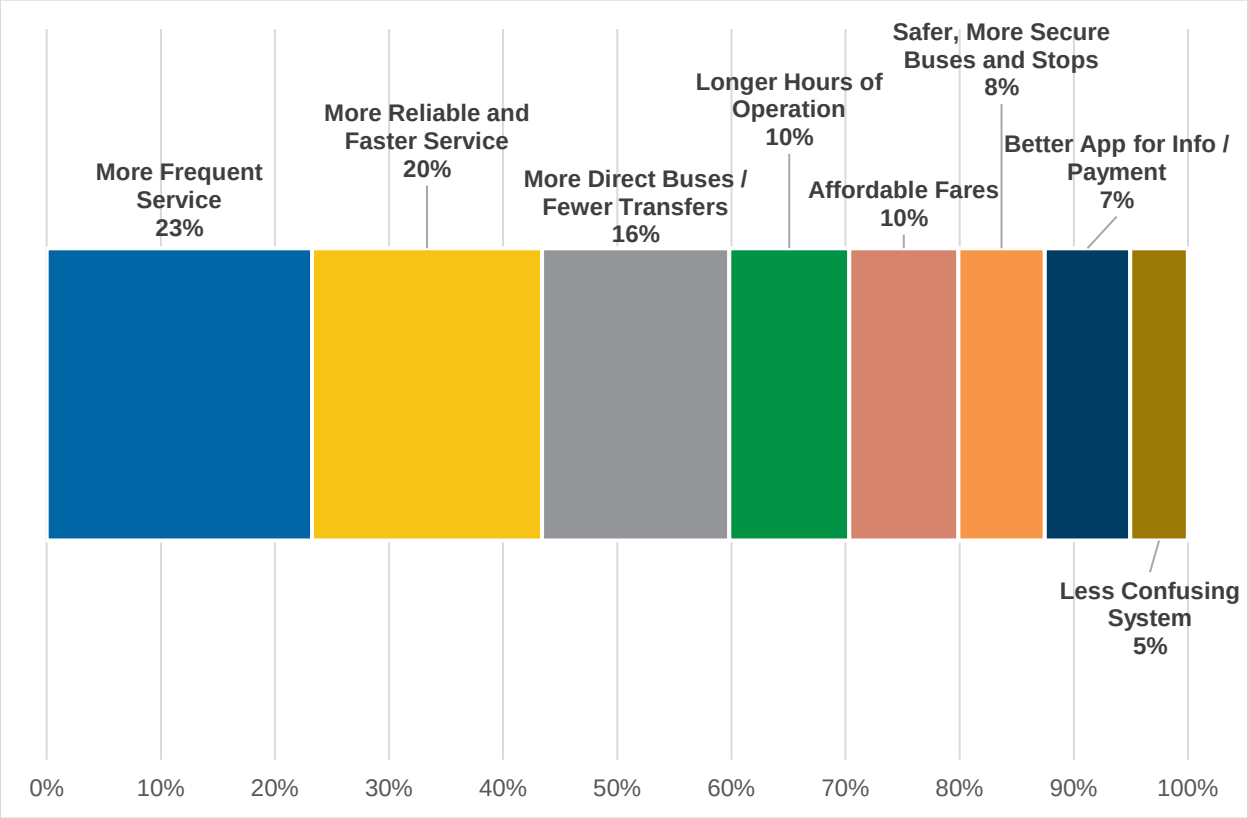
	Alexandria	Arlington	DC	Fairfax City	Fairfax Co.	Falls Church	Loudoun	Montgomery	Prince George's	Other
Alexandria	115									
Arlington	219	144								
DC	12	27	982							
Fairfax City	47	234	14	13						
Fairfax Co.	18	24	16	12	137					
Falls Church	8	7	21	6	4	30				
Loudoun	33	2	4	30	4	8	28			
Montgomery	19	6	7	7	15	198	2	341		
Prince George's	18	175	12	45	19	14	17	6	220	
Other	91	10	8	0	8	0	116	89	29	175

Note: Darker shades of blue indicate higher numbers.

6. Investment Priorities

The last question of the survey asked respondents how they would invest theoretical money into improving the bus system (Q4). There were eight possible categories of spending, and respondents were allotted 20 “coins” to distribute. Figure 27 shows the breakdown of the overall investments made by respondents to this question. “More Frequent Service” was the most popular category, followed by “More Reliable and Faster Service,” followed by “More Direct Buses / Fewer Transfers.”

Figure 27: Overall Results for Amount Invested in Different Ways to Improve Bus System



Responses were fairly consistent across demographic groups and across the region; in fact, the same top three priorities for investing were chosen, in the same order, regardless of jurisdiction; frequency of bus riding; frequency of using transit; income; minority status (white compared to non-white); and age.

Affordable fares were a higher priority among some groups compared to others:

- Respondents to the Spanish-language survey prioritized affordable fares more than respondents to the English-language survey, to the point where it became the third-most prioritized category.
- Non-white respondents ranked affordable fares fourth, with 13% of the overall investment, as compared to the sixth priority overall for white respondents, with seven percent of their overall investment.
- Low-income respondents ranked affordable fares fourth, with 14 percent of the investment, as compared to non-low-income respondents who chose this as their fifth priority, with nine percent of their overall investment.

7. Lessons Learned from Conducting the Survey

7.1 Survey Design

- **Length and language usage:** There were too many questions overall, and some questions had too many answer options. While the project team intended to design the survey for an audience with a sixth-grade level of education, more pretesting may have helped identify areas that were still too complex.
- **Repetition:** At pop-up events staff observed that survey takers were confused when faced with two pages of similarly formatted questions back-to-back. A shorter survey with more varied question types could help resolve this issue in the future.
- **Investment activity:** Participants were given a mix of five-unit and one-unit coins. In the future, use only one-unit coins (and possibly reduce the number of categories for investing) because having both fives and ones was confusing for some people, and many people did not realize you could get "change" for the five-unit coins.
- **Issues with MetroQuest interface:** MetroQuest provides a lot of great options for interactive questions, but there are some features of the platform that cannot be changed and caused confusion noticed by staff at pop-up events. The white pop-up instructional text boxes were intrusive and not necessary. After a survey is completed, ideally there would be a clear "thank you for taking the survey" page that people are directed to, with a link to the project website.
- **Mobile version:** Throughout the whole survey period, 43 percent of respondents who accessed the survey via the web and not at a pop-up event used a smartphone. This shows the importance of ensuring that the mobile version of the survey is easy to understand and use.

7.2 Outreach

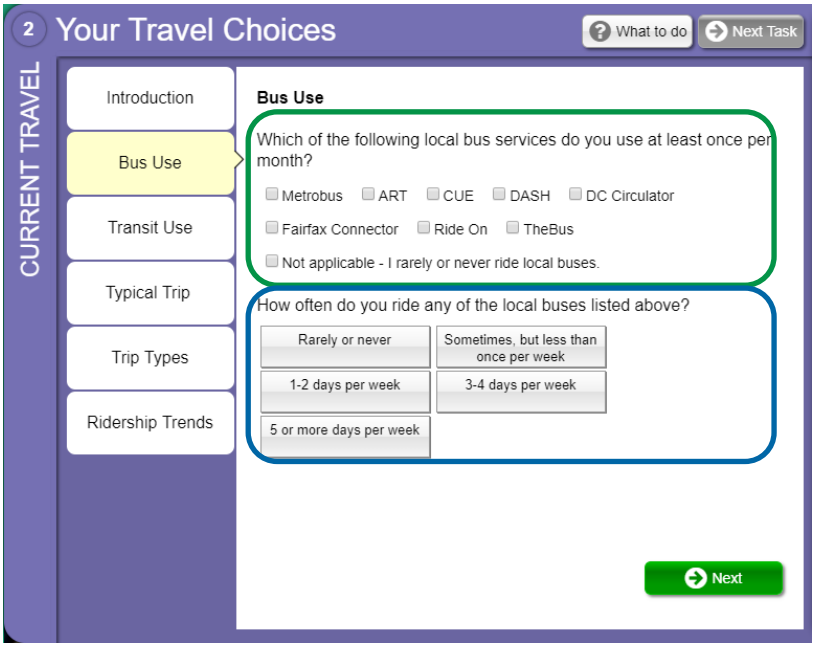
- **Good locations for pop-ups:** From the twenty pop-up events, the team documented which locations worked well and which did not, including Metro stations, transit centers, and other public places. This information will be useful for future events, as will the specific locations at Metrorail stations for which the team received WMATA's Counsel's approval; these locations should be saved in a database at WMATA for future outreach purposes.
- **Social media outreach:** Social media outreach was a mixed bag. Some methods, like the first Spanish language ad campaign, had a high rate of success and were cost-effective, while others, like the boosted Facebook post, did not achieve the desired impact.
- **Weather:** As the weeks went by and the weather got colder and days got shorter, the pop-up events yielded lower survey responses. Having a large number of postcards to hand out was crucial, as many people expressed interest but had no time or willingness to fill out the survey on-site.
- **WMATA SmarTrip® email blast:** This resulted in a very large number of responses.
- **Reaching low-income and non-white respondents:** Low-income and non-white respondents were engaged by the survey outreach, and the response rates for these groups approximated their share in the region. Pop-up events, Spanish-language ads, and other methods were particularly helpful and should be used again in the future.

- **Reaching non-transit users:** Most respondents to the survey were regular bus or transit riders. This was partially due to respondents self-selecting; it was common during pop-ups for passersby to say they didn't want to take the survey because they don't use the bus. This sentiment also may have occurred to people who were notified about the survey through online means. Reaching more people who do not use transit could help inform the project team about their needs and desires and what could encourage them to use transit. One option is to not tie the survey so directly to transit in terms of branding – it could be billed as a "survey about your transportation habits" or something to that effect.
- **Reaching non-English speakers:**
    - The majority of non-pop-up Spanish-language survey responses came from smartphones – 89 percent. There were 123 non-pop-up (web-based) responses to the Spanish-language survey, 110 of which were recorded through a smartphone. In contrast, English-language non-pop-up survey respondents used smartphones only 42 percent of the time. The English-language survey takers may have been more likely to have access to computers at their workplace or at home compared to the Spanish-language survey takers. This difference in the smartphone versus computer-based responses is important to note for future outreach efforts – reaching non-English speakers, specifically the Spanish-speaking population, may best be achieved through in-person engagement and online engagement that targets smartphone-users and not desktop or laptop users.
    - Pop-up events helped reach more Spanish speakers and speakers of other languages.
    - The Spanish-language social media ad campaign helped reach more Spanish speakers.
    - Overall, non-English speakers were underrepresented in the survey sample despite targeted outreach. Future outreach efforts should continue to reach for more non-English speakers through creative outreach methods. Including members on the project team who are familiar with or belong to communities of non-English speakers would help this effort greatly.

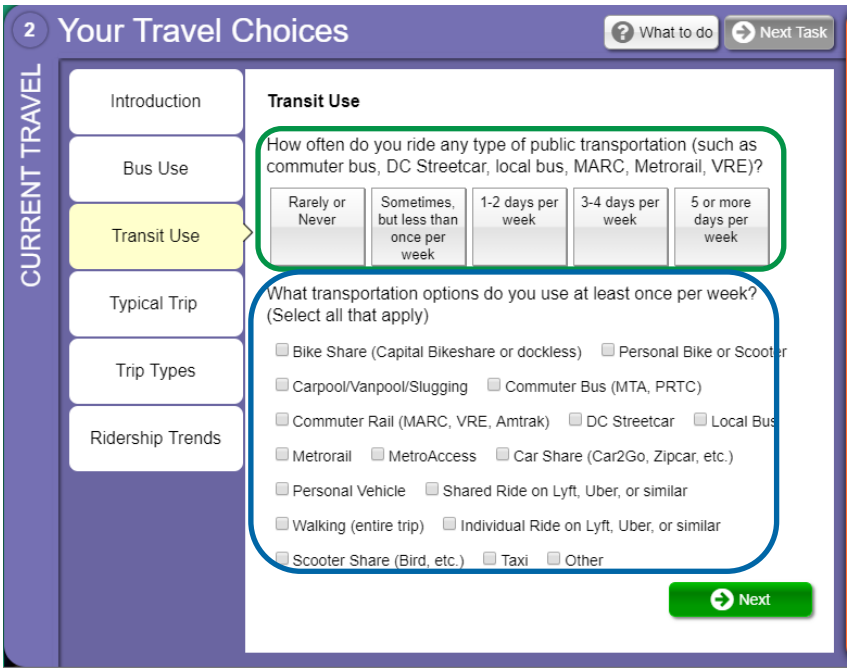
8. Appendix: Survey Questions and Interface

A demo version of the survey (which doesn't record responses) is available at https://btp-demo.metroquest.com/.

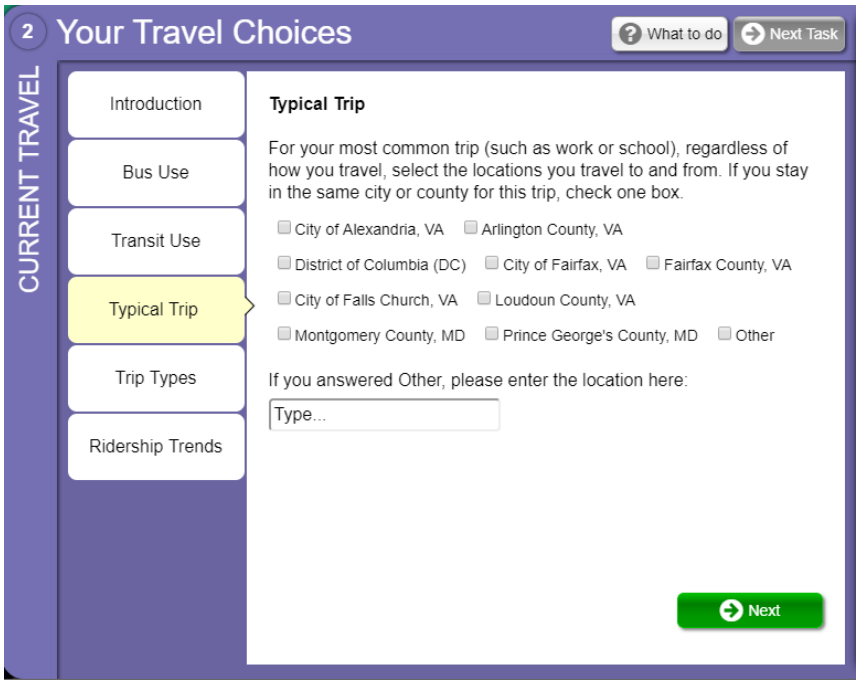
Q2.1a & Q2.1b



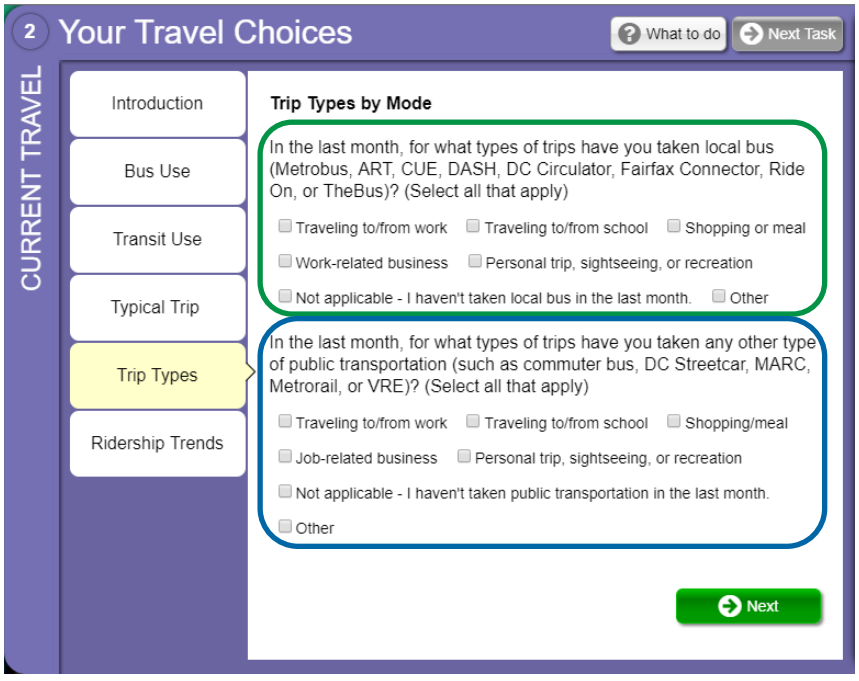
Q2.2a & Q2.2b



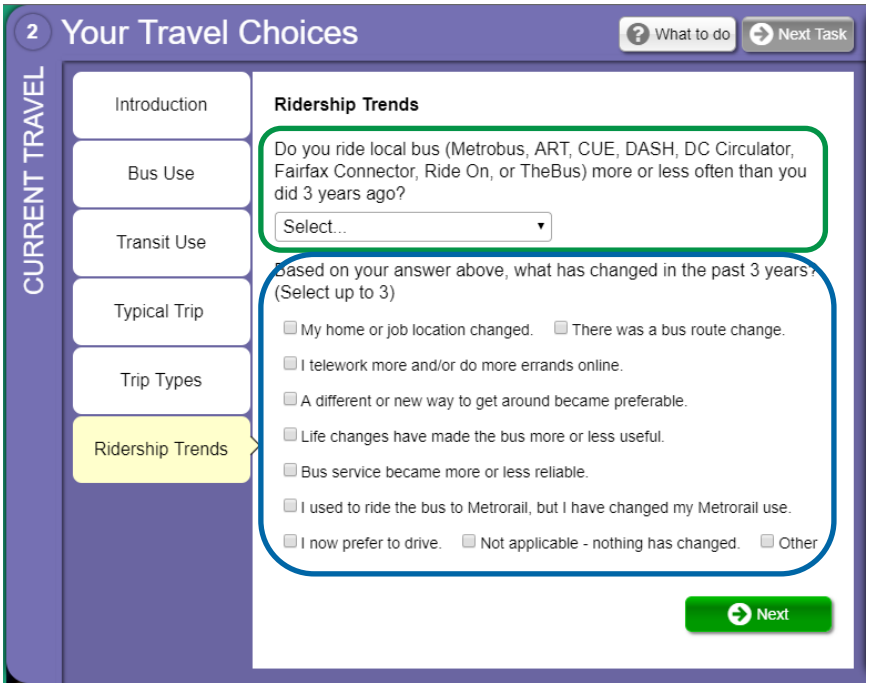
Q2.3



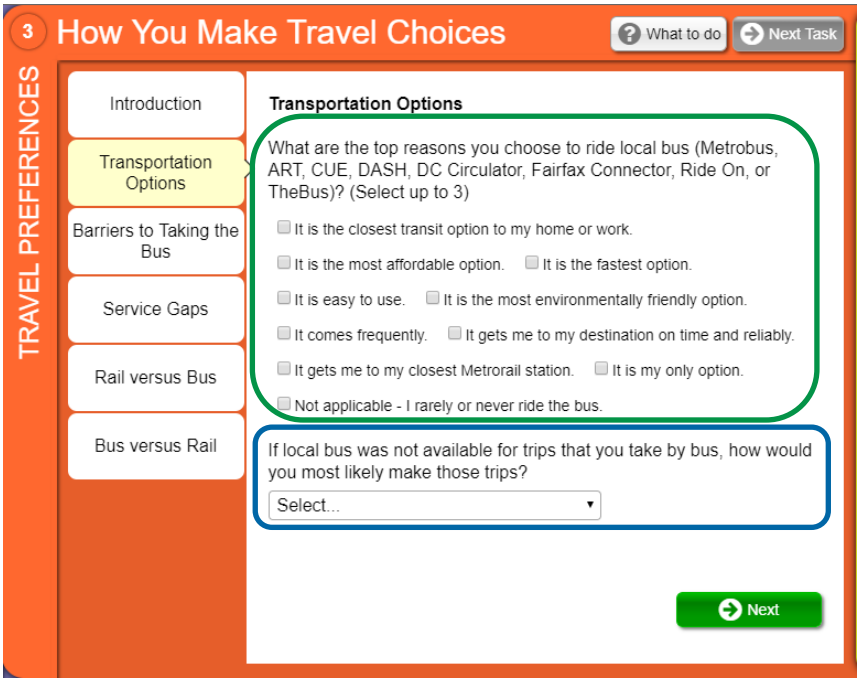
Q2.4a & Q2.4b



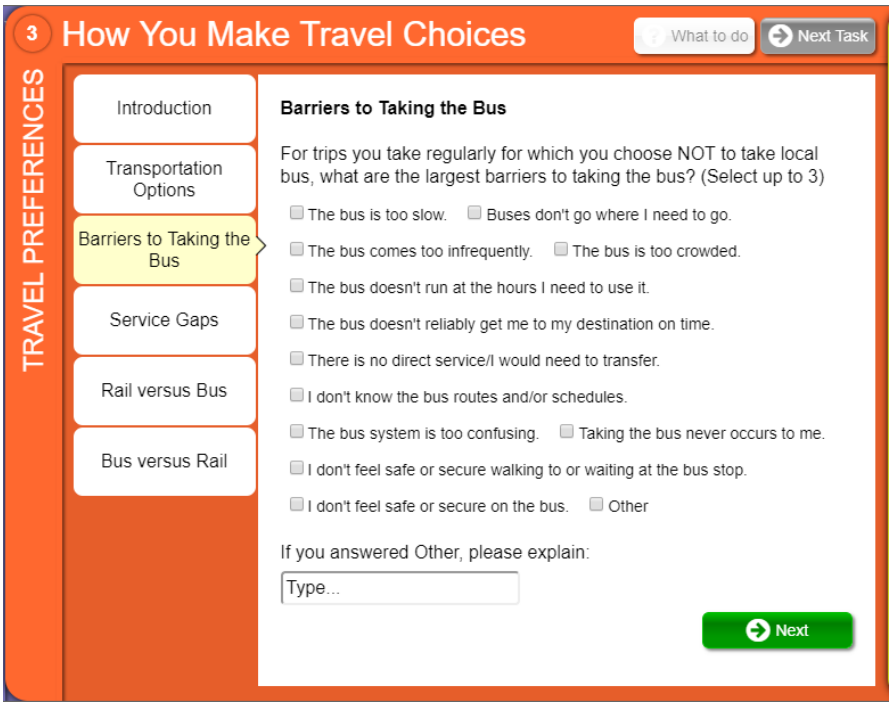
Q2.5a & Q2.5b



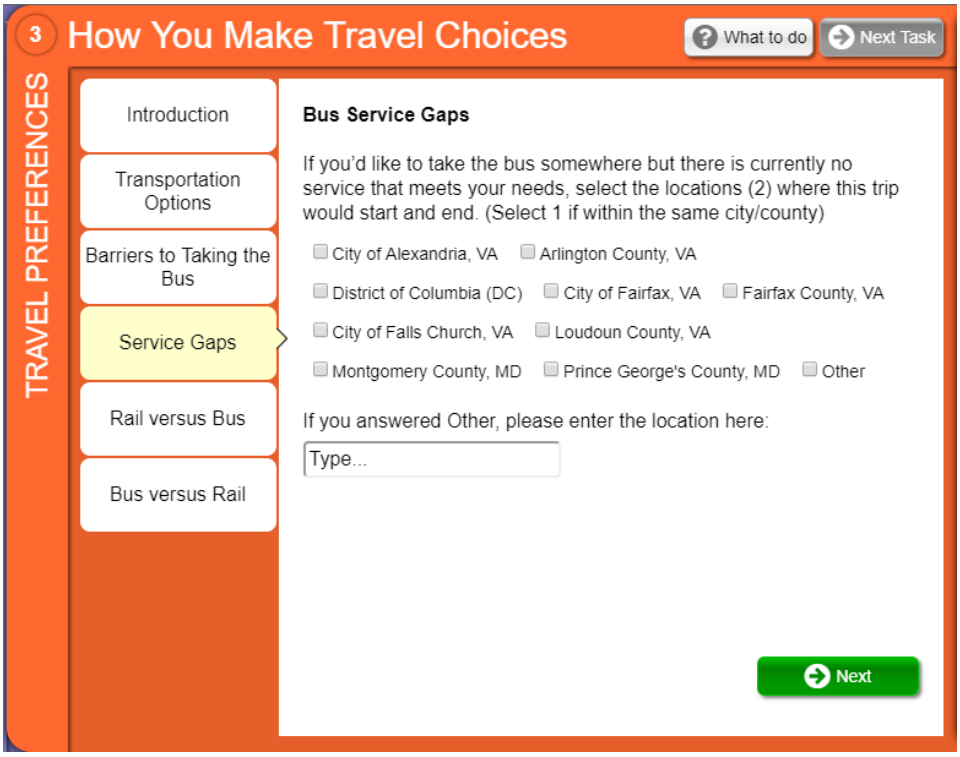
Q3.1a & Q3.1b



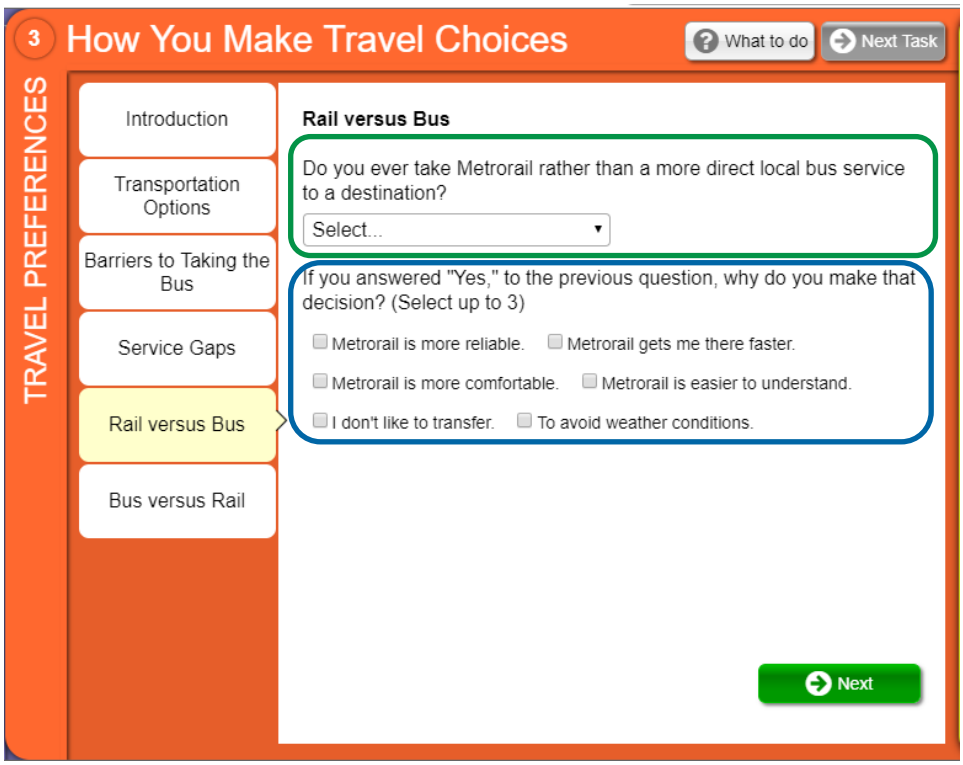
Q3.2


3
How You Make Travel Choices
What to do
Next Task
TRAVEL PREFERENCES
Introduction
Transportation Options
Barriers to Taking the Bus
Service Gaps
Rail versus Bus
Bus versus Rail
Barriers to Taking the Bus
For trips you take regularly for which you choose NOT to take local bus, what are the largest barriers to taking the bus? (Select up to 3)
The bus is too slow.
Buses don't go where I need to go.
The bus comes too infrequently.
The bus is too crowded.
The bus doesn't run at the hours I need to use it.
The bus doesn't reliably get me to my destination on time.
There is no direct service/I would need to transfer.
I don't know the bus routes and/or schedules.
The bus system is too confusing.
Taking the bus never occurs to me.
I don't feel safe or secure walking to or waiting at the bus stop.
I don't feel safe or secure on the bus.
Other
If you answered Other, please explain:
Type...
Next

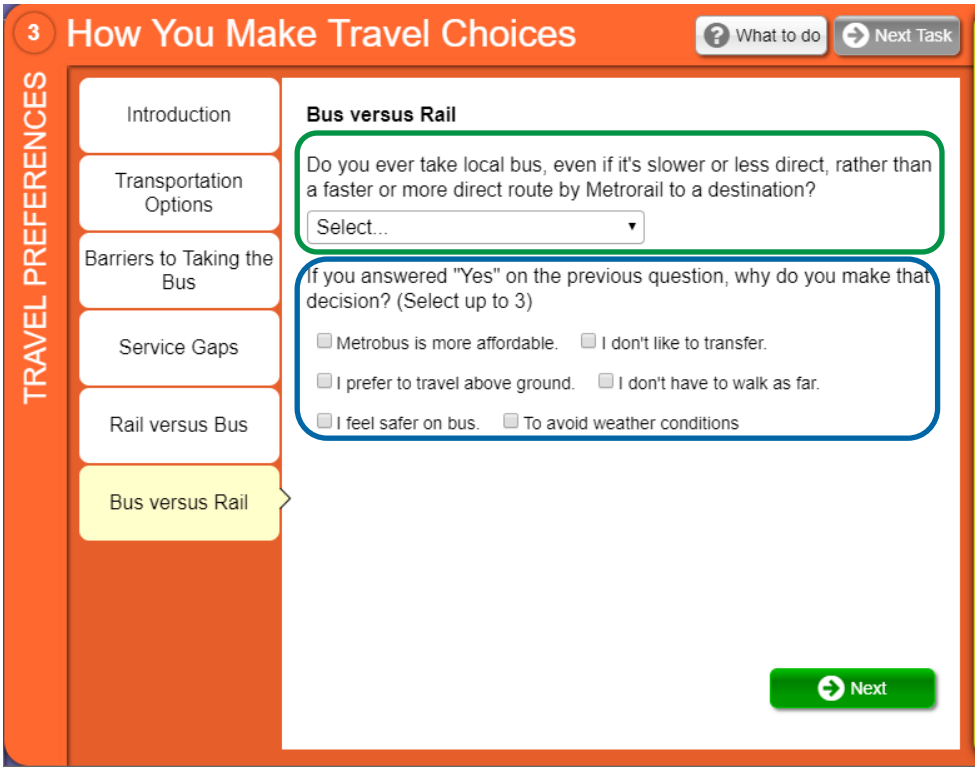
Q3.3


3
How You Make Travel Choices
What to do
Next Task
TRAVEL PREFERENCES
Introduction
Transportation Options
Barriers to Taking the Bus
Service Gaps
Rail versus Bus
Bus versus Rail
Bus Service Gaps
If you'd like to take the bus somewhere but there is currently no service that meets your needs, select the locations (2) where this trip would start and end. (Select 1 if within the same city/county)
City of Alexandria, VA
Arlington County, VA
District of Columbia (DC)
City of Fairfax, VA
Fairfax County, VA
City of Falls Church, VA
Loudoun County, VA
Montgomery County, MD
Prince George's County, MD
Other
If you answered Other, please enter the location here:
Type...
Next

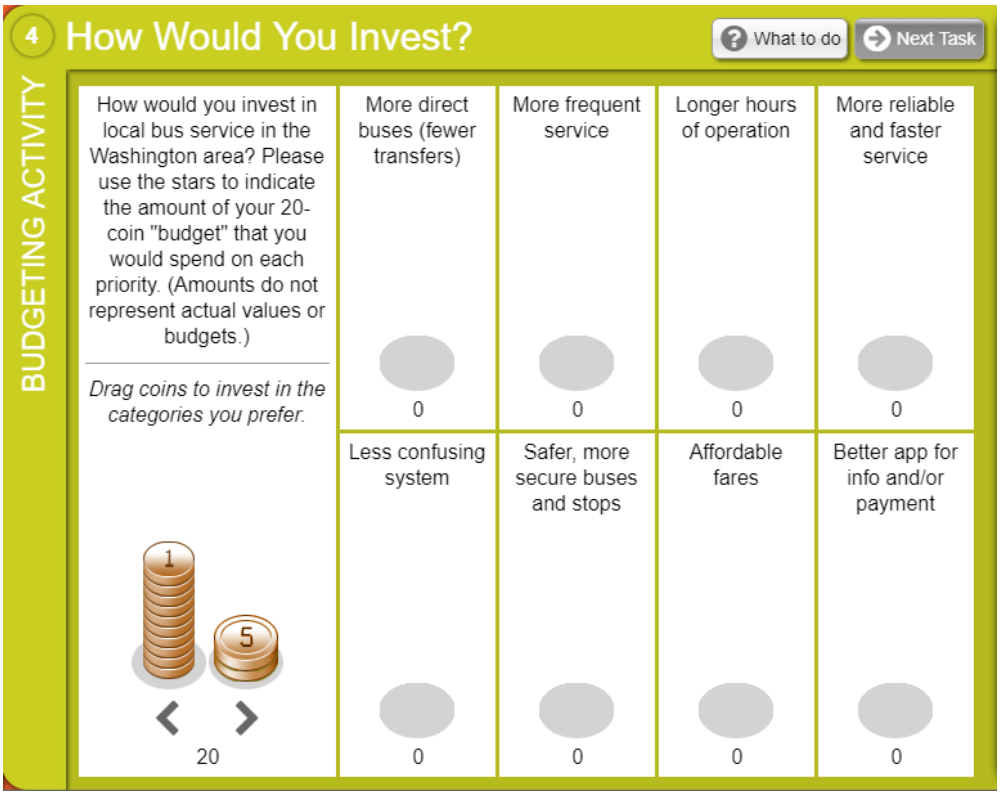
Q3.4a & Q3.4b



Q3.5a & Q3.5b



Q4


4
How Would You Invest?
What to do
Next Task
BUDGETING ACTIVITY
How would you invest in local bus service in the Washington area? Please use the stars to indicate the amount of your 20-coin "budget" that you would spend on each priority. (Amounts do not represent actual values or budgets.)
Drag coins to invest in the categories you prefer.
1
5
20
More direct buses (fewer transfers)
0
More frequent service
0
Longer hours of operation
0
More reliable and faster service
0
Less confusing system
0
Safer, more secure buses and stops
0
Affordable fares
0
Better app for info and/or payment
0