Fresno Area Express 2018 Bus Customer Satisfaction Report

Report to:
City of Fresno
2223 G Street
Fresno, CA 93706

By:
Rea & Parker Research
P.O. Box 421079
San Diego, CA 92142

February 2019

Table of Contents

Fresno Area Express 2018 Customer Satisfaction Report

Key Survey Findings

Fresno Area Express (FAX) has elected to conduct a statistically reliable customer opinion and satisfaction survey among customers of the system. The purpose of the survey is to provide current information and opinions concerning customer satisfaction and travel behavior regarding the FAX system and to compare the results of this 2018 study with the results from prior studies, in particular the more recent 2011 and 2014 FAX customer satisfaction studies.

The survey was conducted through intercept and on-board interviews of 1,803 FAX passengers, which yields a margin of error of +/-2.3 percent at the 95 percent level of confidence.

Rider Demographics

- Just over one-half of respondents (52 percent) are female and English is the primary language spoken in the home for over 9 in 10 (91percent) of respondents.
- The average household size is 3.5 persons with over two fifths (41 percent) reporting either a 1-person household (23 percent) or a two-person household (18 percent).
- Respondents are primarily Hispanic/Latino (47 percent), African-American/Black (22 percent) and White (18 percent).
- Well over one half of respondents (54 percent) earn an annual household income of less than $10,000 and another 22 percent earn between $10,000 and $19,999 on an annual basis. The median respondent annual household income is $9,300.
- Nearly one-half of respondents (48 percent) are between 18 and 34 years of age with another 27 percent recorded as between 35 to 54 years of age. Over 7 in 10 (71 percent) have a high school education or less while 17 percent have a college degree or more education.
- Nearly two-fifths (37 percent) of these respondents are either employed full-time (20 percent) or employed part-time (17 percent) and another 24 percent are students (8 percent employed and 16 percent not employed). Among non-student respondents, 14 percent are unemployed.
- The major residential zip codes of the respondents are as follows: 93706 (12 percent) with 93726, 93702, and 92727 (10 percent each).

Customer Travel Characteristics

- Nearly 8 in 10 (79 percent) of respondent customers who received their survey form on a particular route identified that route as one of their regular routes. The remaining 21 percent identified another bus route as a regular route.
- The dominant typical trip purposes of FAX respondent customers are work/business (26 percent), college (19 percent), and errands/personal (17 percent). Similar patterns are found in previous survey results.
- Nearly two fifths (39 percent) of respondent FAX customers made fewer than 5 trips per week. In 2014 and 2011, 34 percent and 25 percent, respectively, made fewer than 5 trips per week.
- More than three-fourths (77 percent) of respondent customers do not have access to a car or other vehicle. This is consistent with the results of previous survey periods.

- Among the 23 percent who do have access to a vehicle, over one-third (35 percent) use FAX instead of their vehicle because they wish to save gasoline noting that the bus is less expensive than using their vehicle. Similar results are found in previous survey periods.
- One half of respondents (50 percent) pay their bus fare with cash or at the vending machine; 19 percent use 31-day passes, and another 14 percent use a school card to pay their bus fare. Cash customers have decreased since 2014 when 64 percent paid their fare using cash.
- Nearly 8 in 10 bus customers (78 percent) are willing to use an electronic fare payment system if such a system becomes available.

Customer Satisfaction with FAX Bus Service

- Customers express substantial overall satisfaction with the FAX bus system. Nearly four fifths (79 percent) are either very satisfied (42 percent) or satisfied (37 percent). Another 15 percent are slightly satisfied. On a scale of 1 to 6, where 1 = very satisfied and 6 = very dissatisfied, the mean satisfaction rating is 1.9. This represents a notable increase in satisfaction from the 2014 survey period where the mean rating was 2.3. The 2018 satisfaction rating also exceeds the ratings from 2011 where mean satisfaction ratings were 2.1.
- The highest overall satisfaction with the FAX bus system is accorded to bus routes 41 (1.79), 1 and 20 (1.80 each), and 45 (1.82).
- Customers provide the highest mean ratings for drivers' characteristics including drivers' driving skills and drivers' safety awareness (mean of 1.8 each), drivers' helpfulness (mean of 1.9), and drivers' courtesy (mean of 2.0). These satisfaction means represent a distinct increase over the 2014 survey ratings.
- With regard to time considerations, respondents are most satisfied with the hours of operation on weekdays (mean of 2.1) and also satisfied with time to complete trip, on time performance, and frequency of buses (each with a mean of 2.3). Customers are less satisfied with the hours of operation on weekends (mean of 2.6). It is noteworthy that these five categories of time characteristics show strong improvement in satisfaction levels over the previous two survey periods.
- Regarding bus features that revolve around the proximity of bus stops and safety considerations, customers are comfortably satisfied with closeness of bus stops to home, closeness of bus stops to destination, safety on-board buses (each with a mean satisfaction rating of 2.0). Customers also express a reasonable level of satisfaction with safety at bus stops/stations (mean of 2.2). Again, it is clear that each of these characteristics regarding safety and proximity of bus stops depicts distinct improvement in customer satisfaction over the 2014 survey results.
- With regard to cleanliness, customers are somewhat satisfied with the cleanliness inside the buses (mean rating of 2.4) and with the cleanliness of bus stops/stations (mean rating of 2.5). Customers report very good levels of satisfaction with value for price paid, overall comfort of bus riders (each with a mean satisfaction rating of 2.0) and the availability of route/schedule information (mean rating of 2.1). The current ratings for these characteristics represent a distinct improvement in satisfaction from the 2014 survey period.
- Customers identify on-time performance as the most important weighted bus feature (35 percent) followed by frequency of buses (18 percent). Customers accord the next level of weighted importance to time to complete trip (13 percent) followed by safety on-board buses (10 percent) and hours of operation – weekends (9 percent). These same bus service features were accorded similar levels of weighted importance in the 2014 survey.
- Based upon a satisfaction/importance quadrant analysis, the following bus features are the core characteristics that lead to the overall rating of the FAX bus service as very satisfactory: drivers' courtesy, safety on-board buses, and drivers' driving skills. On-time performance, frequency of buses, time to complete trip, and hours of operation on weekends are potential characteristics for

improvement. The core characteristics as well as the features that would aid overall satisfaction were they to be improved are identical to those identified in the 2014 survey.

- The "report card" that was developed for prior surveys shows that FAX has been a consistent success with high customer satisfaction. In fact, the level of satisfaction has markedly improved since the previous two survey periods.

Customer Preferences for Receiving FAX Communications

- About one third (33 percent) of customer responses indicate a preference for pamphlets and printed materials in their effort to obtain information about routes, schedules, and fares. Another 40 percent orient to posters on board the bus. This general preference for traditional, non-electronic materials represents a substantial decline from the preferences for such material in 2014.
- In 2018, customer responses show a growing preference to receive information electronically (31 percent each for FAX website and for mobile phones, 27 percent for the FAX app, 16 percent for social media, and 15 percent for e-mail. This represents an enormous change in preference from the 2014 and 2011 survey results.
- Smart phones are possessed by 81 percent of FAX riders, of whom 33 percent have downloaded the My FAX app. Just under one half of customers (48 percent) use a Smart Phone but have not downloaded the My FAX app. About one-fifth (19 percent) of customers do not use a Smart Phone.
- Approximately 8 in 10 bus customers (79 percent) have access to the internet on a daily basis.

Conclusion

- There is strong evidence that FAX customers demonstrate a very high level of satisfaction for the services provided by the bus system. This overall satisfaction with the FAX system has been sustained and documented throughout the history of FAX conducting satisfaction surveys. In fact, the level of satisfaction for all features of bus service has improved significantly since the previous two survey periods.

Introduction and Methodology

Fresno Area Express (FAX) is the fixed route bus system operated by the Department of Transportation of the City of Fresno. FAX is the largest mass public transportation provider in California's San Joaquin Valley. FAX operates scheduled fixed-route service throughout the metropolitan area on 16 routes, seven days per week. FAX currently has a fleet of more than 100 buses. During its peak month in 2017 (October), FAX provided 866,634 fixed-route passenger trips.

FAX has elected to conduct a statistically reliable customer opinion and satisfaction bus stop/on-board survey among its customer base. The purpose of the survey is twofold – first, to provide current information and opinions concerning customer satisfaction regarding the bus system and second to compare the results of this 2018 study with the results of prior satisfaction surveys (in particular, the 2014 and 2011 customer satisfaction studies). Rea & Parker Research was selected to conduct the 2018 study and the firm was selected to conduct the 2014 study as well.

Rea & Parker Research conducted a combined bus stop-intercept and on-board survey of the Fresno Area Express (FAX) bus system in order to ascertain the following information:

- Identification of bus riders' regular bus routes
- Level of satisfaction with various features of the bus system
- Overall level of satisfaction with the FAX bus system
- Level of importance accorded to various features of the FAX bus system
- Travel characteristics of FAX customers including:
    - Purpose of typical FAX bus trips
    - Length of time customers have ridden FAX
    - Number of weekly trips by FAX customers
    - Method of fare payment
    - Potential Use of Electronic Fare Payment System
    - Use of debit or credit card to purpose FAX goods or services
    - Access to a vehicle and reason for using FAX instead of a vehicle that may be available
- Preferences in how customers prefer that FAX communicate information to them
- Use of a Smart Phone
- Daily access to the Internet
- Demographic characteristics of the respondents

The final survey questionnaire form (English version) is provided in the Appendix to this report. Spanish versions of the survey were also distributed to potential respondents as needed and as requested.

Rea & Parker Research retained Robert Half International (Office Team) based in Fresno California to conduct the survey. Four local surveyors/interviewers were recruited for this project and Rea & Parker Research trained these interviewers regarding the procedures necessary to conduct both the on-board and bus stop components of this project. Rea & Parker Research also trained a supervisor from the Robert Half agency to coordinate the survey effort on a daily basis and to provide continuous updates and feedback to Rea & Parker Research. This training took place on October 25, 2018 at the Robert Half International offices in Fresno. The survey process began on October 26 at designated places throughout Fresno and on selected buses. At the completion of the project, three respondents who completed the entire survey were randomly selected to receive $100 each as a reward for their much-appreciated participation.

The total number of completed survey forms returned was 1803. This yields a margin of error of +/- 2.3 percent at the 95 percent level of confidence. In this current survey, 97 percent of returned surveys were completed in English and 3 percent were completed in Spanish. Similarly, in 2014, 97 percent were completed in English.

Survey Design and Characteristics of Returned Surveys

This survey was conducted in two distinct components: The first component consisted of an **intercept survey** whereby surveyors distributed survey forms to bus passengers waiting at designated places throughout the City of Fresno. Distribution took place on weekdays as well as on weekends. The places were selected based upon passenger boarding totals at these bus stops. Waiting passengers were asked to complete the survey and return it in one of the following ways: return the completed survey to the surveyor who gave the questionnaire to them, drop the survey in the mailbox (postage paid by Rea & Parker Research), or deliver it to the FAX office at the Manchester Transit Center. A total of 687 completed surveys were obtained from this component of the study (38 percent of all surveys returned). By contrast, in 2014, 60 percent of surveys were distributed at bus stops. Survey distribution at bus stops in 2011 was 49 percent and in 2009, it was 16 percent. **Table 1** shows the distribution of returned surveys at these bus stops for the current survey. Almost three-fifths (57 percent) of the surveys were returned from distributions that occurred at the Manchester Transit Center (24 percent), the Downtown Transit Mall (17 percent), and the Van Ness Station that is also located downtown. Another 26 percent were returned from distributions that occurred at Fresno State University and Fresno City College.

Table 1 Returned Surveys by Bus Stop of Distribution (Bus Stop Intercept Phase of Survey)		
Place of Distribution	Returned Surveys #	 %
Manchester Transit Center	165	24
Downtown Transit Mall	118	17
Van Ness Station	109	16
Fresno City College	107	16
Fresno State University	69	10
Fashion Fair	36	5
Mariposa and M	29	4
Clovis Station	27	4
Peach Station	27	4
Total	687	100

The second component of this survey was comprised of an **on-board distribution of surveys** on bus routes geographically dispersed throughout the City. Surveyors distributed surveys to those passengers who were willing to complete the survey. Surveyors personally interviewed as many passengers as possible while passengers were riding the bus. While interviewing some passengers, if other passengers wanted to participate, they were handed a survey. Passengers had the option of returning the survey to the surveyor, by using Business Reply Mail (if they required more time after their bus trip to complete the survey), or by returning the survey to the Manchester Transit Center, if convenient. Surveyors were deployed over the course of the day and the survey was conducted on both weekends and weekdays. A total of 1,116 completed surveys were returned from this on-board component of the study (62 percent of all surveys returned).

Table 2 shows the number of returned surveys by the bus route of distribution. Over three-fifths (63 percent) of these returned surveys were distributed on four major routes -- Route 1 (27 percent), Route 28 (13 percent), Route 34 (12 percent), and Route 26/39 (11 percent).

Table 2 Returned Surveys by Bus Route of Distribution (On-Board Phase of Survey)		
Bus Route of Distribution	**Returned Surveys**	
	#	%
Route 1	**303**	**27**
Route 28	**148**	**13**
Route 34	**132**	**12**
Route 26/39	**123**	**11**
Route 32	**75**	**7**
Route 9	**74**	**7**
Route 38	**61**	**5**
Route 41	**55**	**5**
Route 35	**49**	**4**
Route 22	**36**	**3**
Route 20	**28**	**3**
Route 45	**28**	**3**
Route 33	**3**	**----**
Total	**1116**	**100**

Table 3 shows the bus route indicated by the respondent as that route about which they were responding regardless of where they actually received the survey questionnaire. This table, therefore, supplements Tables 1 and 2 that show where the surveys were distributed but not necessarily the routes about which the respondents were providing information. Two high volume bus routes comprise over two-fifths (43 percent) of returned surveys (Route 1 – 28 percent and Route 28 – 15 percent). The distribution of routes is well reflective of actual ridership.

Table 3 Returned Surveys by Bus Route (On-Board, Boarding or Alighting)			
Bus Route of Distribution	**Returned Surveys**		**Actual Ridership Distribution %**
	#	%	
Route 1	**513**	**28**	**23**
Route 28	**262**	**15**	**9**
Route 9	**171**	**9**	**10**
Route 34	**165**	**9**	**9**
Route 38	**140**	**8**	**11**
Route 32	**113**	**6**	**6**
Route 26/39	**87**	**5**	**9**
Route 22	**86**	**5**	**5**
Route 20	**84**	**5**	**4**
Route 41	**69**	**4**	**7**
Route 35	**53**	**3**	**3**
Route 45	**53**	**3**	**2**
Route 33	**6**	**----**	**2**
Route 58	**1**	**---**	**----**
Total	**1803**	**100**	**100**

Other characteristics of returned surveys (both bus stop and on-board components combined) are depicted in **Tables 4 and 5**. **Table 4** shows the returned surveys according to the day of the week the surveys were distributed. Each weekday is well-represented with a total of 83 percent of surveys distributed on weekdays. Just under 1 in 5 (17 percent) returned surveys were distributed on weekends. In 2014, 12 percent of returned surveys were distributed on weekends while in 2011, 17 percent (same as current survey) were distributed on weekends. **Table 5** indicates the time of day returned surveys were distributed. Nearly two-thirds (68 percent) of returned surveys were distributed in the mid-to-late morning and early afternoon between 9:00 am and 3:00 pm. Similarly, in 2014, almost three-fourths (72 percent) of returned surveys were distributed during this same time period.

Table 4
Day of Week of Distribution of Returned Surveys

Day of Week	Returned Surveys	
	#	%
Monday	270	15
Tuesday	306	17
Wednesday	294	16
Thursday	366	20
Friday	269	15
Saturday	195	11
Sunday	103	6
Total	1803	100

Table 5
Time of Day Returned Surveys Were Distributed

Time of Day	Returned Surveys	
	#	%
Early Morning (6 am – 8:59 am)	244	14
Late Morning (9 am - 11:59 am)	656	36
Early Afternoon (12 pm – 2:59 pm)	586	32
Late Afternoon (3:00 pm – 6:00 pm)	317	18
Total	1803	100

Components of Survey Report

This survey report has been divided into four components as follows:

- Demographic Statistics/Respondent Characteristics
- Customer Travel Characteristics
- Customer Satisfaction with FAX Bus Service (including most important features)
- Availability of Information and Communication

Charts and tables have been prepared for each of these major components depicting the basic survey results. Subgroup analyses for different age groups, various levels of education, gender, different income categories, ethnicity of residents, categories of work status, and primary language spoken in the home will be presented in succinct bulleted format when statistical significance and relevance warrants such treatment. Further, the results of this survey will be compared with the results of the 2014 and 2011 bus satisfaction surveys when warranted and where such analysis is feasible and questions are comparable. Frequencies for all survey questions, lists of open-ended responses, and the survey instrument itself are contained in the Appendix.

Survey Findings

Demographic Statistics/Respondent Characteristics

Table 6 presents selected demographic characteristics of the survey respondents. Just over one half of respondents (52 percent) are female and English is the primary language spoken in the home for over 9 in 10 (91 percent) of respondents. The average household size is 2.6 persons with over two fifths (41 percent) reporting either a 1-person household (23 percent) or a two-person household (18 percent). Respondents are primarily Hispanic/Latino (47 percent), African-American/Black (22 percent), and White (18 percent). Well over one half of respondents (54 percent) earn an annual household income of less than $10,000 and another 22 percent earn between $10,000 and $19,999 on an annual basis. The median respondent annual household income is $9,300. Nearly one-half of respondents (48 percent) are between 18 and 34 years of age with another 27 percent recorded as between 35 to 54 years of age. Over 7 in 10 (71 percent) have a high school education or less while 17 percent have a college degree or more education. Nearly two-fifths (37 percent) of these respondents are either employed full-time (20 percent) or employed part-time (17 percent) and another 24 percent are students (8 percent employed and 16 percent unemployed). Among non-student respondents, 14 percent are unemployed. The major residential zip codes of the respondents are as follows: 93706 (12 percent) with 93726, 93702, and 92727 (10 percent each).

Table 6 Fresno Area Express (FAX) Customer Demographics			
Characteristic	**2018**	**2014**	**2011**
Work Status			
Employed Full-Time	**20%**	**17%**	**27%**
Employed Part-Time	**17%**	**19%**	**14%**
Self-Employed	**5%**	**4%**	**2%**
Student and Employed	**8%**	**6%**	**28% [a]**
Student and Not Employed	**16%**	**15%**	
Homemaker	**3%**	**5%**	**4%**
Retired	**6%**	**7%**	**7%**
Unemployed	**14%**	**16%**	**16%**
Disabled and Unable to Work	**11%**	**11%**	**2%**
[a] 2011 made no distinction between employed and not employed students			
Age			
Under 18	**8%**	**7%**	**11%**
18-to-34	**48%**	**48%**	**45%**
35-to-54	**27%**	**26%**	**28%**
55-to-74	**16%**	**17%**	**14%**
75 and Older	**1%**	**2%**	**2%**
Median Age	**33.1**	**33.2**	**32.7**
Education			
Less than 8th Grade	**4%**	**5%**	**2%**
Some High School	**17%**	**16%**	**19%**
High School Graduate	**50%**	**48%**	**49%**
Vocational/Technical School	**12%**	**15%**	**15%**
College Graduate	**17%**	**16%**	**15%**
Ethnicity			
Hispanic/Latino	**47%**	**46%**	**38%**
African-American/Black	**22%**	**18%**	**28%**
White	**18%**	**25%**	**26%**
Asian	**3%[b]**	**6%[c]**	**4%**
American Indian/Alaska Native	**3%**	**2%**	**2%**
Pacific Islander	**-----**	**1%**	**1%**
Middle Eastern	**-----[d]**	**----[d]**	**1%[e]**
Mixed and Other Ethnicities	**7%[f]**	**2%**	
[b] In 2018, 0.6% identified themselves as Hmong, 0.4% as Filipino, and 0.3% as Cambodian. **[c] In 2014, more than one-half (3% of the Asian/SE Asian respondents) indicated that they were Hmong and another 1% were Filipino. In 2011, 1% were Filipino and 1.5% identified themselves as Hmong.** **[d] Less than 0.5%** **[e] Middle Eastern included with Other and Mixed Ethnicities in 2011.** **[f] 3% were American Indian mixed ethnicities—a plurality of whom were Hispanic and American Indian mixed. 1% were Asian mixed ethnicities.**			

Table 6 (continued)			
Characteristic	**2018**	**2014**	**2011**
Less than $10,000	54%	57%	33%
$10,000-$19,999	22%	25%	38%
$20,000-$29,999	11%	9%	17%
$30,000-$39,999	5%	5%	9%
$40,000-$49,999	4%	2%	2%
$50,000 -$74,999	2%	2%	1%
$75,000 or more	2%	----[h]	----[h]
Median Household Income	**$9,300**	**$8,700**	**$14,500**
[g] These incomes from year-to-year are not directly comparable. In 2011, 33% refused to provide their income; however, in 2018 only 9% refused. In 2014, 14% refused, making the 2018 and 2014 data much less influenced by potential non-response bias. Highest income category provided on 2014 and 2011 surveys was $50,000 and above. In 2018, there were additional categories for $50,000-$74,999, $75,000-$99,999 and $100,000 or more.			
Gender			
Male	48%	41%	49%
Female	52%	59%	51%
Primary Language in Home			
English	91%	89%	--------
Spanish or Spanish Creole	8%	8%	--------
Various Asian Languages	1%	2%	--------
Major Residential Zip Codes			
93706	12%	9%	---------
93726	10%	12%	---------
93702	10%	11%	---------
93727	10%	7%	---------
93722	7%	8%	---------
93705	6%	8%	---------
93703	6%	6%	---------
93710	6%	6%	---------
93728	5%	4%	---------
93701	5%	3%	---------
93704	5%	3%	---------
93725	3%	4%	---------
93612	3%	3%	---------
Household Size			
1 person	23%	---------	---------
2 persons	18%	---------	---------
3 persons	16%	---------	---------
4 persons	15%	---------	---------
5 persons	12%	---------	---------
6 persons	7%	---------	---------
7 or more persons	9%	---------	---------
Mean Household Size	**3.5 persons**		

It is noteworthy that customer demographic characteristics in the current 2018 survey are highly consistent with the respondent characteristics in the 2014 survey. However, there are some notable differences among survey periods and the following summary shows how certain respondent characteristics in the bus satisfaction surveys conducted in 2014 and 2011 differ from the 2018 survey.

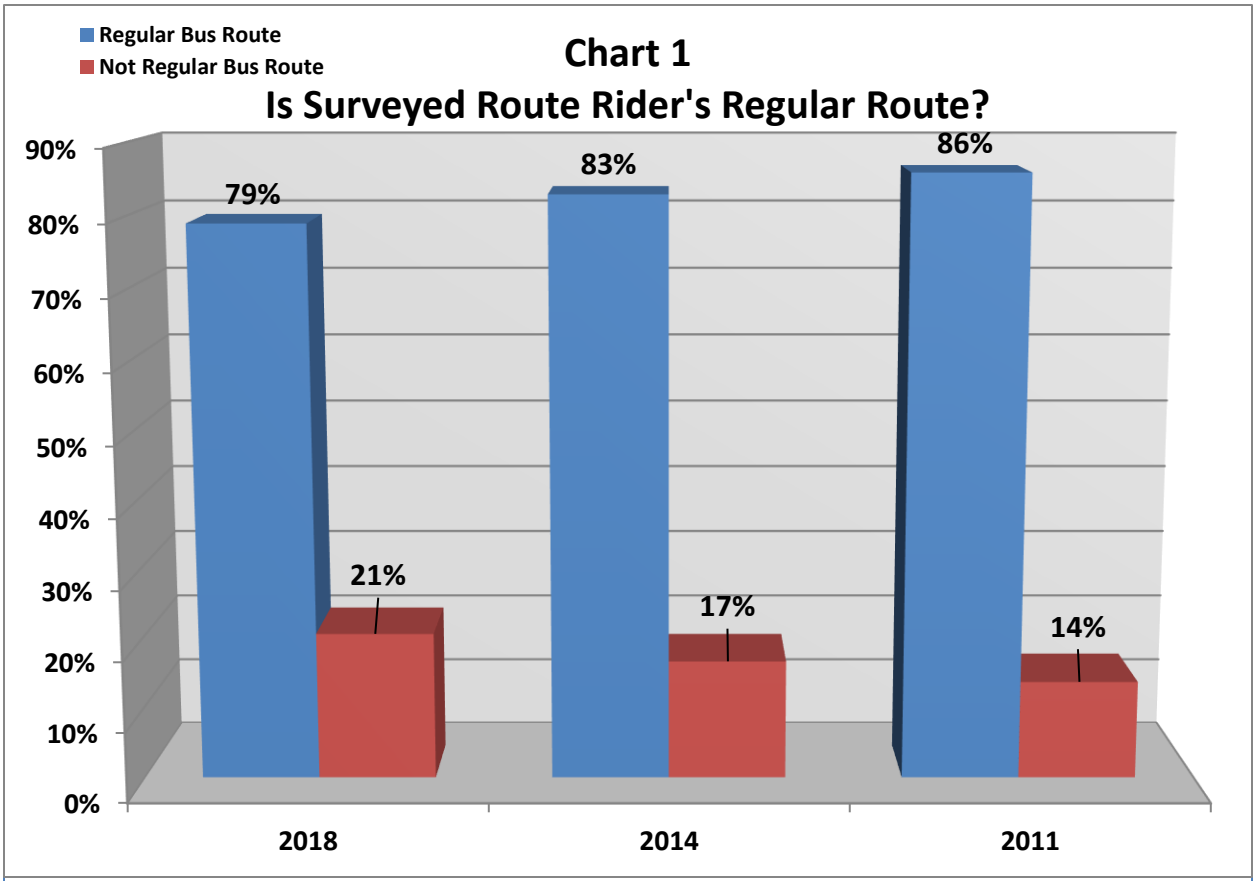
- In 2011, over one-fourth of respondents (27 percent) were employed full-time. This is notably different from those who were employed full time in 2014 (17 percent) and in 2018 (20 percent).
- In 2018, Hispanic/Latinos represent 47 percent of the sample and similarly in 2014, the percentage of Hispanic/Latinos was 46 percent. However, in 2011, Hispanic/Latinos represented only 38 percent of respondents. In 2011, African-American/Blacks represented well over one fourth (28 percent) of respondents while in 2014 they represented 18 percent and in 2018, African-American/Blacks represent 22 percent of respondents. In 2018, 0.6 percent of Asians identified themselves as Hmong while in 2014, 3.0 percent of Asians indicated they were Hmong.
- Disabled riders were the same as in 2014 (11 percent) but were much greater in number than in 2011 (2 percent).
- Consistent with the disability of riders, annual income is similar for 2018 ($9,300) and 2011 ($8,700) but is considerably less than in 2011 ($14,500).

Customer Travel Information

Trip Characteristics

Chart 1 indicates that nearly 8 in 10 (79 percent) of respondent customers who received their survey form on a particular route identified that route as one of their regular bus routes. The remaining 21 percent, who did not receive their survey form on one of their regular routes, were asked to identify one of their regular bus routes. For example, 27 percent of riders who identified their route as not regular were on Route 1 at the time they received their survey form and they identified routes 32 and 38 as two of their regular routes. Another 13 percent of riders not on their regular route were on Route 34 and regularly rode routes 1, 28, and 38. Furthermore, 11 percent of the riders not on their regular route were on Route 28, regularly riding routes 38 and 32). The percentage of respondents who did not receive their survey form on one of their regular routes has increased since the last two survey periods -- 2011 (14 percent) and 2014 (17 percent).

Chart 2 shows the purpose of the customers' typical FAX bus trip. In the current 2018 survey, the typical trip purposes of bus customers are work/business (26 percent) followed by college (19 percent) and errands/personal (17 percent). In 2014, the pattern is similar where the typical trip purposes were as follows: work/business (31 percent), college (23 percent), and errands/personal (14 percent).


Regular Bus Route
Not Regular Bus Route
Chart 1
Is Surveyed Route Rider's Regular Route?
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
79%
21%
83%
17%
86%
14%
2018
2014
2011

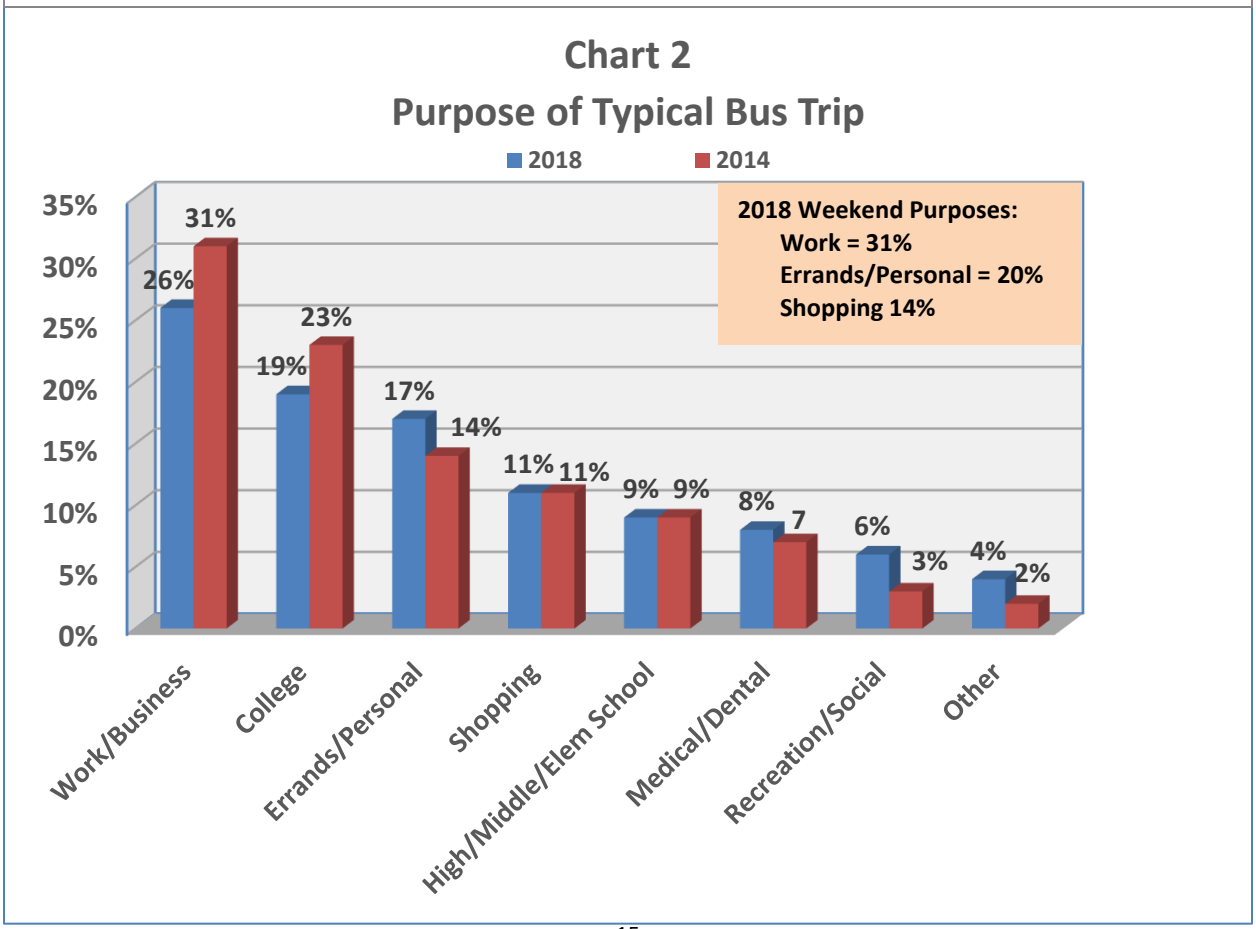


Chart 2
Purpose of Typical Bus Trip
2018
2014
2018 Weekend Purposes:
Work = 31%
Errands/Personal = 20%
Shopping 14%
35%
30%
25%
20%
15%
10%
5%
0%
26%
31%
19%
23%
17%
14%
11%
11%
9%
9%
8%
7
6%
3%
4%
2%
Work/Business
College
Errands/Personal
Shopping
High/Middle/Elem School
Medical/Dental
Recreation/Social
Other

The following subgroups are more likely to identify work/business as a typical trip purpose:

- Respondents with a college degree or more education (33 percent) versus those with a high school education or less (22 percent).
- Full time employees (58 percent) as opposed to customers who are self-employed (36 percent).
- Males (30 percent) as opposed to females (23 percent).

The following subgroups are more likely to identify shopping as a typical trip purpose:

- Retired riders (32 percent) versus full time employees (7 percent).
- Hispanic/Latinos (11 percent) and Whites (12 percent) as opposed to African-Americans (9 percent).
- Respondents whose primary language in the home is Spanish (17 percent) versus those whose primary language is English (11 percent).
- Females (12 percent) as opposed to males (10 percent).

The following subgroups are more likely to identify college as a typical trip purpose:

- Hispanic/Latinos (22 percent) as opposed to African Americans (16 percent).
- Respondents who have higher income levels ($40,000 or more) versus those with lower income levels ($39,999 or less).

The following subgroups are more likely to identify high school, middle school, or elementary school as a typical trip purpose:

- Respondents with a lesser level of education (high school and under --12 percent) as opposed to those with a higher level of education (college or higher – 1 percent).
- Females (11 percent) versus males (7 percent).
- Hispanic/Latinos (11 percent) as opposed to Whites (5 percent) and African-Americans (7 percent).
- Customers whose primary language spoken in the home is Spanish (14 percent) as opposed to those whose primary language is English (8 percent).

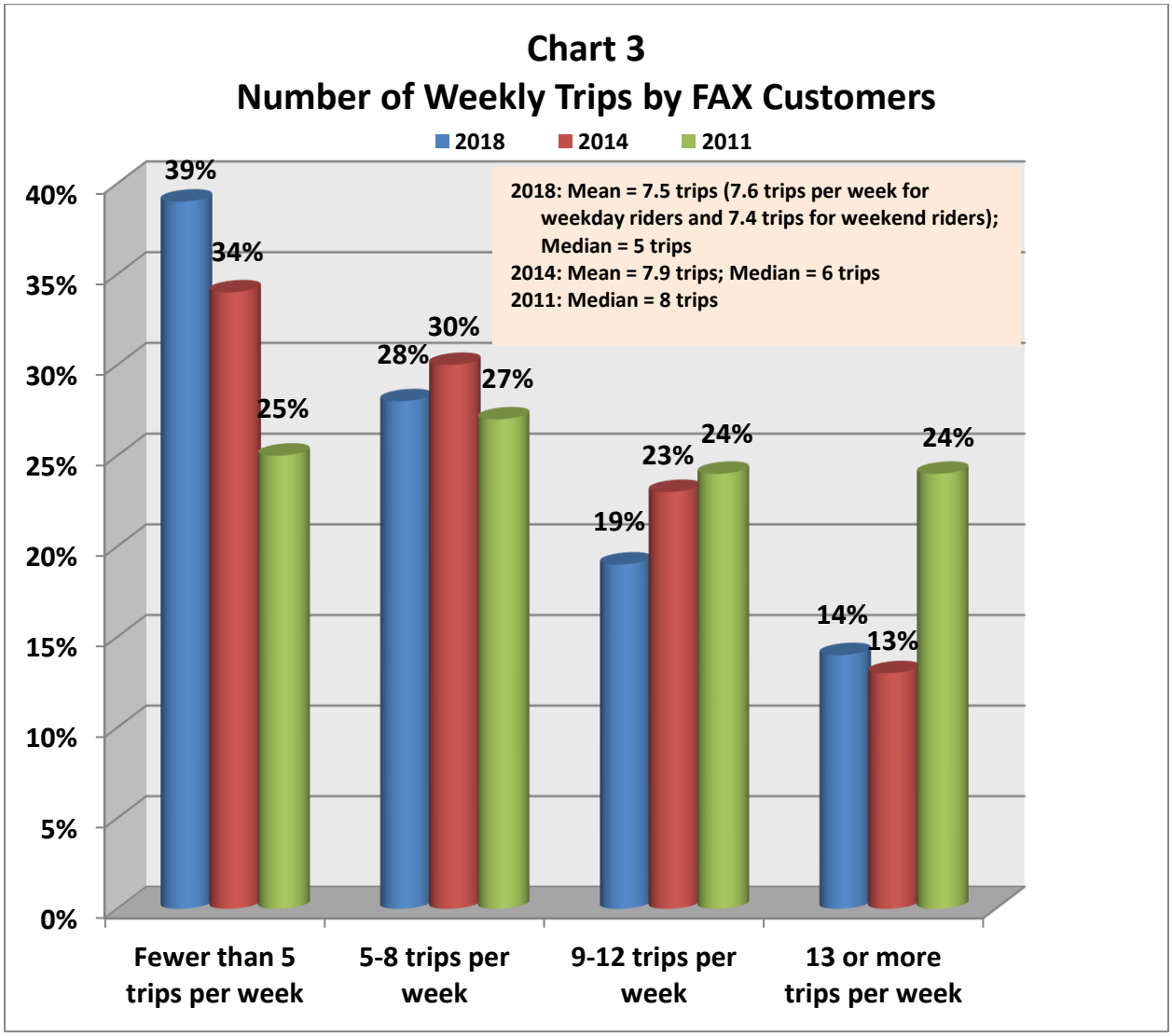
The following subgroups are more likely to identify personal errands as a typical trip purpose:

- Homemakers who report errands (33 percent) as a trip purpose more so than do employed students (9 percent).
- Customers with a lesser income level ($39,999 or less – 18 percent) versus those with a higher income level ($40,000 or more – 9 percent).

The following subgroups are more likely to identify medical/dental appointments as typical trip purposes:

- Females (9 percent) versus males (7 percent).
- Customers who are 55 years of age and over (21 percent) as opposed to those who are 54 years of age and under (6 percent).

Chart 3 shows that nearly two-fifths (39 percent) of respondent FAX customers made fewer than 5 trips per week. This represents a decline over 2014, 2011 and 2009 when 34 percent, 25 percent and 23 percent respectively made fewer than 5 trips per week. Also, 14 percent of FAX customers made 13 or more trips per week in 2018 while approximately one-fourth of customers in 2011 and 2009 made this relatively high number of trips per week. The median number of trips per week is also less in 2018 than in previous survey periods (2018 median = 5 trips per week; 2014 median = 6 trips; 2011 median = 8 trips).

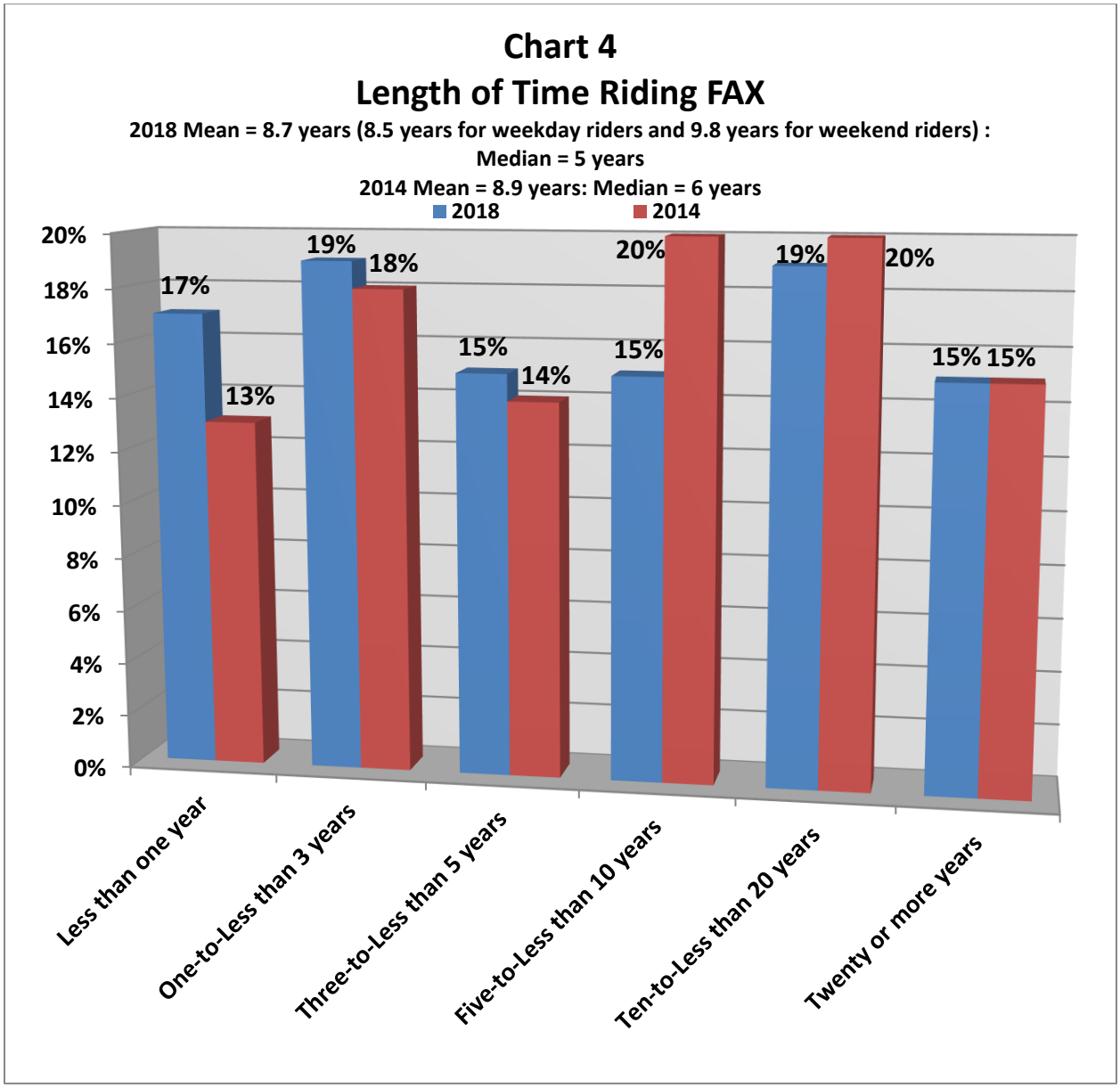


The following subgroups tend to make a higher number of weekly trips:

- Customers with a higher level of education (college – mean of 8.91) versus those with a lesser level of education (some high school or less – median of 6.80).
- Bus riders who use a 31- day regular pass (mean of 9.57) to pay their bus fare and a 31-day reduced pass (mean of 10.55) as opposed to those who use cash (mean of 6.81) to pay their fare.
- Whites (mean of 9.16) in contrast to Hispanic/Latinos (mean of 7.34), African-Americans (mean of 6.66), and Asians (mean of 5.86).

- Respondents who earn an annual income of $75,000 or more (mean of 10.77) versus those who earn less than $30,000 (mean of 7.60).
- Bus customers who are 75 years of age and over (mean of 9.25) in contrast to those under the age of 18 (mean of 5.95).

It is indicated in **Chart 4** that FAX has both long-term bus riders as well as relatively new riders. For example, over one-third (34 percent) have ridden FAX for 10 years or more; on the other hand, 36 percent have ridden the system for less than 3 years. The mean length of time customers have been riding FAX is 8.7 years. In 2018, 83 percent of bus customers have been riding FAX for one year or more. Similarly, in 2014, 87 percent had been riding FAX for one year or more with a mean number of years equal to 8.9, and this compares to 78 percent who were riding the system for one year or more in 2011.

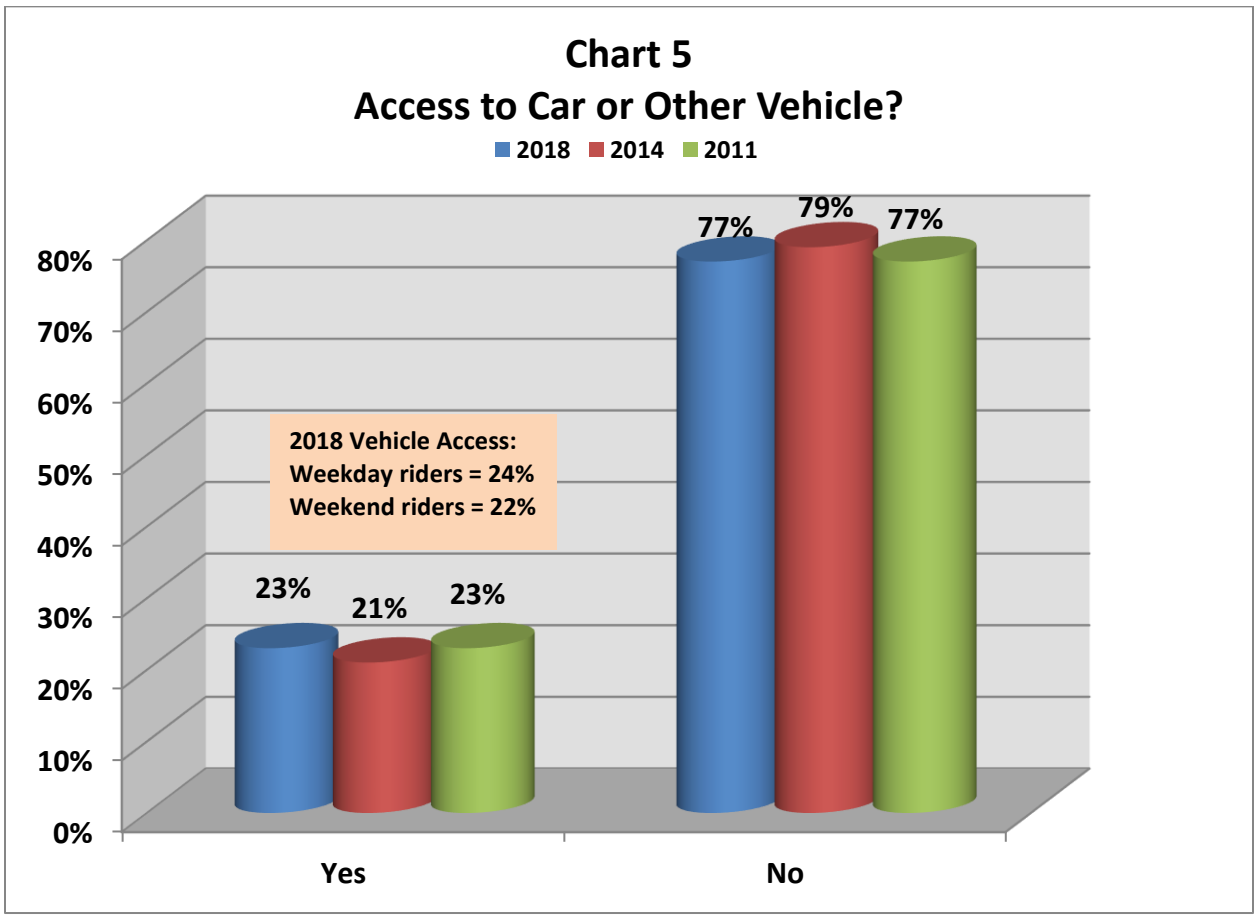


The following two subgroups tend to have a longer tenure using the FAX bus system.

- Respondents with a lesser level of education have the longest tenure as riders of the FAX bus system (less than 8th grade – mean of 13.46) versus those with a higher level of education (some high school – mean of 8.88), high school graduate – mean of 8.11), vocational training (8.9), and college education – mean of 8.83).
- Customers who are 75 years of age and older (mean of 16.2) as opposed to those who are 18- 34 years of age (mean of 6.11).

Access to Vehicle

Chart 5 indicates that in the current survey over three fourths (77 percent) do not have access to a car or other vehicle. This is consistent with the results of previous survey periods. For example, in 2014, 79 percent of respondents did not have access to a car or other vehicle. In 2011, 77 percent had no access to a vehicle.

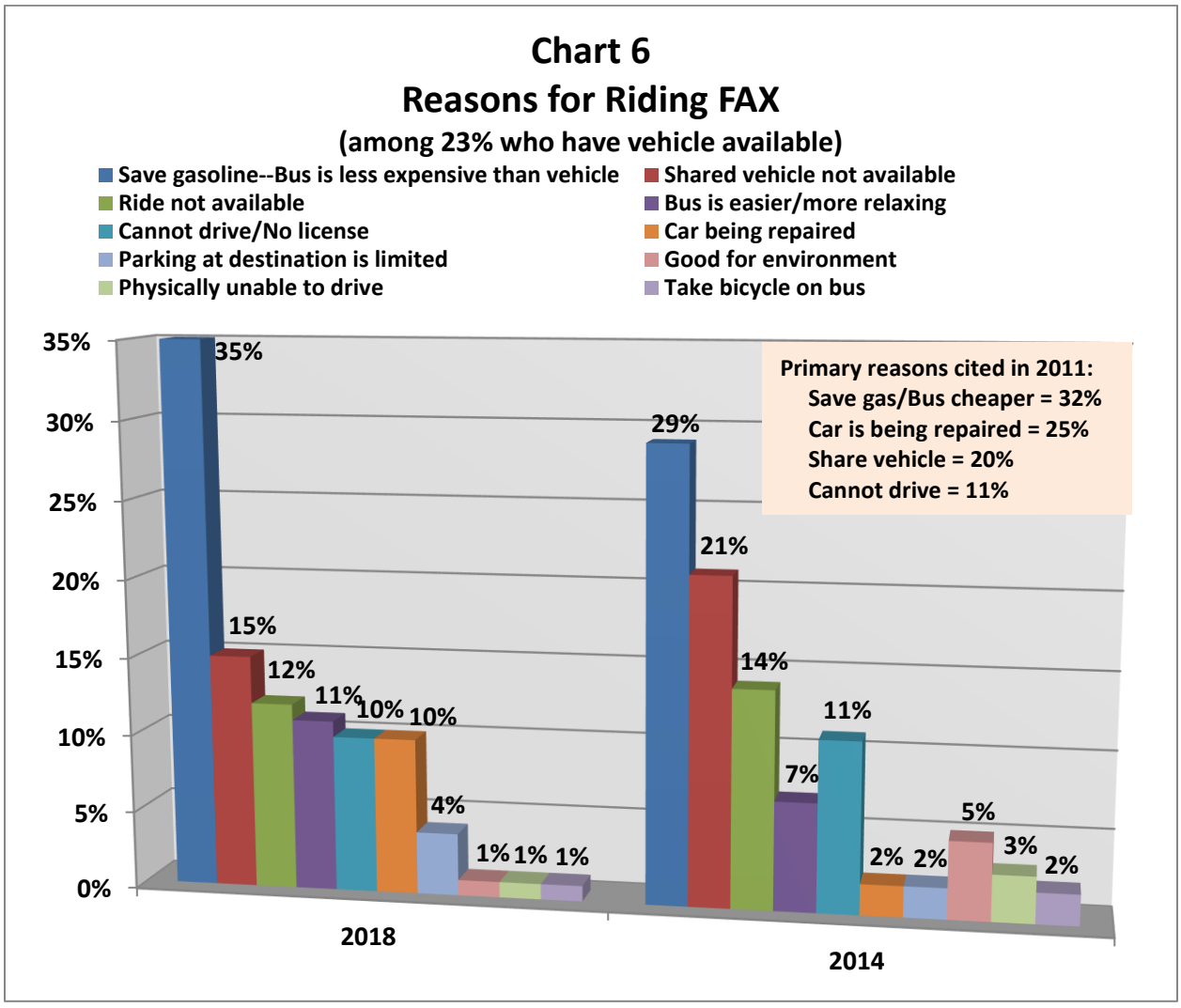


The following four subgroups tend to have access to a car or other vehicle:

- Customers employed on a full-time basis (29 percent) versus those who are unemployed (17 percent).
- Males (27 percent) as opposed to females (21 percent).

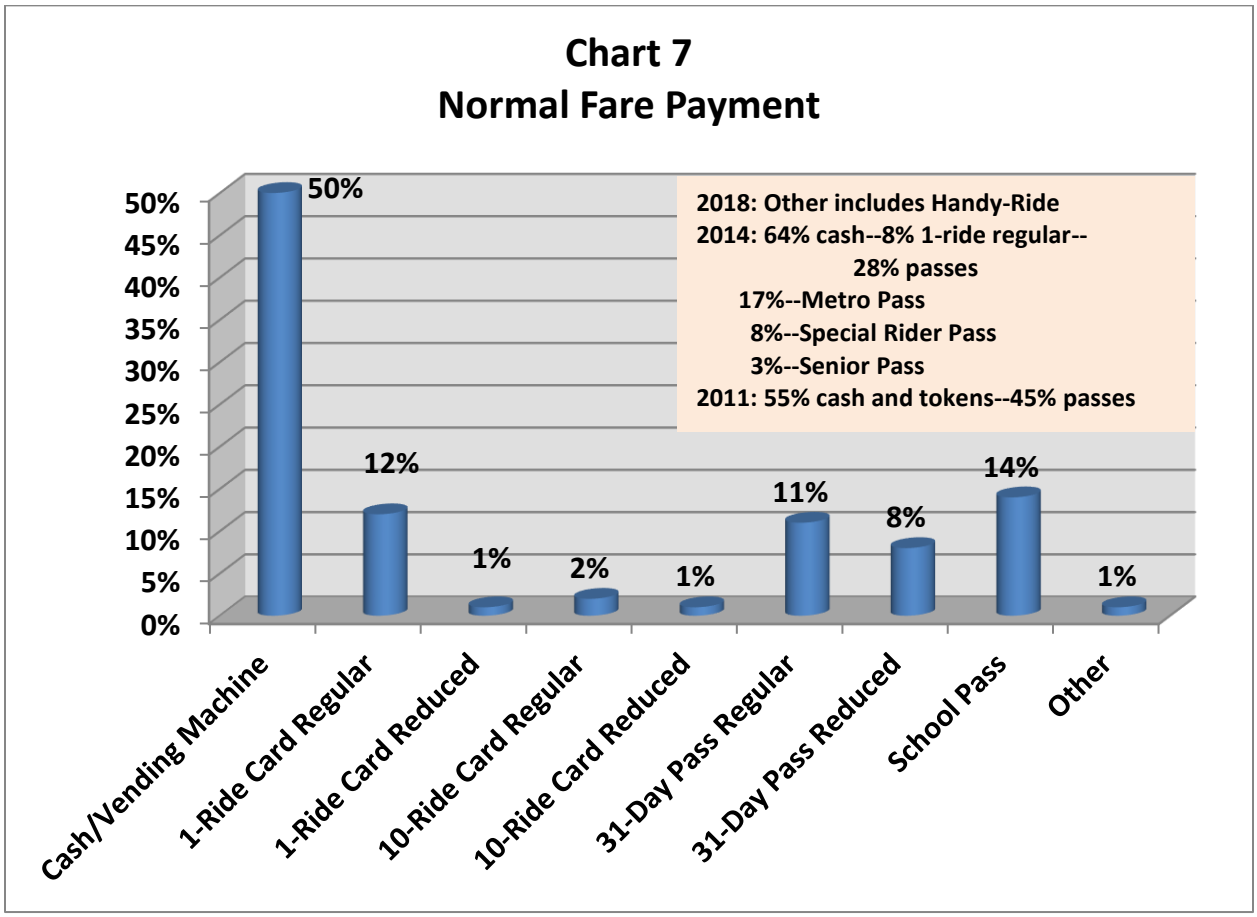
- Respondents whose annual income is $40,000 or more (45 percent) in contrast to those whose annual income is 39,999 or less (22 percent).
- Bus customers with larger household sizes (mean of 3.96 persons per household) versus those with smaller household sizes (mean of 3.32 persons per household).

Among the 23 percent who do have access to a vehicle, well over one-third (35 percent) use FAX instead of their vehicle because they wish to save gasoline noting that the bus is less expensive than using their vehicle. Another 15 percent indicate that their shared vehicle is not always available, and 12 percent stated that their ride is not always available. Similar results are found in previous survey periods. For example, in 2014, 29 percent reported that they do not use their vehicle because the bus is less expensive to use than their car. Another 21 percent indicated that their shared vehicle is not always available, and 14 percent stated that their ride is not available. Customers in 2011 expressed similar reasons for riding the bus instead of using their vehicle: save gas/bus cheaper (32 percent) and their vehicle is shared and not readily available (20 percent) (**Chart 6**).



Fare Payment

In 2018, one-half (50 percent) of respondents pay their bus fare with cash or at the ticket vending machine; 19 percent use 31-day passes, and another 14 percent use a school card to pay their bus fare. (**Chart 7**). Cash customers have decreased since 2014 when 64 percent paid their fare using cash.



The following two subgroups tend to use cash to pay their bus fare:

- Customers who are employed full time (69 percent) as opposed to those who are unemployed (51 percent) and disabled (46 percent).
- African-American/Blacks (54 percent) versus Asians (39 percent).

The following three subgroups tend to use a student card to pay their bus fare:

- Whites (17 percent) versus African-Americans (8 percent).
- Customers who have an annual salary of $40,000 or more (27 percent) as opposed to those who earn an annual salary of $39,999 or less (13 percent).

- Younger customers (34 years of age and under -- 23 percent) versus those who are older (35 years of age and older – 3 percent).

The following two subgroups tend to use a 31-day regular pass to pay their bus fare:

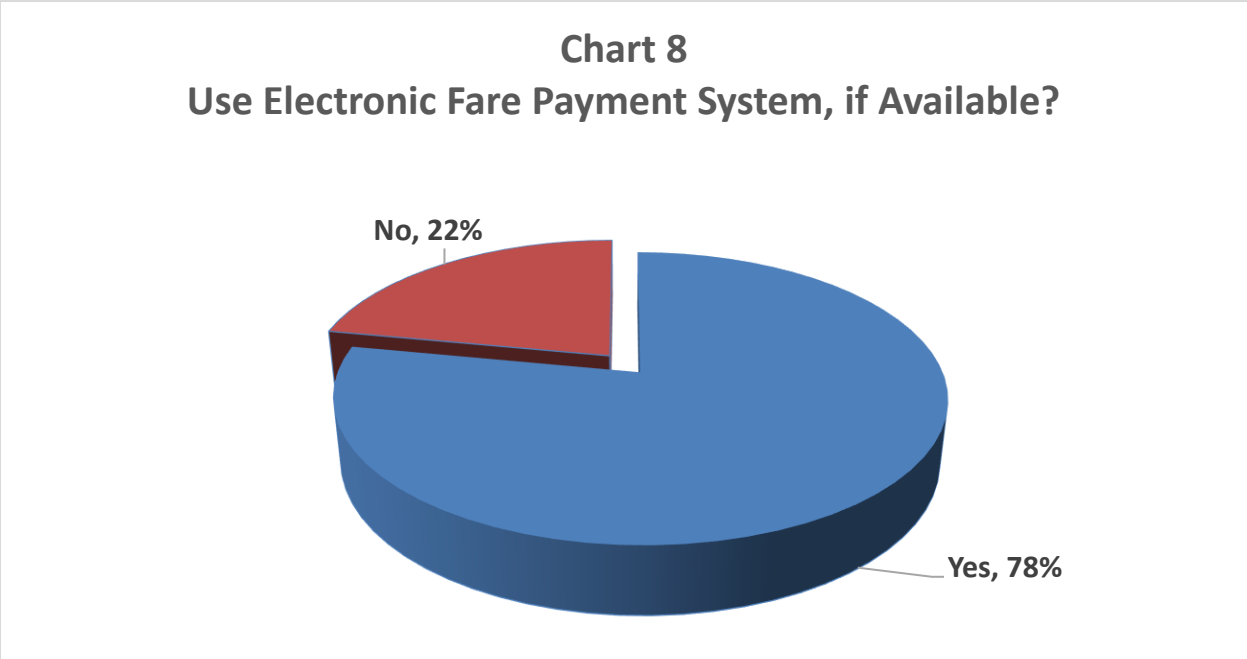
- Customers who have a college degree or more education (13 percent) as opposed to those who have a high school diploma or less (10 percent).
- Respondents who have an annual income of $49,999 or less (12 percent) versus those who have an annual income of $50,000 or more (6 percent).

The following four subgroups tend to use a 31-day reduced pass to pay their bus fare:

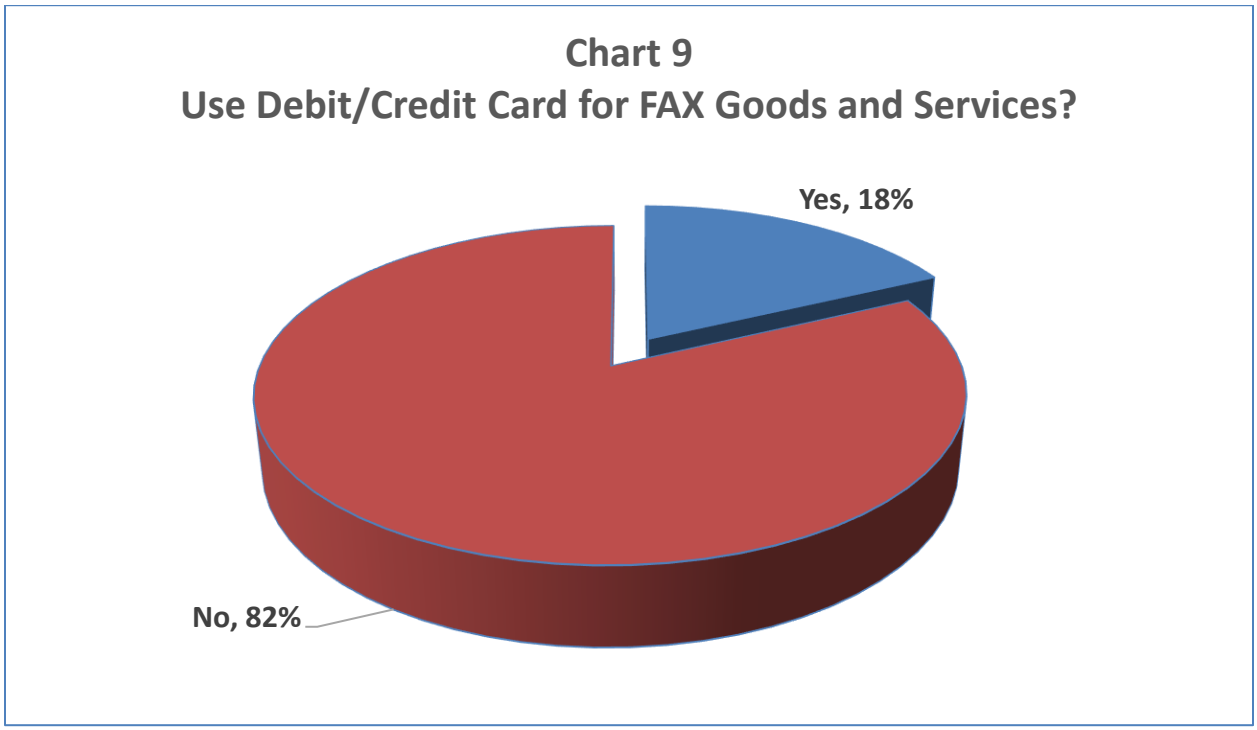
- Bus customers with a higher level of education (College or greater – 10 percent) as opposed to customers with a lesser level of education (High school or less – 6 percent).
- Whites (12 percent) versus Hispanic/Latinos and African-Americans (6 percent each).
- Respondents who are 55 to 74 years of age (19 percent) versus those who are 54 years of age and younger (5 percent).
- Disabled customers (21 percent) and retired customers (19 percent) in contrast to full time and part time employees (5 percent each).

Nearly 8 in 10 bus customers (78 percent) are willing to use an electronic fare payment system if such a system becomes available (**Chart 8).**

- Bus customers with a lesser level of education (8th grade or less – 66 percent) are less likely to use an electronic fare system if one were to become available than are those with a higher level of education (some high school – 78 percent), (high school graduate – 76 percent), and (college education or greater -- 81 percent).



Over four fifths (82 percent) of customers do not use a debit or credit card for any FAX goods or services that they purchase (**Chart 9).**



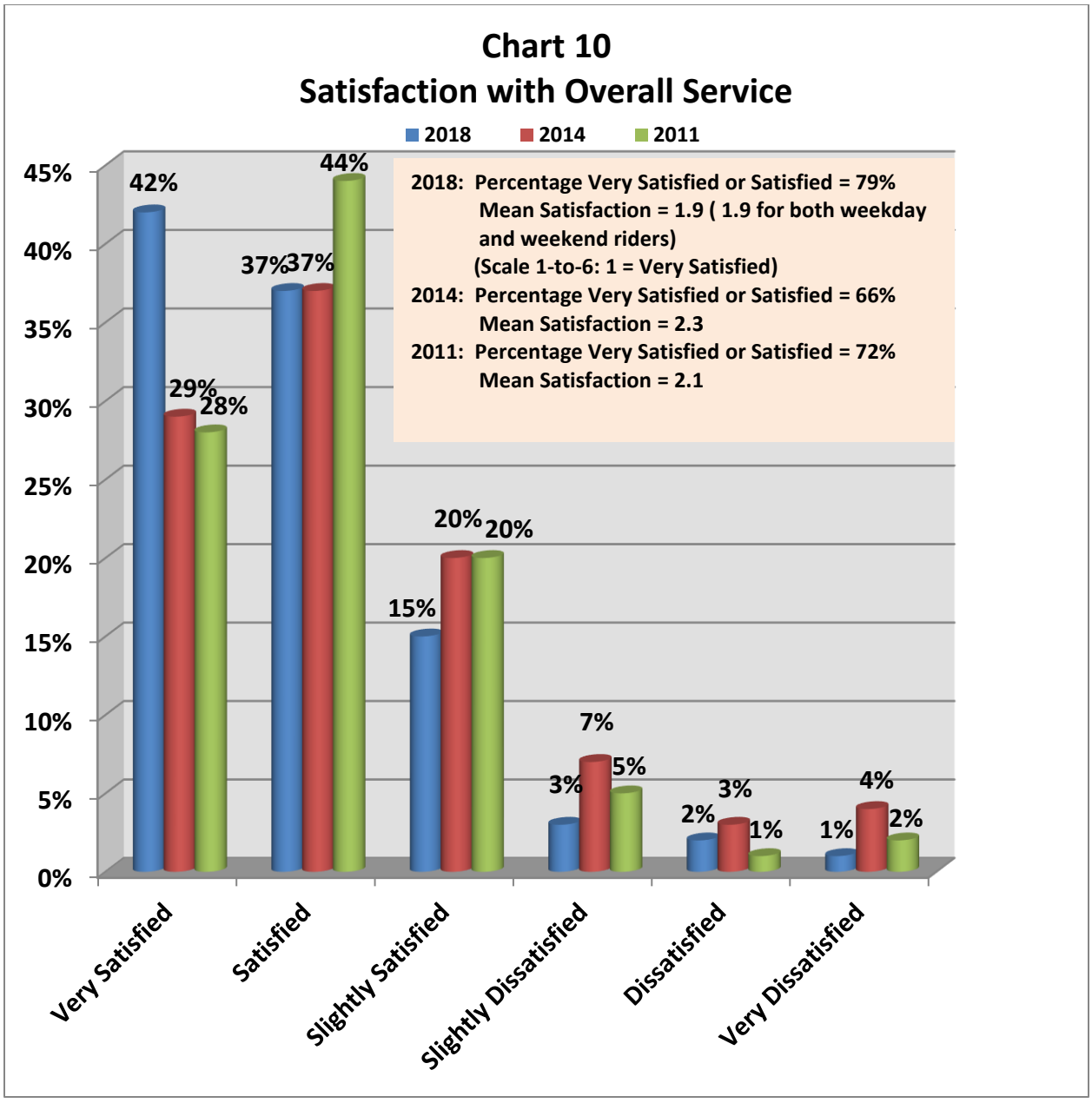
The following two subgroups tend to use a debit or credit card more than other groups to purchase FAX goods and services:

- Respondents with a college degree or higher (25 percent) versus those with a high school degree or less education (16 percent).
- Bus customers who are 35 to 74 years of age (24 percent) as opposed to those who ae 34 years of age and younger (14 percent).

Customer Satisfaction with FAX Bus Service

Overall Satisfaction

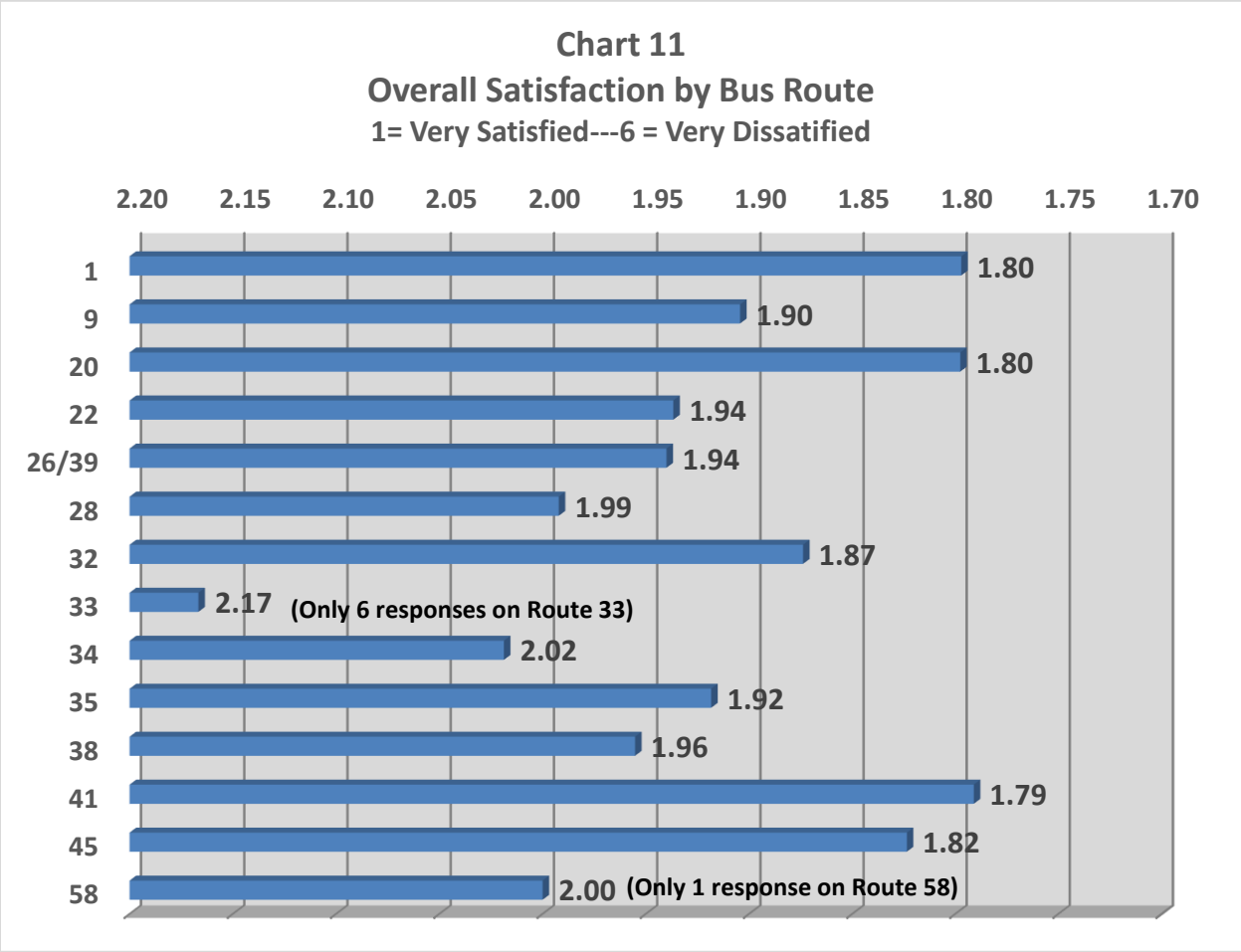
Chart 10 reports that customers express substantial overall satisfaction with the FAX bus system. Nearly four fifths (79 percent) are either very satisfied (42 percent) or satisfied (37 percent). Another 15 percent are slightly satisfied. On a scale of 1 to 6, where 1 = very satisfied and 6 = very dissatisfied, the mean satisfaction rating is 1.9. This represents a notable increase in satisfaction from the 2014 survey period where two thirds (66 percent) of customers reported that they were either very satisfied or satisfied with the FAX bus system. This improvement in overall satisfaction is also reflected in the mean satisfaction ratings (from 2.3 in 2014 to 1.9 in 2018). It is also noteworthy that the 2018 overall mean satisfaction ratings show an improvement over the 2011 survey results where the mean satisfaction rating was 2.1.



The following subgroups tend to be even more satisfied overall with the FAX bus system than are other groups:

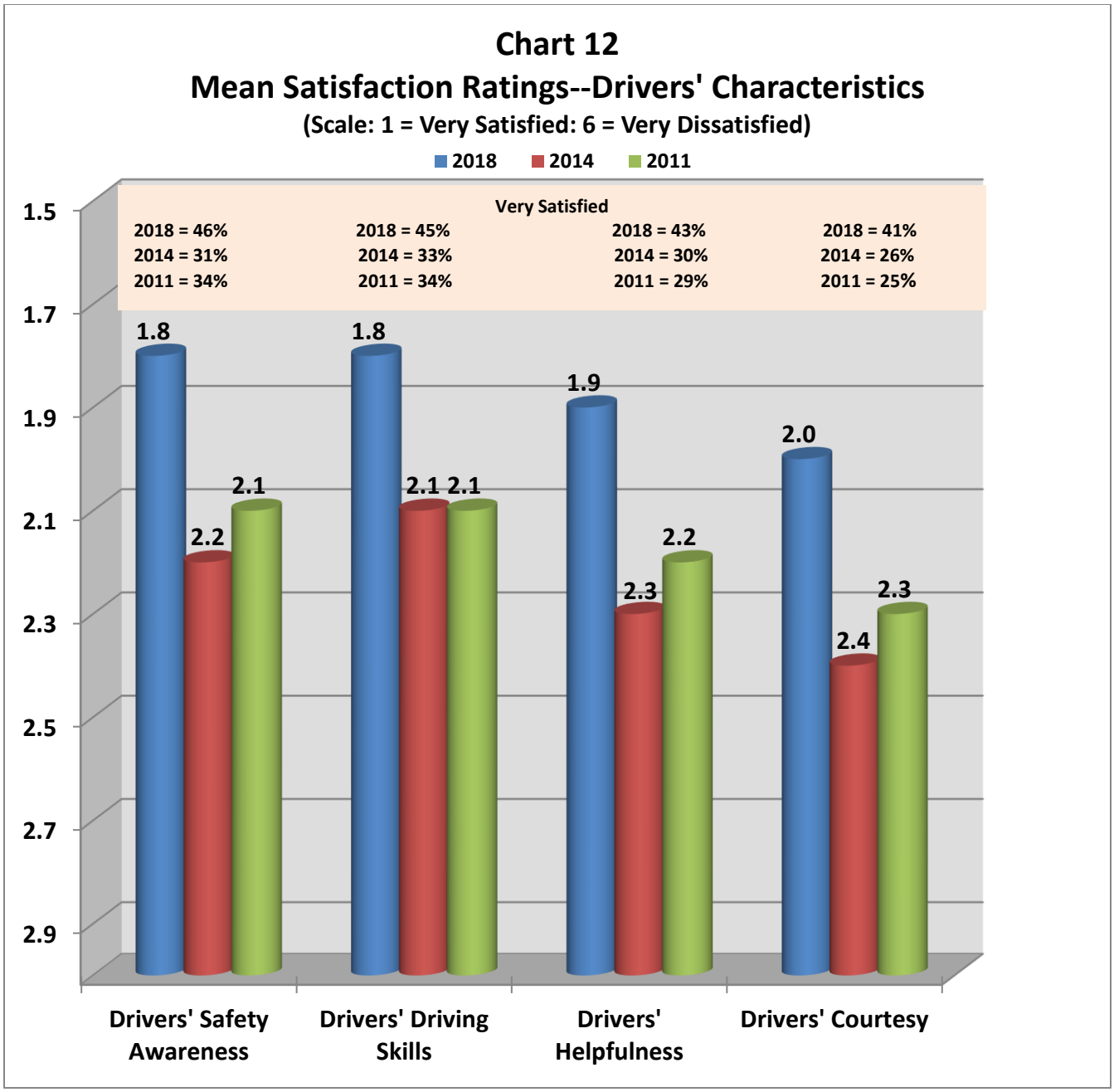
- Hispanic/Latinos (mean of 1.82) versus African-Americans (mean of 1.98).
- Bus riders with a lesser level of education (less than 8th grade – mean of 1.56) in contrast to riders with a higher level of education (some high school – mean of 1.90), high school graduate – mean of 1.92), vocational training (mean of 2.12), and college education (mean of 2.05).
- Respondents who make use of a smart phone (mean of 1.86) versus those do not make use of a smart phone (mean of 2.03).
- Customers who make an annual income of less than $10,000 (mean of 1.86) as opposed to those who make an annual income of $75,000 or more (mean of 2.29).

Chart 11 indicates the respondents' overall satisfaction with the FAX bus system according to bus route. Satisfaction ratings range from 1.79 to 2.17. The highest levels of satisfaction are accorded to bus routes 41 (1.79), 1 (1.80), 20 (1.80), and 45 (1.82).



Satisfaction with Individual Features of FAX Service

Chart 12 shows the level of customer satisfaction regarding bus features that are associated with the drivers' characteristics. Respondent customers are particularly satisfied with the drivers' driving skills and drivers' safety awareness (mean of 1.8 each). Satisfaction in these areas is closely followed by drivers' helpfulness (mean of 1.9) and drivers' courtesy (mean of 2.0). These satisfaction means among the four driver characteristics represent a distinct increase in the level of satisfaction over the 2014 (means ranging from 2.1 to 2.4) and 2011 (means ranging from 2.1 to 2.3) survey periods. Further to this marked increase in satisfaction with drivers, the percentage of respondents who were very satisfied increased by between 12 percent and 15 percent from the responses in 2014, led by driver safety awareness and driver courtesy increases from 31 percent to 46 percent and from 26 percent to 41 percent, respectively.



The following subgroups tend to be more satisfied with bus drivers' skills:

- Customers with lower levels of income (less than $75,000 – mean of 1.80) versus $75,000 and above – mean of 2.13).
- Bus customers whose typical trip purpose is personal errands (mean of 1.77) as opposed to high school, middle school, and elementary school as typical trip purposes (mean of 1.97).
- 8th grade education or less (mean of 1.67) versus college graduates (mean of 1.90).

The following subgroups tend to be more satisfied with driver helpfulness

- Respondents where college is a typical trip purpose (mean of 1.80) as opposed to typical trip purposes of high school, middle school, or elementary school (mean of 2.04) and recreational activities (mean of 2.05).
- High school graduates (mean of 1.82) versus college graduates (mean of 1.98)
- Older riders (55 – 74 years of age – mean of 1.80) in contrast to those who are under 18 (mean of 2.08).

The following two subgroups tend to be more satisfied with driver safety awareness:

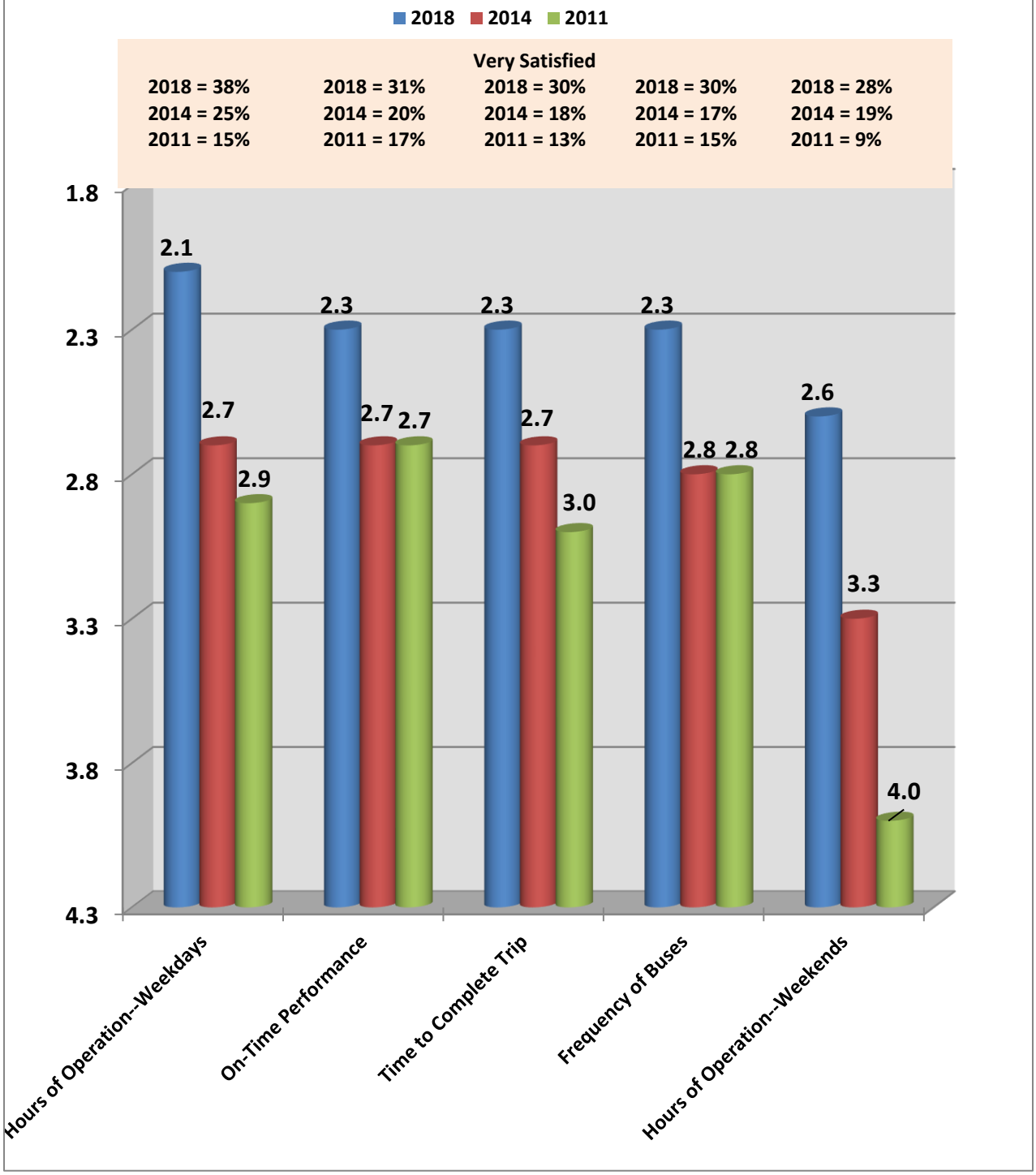
- Customers with lower income levels tend to be more satisfied with drivers' safety awareness (less than $20,000 (mean of 1.79) than are customers at higher income levels ($75,000 or more – mean of 2.12).
- Respondents whose typical trip purposes are personal errands (mean of 1.75) and work/business (mean of 1.76) as opposed to customers whose typical trip purpose is high school, middle school, or elementary school (mean of 1.96).

Chart 13 depicts the level of customer satisfaction regarding bus features most related to time considerations. Among these bus trip characteristics, respondents are most satisfied with the hours of operation on weekdays (mean of 2.1) and moderately satisfied with time to complete trip, on time performance, and frequency of buses (each with a mean of 2.3). Customers are less satisfied with the hours of operation on weekends (mean of 2.6). It is noteworthy that these five categories of time characteristics show strong improvement in the level of customer satisfaction over the previous two survey periods. In 2014, the means for these characteristics ranged from 2.7 to 3.3 and in 2011, the range of means was 2.7 to 4.0. Improvements to the percentage of respondents who are very satisfied with these time characteristics range from 9 percent (weekend hours of operation) to 13 percent (on-time performance and frequency of buses from 2014 to 2018.

The following subgroups tend to be more satisfied with on time performance:

- Customers whose typical trip purpose is personal errands (mean of 2.28) in contrast to those whose typical trip purpose is college (mean of 2.49).
- Older customers (35-54 and 55 -74 years of age – means of 2.23 and 2.08 respectively) as opposed to younger customers (18-34 years of age—mean of 2.46).
- Hispanic/Latinos (mean of 2.24) versus African-Americans (mean of 2.47).
- Customers who pay their bus fare with a 31-day reduced pass (mean of 2.18), with a 31-day regular pass (mean of 2.23), and with cash (mean of 2.34) in contrast to payment with a student card (mean of 2.54).
- Respondents with a lesser level of education (less than 8th grade – mean of 1.97) versus those with a higher level of education (high school graduate –mean of 2.36), (vocational training – mean of 2.32), and (college education – mean of 2.35).
- Respondents with incomes of under $40,000 (mean = 2.28) versus respondents with incomes of $40,000 or more (mean = 2.56)

Chart 13
Mean Satisfaction Ratings--Time Characteristics
(Scale: 1 = Very Satisfied: 6 = Very Dissatisfied)



The following subgroups tend to be more satisfied with frequency of buses:

- Older customers (55-74 -- mean of 2.07) versus younger customers (under 18 years of age – mean of 2.37).
- Respondents with lesser education (less than 8th grade education – mean of 1.97) as opposed to those with some high school (mean of 2.25), high school graduate (mean of 2.28), vocational training (mean of 2.42), and college education (mean of 2.36).
- Hispanic/Latinos (mean of 2.20) versus Whites (mean of 2.41) and African-Americans (mean of 2.36).
- Customers who pay their bus fare with a 31-day reduced pass (mean of 2.11) in contrast to those who pay with a student card (mean of 2.45).
- Bus riders with lower income levels (less than $40,000 -- mean of 2.24) versus riders with higher income levels ($40,000 or more – mean of 2.59).

The following two subgroups tend to be more satisfied with the time it takes to complete their bus trip:

- Older bus riders (35 years of age and above – mean of 2.17) versus younger bus riders (under 18 years of age – mean of 2.43).
- Respondents with lesser education (less than 8th grade – mean of 1.91) as opposed to those with some high school (mean of 2.25), high school graduate (mean of 2.28), vocational training (mean of 2.42) and college education (mean of 2.28).

The following subgroups tend to be more satisfied with the hours of operation on weekdays:

- Customers who have college as their typical trip purpose (mean of 2.02) versus those who have work/business as their typical trip purpose (mean of 2.24).
- Respondents with traditional education (less than 8th grade (mean of 1.94), some high school (mean of 2.17), high school graduate (mean of 2.04), and college education (mean of 2.14) as opposed to those with vocational training (mean of 2.45).
- Hispanic/Latinos (mean of 2.02) in contrast to Whites (mean of 2.20) and African-Americans (mean of 2.26).
- Bus riders who pay their bus fare using a 31-day reduced pass (mean of 1.94) and a student card (mean of 1.98) as opposed to those who pay cash (mean of 2.19).

The following subgroups tend to be more satisfied with the hours of operation on weekends:

- Riders with less than an 8th grade education (mean of 2.06) in contrast to those with some high school (mean of 2.52), high school graduate (mean of 2.56), and college education (mean of 2.84).
- Hispanic/Latinos (mean of 2.53) versus Whites (mean of 2.83) and African-Americans (mean of 2.73).

The level of customer satisfaction with bus features that revolve around the proximity of bus stops and safety considerations is presented in **Chart 14**. Customers are comfortably satisfied with closeness of bus stops to home, closeness of bus stops to destination, safety on-board buses (each with a mean satisfaction rating of 2.0). Customers also express a reasonable level of satisfaction with safety at bus stops/stations (mean of 2.2). Again, it is clear that each of these characteristics regarding safety and proximity of bus

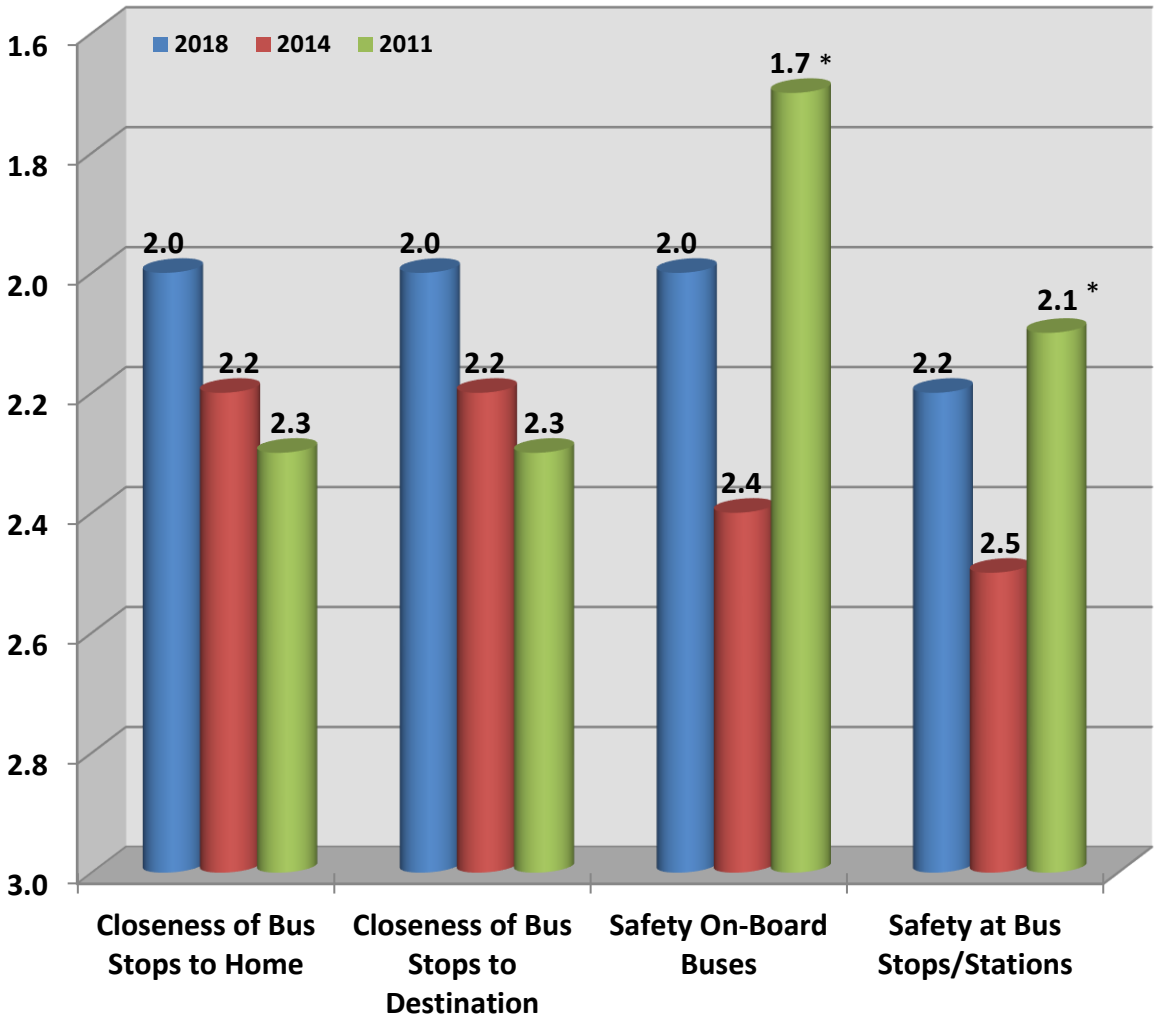
stops depicts distinct improvement in customer satisfaction over the 2014 survey results means range from 2.2 to 2.5). As with Charts 12 and 13, the increased percentages for very satisfied riders is noteworthy (9-10 percent increases from 2014).

Chart 14
Mean Satisfaction Ratings--
Safety/Proximity of Bus Stops
(Scale: 1 = Very Satisfied: 6 = Very Dissatisfied)

Very Satisfied

2018 = 43%	2018 = 41%	2018 = 36%	2018 = 31%
2014 = 34%	2014 = 31%	2014 = 26%	2014 = 22%
2011 = 31%	2011 = 29%	2011 = 54%*	2011 = 43%*

* In 2011, safety questions were asked in a diffferent section of the questionnaire and were on a 4-point scale. The means and percentages have been adjusted but readers are cautioned not to draw significant comparisons based upon these differences between 2018 and 2014 data versus data from 2011.



The following subgroups tend to be more satisfied with the closeness of bus stops to home:

- Bus customers whose typical bus trips are college (mean of 1.89) and work/business (mean of 1.96) versus those whose typical bus trip is recreational activity (mean of 2.29).
- Respondents with lesser levels of education (less than 8th grade – mean of 1.82) in contrast to those with higher levels of education (some high school (mean of 2.05), high school graduate (mean of 1.92), college education (mean of 2.05), and vocational training (mean of 2.12).

The following subgroups tend to be more satisfied with the closeness of bus stops to destination:

- Asians (mean of 1.72) and Hispanic/Latinos (mean of 1.91) versus Whites (mean of 2.06) and African-Americans (mean of 2.05).
- Bus riders whose typical trip purpose is college (mean of 1.80) as opposed to those whose typical trip purposes are work/business (mean of 1.99), shopping (mean of 2.14), and recreational activity (mean of 2.28).

The following subgroups tend to be more satisfied with personal safety on board the bus:

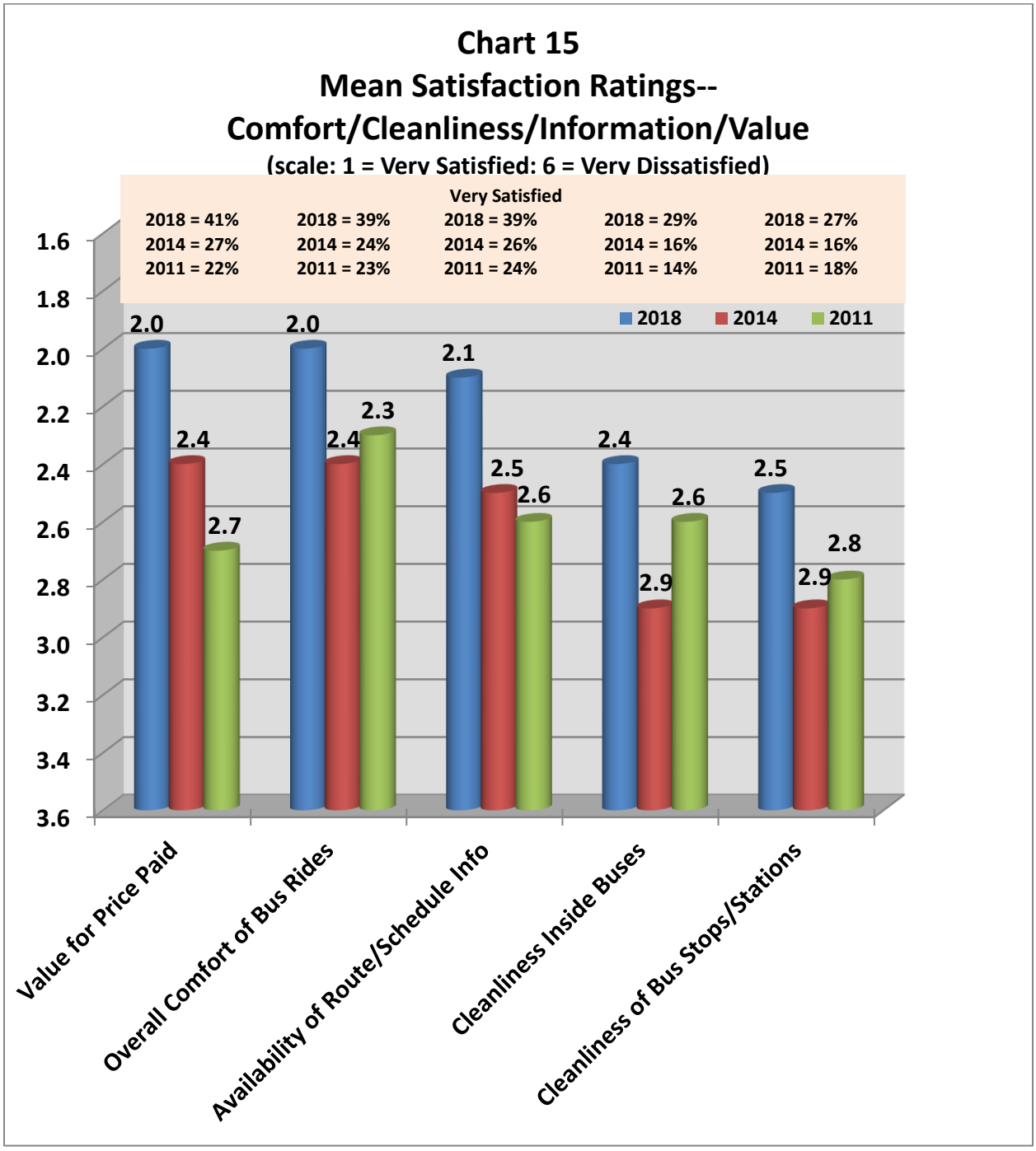
- Customers who use a 31-day reduced pass (1.84) to pay their bus fare as opposed to those who use a student card (mean of 2.11).
- Males (mean of 1.94) versus females (mean of 2.12).
- Respondents whose typical trips are work/business (mean of 1.98) in contrast to those whose typical trip is high school, middle school, or elementary school (mean of 2.22).
- Older customers (35 years of age and older – mean of 1.95) in contrast to younger customers (under 18 years of age – mean of 2.27).
- Customers with an annual income of less than $40,000 (mean of 2.01) as opposed to those who earn $40,000 or more (mean of 2.15).

The following subgroups tend to be more satisfied with personal safety at bus stops and stations:

- Older bus riders (18-34 years of age – mean of 2.25), (35-54 years of age – mean of 2.19), and 55-74 years of age – mean of 2.09) in contrast to younger bus riders (under 18 years of age – mean of 2.50).
- Customers with lesser education (less than 8th grade – mean of 2.00) versus those with a higher level of education (some high school – mean of 2.39--and vocational training – mean of 2.37).
- Respondents whose typical trip purposes are personal errands (mean of 2.15), college (mean of 2.23), work/business (mean of 2.24), and shopping (mean of 2.29) as opposed to those whose typical trip purpose is high school, middle school, and elementary school (mean of 2.48).
- Males (mean of 2.14) versus females (mean of 2.32).
- Bus riders who use a student card (mean of 1.75) to pay their bus fare versus those who pay their fare with cash (mean of 2.01) and with a 3- day regular pass (mean of 2.05).

Chart 15 shows mean satisfaction ratings associated with comfort, cleanliness, information, and value. With regard to cleanliness, customers are somewhat satisfied with the cleanliness inside the buses (mean rating of 2.4) and with the cleanliness of bus stops/stations (mean rating of 2.5). Customer ratings on cleanliness of bus stops as well as cleanliness inside buses have modestly improved since the 2014 and 2011 surveys. Customers report very good levels of satisfaction with value for price paid and overall comfort of the bus ride (each with a mean satisfaction rating of 2.0) and the availability of route/schedule

information (mean rating of 2.1). The current ratings for these three characteristics represent a distinct improvement in satisfaction from the 2014 (mean ratings range from 2.4 to 2.5) and 2011 (mean ratings range from 2.3 to 2.7) survey periods. Increases in percentages of riders who were very satisfied by these characteristics are similar to the previous satisfaction charts, with percentage increases from 2014 ranging from 11 percent (cleanliness of bus stops/stations) to 15 percent (overall comfort of bus rides).



The following subgroups tend to be more satisfied with cleanliness inside buses:

- Older customers (55 years of age or more – mean of 2.12) as opposed to younger customers (under 35 years of age – mean of 2.47).
- Bus riders with a lesser level of education (less than 8th grade – mean of 2.02) versus riders with a higher level of education (some high school – mean of 2.32), (high school graduate – mean of 2.38), and college education (mean of 2.47).
- Respondents whose typical trip purposes are work/business (mean of 2.32) and personal errands (mean of 2.31) in contrast to those whose typical trip purpose is college (2.54).
- Males (mean of 2.29) versus females (mean of 2.45).
- Bus riders who pay their bus fare with cash (mean of 2.34) as opposed to riders who use a 31-day regular pass (mean of 2.54) and a student card (mean of 2.66) to pay their bus fare.

The following subgroups tend to be more satisfied with cleanliness of bus stops and stations:

- Customers with a lesser level of education (less than 8th grade – mean of 2.16) versus those with a higher level of education (vocational training -- mean of 2.52 and college education – mean of 2.51).
- Older customers (55 years of age and older -- mean of 2.29) in contrast to younger customers (under 18 years of age -- mean of 2.58).
- Respondents who have an annual income of less than $20,000 (mean of 2.38) versus those who have an annual income of $40,000 or more (mean of 2.75).

The following subgroups tend to be more satisfied with the overall comfort of bus rides:

- Bus riders who pay their bus fare with cash (mean of 1.98) and using a 31-day reduced pass (mean of 1.90) as opposed to a student card (mean of 2.14).
- Older customers (35 years of age and older 1.89) in contrast to younger customers under 35 years of age (mean of 2.06).
- Hispanic/Latinos (mean of 1.94) versus Whites (mean of 2.08).
- Respondents whose typical trip purpose is personal errands (mean of 1.89) as opposed to those whose typical trip purpose is college (mean of 2.07) and high school, middle school, and elementary school (mean of 2.11).

The following subgroups tend to be more satisfied with the availability of route and schedule information:

- Bus riders with traditional levels of education (less than 8th grade -- mean of 1.78), some high school (mean of 2.06), and high school graduate (mean of 1.99) versus those who have vocational training (mean of 2.32).
- Older customers (55 years of age and older – mean of 1.94) as opposed to younger customers (under 18 years of age – mean of 2.20).
- Respondents who use a 31-day reduced pass (mean of 1.85) to pay their bus fare in contrast to those who pay their fare with cash (mean of 2.10) and a student card (mean of 2.00).

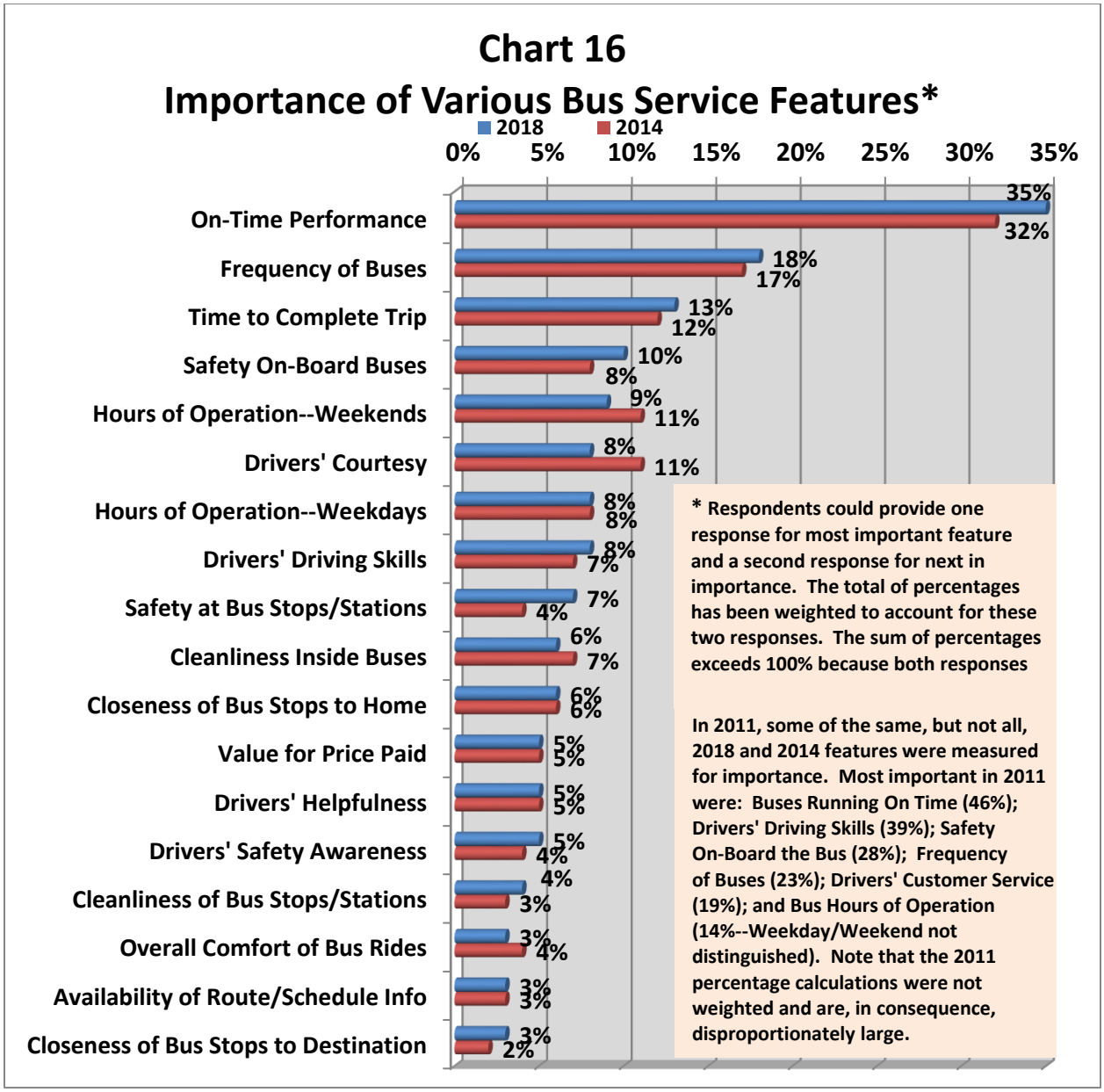
The following subgroups tend to be more satisfied with the value they receive for the price paid:

- Customers whose typical trip purposes are work/business (mean of 1.89), personal errands (mean of 1.90), and college (mean of 1.94) versus those whose typical trip purpose is shopping (mean of 2.13).
- Respondents with less than an 8th grade education (mean of 1.76) versus a higher level of education (some high school – mean of 2.07), (high school graduate – mean of 1.91), vocational training (mean of 2.01) and college graduate (mean of 1.91).

- Bus riders who have a middle annual income of $40,000-$74,999 (mean of 1.76) in contrast to those who make an annual income of $75,000 and above (mean of 2.13).

Most Important Bus Features

Respondents were asked to indicate the bus feature that they considered to be most important and the one they consider to be second most important. The responses were combined and weighted and the results are presented in **Chart 16.** Customers identify on-time performance as the most important weighted feature (35 percent) followed by frequency of buses (18 percent). Customers accord the next level of importance to time to complete trip (13 percent) followed by safety on-board buses (10 percent) and hours of operation – weekends (9 percent). These same bus service features were accorded similar levels of weighted importance in the 2014 survey.



- Customers who indicate that on-time performance is the most important weighted bus feature are males and self-employed persons.
- Frequency of buses is the most important weighted bus feature for unemployed students.

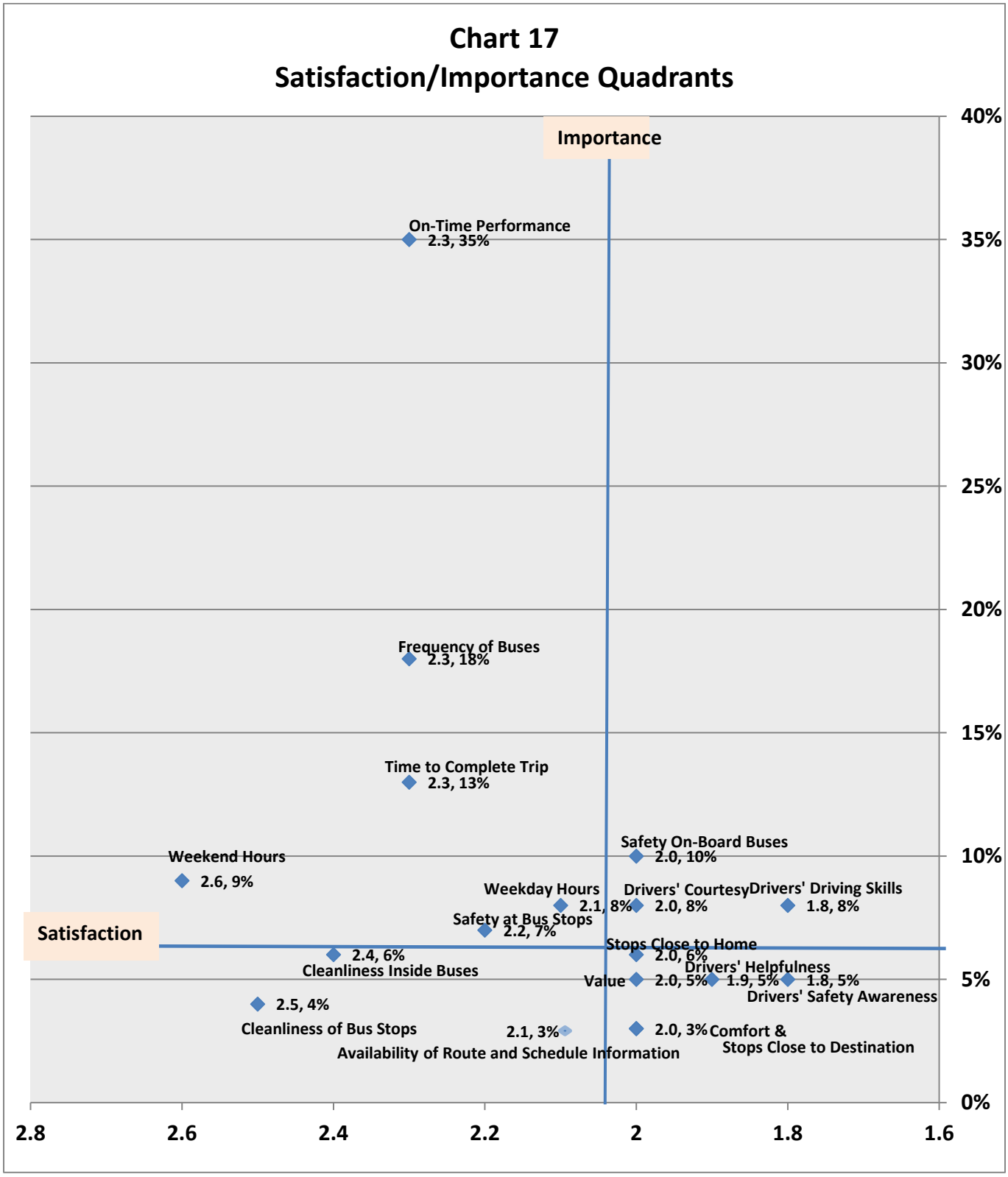
Quadrant Analysis: Levels of agreement can be mapped on a chart with importance such that satisfaction is graphically measured against how important an issue is in four cells as follows:

- The upper-right quadrant represents features that display both high satisfaction and high importance—above the median ratings for importance and satisfaction for all characteristics. Characteristics in this quadrant are ones with high levels of satisfaction and high levels of importance. These characteristics, therefore, are the core characteristics that make the FAX system a highly valued service.
- The lower-right quadrant represents features that display high satisfaction but have lower importance relative to the median. These characteristics might be considered to be ones that are over-provided and could be reduced somewhat in reallocating resources to other quadrants—especially the upper quadrant.
- The lower-left quadrant represents features that have both less satisfaction and less importance. Because these features are of relatively low importance, efforts to improve these characteristics will have a relatively minor impact on overall satisfaction.
- The upper-left quadrant represents features that provide less satisfaction but are of high importance. The upper-left quadrant is critically important because it contains those system characteristics that are important to customers but are not adequately provided. It is these characteristics that can increase satisfaction to the greatest extent.

Chart 17 is a satisfaction/importance quadrant analysis for the data provided in the 2018 FAX Bus Satisfaction Survey. In the upper right quadrant, three features are plotted: drivers' driving skills, safety on-board buses, and drivers' courtesy. These are the core characteristics that lead to the very high degree of satisfaction with FAX service that has been evidenced in this report. These same three characteristics appear in the upper right quadrant in the 2014 survey.

The upper left quadrant shows four characteristics that are in particular need of improvement relative to other characteristics: on-time performance, frequency of buses, time it takes to complete trip, and bus hours of operations on weekends. Customers regard these features as highly important but have not been provided to them with as high a degree of satisfaction as some of the other characteristics of FAX bus service. These same four features appeared in the upper left quadrant in the 2014 quadrant analysis. Bus hours of operation on weekdays and safety at bus stops are also somewhat important to the customers (bottom of the upper

left quadrant—close to the median dividing lines) but these two features have a relatively lower satisfaction rating. Improvement of these features is warranted but they would have less priority than would the four features that are higher in the quadrant.



FAX Report Card

In the 2011 and 2014 customer satisfaction reports for FAX, letter grades for FAX performance on the various service characteristics were assigned. These reports assigned grades of A, B, C, D or F (including plus and minus distinctions) based upon the mean ratings provided for each characteristic. The same scale was also used in assigning grades for the FAX service in this 2018 Customer Satisfaction Report. The grading scale used in the previous reports as well as the current report is depicted in **Table 7** below. **Table 8** shows the mean ratings and grades for 2018, 2014, and 2011.

What emerges from **Table 8** is evidence that the FAX system has been a consistent success. There is considerable satisfaction with the FAX bus system and this satisfaction has markedly improved since the previous two survey periods in 2011 and 2014. Every characteristic that was graded improved from 2014 by at least one-third of a grade (e.g. B+ to A-), with five characteristics improving by 2 thirds of a grade—Value, Driver Courtesy, Time to Complete Trip, Frequency of Buses, and Hours of Operations on Weekends. Weekend operating hours, in particular, have shown enormous improvement from 2011, as has the value of the service provided for the price paid.

Table 7

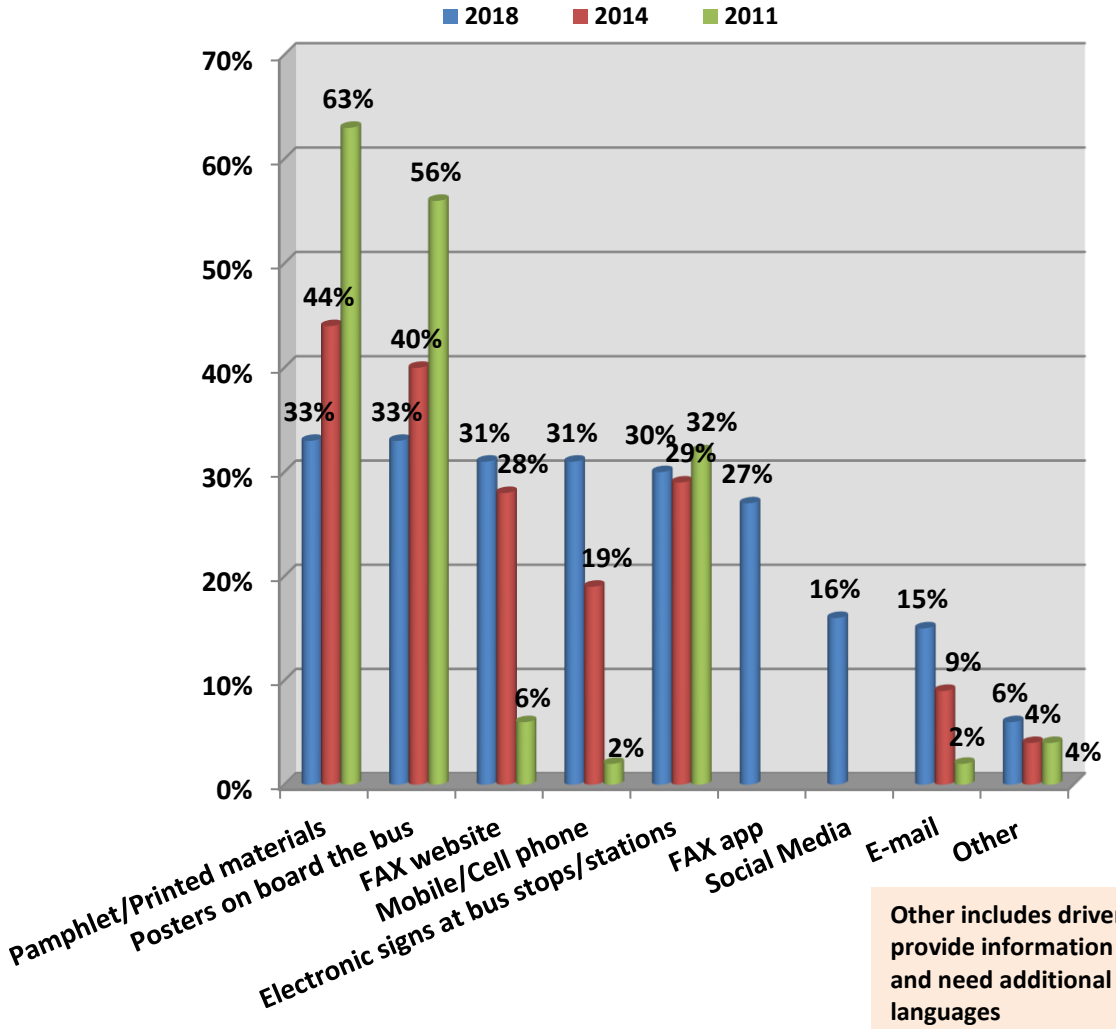
FAX Performance Letter Grading Scale (Based on 1-6 ratings, where 1 = Very Satisfied and 6 = Very Dissatisfied)	
1.00 to 1.33	A+
1.34 to 1.67	A
1.68 to 1.99	A-
2.00 to 2.33	B+
2.34 to 2.67	B
2.68 to 2.99	B-
3.00 to 3.33	C+
3.34 to 3.67	C
3.68 to 3.99	C-
4.00 to 4.33	D+
4.34 to 4.67	D
4.68 to 4.99	D-
5.00 to 5.33	D-/F
5.34 to 6.00	F

Table 8 FAX Customer Satisfaction Report Card and Mean Satisfaction Ratings (Years 2018, 2014, and 2011)						
Service Characteristic	2018		2014		2011	
	Grade	Mean	Grade	Mean	Grade	Mean
Overall Service Provided by FAX Buses	A-	1.89	B+	2.30	B+	2.12
Drivers' Safety Awareness	A-	1.82	B+	2.17	B+	2.06
Drivers' Driving Skills	A-	1.84	B+	2.14	B+	2.09
Drivers' Helpfulness	A-	1.90	B+	2.17	B+	2.17
Value for Price Paid	A-	1.95	B	2.38	B-	2.70
Closeness of Bus Stops to Destination	A-	1.97	B+	2.21	B+	2.28
Drivers' Courtesy	A-	1.98	B	2.44	B+	2.26
Closeness of Bus Stops to Home	A-	1.99	B+	2.20	B+	2.30
Overall Comfort of Bus Rides	A-	1.99	B	2.42	B+	2.26
Safety On-Board Buses*	B+	2.04	B	2.35	A	1.67
Availability of Route/Schedule Info	B+	2.07	B	2.47	B	2.64
Hours of Operation--Weekdays	B+	2.13	B	2.67	B-	2.93
Safety at Bus Stops/Stations*	B+	2.24	B	2.54	B+	2.05
Time to Complete Trip	B+	2.27	B-	2.70	B-	2.95
Frequency of Buses	B+	2.29	B-	2.83	B-	2.83
On-Time Performance	B+	2.33	B-	2.71	B-	2.71
Cleanliness Inside Buses	B	2.37	B-	2.89	B	2.57
Cleanliness of Bus Stops/Stations	B	2.45	B-	2.85	B-	2.80
Hours of Operation--Weekends	B	2.64	C+	3.30	D+	4.00
* In 2011, safety questions were asked in a different section of the questionnaire and were on a 4-point scale. The means and percentages have been adjusted but readers are cautioned not to draw significant comparisons based upon these differences between 2018 and 2014 data versus 2011 data.						

Customer Preferences for Receiving FAX Communication

Chart 18 reports how customers prefer to obtain information about routes, schedules, and fares. About one third (33 percent) of responses indicate that customers prefer pamphlets and printed materials and another 33 percent of responses orient to posters on board the bus. This general preference for traditional, non-electronic materials represents a substantial decline from the preferences for such material in 2014 (from 44 percent to 33 percent for pamphlets and from 40 percent to 33 percent for posters on the bus). In 2018, customer responses show a growing preference to receive information electronically (31 percent each for FAX website and for mobile phones, 27 percent for the FAX app, 16 percent for social media, and 15 percent for email. This represents a notable change in preference from the 2014 survey results and an enormous change from the 2011 survey where three electronic categories (FAX app, mobile cell phone, and e-mail totaled 10 percent for them added together.

Chart 18
Preferred Mode of Communication for Route, Schedule and Fare Information
(Respondents could provide multiple answers; therefore percentages sum to in excess of 100%)

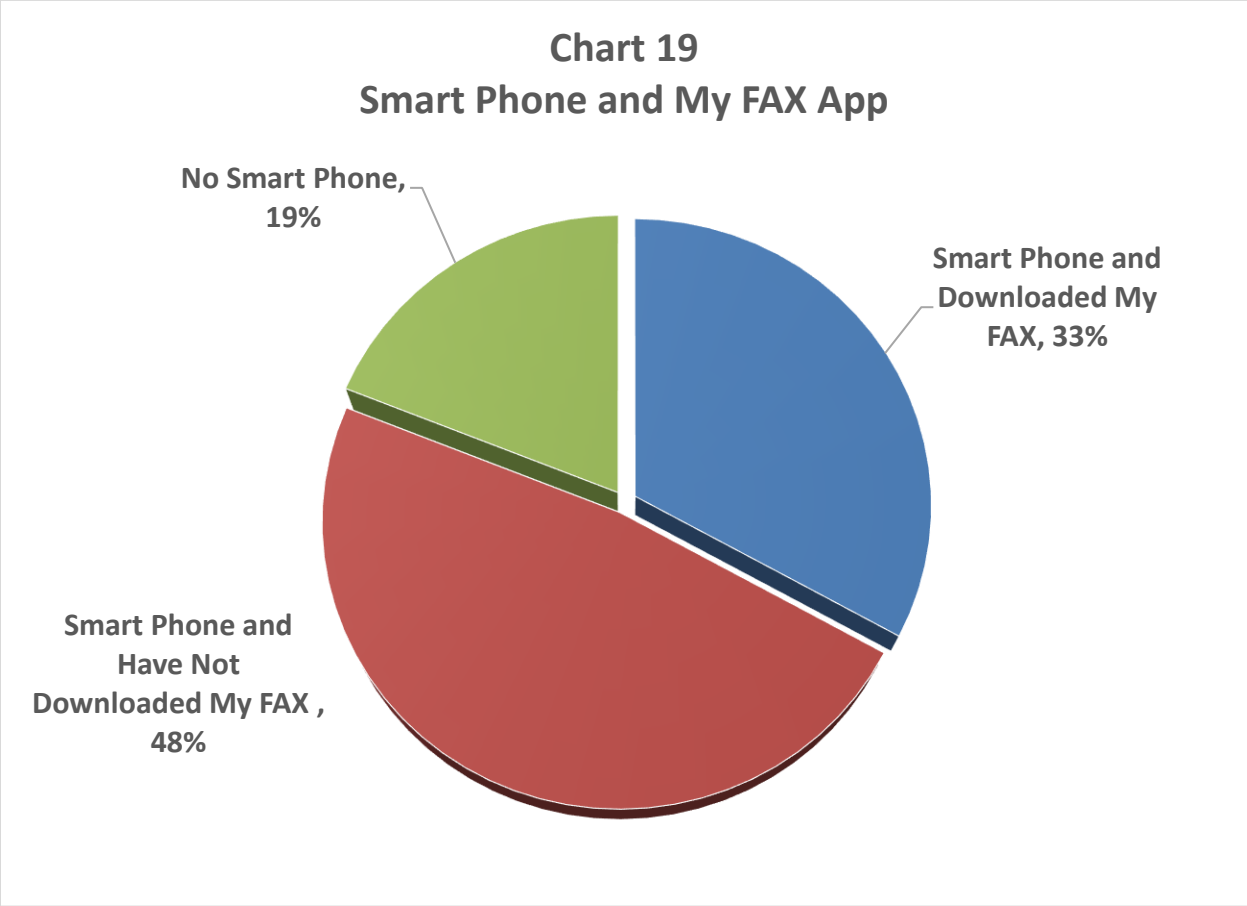


The following subgroups tend to prefer the specified modes of communication:

- **Pamphlet, Printed Materials:** homemakers, retired persons, college graduates, and age bracket of 75 and older.
- **FAX Website:** employed students, high school graduates, income of $50,000-$74,999, and age bracket of 18-34.
- **Posters On board Bus:** self-employed, unemployed student, vocational training, income of $20,000 - $29,999, and age bracket of 75 and over.
- **Electronic Signs at Bus Stops:** unemployed students, Asians, and annual income of $20,000 - $29,999.

- **Mobile, Cell Text Alerts:** unemployed students.
- **FAX App:** employed students, Asians, and annual income of $50,000 - $74,999.
- **Social Media:** Asians
- **E-mail**: annual income of $100,000 or more.

Chart 19 shows the extent to which bus customers make use of a Smart Phone and the My FAX app. Smart phones are possessed by 81 percent of FAX riders, of whom 33 percent have downloaded the My FAX app. Just under one half of customers (48 percent) use a Smart Phone but have not downloaded the My FAX app. About one-fifth (19 percent) of customers do not use a Smart Phone.



The following five subgroups are more likely to make use of a Smart phone:

- Customers employed full time (89 percent), customers employed part time (85 percent), and employed students (92 percent) in contrast to disabled customers (69 percent) and those who are retired (48 percent).
- Females (84 percent) versus males (80 percent).
- Respondents with some high school – 79 percent; high school graduate – 84 percent; college education or more – 79 percent; and vocational training – 87 percent versus those who have an education of 8th grade or less (63 percent).

- Customers who are 34 years of age or younger (92 percent) as opposed to those 35 years of age or older (68 percent).
- Bus riders with larger household sizes (3.59 persons per household) versus those who do not use a smart phone (smaller household sizes (2.93 persons per household).

The following two subgroups are more likely to download the My FAX App:

- Respondents who are self-employed (50 percent) as opposed to those who are retired (32 percent).
- African-Americans (49 percent) versus Hispanic/Latinos (38 percent) and Whites (34 percent).

Approximately 8 in 10 bus customers (79 percent) have access to the internet on a daily basis (**Chart 20**).

The following subgroups are more likely to have access to the Internet:

- Employed students (94 percent) versus retired bus customers (47 percent) and homemakers (66 percent).
- Customers who are 54 years of age and younger (84 percent) in contrast to those who are 55 years of age and older (50 percent).
- Respondents with a higher level of education (some high school – 73 percent, high school graduate – 84 percent, college education or more – 74 percent, and vocational training – 78 percent) as opposed to those with less than an 8th grade education (59 percent).
- Bus riders with larger household sizes (mean of 3.62) versus those with smaller household sizes (mean of 2.88).