



## FINAL REPORT

# REGIONAL TRANSPORTATION AUTHORITY: 2016 CUSTOMER SATISFACTION STUDY

6.21.2017



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REGIONAL TRANSPORTATION AUTHORITY

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## 1.0 EXECUTIVE SUMMARY

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To evaluate the performance of the Regional Transportation Authority (RTA) in meeting public transportation needs for residents in the six-county region of Chicago, a regional customer satisfaction study was conducted in the winter of 2016. The RTA oversees local transportation operators in the six-county Chicago metropolitan area and is composed of three different Service Boards including Chicago Transit Authority (CTA), which provides rail and bus transit concentrated within the city; Pace, which provides bus transit in suburban Chicago, and Metra which provides commuter rail transit. Through in-field and online recruitment, CTA, Metra, and Pace customers were given the opportunity to report their satisfaction with the service provided by their individual Service Board, as well as their satisfaction with regional service overall. In addition to travel behavior and demographic questions, respondents were asked to report their satisfaction with attributes across seven dimensions: service delivery, information and communication, safety and security, appearance and comfort, employee performance, overall and regional satisfaction. This report summarizes the findings of this year's regional customer satisfaction study and, by incorporating findings from the 2011 and 2013-2014 reports, shows how customer satisfaction with service and regional attributes have changed over time. Combined results of all Service Boards will help to evaluate RTA system performance and will help inform the prioritization of future regional service investments based on customer preferences. This report also contains sections with key findings dedicated to each of the three Service Boards.

Respondents were recruited to complete the survey in a variety of methods. Invitations to complete the survey online were e-mailed to customers of all three Service Boards. Additional online recruitment was done via social media and agency websites for some Service Boards. Metra, following the approach of a study conducted in 2015, also announced the study in a newsletter. Because most participants were recruited through e-mail and an open survey, demographics may not properly reflect the overall demographics of individual Service Boards, but the overall response does provide a solid platform for monitoring regional transit customer satisfaction. In addition to the online outreach, respondents of CTA and Pace were recruited onboard trains and buses.

In total, 21,222 respondents successfully completed the Customer Satisfaction Survey (CSS), with 8,908 of the total number of completes coming from CTA respondents, 9,711 from Metra respondents, and 2,603 from Pace respondents, accounting for 42%, 46%, and 12%, respectively, of the unweighted sample size. To ensure valid responses, data were expanded to ensure the survey sample of each Service Board accurately reflects average weekday ridership. This year's datasets were then merged with prior years, and as a last step before analysis, common variables of each Service Board's year-over-year dataset were merged to create a regional dataset.

Overall, the findings suggest that respondents are more satisfied with the performance of the three Service Boards than the last time a region-wide CSS was conducted, in 2013/2014. For instance, this year saw the largest percentage of respondents report overall satisfaction with their Service Board (85%) and with the value of service for the fare paid (81%). Further, customer loyalty, as measured by the likelihood that respondents will recommend their Service Board, increased this year, with 91% of respondents now reporting that they likely will recommend CTA, Metra, or Pace. Respondents also report increased satisfaction in each of the measured regional attributes this year, with over two-thirds being satisfied with public transportation in the six-county Chicago region. This might partially be a rebound effect due to lower reported satisfaction

levels in 2014 coinciding with severe winter weather and difficulties associated with the roll-out of the Ventra fare payment system. Even so, in many categories satisfaction was slightly higher than in 2011 as well, indicating a positive overall trend in customer satisfaction. Of the eight regional satisfaction attributes, the following attribute influenced respondents' overall satisfaction with public transportation in the six-county Chicago region the most:

- Availability of public transportation throughout the six-county Chicago region when and where respondents need to travel

The following two attributes were also among the three most important attributes to influence overall regional satisfaction:

- Information and service received from the regional RTA Travel Information Center
- Travel information obtained through the online RTA regional trip planner

Consistent with results from the prior CSS, for CTA and Metra respondents arriving to their destination on time is a key driver of overall satisfaction for respondents, whereas for Pace respondents, transfers (waiting time and reliability) was a key driver. Taken together, the findings in the report suggest respondents are satisfied with public transportation in the region, and that the RTA is meeting or exceeding public transportation needs.

The next section will provide details on the survey questionnaire design followed by a section on survey administration. The results section provides a general methodological overview, followed by regional results for 2016, reflecting the aggregated response data of all three Service Boards. This regional section is followed by three more sections, one each for CTA, Metra, and Pace and describing, in more detail, the methodology and select results of each respective Service Board. Conclusions are offered in the final section.



## 2.0 RTA SURVEY

### 2.1 | SURVEY DESIGN

Each Service Board approved their own survey design in terms of fonts and graphics. To ensure comparability, an effort was made to keep the survey of each Service Board consistent with prior years. While each survey is unique, 18 service attributes (plus nine regional attributes and three measures of overall satisfaction) were common across the questionnaires. Further, respondents of all Service Boards were asked a selection of travel behavior questions, which allows a better understanding of customer satisfaction among various segments of ridership. As in prior years, the same satisfaction measurement scale was used across all three Service Boards. As shown in Figure 2-1, respondents could rate their satisfaction on a scale from 1 to 10, or indicate that the attribute is not applicable to them. Satisfaction ratings fall into four categories – very dissatisfied, dissatisfied, satisfied, and very satisfied – and each category, as shown in Figure 2-1, is clearly delineated.

**FIGURE 2-1: CUSTOMER SATISFACTION MEASUREMENT SCALE**

VERY DISSATISFIED		DISSATISFIED			SATISFIED			VERY SATISFIED		N/A
1	2	3	4	5	6	7	8	9	10	n/a
1	2	3	4	5	6	7	8	9	10	n/a
1	2	3	4	5	6	7	8	9	10	n/a
1	2	3	4	5	6	7	8	9	10	n/a

All respondents were asked to measure their satisfaction with the following seven dimensions of service: service delivery, information and communication, safety and security, appearance and comfort, employee performance, overall, and regional satisfaction. For Metra and CTA respondents, attributes were listed within their respective dimension of service, as shown in Figure 2-2 for CTA and Figure 2-3 for Metra. In the Pace questionnaire attributes were listed together and were not split by dimension. To gauge customer loyalty, all respondents were asked to indicate the likelihood of recommending their Service Board to others.

**FIGURE 2-2: DIMENSION OF SERVICE ON CTA PAPER QUESTIONNAIRE**

20. PERSONAL SAFETY												
How satisfied are you with...		VERY DISSATISFIED		DISSATISFIED			SATISFIED			VERY SATISFIED		N/A
How safely the bus/train is operated		1	2	3	4	5	6	7	8	9	10	n/a
Personal safety on bus/train		1	2	3	4	5	6	7	8	9	10	n/a
Personal safety at bus stop/train station		1	2	3	4	5	6	7	8	9	10	n/a
Personal safety on the way to bus stop/train station		1	2	3	4	5	6	7	8	9	10	n/a

FIGURE 2-3: SELECT ITEMS OF SERVICE DIMENSION IN METRA SURVEY



Please rate your satisfaction with Metra service.

Think about the last few trips you took on Metra and please indicate your satisfaction with the following features using a scale of 1-10. If the question does not apply to you, enter "N/A"

**Service Delivery**

How satisfied are you with...	Very dissatisfied		Dissatisfied			Satisfied			Very satisfied		N/A
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Value of service for fare paid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of ticket purchase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

All respondents were also asked to provide basic demographic information (see Figure 2-4 for an example from the Pace paper questionnaire).

FIGURE 2-4: DEMOGRAPHICS QUESTION ON PACE PAPER QUESTIONNAIRE

**SECTION 3 | DEMOGRAPHICS**

The following questions are for classification purposes only.

27. What is your home ZIP Code? \_\_\_\_\_

28. What is your gender? ☐ Female ☐ Male

29. Do you consider yourself a person with a disability? ☐ Yes ☐ No

30. What is your marital status? ☐ Single ☐ Married ☐ Other

31. What is the highest level of education you have completed?  
☐ Some high school or less ☐ College graduate  
☐ High school graduate ☐ Post graduate degree  
☐ Some college or technical school

32. What is your current employment status? Check all that apply:  
☐ Full-time ☐ Unemployed  
☐ Part-time ☐ Homemaker  
☐ Student ☐ Other, please specify: \_\_\_\_\_  
☐ Retired

33. Which of the following categories best describe your ethnic background? Check all that apply:  
☐ African American/Black ☐ Hispanic/Latino  
☐ Asian/Pacific Islander ☐ Other, please specify: \_\_\_\_\_  
☐ Caucasian/White

34. What is the primary language spoken in your household?  
☐ English ☐ Polish  
☐ Chinese ☐ Spanish  
☐ Korean ☐ Other, please specify: \_\_\_\_\_

35. How well do you speak English?  
☐ Very well ☐ Not well  
☐ Well ☐ Not at all

36. Do you have access to the internet?  
☐ Yes ☐ No

37. Which of the following mobile devices do you use?  
Please check all that apply.  
☐ Smartphone ☐ Laptop or tablet  
☐ Cell phone for calls and text ☐ Other, please specify: \_\_\_\_\_  
☐ Cell phone for calls only ☐ None of the above

38. Thinking about your entire household...  
 How many people are in your household (including yourself)? \_\_\_\_\_ # people  
 How many children under 18 are in your household? \_\_\_\_\_ # children  
 How many cars are in your household? \_\_\_\_\_ # cars  
 How many people are employed in your household? \_\_\_\_\_ # people employed

39. Do you have a driver's license?  
☐ Yes ☐ No

40. Do you have a car available for your personal use?  
☐ Yes ☐ No

**SECTION 3 (continued)**

41. What is your age?  
☐ Under 18 ☐ 45 - 54  
☐ 18 - 24 ☐ 55 - 64  
☐ 25 - 34 ☐ 65 +  
☐ 35 - 44

42. What is your household's approximate annual income?  
☐ Less than \$15,000 ☐ \$60,000 - \$74,999  
☐ \$15,000 - \$24,999 ☐ \$75,000 - \$99,999  
☐ \$25,000 - \$39,999 ☐ \$100,000 - \$149,999  
☐ \$40,000 - \$59,999 ☐ \$150,000 and over

Please describe any problems or positive experiences you encountered with Pace service in the past 30 days or provide recommendations for improved service.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Thank you! You do NOT have to provide us with your contact information to complete this survey. However, if you wish to be entered into the cash prize drawing, we need your contact information below. This information is confidential and will be used only to contact you if you are a winner.

Name: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Phone: \_\_\_\_\_

May we contact you for future Pace research?  
☐ Yes ☐ No

**THANK YOU!**



continue on to page 7



Online respondents could opt to take the Metra and Pace survey in English or Spanish, while CTA survey respondents could take the survey in English, Spanish or Polish. All paper questionnaires were printed in English.

To recruit respondents on board trains and buses, a paper questionnaire was designed for CTA and Pace. When respondents completed the paper questionnaire, they could either return it to one of the surveyors onboard their train or bus, or mail the survey (postage-free). Alternatively, respondents had the option to complete the questionnaire online using a link and unique password printed on the cover of the paper questionnaire (see Figure 2-5). The unique password ensured that each customer could only participate in the survey once.

FIGURE 2-5: FRONT COVER OF PACE PAPER QUESTIONNAIRE

**pace**  
**2016 CUSTOMER SATISFACTION SURVEY**

Thank you for helping us improve your transit system. Earn a chance to win one of five \$100 cash prizes by completing this survey.

Please complete this survey in one of three ways:

- 1 hand it back to the administrator on the bus; or
- 2 drop it in any mailbox (no postage required); or
- 3 go online to: <https://rsgresearch.com/pace> and enter this password: \_\_\_\_\_

Para completar la encuesta en línea, visite el enlace que aparece arriba e ingrese la contraseña.

**SECTION 1 | TRAVEL BEHAVIOR QUESTIONS**

1. What route are you riding on now? Route #: \_\_\_\_\_
2. How many days in a week do you usually ride Pace?  
☐ Less than 1 Day    ☐ 3 Days    ☐ 6 Days  
☐ 1 Day    ☐ 4 Days    ☐ 7 Days  
☐ 2 Days    ☐ 5 Days
3. What days do you usually ride Pace? Check all that apply.  
☐ Monday - Friday    ☐ Saturday    ☐ Sunday
4. What times of the day do you usually ride Pace? Check all that apply.  
☐ 4 a.m. - 6 a.m.    ☐ 9 a.m. - 3 p.m.    ☐ 6 p.m. - 9 p.m.  
☐ 6 a.m. - 9 a.m.    ☐ 3 p.m. - 6 p.m.    ☐ 9 p.m. - 4 a.m.
5. Have you ridden Pace in the past 30 days, other than this trip?  
☐ Yes    ☐ No
6. How long have you been a regular rider of Pace, that is, riding AT LEAST ONCE A MONTH?  
☐ I am not a regular rider    ☐ 5 - 6 years  
☐ Less than 1 year    ☐ 7 - 8 years  
☐ 1 - 2 years    ☐ 9 - 10 years  
☐ 3 - 4 years    ☐ More than 10 years
7. What are your reasons for riding Pace? Check all that apply.  
☐ Commute to/from work    ☐ Shopping  
☐ Commute to/from school    ☐ Entertainment, visiting, recreation  
☐ Business related to work    ☐ Other, please specify: \_\_\_\_\_  
☐ Airport  
☐ Medical/dental appointment  
☐ Personal business
8. What is the distance from your home to the nearest Pace bus stop?  
☐ Less than 1/4 mile    ☐ 3/4 - 1 mile    ☐ 4+ miles  
☐ 1/4 - 1/2 mile    ☐ 1 - 2 miles  
☐ 1/2 - 3/4 mile    ☐ 2 - 4 miles

As in prior years, all three Service Boards offered respondents a web-based questionnaire. These web-based questionnaires were programmed using RSG's proprietary software, rSurvey™, which allows for survey customization for each respondent to improve the quality of the data being collected and reduce respondent burden and fatigue. For CTA and Pace, the web-based questionnaires were designed to mirror the paper questionnaire to obtain consistent responses between the two methods (Figure 2-6).

**FIGURE 2-6: DIMENSION OF SERVICE ON CTA WEB QUESTIONNAIRE**



Please indicate your satisfaction with the following features using the 1 to 10 scale.  
If the question does not apply to you, please select "n/a" (not applicable).

How satisfied are you with...

Personal safety	Very dissatisfied (1)	(2)	Dissatisfied (3)	(4)	(5)	Satisfied (6)	(7)	(8)	Very satisfied (9)	(10)	n/a
Personal safety at bus stop/train station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How safely the bus/train is operated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2.2 | SURVEY ADMINISTRATION

All three Service Boards implemented slightly different recruitment and survey administration methods for the 2016 CS study. Metra adopted an online-only recruitment approach resulting in 9,711 respondents successfully completing the survey. The primary recruitment method consisted of invitations sent to over 64,000 e-mail addresses from Metra's service alert list and contacts in their marketing database, resulting in a 13% response rate. Secondary recruitment methods consisted of survey completes obtained via an open link to the survey, which was included in a passenger newsletter and posted on Metra's website and social media feeds. Out of the 9,711 total completes, 1,237 were obtained from one of these open survey links. While these open links did not prevent survey takers from taking the survey twice, duplicate surveys from the same survey taker were discarded during the data cleaning process (determined by identical e-mail addresses or IP address and demographics).

As in 2014, the CTA questionnaire was again available on paper and online. Respondents were recruited both online, through an e-mail invitation, and onboard buses and trains. E-mail invitations were sent to over 60,000 respondents, primarily comprised of former Chicago Card users, and nearly 10,000 printed surveys were distributed onboard. Of the 8,908 respondents who successfully completed the survey, 949 were recruited onboard and 7,959 were recruited online, translating into a response rate of 10% and 13%, respectively.

For Pace, 2,603 valid and usable surveys were obtained. This was achieved by distributing approximately 9,400 paper surveys to customers riding Pace buses, resulting in 1,619 successfully completed surveys (a 17% response rate). A secondary recruitment method consisted of recruiting respondents online. Nearly 3,000 invitations to the survey were e-mailed to respondents who had taken the CSS in a prior year, resulting in 258 completed surveys (a 9% response rate). An additional 678 surveys were obtained through sending 6,000 e-mail invitations to customers who had subscribed to receive service announcements from Pace (11% response rate), and 48 surveys were obtained via an open link to the survey that was posted on Pace's social





media account. Further details on the survey administration and sampling plans for CTA can be found in this report under 3.2 for Metra under 4.2 and for Pace under 5.2.

## 2.3 | RESULTS

This section includes the findings of the combined CTA, Metra, and Pace customer surveys and is divided into three subsections: 1) Demographics and Trip Details; 2) Regional Service; and 3) Detailed Service Attributes. This section highlights the important and substantive details of the regional survey results. All tabulations in this section were conducted on the weighted regional dataset. Further details about specific Service Board results are presented in each individual Service Board section of this report.

### DEMOGRAPHIC AND TRIP DETAILS

A total of 21,222 questionnaires were completed by bus and train passengers of CTA, Metra, and Pace and prepared for analysis. Data from paratransit and vanpool passengers were not available for analysis in this report. The final sample of riders was expanded to reflect average weekday passenger trips for each Service Board. Specifically, CTA's dataset was expanded to CTA's daily weekday passenger trips of 1,440,003, Metra's to 294,600 daily weekday passenger trips, and Pace's to 100,800. System-wide, the dataset and analyses of all three Service Boards combined therefore reflect a typical weekday of transit activity in RTA's six-county region. Table 2-1 shows these expanded distributions of unlinked, weekday trips across each Service Board. Also reported are unweighted counts which represent the number of valid questionnaires completed by respondents on paper or online. The final column shows the margin of error for each Service Board's weighted dataset at the 95% confidence level. When the data sets are merged together and not broken out by each individual Service Board, there is an overall margin of error of +/- .7% at the 95% confidence level.

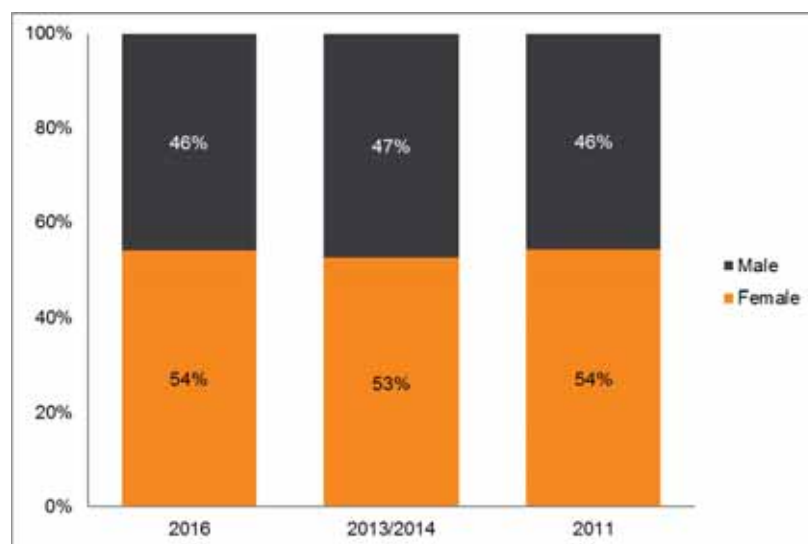
**TABLE 2-1: 2016 SURVEY RESPONSE SUMMARY, WEIGHTED AND UNWEIGHTED BY SERVICE BOARD**

Service Board	Weighted Count (Average Weekday Ridership)	Weighted Percent	Unweighted Count	Unweighted Percent	Margin of Error (95% confidence level)
<b>CTA</b>	1,440,003	78%	8,908	42%	+/- 1.0
<b>Metra</b>	294,600	16%	9,711	46%	+/- 1.0
<b>Pace</b>	100,800	5%	2,603	12%	+/- 1.9
<b>Total</b>	1,835,403	100%	21,222	100%	+/- 0.7
<i>Note: the numbers may not sum to 100% due to rounding.</i>					

### Year-Over-Year Demographics

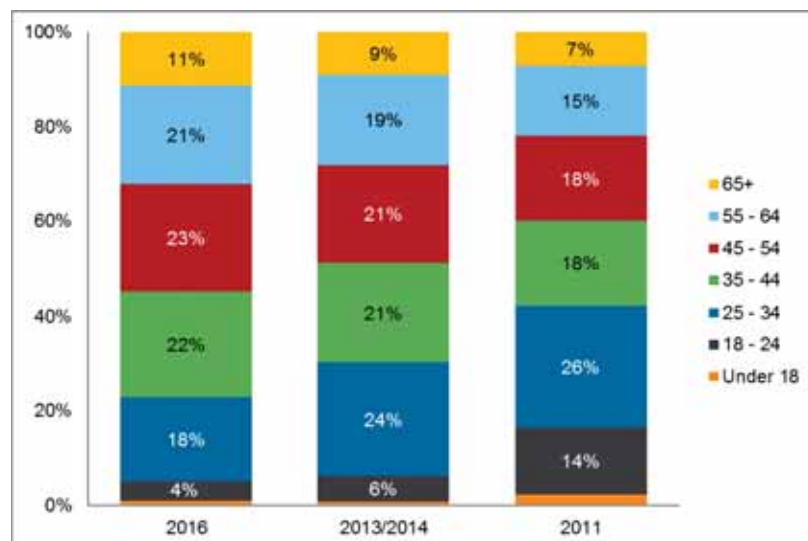
Consistent with prior years, in 2016 survey respondents were more likely to be female than male (see Figure 2-7).

**FIGURE 2-7: GENDER BY YEAR**



Overall, individuals of all ages use regional transit in Chicago. Since 2011, survey respondents have increasingly been comprised of middle-aged and senior riders. Over half of this year's respondents (55%) are over the age of 45, an increase of 15 percentage points since 2011 (40%). Millennials, that is, individuals under the age of 34, comprise a smaller percentage of the survey respondents this year than in prior years, continuing a declining trend that started in 2013/2014. In 2011, 42% of respondents were under the age of 34, this percentage dropped to 30% in 2013/2014 and 23% in 2016 (see Figure 2-8). One contributing factor to the decrease in respondents aged 34 and younger could be that CTA's e-mail database is older and was not updated with younger riders on an ongoing basis.

**FIGURE 2-8: AGE BY YEAR**

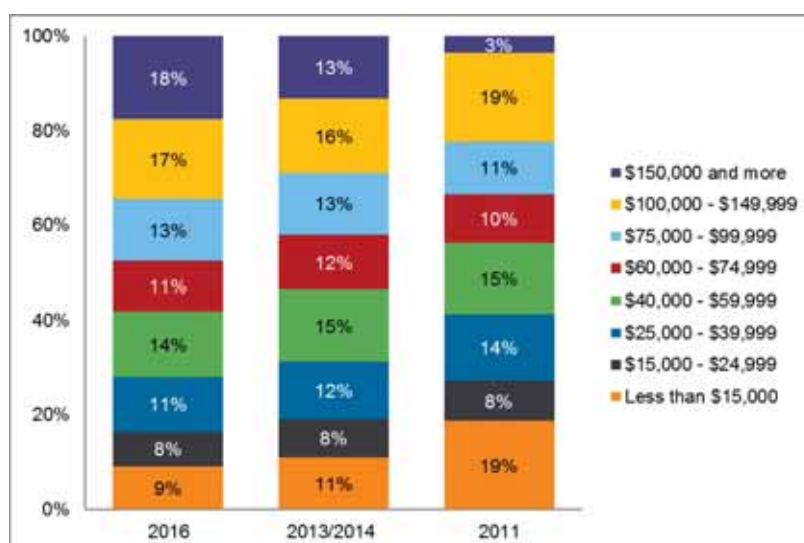






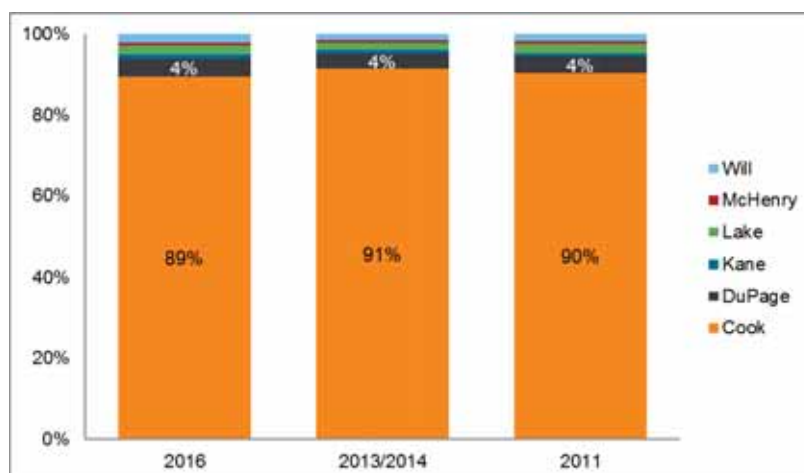
As shown in Figure 2-9, slightly more respondents belong to higher income brackets this year than in 2013/2014, with over one-third of respondents (34%) now reporting incomes of \$100,000 or more. Eighteen percent now report an income of over \$150,000, representing a substantial increase from 2011 when 3% of respondent reported an income this high. This finding may be explained by the increasing age of the respondent base as described above, but it might also be influenced by larger economic factors that were operating at the time when the studies were conducted. In 2011, the City of Chicago, not yet fully recovered from the recession, had an unemployment rate over 10%. As the economy improved the unemployment rate began to decline and in 2016 the unemployment rate was between 5-6%. Despite the reported increase in household income, a substantial portion of respondents still belong to lower income brackets as 28% of respondents in 2016 earned a household income of less than \$40,000.

**FIGURE 2-9: HOUSEHOLD INCOME BY YEAR**



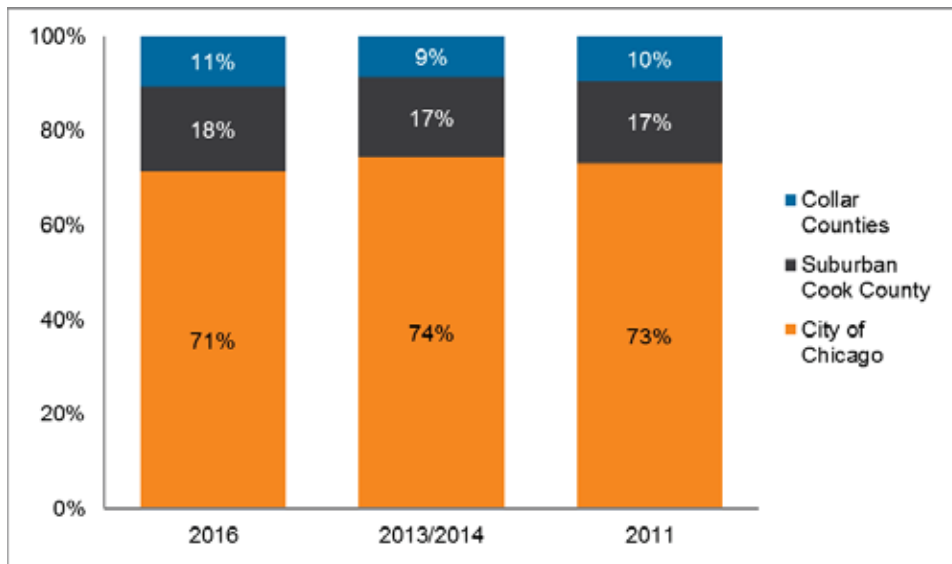
Like prior surveys, the clear majority (89%) of 2016 survey respondents reside in Cook County. This year 11% of respondents reside outside of Cook County. After Cook, DuPage is the most common county of residence among respondents (see Figure 2-10).

**FIGURE 2-10: COUNTY OF RESIDENCE BY YEAR**



As shown in Figure 2-11, and like previous years, about 7 in 10 survey respondents reside in the City of Chicago.

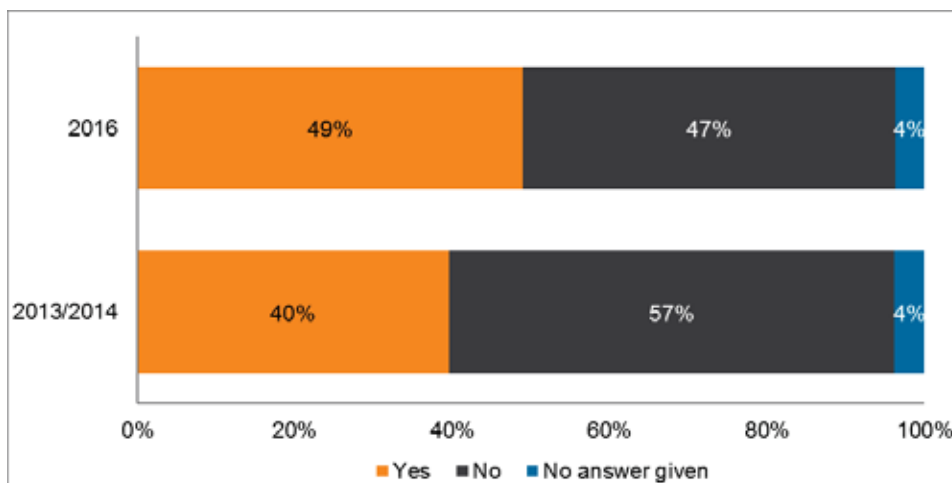
**FIGURE 2-11: URBAN AND SUBURBAN COUNTIES BY YEAR**



***Telecommuting by Year and Service Board (2016)***

Nearly half of survey respondents (49%) telecommute at least one day per month to work or school. As shown in Figure 2-12, this represents a substantial increase compared to 2013/2014, when 40% of respondents indicated telecommuting at least one day per month. Telecommuting poses one challenge that can impact overall ridership and the Service Boards need to recognize the effect it has on future fare strategies. Note that this question was not asked in the 2011 survey.

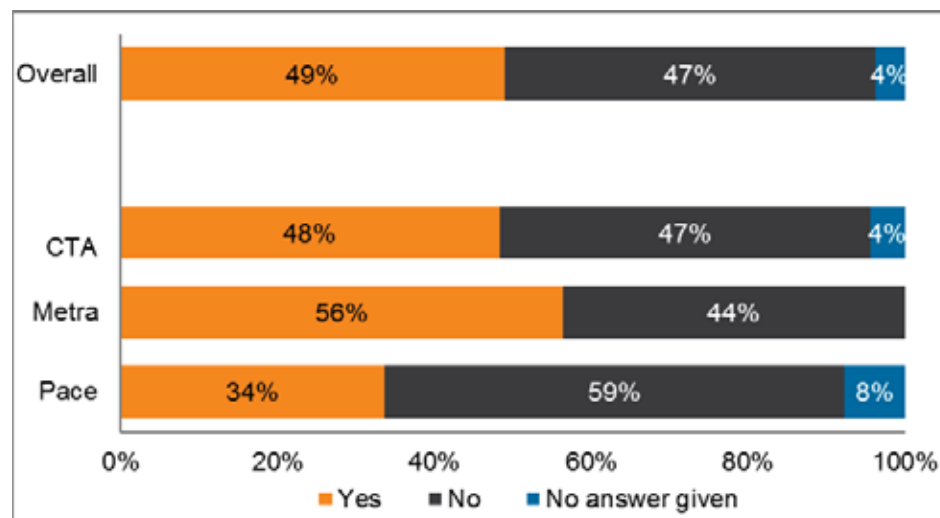
**FIGURE 2-12: TELECOMMUTES TO WORK OR SCHOOL BY YEAR**





Although telecommuting has become more common among survey respondents, its use is not uniform across the Service Boards. Over half of Metra respondents (56%) and nearly half of CTA respondents (48%) telecommute at least one day per month. Pace respondents are less likely to telecommute, with 34% of respondents telecommuting at least one day per month (see Figure 2-13).

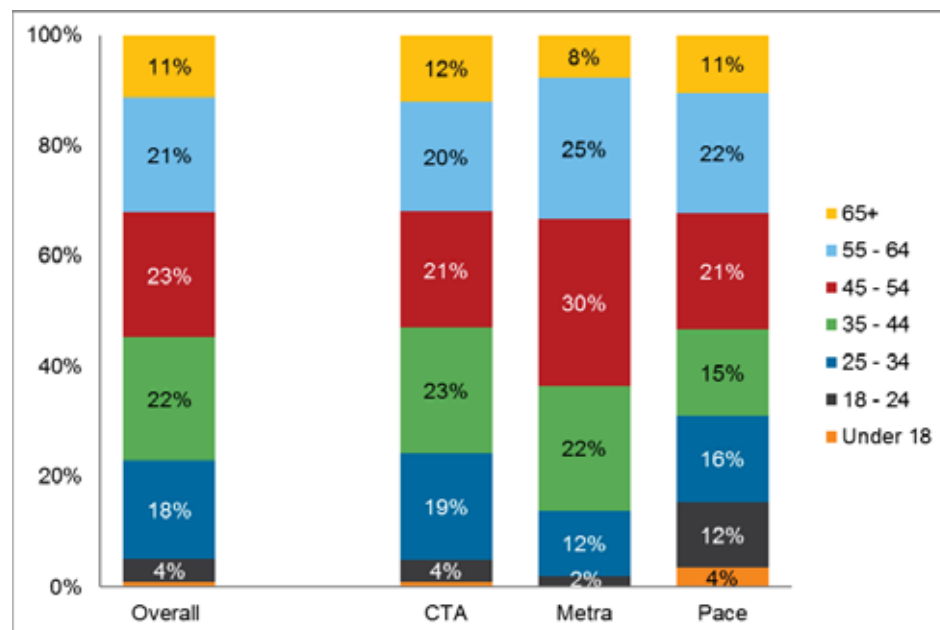
**FIGURE 2-13: TELECOMMUTE BY SERVICE BOARD**



### **2016 Demographics by Service Board**

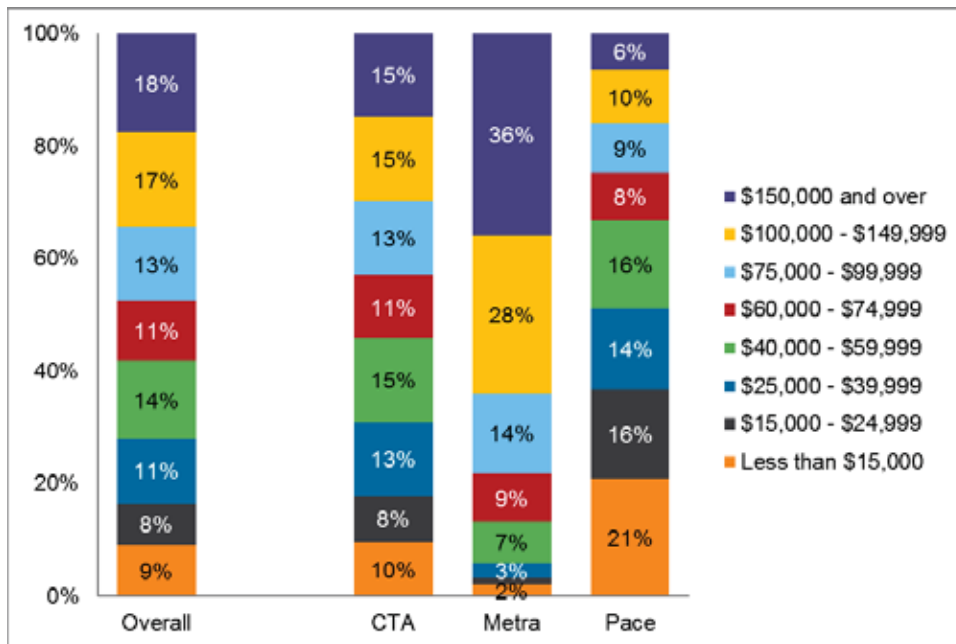
Figure 2-14 shows the 2016 age distribution of survey respondents overall, as well as the age distribution of respondents by Service Board. With 16% of respondents under the age of 25, Pace has the youngest respondents of the three Service Boards and Metra has the oldest respondents, with 63% of respondents over the age of 44.

**FIGURE 2-14: AGE BY SERVICE BOARD**



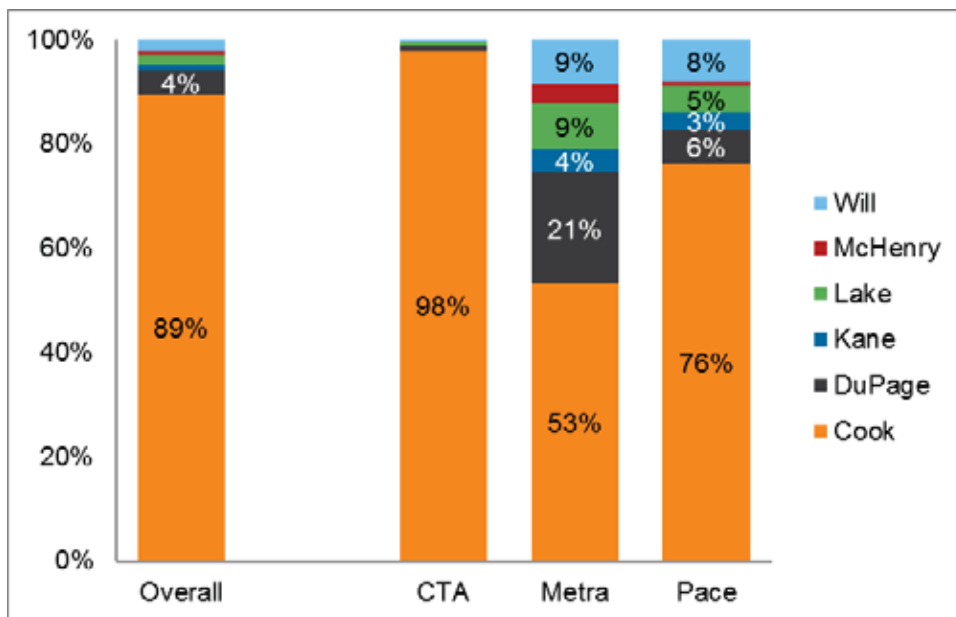
As shown in Figure 2-15, the annual household income of survey respondents varies by Service Board. Metra respondents are more likely to report household incomes of \$100,000 or more compared to the other Service Boards, whereas Pace respondents are more likely to report household incomes of less than \$15,000 compared to the other Service Boards.

**FIGURE 2-15: HOUSEHOLD INCOME BY SERVICE BOARD**



As shown in Figure 2-16, most respondents in each Service Board reside in Cook County. Compared to CTA or Pace, Metra's respondents are more widely dispersed throughout the Chicagoland area, with a greater percentage of respondents residing in each of the five collar counties.

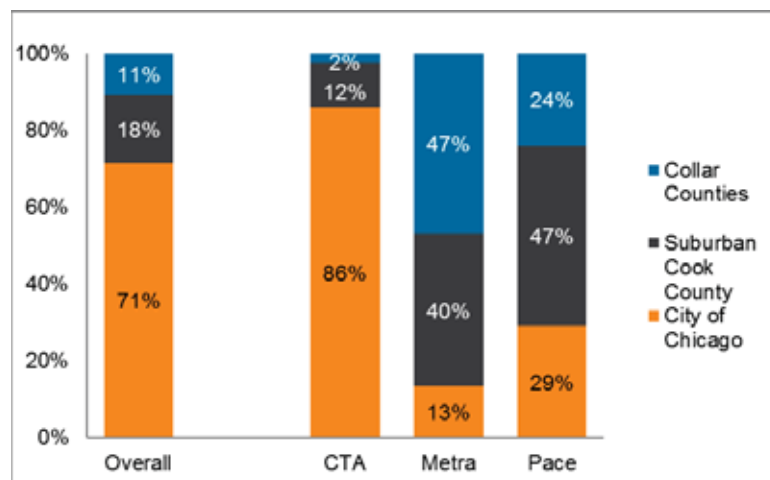
**FIGURE 2-16: COUNTY OF RESIDENCE BY SERVICE BOARD**





The clear majority of CTA respondents reside in the City of Chicago (86%). Pace, as the local provider of public bus transportation for the Chicago-area suburbs, has respondents that are more likely to reside in Suburban Cook County (47%). Metra respondents, as described above, are more likely to reside in a collar county but are also likely to reside in Suburban Cook County (40%) (see Figure 2-17).

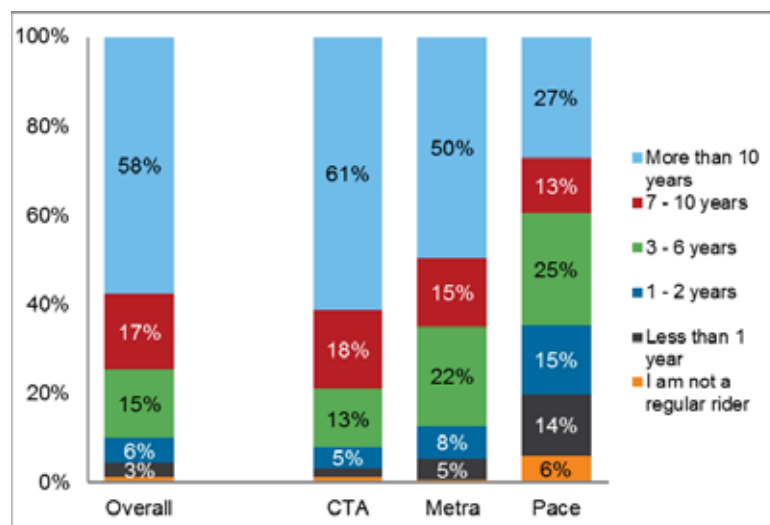
**FIGURE 2-17: URBAN AND SUBURBAN COUNTIES BY SERVICE BOARD**



#### **2016 Trip Characteristics by Service Board**

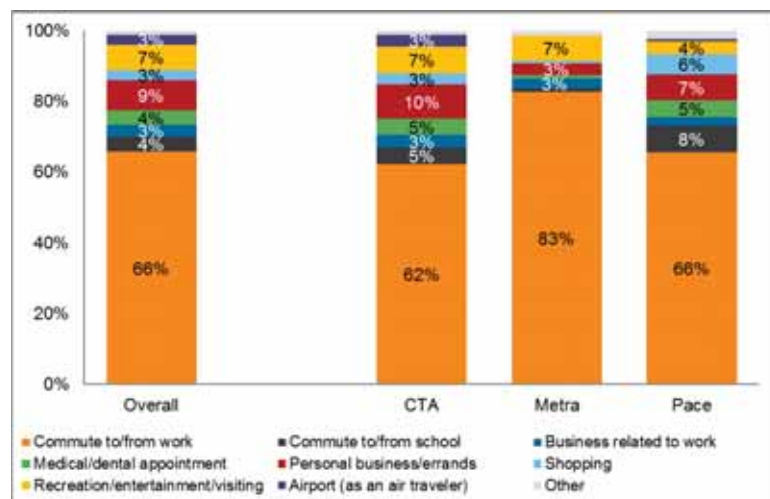
Nearly all survey respondents consider themselves to be regular riders (99%), defined as riding at least once per month. Further, of those who regularly ride, 97% have been a regular rider for one year or more, and more than half of survey respondents have been a regular rider for more than 10 years. CTA and Metra respondents tend to have a long tenure of ridership, as 61% and 50% of respondents, respectively, have been regularly riding for over a decade. However, the long tenure of ridership for CTA may partially be a result of CTA's e-mail database being older and not updated with younger riders on an ongoing basis. Of the three Service Boards, Pace has the largest percentage of respondents who identify as irregular riders (6%). Additionally, of those who regularly ride Pace, 14% have been riding for less than one year (see Figure 2-18).

**FIGURE 2-18: DURATION OF REGULAR RIDERSHIP BY SERVICE BOARD**



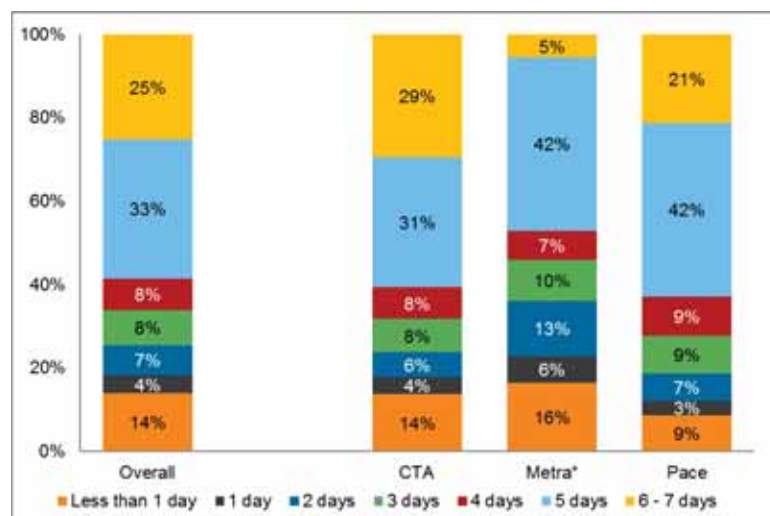
As shown in Figure 2-19, for most respondents, transit is used to commute to or from work (66%). Indeed, over 60% of respondents in each Service Board cited commuting as the reason for making their trip. CTA respondents are the most likely to use the service for other reasons, with 10% of respondents citing personal business and errands as the purpose of their most frequent trip. Metra respondents primarily use the service to commute, but even so 7% of Metra respondents cited entertainment, visiting and recreation as the purpose of their most frequent trip. Pace respondents are more likely than CTA or Metra respondents to cite shopping and commuting to and from school as reasons for using the service.

**FIGURE 2-19: TRIP PURPOSE BY SERVICE BOARD**



Overall, 66% of survey respondents are frequent riders, defined in this report as using the Service Board service four or more days per week (see Figure 2-20). Among the Service Boards, Pace has the largest percent of frequent riders, with 72% of respondents riding four or more days per week. Most CTA respondents, 68%, are frequent riders, with nearly three in 10 riding the service more than five days per week.

**FIGURE 2-20: RIDERSHIP FREQUENCY BY SERVICE BOARD**

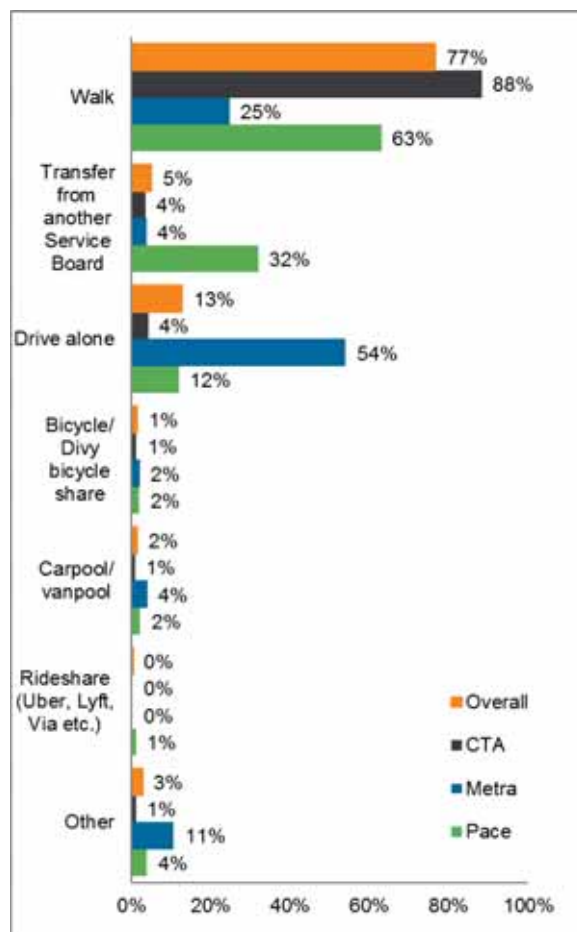


*\*Note: the Metra survey collected the number of trips per month rather than days per week respondents use the service, and Metra data were recorded as follows: 48+ trips/month = 6 or more days per week, 40-47 trips/month = 5 days/week, 31-39 trips/month = 4 days/week, 24-30 trips/month = 3 days/week, 16-23 trips/month = 2 days/week, 8-15 trips/month = 1 day/week, <8 trips/month = less than once/week*



As shown in Figure 2-21, walking is overall the most commonly used transportation method to access service (77%). This access mode is more common among CTA respondents than Pace respondents or Metra respondents (88%, 63% and 25% respectively). Over half of Metra respondents drive to the station to board a train and 10% get dropped off at the station. To access a bus stop, 28% of Pace respondents use a CTA bus or train and 4% use a Metra train. To get to their destination after alighting a train or bus, most respondents choose to walk (see Figure 2-22). Whereas 25% of Metra respondents walk to access the train station, 76% walk from the train station to their destination. Nine percent of Metra respondents use a CTA bus or train as an egress mode, and 1% use a Pace bus. Most Pace respondents walk from the bus stop to their destination (69%), and 25% of respondents use a CTA bus or train and 6% use a Metra train to arrive at their destination. After alighting a bus or train, nearly all CTA respondents, 94%, walk to their destination.

**FIGURE 2-21: ACCESS MODE BY SERVICE BOARD**



**FIGURE 2-22: EGRESS MODE BY SERVICE BOARD**

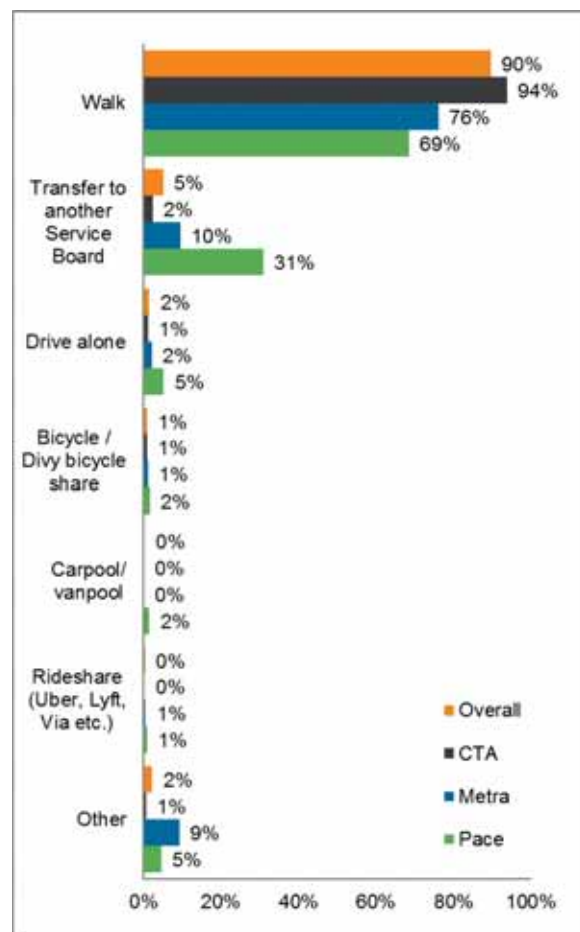


Figure 2-23 shows the number of transfers respondents make within a Service Board (CTA train to CTA train, CTA train to CTA bus, Pace bus to Pace bus, etc.). CTA respondents are the most likely to transfer, with two-thirds of respondents making at least one transfer on CTA on a typical trip. Over half of Pace respondents do not transfer to another Pace bus on a typical trip. Less than 1% of Metra respondents use more than one Metra train on a typical trip.

**FIGURE 2-23: NUMBER OF INTRAAGENCY TRANSFERS BY SERVICE BOARD**

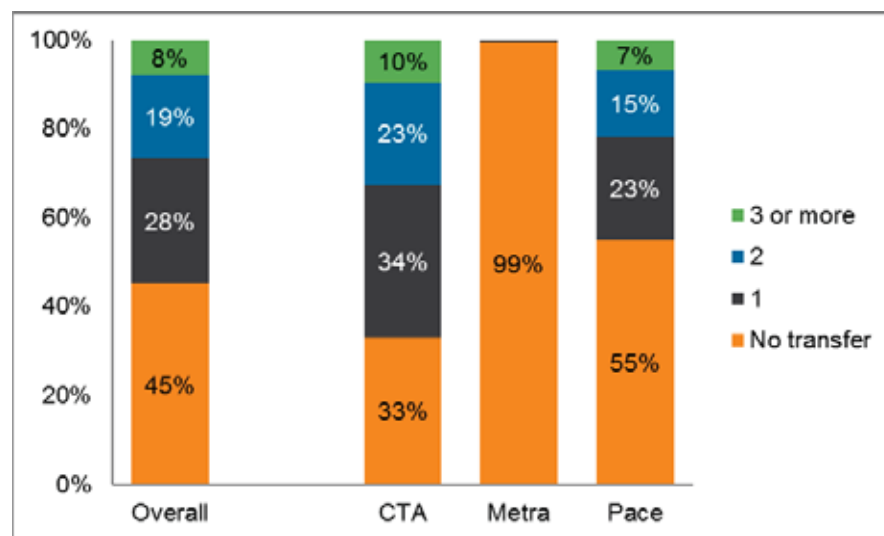
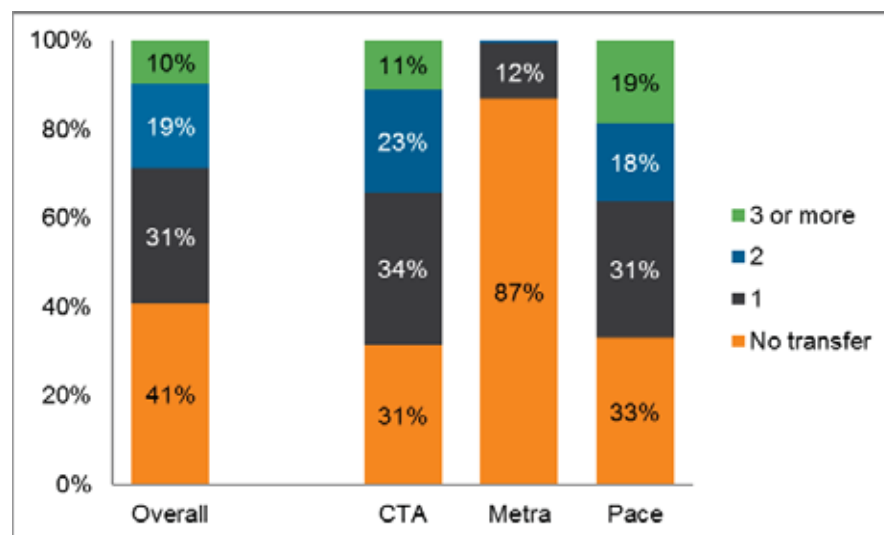


Figure 2-24 shows the *total number* of transfers made by respondents surveyed on each Service Board, which includes both transfers made *within* a Service Board and transfers made *between* Service Boards. Overall, 60% of respondents make a least one transfer within the RTA system. Transfers are more common among CTA and Pace respondents.

**FIGURE 2-24: TOTAL NUMBER OF TRANSFERS, INTRAAGENCY, AND INTERAGENCY, BY SERVICE BOARD**





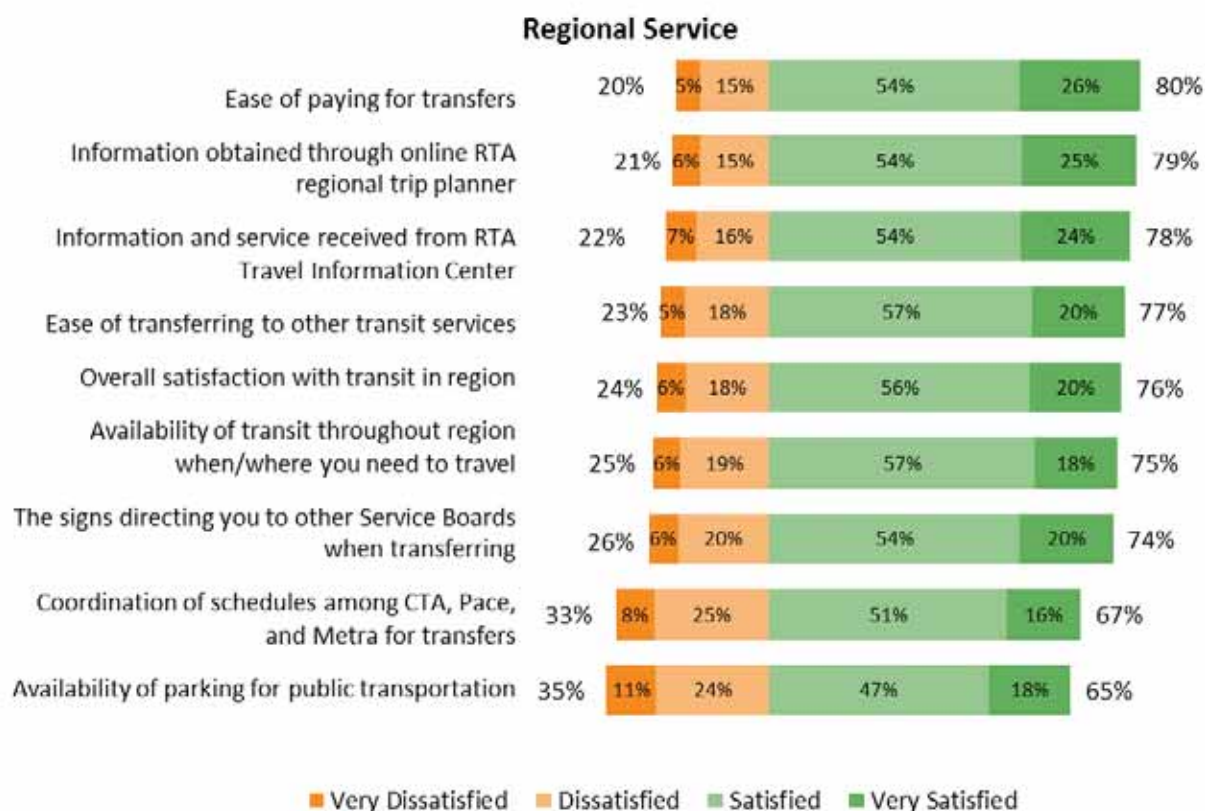


## REGIONAL SERVICE

To better understand how public transportation is serving respondents throughout the six-county Chicago region, nine regional attributes were measured (Figure 2-25). Overall, respondents are satisfied with regional service. Three-quarters or more of survey respondents reported satisfaction with six of the nine attributes measured.

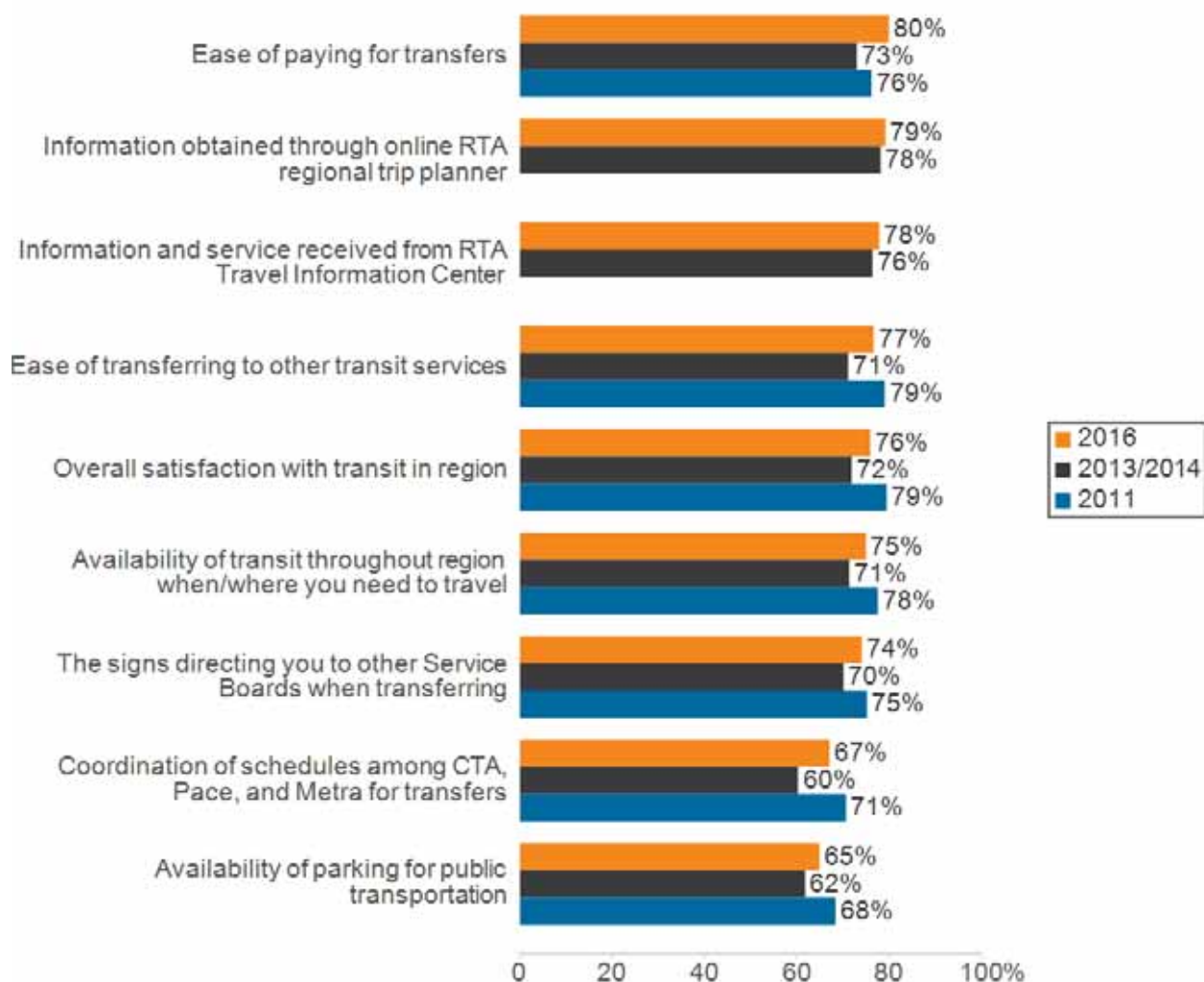
With regards to overall satisfaction with public transportation in the six-county region, 76% of survey respondents report satisfaction. Survey respondents are particularly satisfied with the ease of paying for transfers (80%), travel information obtained through the RTA trip planner (79%) and information and service received from the regional RTA Travel Information Center (78%). Respondents reported the lowest level of satisfaction with the availability of parking for public transportation (65%), although satisfaction with this measure varied by Service Board. For instance, 80% of Pace respondents were satisfied with the availability of parking, whereas only 67% of Metra respondents and 63% of CTA respondents reported satisfaction with the same measure.

**FIGURE 2-25: SATISFACTION WITH REGIONAL ATTRIBUTES (2016)**



As shown in Figure 2-26, respondents to the 2016 survey reported increased satisfaction in each of the measured regional attributes. The largest year-over-year increases were seen for the attributes ease of paying for transfers and coordination of schedules among the Service Boards for transfers, both of which increased by seven percentage points compared to the 2013/14 survey results. With 60% of survey respondents reporting at least one transfer within the RTA system on a typical trip, improvements to these service attributes are important. Overall satisfaction with public transportation in the six-county Chicago region increased four percentage points since 2013/2014 to 75%, but remains below the level of satisfaction reported in 2011 (79%). One of the contributing factors for this difference in satisfaction between 2011 and 2016 may have been fare increases for Metra, which began in 2012 and might have contributed to overall satisfaction levels on a region basis.

**FIGURE 2-26: SATISFACTION WITH REGIONAL ATTRIBUTES BY YEAR**





Satisfaction with regional service varies by county, as shown in Table 2-2. Respondents who reside in Kane County are the most satisfied overall with public transportation in the region (78%). Respondents who reside in Cook County, 89% of all survey respondents, report the second highest level of overall satisfaction (76%).

**TABLE 2-2: SATISFACTION WITH REGIONAL ATTRIBUTES BY COUNTY OF RESIDENCE (2016)**

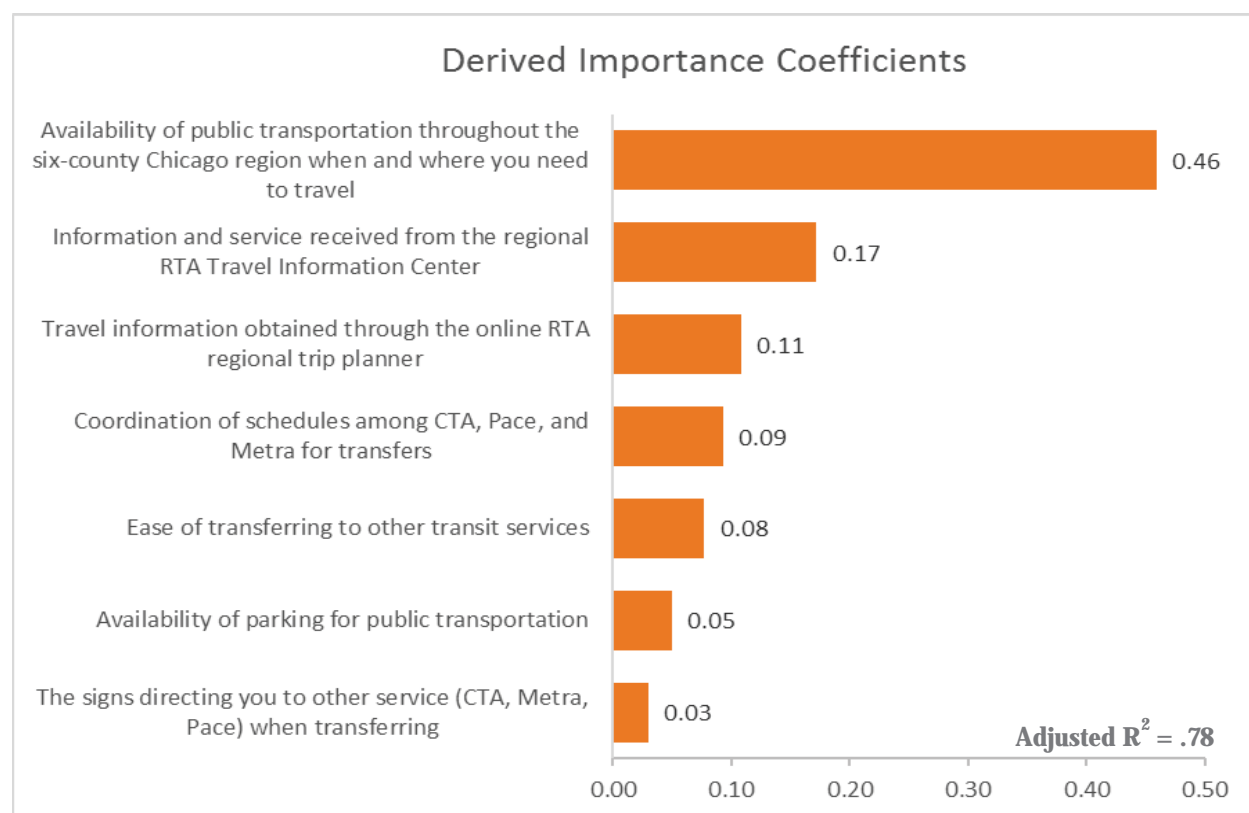
Regional Satisfaction	Home County						
	All Six Count-ies	Cook	DuPa-ge	Kane	Lake	McHe-nry	Will
	%	%	%	%	%	%	%
Ease of paying for transfers	<b>80%</b>	80%	72%	79%	73%	80%	76%
Information obtained through online RTA regional trip planner	<b>79%</b>	79%	77%	81%	78%	78%	78%
Information and service received from RTA Travel Information Center	<b>78%</b>	78%	71%	79%	72%	78%	76%
Ease of transferring to other transit services	<b>76%</b>	77%	68%	74%	69%	68%	79%
Overall satisfaction with transit in region	<b>76%</b>	76%	70%	78%	74%	73%	75%
Availability of transit throughout region when/where you need to travel	<b>75%</b>	75%	73%	73%	74%	75%	74%
The signs directing you to other Service Boards when transferring	<b>74%</b>	74%	66%	75%	67%	64%	74%
Coordination of schedules among CTA, Pace, and Metra for transfers	<b>67%</b>	67%	64%	69%	61%	64%	71%
Availability of parking for public transportation	<b>64%</b>	64%	58%	75%	76%	80%	69%

### ***Key Regional Drivers of Overall Regional Transit Satisfaction***

To understand the key drivers of regional satisfaction, a derived importance analysis was conducted. Derived importance measures are found by statistically testing the strength that a collection of attributes has on influencing overall satisfaction. Calculating coefficients instead of using stated importance data considerably improves the clarity in answering which service attributes are the most important drivers of overall satisfaction. Derived importance can help further understand the underlying factors driving overall satisfaction that a respondent may not explicitly state.

For this analysis, individual aspects of regional service were modeled as predictors that influence overall satisfaction with public transportation in the six-county Chicago region. A multiple regression model was developed using a backward step iterative process. In this approach, eight regional attributes were entered into the linear equation. Variables were removed if they were shown not to significantly influence overall satisfaction. If any variable did not increase the overall predictive power of the model, it was also eliminated from the equation. With an adjusted  $R^2$  of 0.78, the final regression yielded seven regional attributes. The seven attributes shown in Figure 2-27 significantly influence respondents' overall satisfaction with public transportation in the six-county Chicago region. The magnitude of each derived importance coefficient is a measure of the importance of the regional service attribute in determining respondents' overall satisfaction with public transportation in the six-county Chicago region.

**FIGURE 2-27: DERIVED ATTRIBUTE IMPORTANCE COEFFICIENTS FOR OVERALL REGIONAL SERVICE SATISFACTION**



Consistent with prior years, the availability of public transportation throughout the six-county Chicago region when and where respondents need to travel rose to the top as the key driver and was again the most important regional service attribute in predicting overall satisfaction with region-wide public transportation. With derived importance coefficients well below this key driver, the other six regional service attributes are not as important in determining respondents' overall satisfaction with regional service. It should be pointed out that "Not Applicable" (N/A) responses are not included in the above analyses. The percentage of respondents who selected N/A increased for all regional attributes between 2013/2014 and 2016, and in 2016 ranged from 24% of all responses (Availability of public transportation throughout the six-county Chicago region) to 49% of all responses (Availability of parking for public transportation).



### Quadrant Charts

A quadrant chart serves as a measure of performance against importance. maps the derived importance and satisfaction of the regional attributes identified above. These mapped points will provide insight as to where the Service Boards collectively should focus their efforts to maximize respondent satisfaction. The Y-axis (vertical) measures importance and the X-axis measures attribute satisfaction. Both axes are split at their means, thus creating the four quadrants. Table 2-3 outlines what each of the four quadrants represent and the appropriate action required to maximize respondent satisfaction.

**TABLE 2-3: UNDERSTANDING QUADRANT CHARTS**

QUADRANT	LOCATION	SATISFACTION LEVEL	IMPORTANCE	ACTION
1	Top left	Relatively low	Relatively high	Attributes for improvement
2	Top right	Relatively high	Relatively high	Attributes to maintain
3	Bottom left	Relatively low	Relatively low	Attributes to monitor
4	Bottom right	Relatively high	Relatively low	Attributes with no immediate action

The top-right quadrant contains those attributes that were rated by survey respondents as being important, and were performed to the respondents' satisfaction. Respondents' expectations are currently being met with the availability of public transportation in the region when and where respondents need to travel and the information and service received from the RTA Travel Information Center. The top-left quadrant contains no regional attributes, which indicates that respondents are satisfied with all regional attributes they consider important.

To understand the extent to which drivers of regional satisfaction differ among survey respondents, a derived importance analysis was conducted for each Service Board. Following the same analytical method described in detail above, eight aspects of regional service were modeled as predictors that influence overall satisfaction with public transportation in the six-county Chicago region. In the analysis for each Service Board, regional service variables were removed from the model if they were shown not to significantly influence overall satisfaction or if they did not increase the overall predictive power of the model.

FIGURE 2-28: KEY DRIVERS OF REGIONAL SATISFACTION QUADRANT CHART



As shown in Figure 2-29, the two regional attributes found to be collectively important in above, the availability of public transportation and information from the RTA Travel Information Center, are important to respondents in each Service Board. However, satisfaction with these two attributes is not uniform across the Service Boards. With both attributes found in the top-right quadrant, Pace respondents are satisfied with these measures. Conversely, with both attributes in the top-left quadrant, Metra respondents are not as satisfied with these measures. CTA respondents are satisfied with the information and service received from the RTA Travel Information Center, but are not satisfied with the availability of public transportation in the region. Overall, with each regional attribute in the two right quadrants, Pace respondents are the most satisfied with regional service.



FIGURE 2-29: KEY DRIVERS OF REGIONAL SATISFACTION QUADRANT CHART BY SERVICE BOARD



## DETAILED SERVICE ATTRIBUTES

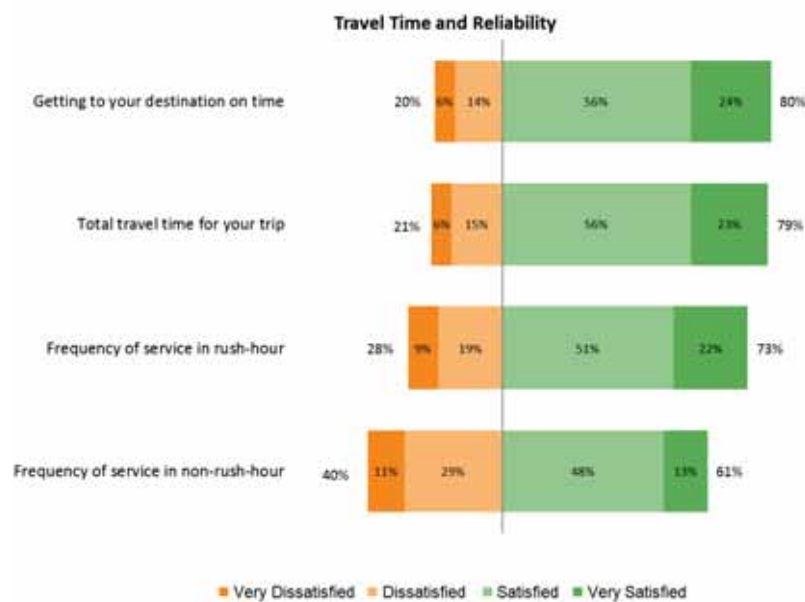
To better understand the extent to which the RTA is meeting respondents' expectations with different aspects of service, this year's and prior years' findings from each Service Board were aggregated and are presented below.



## Travel Time and Reliability

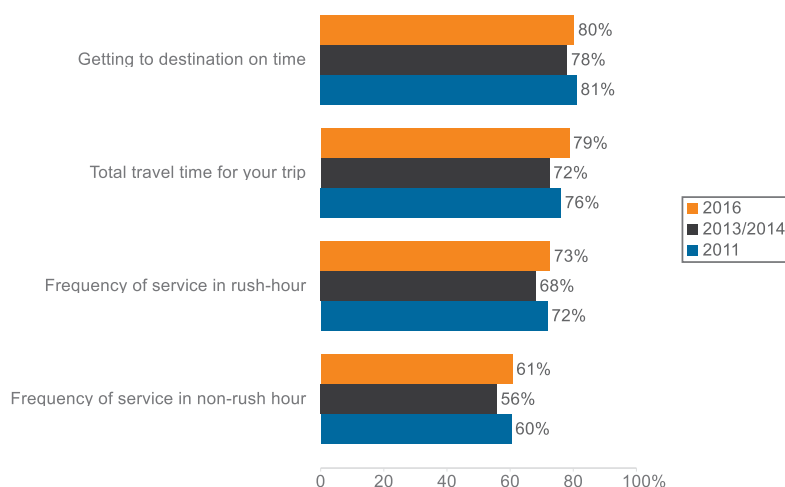
Satisfaction with the service attributes that relate to travel time and reliability are shown in Figure 2-30. Of the four attributes measured, respondents are most satisfied with getting to their destination on time (80%). Overall, respondents are more satisfied with the frequency of service in peak than off-peak periods, 73% and 61% respectively.

**FIGURE 2-30: SATISFACTION WITH TRAVEL TIME AND RELIABILITY ATTRIBUTES (2016)**



As shown in Figure 2-31, satisfaction with each travel time and reliability attribute increased year-over-year. Most notably, 2016 total trip travel time saw a seven-percentage point increase in satisfaction from the 2013/14 study. Although 61% of respondents reported satisfaction with the frequency of service in the off-peak, satisfaction with this measure increased five-percentage points compared to the 2013/14 survey and exceeds the level of satisfaction reported in 2011.

**FIGURE 2-31: SATISFACTION WITH TRAVEL TIME AND RELIABILITY ATTRIBUTES YEAR-OVER-YEAR**



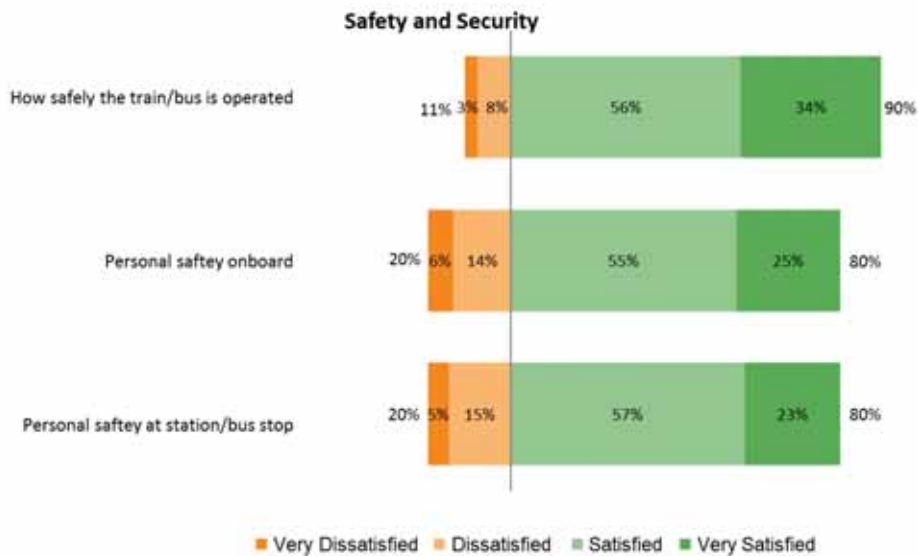




## Safety and Security

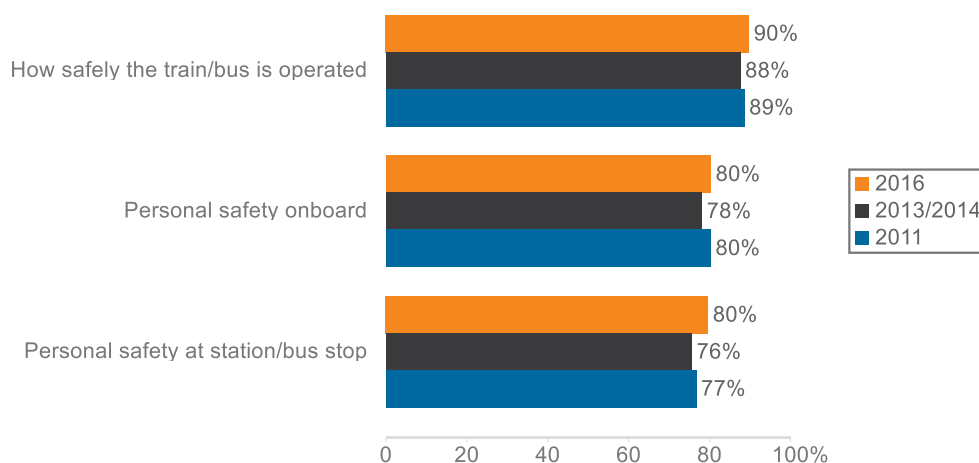
Figure 2-32 shows satisfaction with the service attributes that relate to safety and security. Overall, survey respondents are satisfied with the safe way the Service Boards operate trains and buses and are satisfied with the level of personal safety onboard and at the train or bus stops.

**FIGURE 2-32: SATISFACTION WITH SAFETY AND SECURITY ATTRIBUTES**



As shown in Figure 2-33, satisfaction with each of the safety and security attributes increased year-over-year and are equal to or exceed 2011 satisfaction levels. In alignment with prior years, respondents are more satisfied with how safely the trains and buses are operated (90%) than with their own personal safety onboard or at the station or stop (80%).

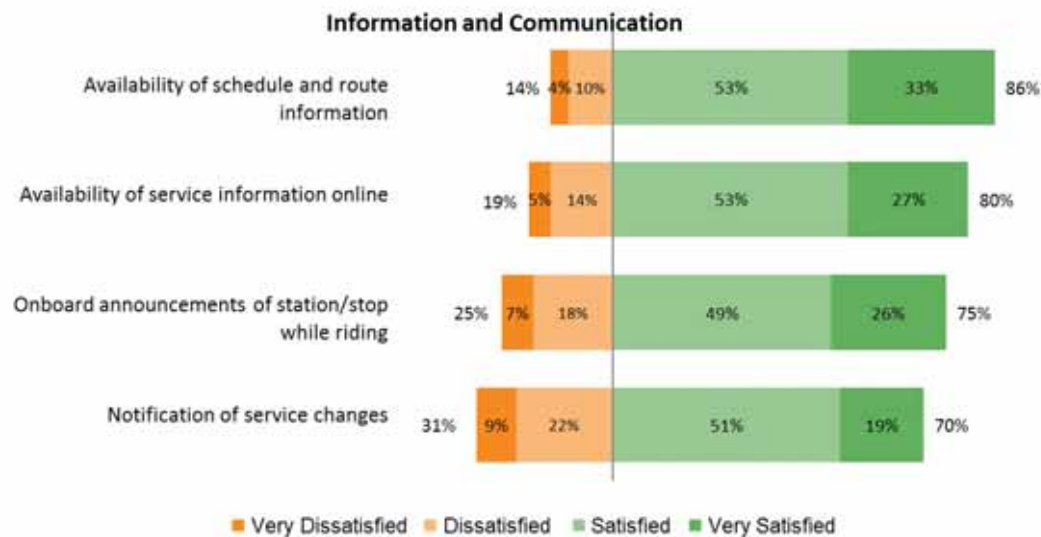
**FIGURE 2-33: SATISFACTION WITH SAFETY AND SECURITY ATTRIBUTES YEAR-OVER-YEAR**



## Information and Communication

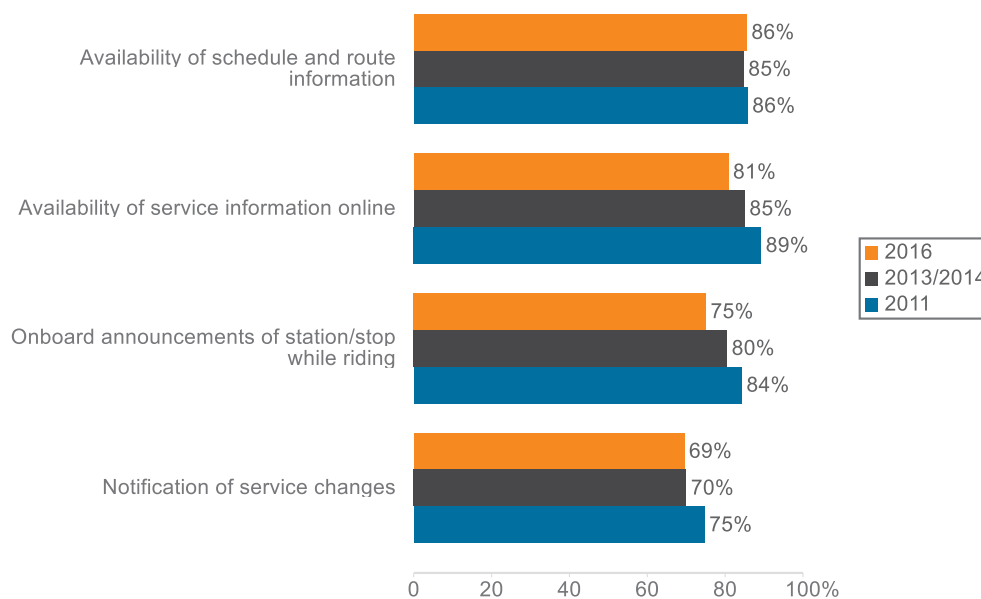
Satisfaction with the service attributes that relate to information and communication are shown in Figure 2-34. Overall, respondents are satisfied with the availability of information each Service Board provides. Eighty-six percent of respondents are satisfied with the availability of schedule and route information and 80% are satisfied with the availability of service information online.

**FIGURE 2-34: SATISFACTION WITH INFORMATION AND COMMUNICATION ATTRIBUTES**



As shown in Figure 2-35, in three of the four information and communication attributes measured, satisfaction declined year-over-year. The only attribute to see an increase in satisfaction from 2013/2014 is the availability of schedule and route information.

**FIGURE 2-35: SATISFACTION WITH INFORMATION AND COMMUNICATION ATTRIBUTES YEAR-OVER-YEAR**

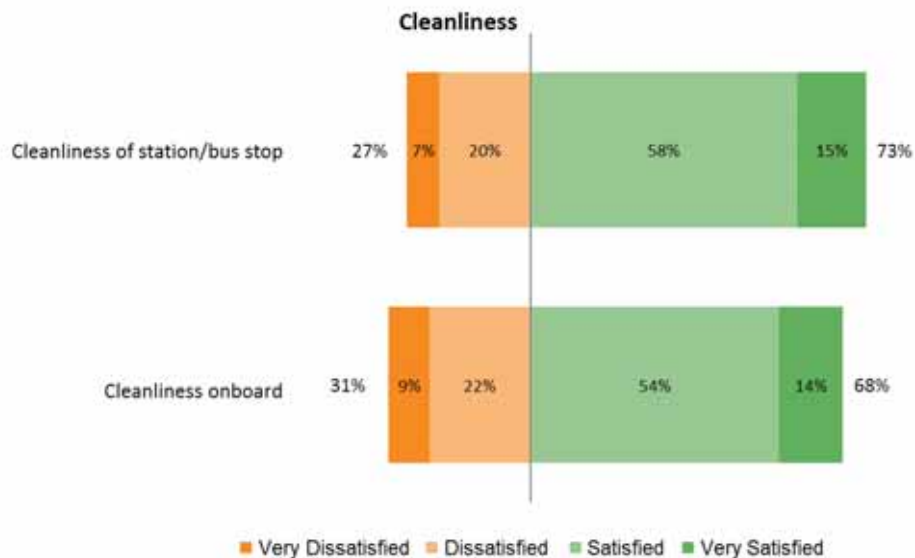




## Cleanliness

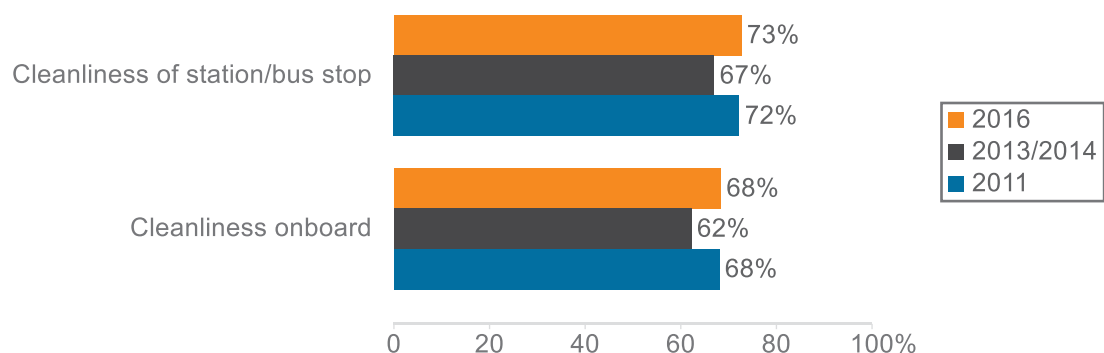
Figure 2-36 shows satisfaction with the service attributes that relate to cleanliness. Overall, survey respondents are more satisfied with the cleanliness of train stations and bus stops (73%) than with the cleanliness onboard trains and buses (68%).

**FIGURE 2-36: SATISFACTION WITH CLEANLINESS ATTRIBUTES**



As shown in Figure 2-37, the 2016 survey saw a six-percentage-point increase in the satisfaction of both the cleanliness of train stations and bus stops and the cleanliness onboard trains and buses over responses in 2013/2014. In fact, the highest level of satisfaction with the cleanliness of train station and bus stops, 73%, was reported in 2016.

**FIGURE 2-37: SATISFACTION WITH CLEANLINESS ATTRIBUTES YEAR-OVER-YEAR**



## Employee Performance

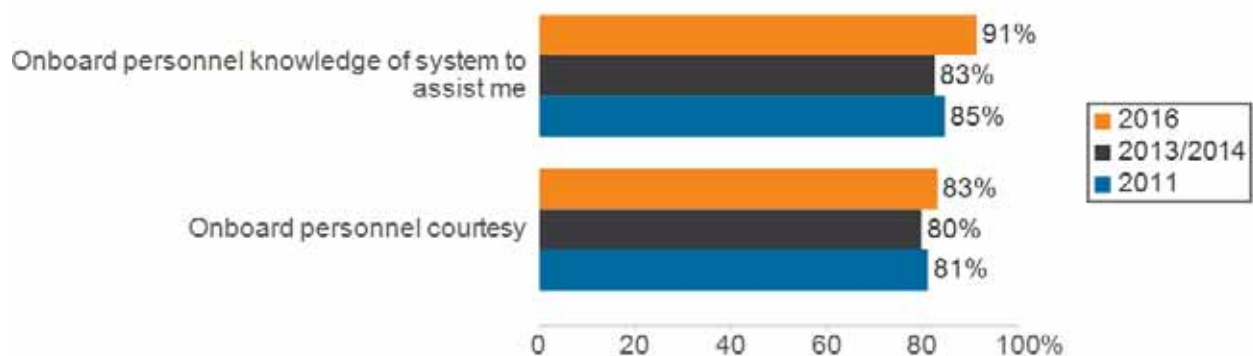
Satisfaction with the service attributes that relate to employee performance are shown in Figure 2-38. Over 90% of respondents reported satisfaction with personnel knowledge of the system and their willingness to assist customers.

**FIGURE 2-38: SATISFACTION WITH EMPLOYEE PERFORMANCE ATTRIBUTES**



Year-over-year, satisfaction with both employee performance attributes increased, exceeding levels reported in 2011 (see Figure 2-39).

**FIGURE 2-39: SATISFACTION WITH EMPLOYEE PERFORMANCE ATTRIBUTES YEAR-OVER-YEAR**

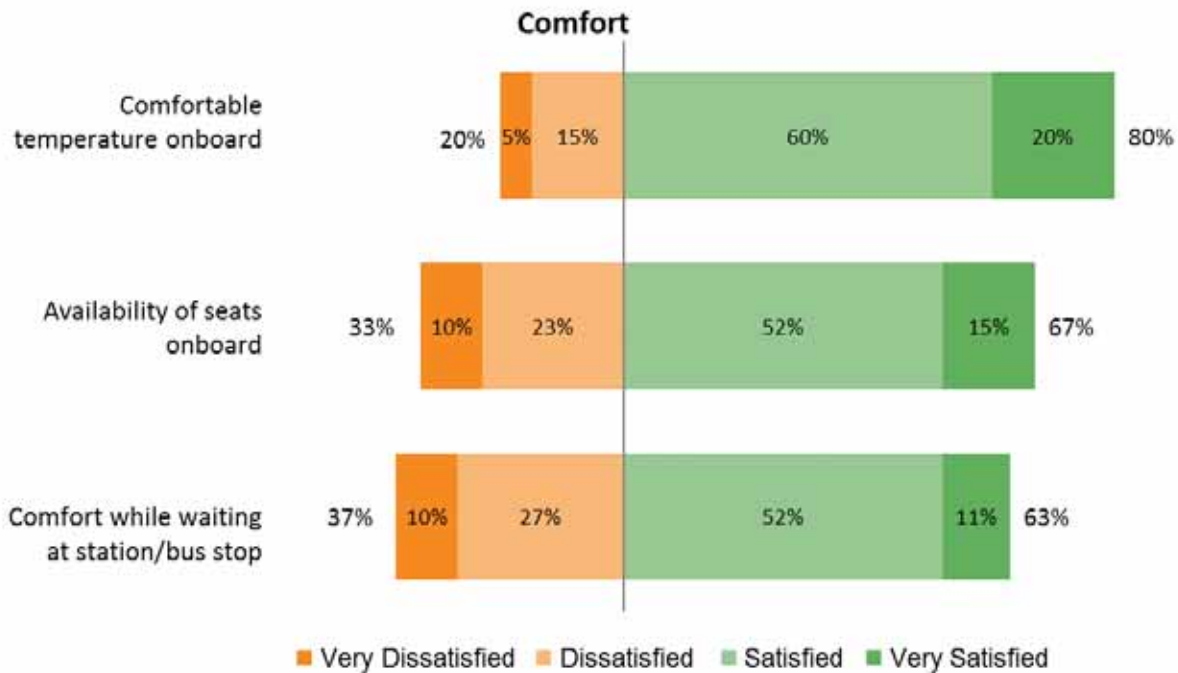




## Comfort

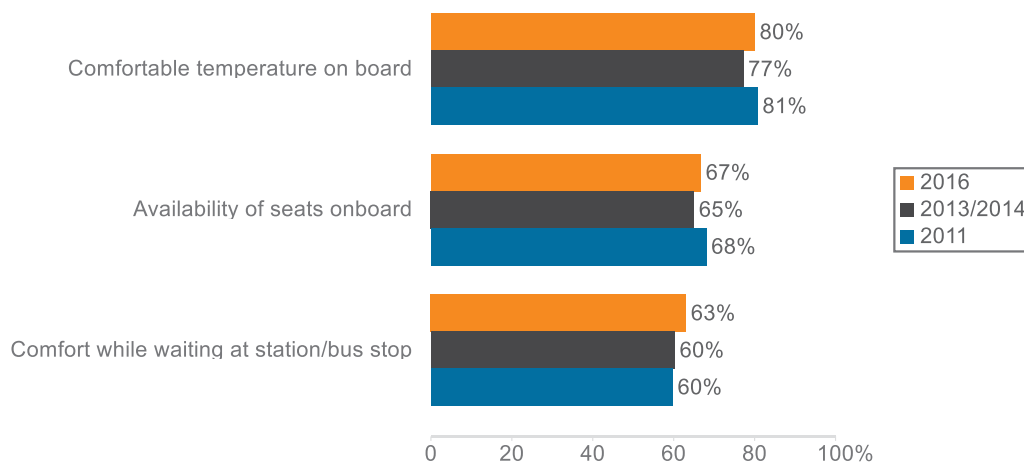
Figure 2-40 shows satisfaction with the service attributes that relate to comfort. Respondents are more satisfied with onboard comfort measures, temperature, and availability of seats on the bus or train, than comfort while waiting at the bus stop or train station.

**FIGURE 2-40: SATISFACTION WITH COMFORT ATTRIBUTES**



As shown in Figure 2-41, year-over-year satisfaction increased in all three comfort attributes. This year saw the largest percentage of respondents report satisfaction with comfort while waiting at a train station or bus stop (63%).

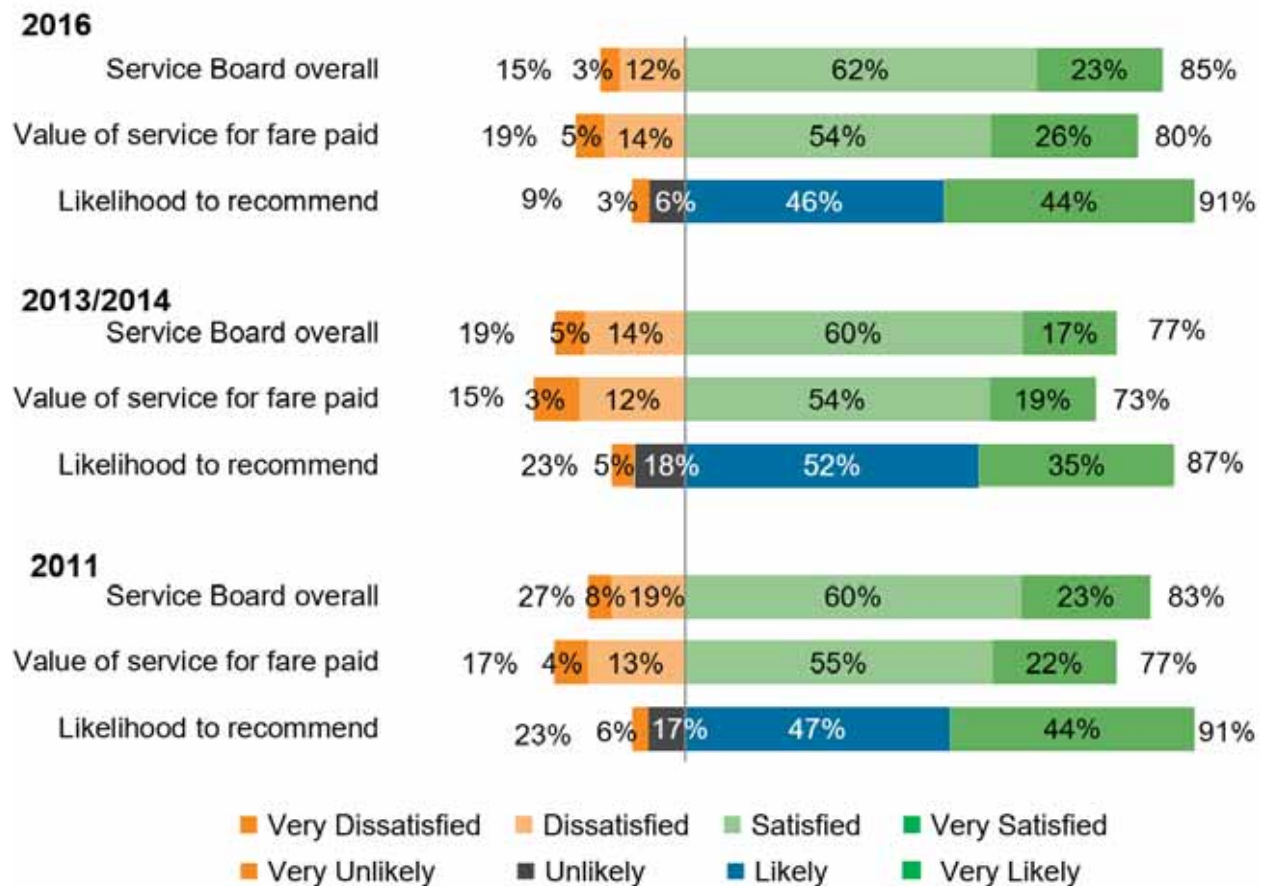
**FIGURE 2-41: SATISFACTION WITH COMFORT ATTRIBUTES YEAR-OVER-YEAR**



### Overall Satisfaction, Value of Service, and Likelihood to Recommend

As shown in Figure 2-42, respondents overall are satisfied with their Service Board and with the amount of fare paid to access service. This year, 85% of respondents report satisfaction with their Service Board. A slightly lower percentage report satisfaction with the value of the service for the fare paid, (80%), but even so, over a quarter of respondents are very satisfied with this measure. Figure 2-42 also shows that 91% of survey respondents would recommend their Service Board this year. This year saw the highest levels of satisfaction with the value of service and with service overall. Year-over-year, overall satisfaction with the Service Boards increased eight-percentage points, from 77% in 2013/2014 to 85% in 2016. Part of this increase is likely attributable to the wider acceptance of Ventra in 2016 compared to 2013/2014, when Ventra had just been introduced and many RTA riders were still getting accustomed to, and comfortable with, the new payment system. Further, the 2013/2014 customer satisfaction study was partially conducted during what turned out to be some of the coldest winter months in decades, which likely had a negative impact on satisfaction scores. Similarly, a greater percentage of 2016 survey respondents reported a willingness to recommend service, compared to the 2013/14 survey. The percent of respondents who report that they are very likely to recommend their Service Board increased nine percentage points from survey to survey. 2016 results returned to 2011 levels, with 91% of respondents stating they would recommend their respective Service Board.

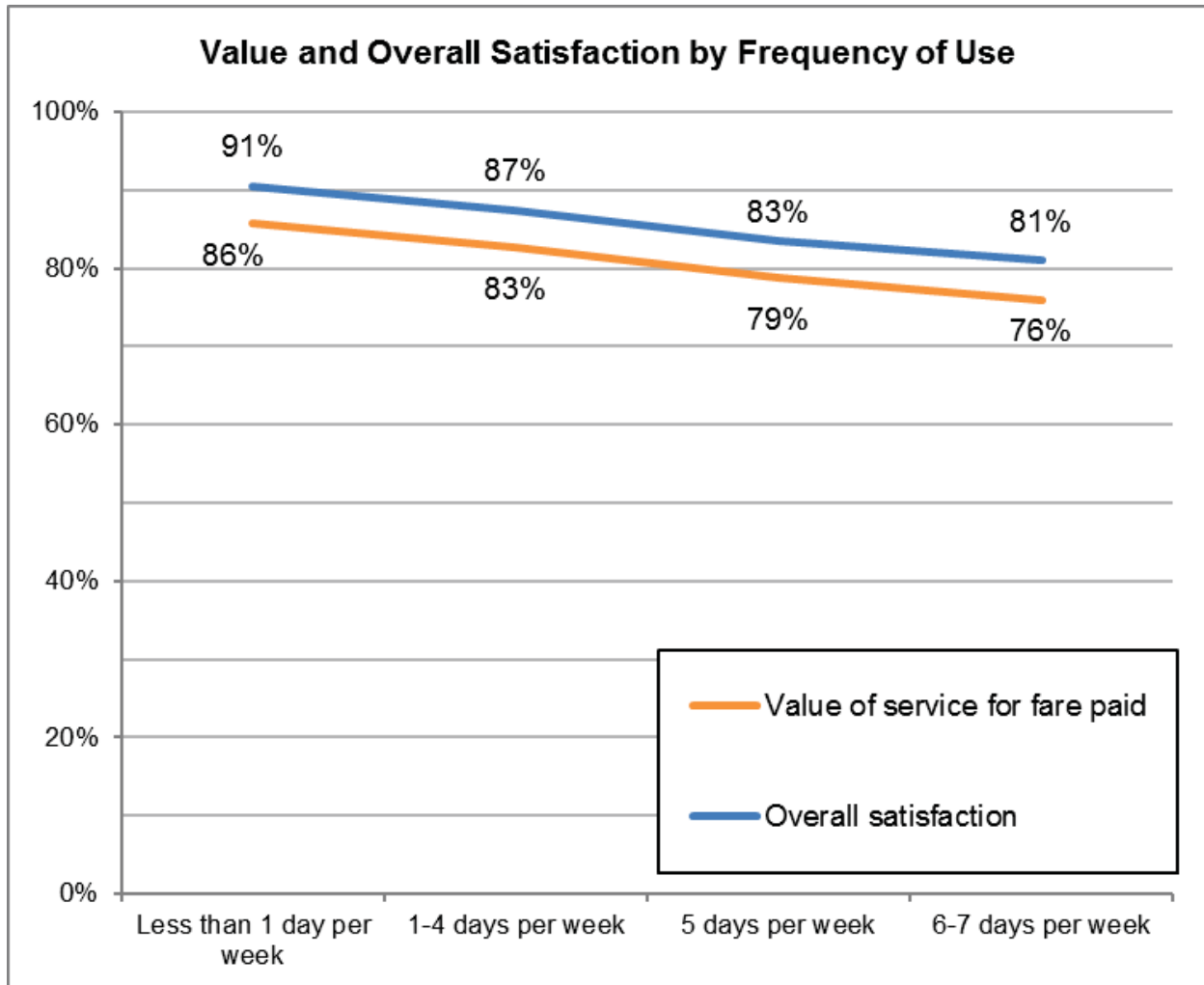
**FIGURE 2-42: OVERALL SATISFACTION, VALUE OF SERVICE AND LIKELIHOOD TO RECOMMEND BY YEAR**





As shown in Figure 2-43 those with the least frequent exposure to their Service Board report the highest levels of satisfaction with the value of service and with the service overall. An occasional rider, that is, a survey respondent who rides less than one day per week, is more likely to report satisfaction with the value of service and with the service overall than a respondent who rides more frequently.

**FIGURE 2-43: VALUE OF SERVICE AND OVERALL SATISFACTION BY FREQUENCY OF USE**



## 2.4 | CONCLUSION

The findings suggest that public transit riders in the region are more satisfied with public transit than they were in 2013/2014, and at least as satisfied as they were in 2011. For instance, this year saw the highest levels of satisfaction reported with the value of service (81%) and with the Service Boards overall (85%). These two measures of overall satisfaction increased eight percentage points since 2013/2014. Further, this year saw a greater percentage of respondents report a willingness to recommend their individual Service Board to others (91%). Satisfaction with each regional service attribute increased year-over-year and satisfaction with public transportation in the six-county Chicago region overall increased four percentage points since 2013/2014 to 75%.

These gains in satisfaction are substantial. However, the gains might, at least in part, be a rebound from lower reported satisfaction levels detailed in the 2013/14 CS study. Travel difficulties associated with severe winter weather during data collection for the 2013/2014 CS study and technical issues associated with the roll-out of the Ventra fare payment system might have led to lower satisfaction scores.

Overall, respondents are most satisfied with the service attributes that relate to employee performance and safety and security. Year-over-year, increased satisfaction was reported in each travel time, reliability, cleanliness, and comfort attribute. In contrast, in three of the four information and communication attributes measured, satisfaction declined year-over-year.

For CTA and Metra respondents arriving to their destination on time is a key driver of overall satisfaction for respondents, and for Pace respondents, transfers (waiting time and reliability) was. These findings are consistent with results from the prior CSS. Of the eight regional attributes, the following regional attributes influences respondents' overall satisfaction with public transportation in the six-county Chicago region the most:

- Availability of public transportation throughout the six-county Chicago region when and where you need to travel
- Information and service received from the regional RTA Travel Information Center
- Travel information obtained through the online RTA regional trip planner

The following three sections detail the methodology and present select results of each Service Board (CTA under 3.0, Metra under 4.0, and Pace under 5.0).





## 3.0 CTA SURVEY

### 3.1 | SURVEY DESIGN

This chapter summarizes the findings of the 2016 CTA CSS, which was conducted by RSG in November 2016 through February 2017 on behalf of CTA and the RTA. The 2016 CTA CSS is the third of its kind since 2010 when a CSS Task Force with representatives from the CTA, Metra, and Pace, constructed a consistent set of customer satisfaction questionnaires and sampling methods across the three agencies. In general, the 2016 survey was kept consistent with prior years to allow for comparisons over the years, but questions related to fare payment, passes and the Ventra Card were updated or added. At the core of the questionnaire was a set of 35 satisfaction questions across nine service dimensions. The service dimensions included:

- Service Delivery
- Information
- Communications on Buses and Trains
- Employee Performance
- Personal Safety
- Comfort While Riding
- Appearance
- Access to Service
- Overall Service

A screenshot of how the satisfaction attributes for the Comfort While Riding dimension appeared to online respondents is shown in Figure 3-1.

**FIGURE 3-1: SCREENSHOT OF ATTRIBUTE SATISFACTION RATING QUESTION IN CTA WEB SURVEY**

Please indicate your satisfaction with the following features using the 1 to 10 scale.  
If the question does not apply to you, please select "n/a" (not applicable).

How satisfied are you with...

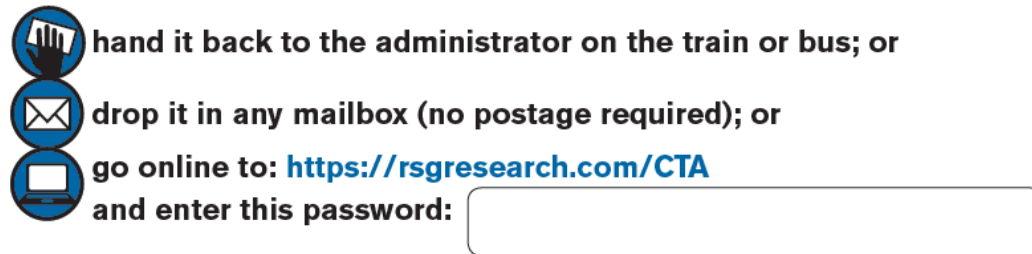
Comfort while riding	Very dissatisfied (1)	(2)	Dissatisfied (3)	(4)	(5)	(6)	Satisfied (7)	(8)	Very satisfied (9)	(10)	n/a
Comfortable temperature of bus/train	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of personal space on bus/train	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to shelter yourself from weather conditions while waiting for the bus/train	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comfort while waiting at bus stop/train station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lighting at the bus stop/train station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of seats on bus/train	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

« Previous      Next »

The CTA survey also asked respondents how likely they would be to recommend CTA's services to others, a meaningful endorsement of CTA. Additionally, the survey asked a question regarding customer expectations and whether the agency's service was performing above or below what is expected. This question can help

give perspective on lower-than-average satisfaction scores; it is possible that respondents are not particularly satisfied, but that service meets or exceeds their expectations. Toward the end of the survey, respondents were asked to fill out some basic demographic information. The paper version of the survey was available in English; intercepted respondents who did not speak English were pointed to the translated online version of the survey (see Figure 3-2 for a screenshot of the translated instructions printed on the paper survey explaining how to complete the survey online). The web version of the survey was available in English, Spanish, or Polish.

**FIGURE 3-2: SCREENSHOT OF TRANSLATED INSTRUCTIONS ON CTA PAPER SURVEY**



Para completar la encuesta en línea, visite el enlace que aparece arriba e ingrese la contraseña.  
Aby wypełnić ankietę online, należy kliknąć łącze podane powyżej i wprowadzić hasło.

## 3.2 | SURVEY ADMINISTRATION

### SAMPLING PLAN

The sampling plan for CTA was based on November 2015 and December 2015 ridership data and aimed to obtain minimum sample sizes for key segments of their customer population so that statistical analyses could be conducted with sufficient data.

CTA was interested in surveying all rail branches and bus groups (described in detail under Groupings below), thus minimum sample sizes were set for these segments. The intercept targets for the onboard sampling plan were adjusted to account for expected e-mail completes, but because the onboard and e-mail recruitment effort had to occur concurrently, these onboard targets were adjusted based on estimated (rather than actual) e-mail completes. Paper surveys were allocated by considering the target minimum for each group/branch, with the goal of distributing 10,000 paper surveys to CTA customers.



## Groupings

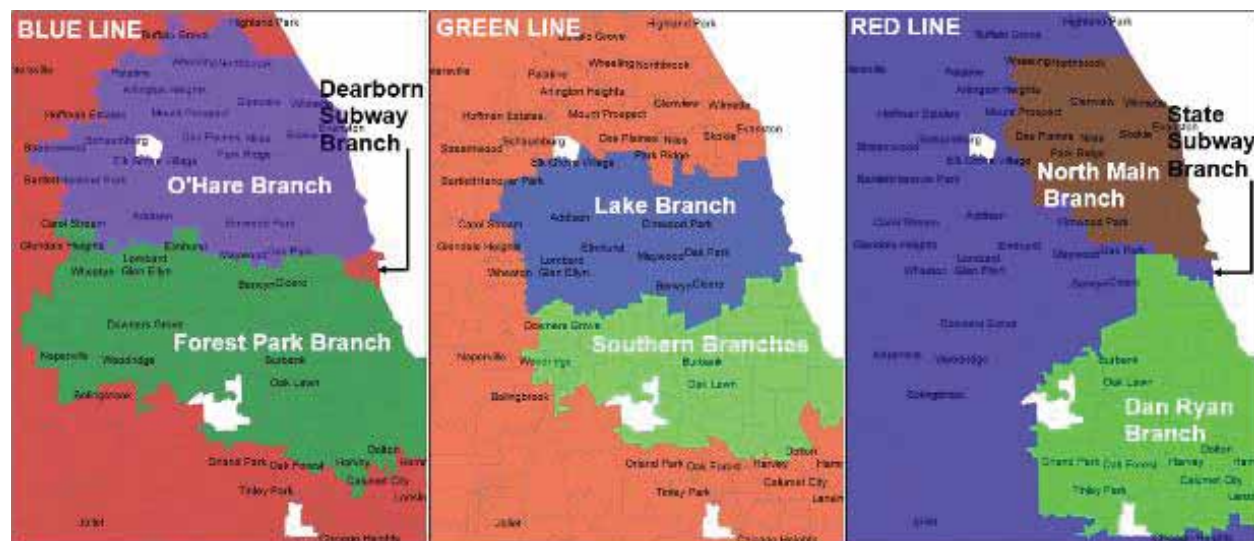
The sampling plan was based on the 14 bus groups and 16 rail branches that CTA operates. This approach is consistent with 2014, and allows for comparisons on a group level between 2014 and 2016. However, since the sampling plan had changed from 2011 to 2014 to group the rail respondents by branch (and not the entire line, as was done in 2011), comparisons between 2011 and other years by route group/branch cannot be made.

Due to small sample sizes, some changes were made to these groups and branches in the sampling plan:

- The three southern branches of the Green line (Ashland, East 63rd, and South Elevated) were merged into one branch
- The Loop branch entries were distributed into the Brown, Green, Orange, Pink, and Purple line branches proportionally by non-Loop ridership of each branch/line
- The Special bus route group was removed
- The Midway Feeder bus route group was merged into the South Side East-West group
- The Northwest Side Feeder bus route group was merged into the North Side East-West group

The final version of the sampling plan had 24 bus groups and rail lines, each of which were set with a quota of 270 completed surveys. For CTA trains, the Brown, Orange, Pink, Purple, and Yellow lines only have one branch each. The Blue, Green, and Red lines include multiple branches. Respondents from these train lines were assigned to branches using their home ZIP Code. Figure 3-3 illustrates how Chicago-area ZIP codes were aggregated into branch assignments. When possible, responses with ZIP codes not included on these maps were manually assigned to a branch based on their primary train line and any additional bus routes or train lines used. The small number of surveys that were still without a branch (respondents who live in distant suburbs, beyond the designations identified in Figure 3-3) were assigned to the branch from their primary train line that was most under-quota.

**FIGURE 3-3: GEOGRAPHIC BRANCH ASSIGNMENTS FOR BLUE, GREEN, AND RED LINES**



## SURVEY DISTRIBUTION

Onboard surveying was conducted between November 30, 2016 and January 24, 2017. The online survey was available between November 1, 2016 and March 4, 2017.

### Onboard Recruit

For the onboard portion of the survey effort, RSG partnered with Seville Staffing and AREA (Applied Real Estate Analysis) to recruit and oversee onboard survey staff. Prior to surveying, a training session was held with surveyors and supervisors on November 29, 2016 to instruct staff on surveying processes and expectations. RSG supervisors were joined by a representative from CTA and RTA.

Surveyors were afforded latitude as to the exact start time of a given trip, since the sampling plan focused on representing each route during a certain period of the day and day of the week as opposed to representing exact times/specific buses or trains. Surveyors were assigned to cover either one bus or one train car. The importance of collecting completed surveys on board was emphasized throughout the project, and surveyors were reminded to encourage customers to complete their survey while riding to boost the response rate.

When respondents completed the paper survey they could either return it to one of the surveyors onboard their bus or train or mail it back, postage-paid. Figure 3-4 shows the completion instructions printed on the front page of the paper survey.

FIGURE 3-4: FRONT PAGE OF CTA PAPER SURVEY

**cta.**

**2016  
CUSTOMER  
SATISFACTION  
SURVEY**

Dear Customer,

**Your feedback is very important in helping the Chicago Transit Authority (CTA) improve the quality of its services.**

The information obtained from this survey will assist us in meeting our commitment to provide efficient and cost effective transportation to you. Even if you are a visitor to the Chicago area, your feedback is very important to us.

All of your answers will be kept anonymous and will not be linked to you or any of your personal information.

**By completing this survey, you earn a chance to win up to \$250 cash!**

**GRAND PRIZE: \$250 | 20 SECOND PRIZES: \$50**

**Please complete this survey in one of three ways:**

- hand it back to the administrator on the train or bus; or**
- drop it in any mailbox (no postage required); or**
- go online to: <https://rsgresearch.com/CTA> and enter this password:**

Para completar la encuesta en línea, visite el enlace que aparece arriba e ingrese la contraseña.  
Aby wypełnić ankietę online, należy kliknąć łącze powyżej i wprowadzić hasło.

**Thank you for your cooperation and for riding CTA!**



Alternatively, respondents had the option to complete the survey online using a link and unique password provided on the cover of the paper survey. As previously mentioned, the unique password ensured that each customer could only take the survey once.

The bulk of the onboard fielding occurred between November 30, 2016 and December 5, 2016, but since a handful of surveys remained undistributed at the end of the main onboard fielding (around 400), a decision was made to conduct some supplementary fielding. This additional fielding occurred between January 20, 2017 and January 24, 2017. When survey distribution concluded, about 9,900 of the 10,000 printed questionnaires had been distributed to CTA customers system-wide. Completed surveys were accepted via mail until February 17, 2017 and online until March 4, 2017.

### **Online Recruit**

The web-based survey was designed to mirror the paper survey to obtain consistent responses between the two methods. The web survey was programmed using RSG's proprietary software, rSurvey, which allows for survey customization for each respondent to improve the quality of the data being collected and reduce respondent burden and fatigue. Initial e-mail invitations to the web survey and three subsequent reminders were sent to 60,233 recipients between November 1, 2016 and December 20, 2016. The list of recipients was primarily comprised of former Chicago Card users, and the e-mail blast was created using MailChimp, a cloud-based e-mail software. Reminder e-mails were sent to people who had not yet completed the survey. Each e-mail contained a web link with a unique password to ensure respondents could not take the survey more than once.

## **RESPONSE RATES**

Invitations to 60,233 valid e-mail addresses could be sent (i.e., ones that did not bounce due to outdated information, typos, etc.), resulting in 7,959 completed surveys, or a 13% response rate. This is slightly lower than the online recruit response rate from the 2014 survey (14%). Approximately 9,900 printed surveys were distributed onboard, resulting in 949 completed surveys or a 10% response rate. This is less than the onboard recruitment response rate from the 2014 survey (16%). Approximately 14% of the respondents recruited onboard a bus or train opted to complete the survey online, an increase from 2014 (10%). A total of 54 surveys were completed in a language other than English: 52 surveys were completed in Spanish; 2 in Polish. Final counts of completed surveys by recruitment type (i.e., whether the respondent was intercepted onboard or received an e-mail invitation) and completion method (i.e., whether the respondent completed a paper or online survey) is shown in Table 3-1. The vast majority of completes were obtained online (8,088) rather than via paper (820). Since over 90% of respondents were recruited via email and therefore fall into a socioeconomic and age class that has access to the internet and is familiar enough with technology to complete the survey online, some degree of selection bias cannot be ruled out.

**TABLE 3-1: SURVEY COMPLETES BY RECRUITMENT AND COMPLETION METHOD**

		Completion Method		
Recruitment Method		Paper	Web	Total
	Email	--	7,959	<b>7,959</b>
	Onboard	820	129	<b>949</b>
	<b>Total</b>	<b>820</b>	<b>8,088</b>	<b>8,908</b>

## MERGING AND CLEANING

Before the completed surveys could be weighted and analyzed, additional steps were first taken to accurately merge the paper and web-based data. Of importance was translating the primary route/line so respondents could be accurately grouped into a primary group/branch, which was the key data weighting and expansion variable. Many paper survey respondents gave both a primary bus route and primary train line. In this case they were assigned a primary route/line based on which one was under quota or, if both were over quota, then they were assigned to one of them randomly. Additionally, many paper survey respondents left the primary route/line question blank. If they gave information about other groups or lines they use regularly, this information was used to assign a primary route/line. If not, their unique survey password was matched with the surveyor count sheets to determine where the respondent received the survey, and this route/line was assigned as their primary. After extensive data cleaning, a total 820 paper surveys out of 863 were determined valid survey completes. The surveys deemed invalid are not included in the presentation of results.

## WEB DATA PROCESSING

Online survey respondents who reported they were not regular users of CTA bus or rail were asked demographic questions and then terminated from the survey. These 1,317 records are included in the dataset but were unable to be weighted/expanded and thus are not included in the results. Overall, 10,382 surveys were received. Not including the unusable paper data and demographic-only web data, 8,908 survey records were available to be weighted/expanded.

### 3.3 | DATA EXPANSION

Data weighting and expansion were applied to ensure that the survey sample accurately reflected CTA traveling population. To that end, data were expanded to match typical weekday ridership by bus route group/train branch. Ridership data from November and December 2015 were used to weight. These are the same data that were used to develop the sampling plan and the bus group and train branch definitions.

Table 3-2 shows the sample sizes and expansion factors associated with each bus group and train branch. All tabulations in the report were conducted using the expanded data. The Special bus group was not directly sampled, but some e-mail survey respondents reported a Special bus route as their primary route and therefore the group is represented.

Once processing and expansion were completed, all variables from the 2011 and 2014 datasets were made consistent with the 2016 dataset where possible and the datasets were merged together.



**TABLE 3-2: DATA EXPANSION TABLE**

Group or Branch		Average Weekday Ridership	Unweighted Sample	Expansion Factor
<b>Bus Groups</b>	Downtown	10,112	116	87.2
	Evanston	6,859	85	80.7
	Far South Side	37,082	147	252.3
	North Side East-West	114,497	375	305.3
	North Side Lake Shore Drive	37,374	459	81.4
	North Side-Downtown	63,443	551	115.1
	North-South Crosstown	210,022	557	377.1
	South Side East-West	118,520	325	364.7
	South Side Lake Shore Drive	33,368	323	103.3
	South Side-Downtown	64,908	367	176.9
	West Side East-West	118,534	403	294.1
	Special	9,059	21	431.4
<b>Train Branches</b>	Blue - Dearborn Subway	30,808	146	211.0
	Blue - Forest Park	31,466	262	120.1
	Blue - O'Hare	85,480	1007	84.9
	Brown	90,539	789	114.8
	Green - Lake	40,798	296	137.8
	Green - South Branches	18,493	183	101.1
	Orange	42,372	336	126.1
	Pink - Cermak	24,913	208	119.8
	Purple - Evanston	14,550	230	63.3
	Red - Dan Ryan	47,438	352	134.8
	Red - North Main	127,339	1197	106.4
	Red - State Subway	59,867	139	430.7
	Yellow - Skokie	2,159	34	63.5

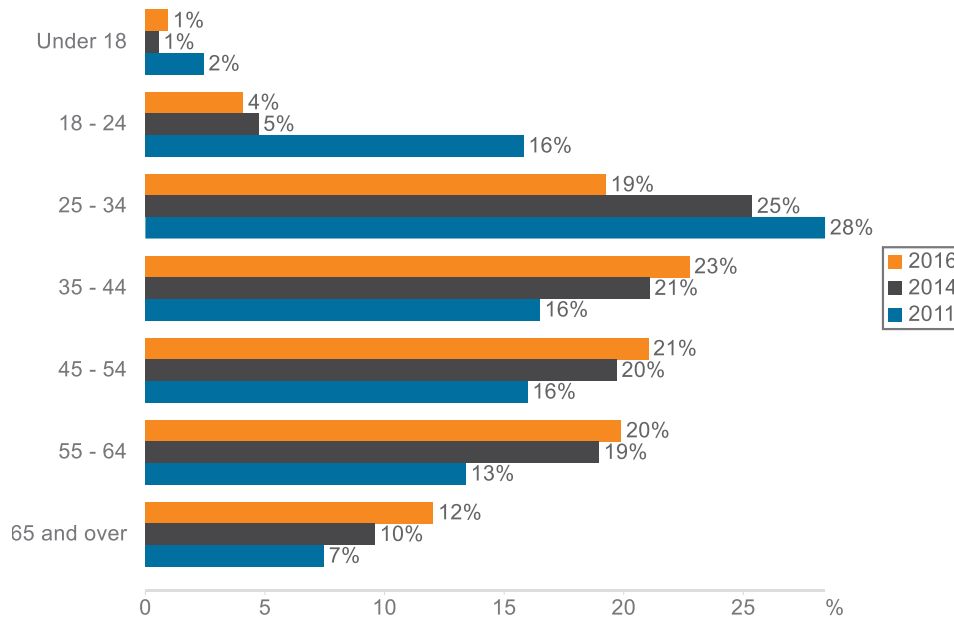
### 3.4 | RESULTS

This section presents select results of the 2016 CTA CSS and displays results such as demographic information, travel behavior and satisfaction with service attributes broken out by year. This is followed by a key driver analysis and quadrant charts for the 2016 results. Additional results, including results broken out by bus group and rail line, can be found in Appendix A.

## DEMOGRAPHICS BY YEAR

Like the 2014 study, 55% of respondents were female and 45% of respondents were male. As shown in Figure 3-5, nearly a quarter of respondents are between the age of 35 and 44 (23%). This age group comprises the largest share among respondents. Since 2011, the respondent base has increased in age, with each age group 35 years and older increasing year over year, and each age group 34 years old and younger decreasing or remaining constant year over year.

**FIGURE 3-5: AGE BY YEAR**

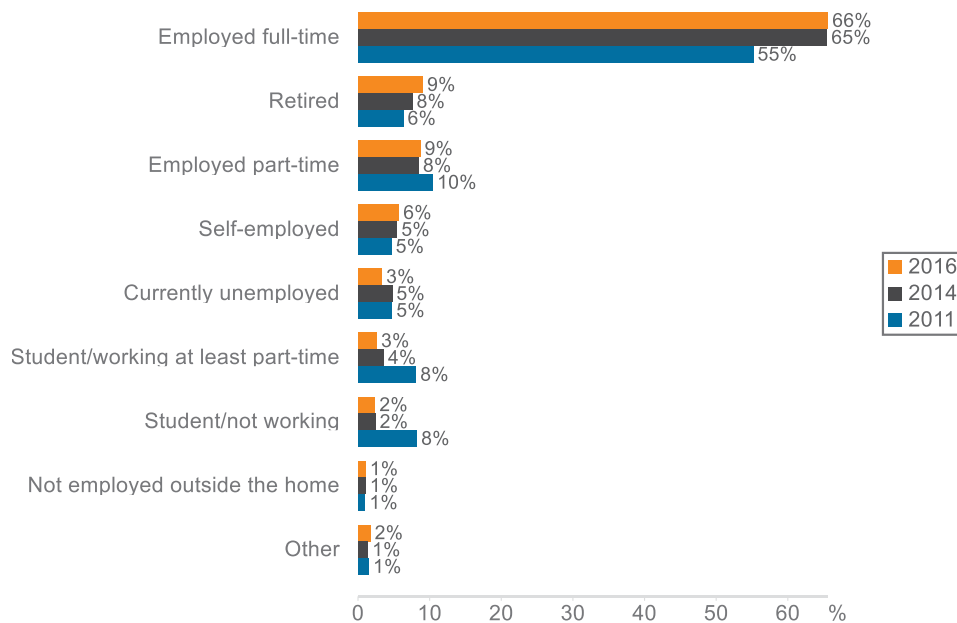


Consistent with 2014, most respondents are employed full-time (66%). In 2011 more students were surveyed, resulting in fewer full-time employees and more students than the studies in 2014 and 2016 (Figure 3-6).



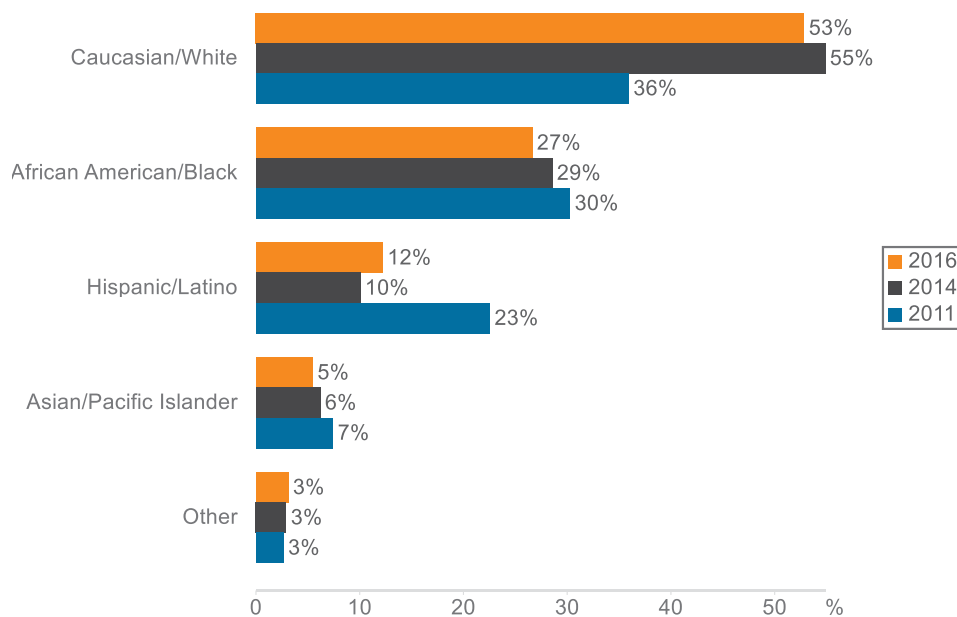


**FIGURE 3-6: EMPLOYMENT STATUS BY YEAR**



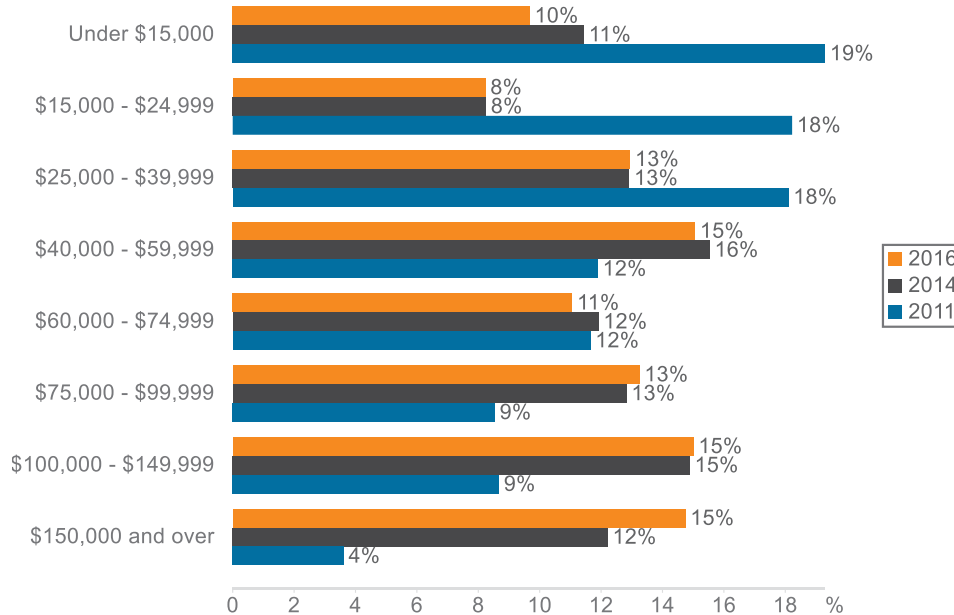
Consistent with 2014, a majority of respondents (53%) were Caucasian/White. The percentage of Caucasian/White respondents increased from 2011 to 2014, as the percentage of Hispanic/Latino respondents decreased.

**FIGURE 3-7: ETHNIC BACKGROUND BY YEAR (ALL THAT APPLY)**



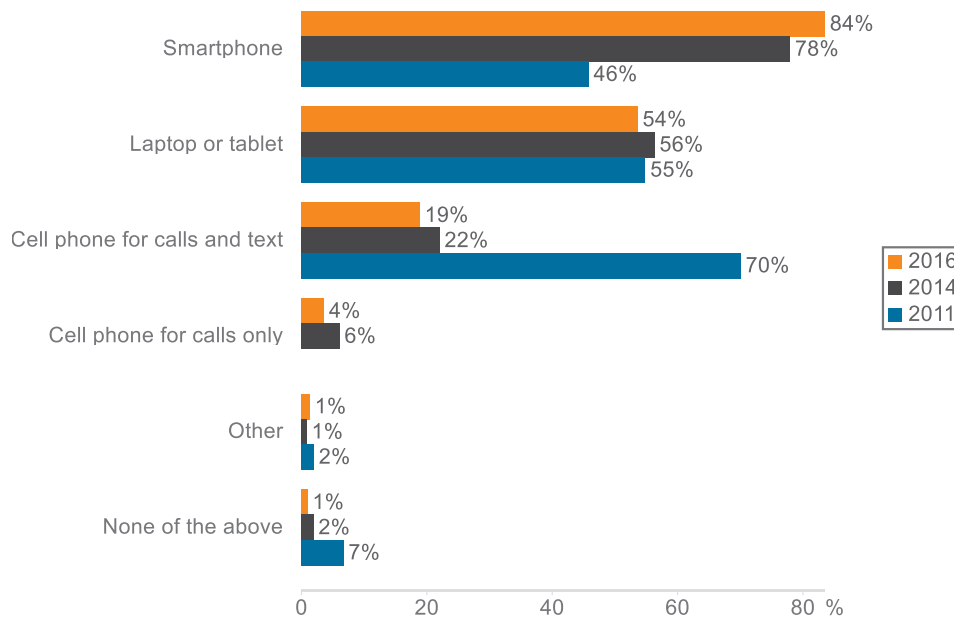
The annual household income among respondents remained consistent since 2014, with the only notable exception being a slight increase in respondents making \$150,000 or more per year.

**FIGURE 3-8: ANNUAL HOUSEHOLD INCOME BY YEAR**



Similar to 2014, the vast majority of respondents use a smartphone. Since 2011 the use of smartphones has continued to increase (from 78% to 84%).

**FIGURE 3-9: MOBILE DEVICE USE BY YEAR**

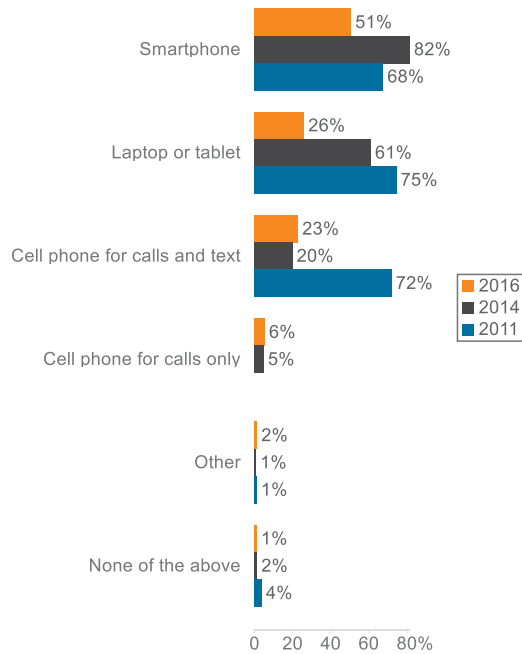


When segmenting the data by recruitment method, it is apparent that this increase in smartphone usage is not uniform across respondent type. Figure 3-10 shows the mobile device usage of onboard respondents only. For these respondents, the use of smartphones decreased (from 82% to 51%) since 2014. Figure 3-11 shows

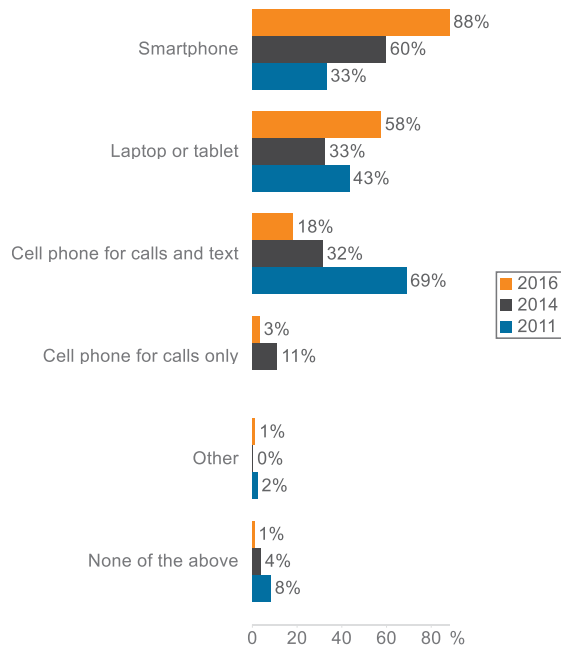


that the overall increase in smartphone usage shown in Figure 3-9 above is therefore largely driven by greater usage among e-mail respondents (60% in 2014 vs. 88% in 2016).

**FIGURE 3-10: MOBILE DEVICE USE OF ONBOARD RESPONDENTS BY YEAR**



**FIGURE 3-11: MOBILE DEVICE USE OF E-MAIL RESPONDENTS BY YEAR**



## TRAVEL BEHAVIOR AND TRIP CHARACTERISTICS BY YEAR

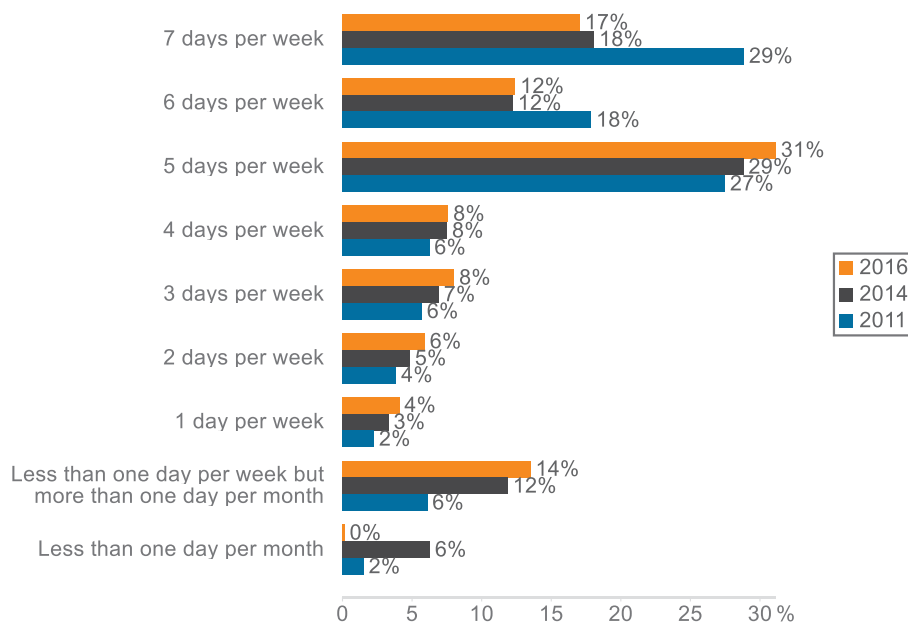
Table 3-3 shows the proportion of respondents who are dependent on CTA's service, because they have no other means of transportation for their trip, and those who choose to use the service. The majority of respondents (54%) indicated they have a car available for their trip but choose to use CTA (choice customers), while 31% indicated either they cannot drive or that they do not have a car available (dependent customers). A third group, comprising 14% of CTA's respondents, chooses not to own a car because they prefer to use transit instead (voluntary dependent customers). This group has remained relatively constant in size since 2011, while choice riders have increased, and dependent riders have decreased since 2011.

**TABLE 3-3: CUSTOMER DEPENDENCY ON TRANSIT BY YEAR**

Customer Dependency on Transit	Year		
	2016	2014	2011
Choice Rider	54%	56%	44%
Dependent Rider	31%	31%	41%
Voluntary Dependent Rider	14%	14%	15%

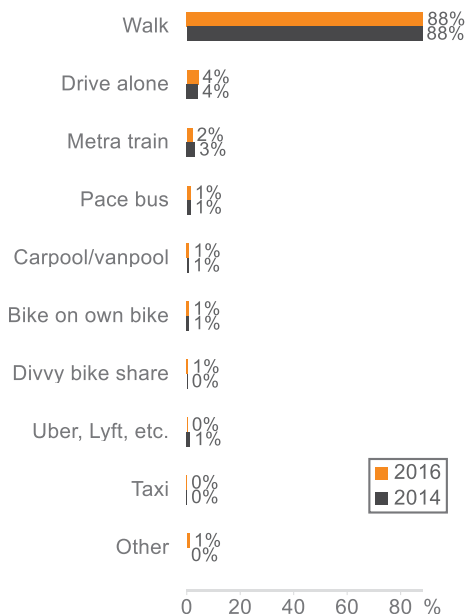
The majority of respondents (60%) use CTA 5 days or more per week, a finding consistent with 2014 when 59% of respondents used CTA 5 days or more per week. However, respondents are riding less frequently than 2011, when nearly half of respondents indicated using CTA six or seven days per week. In 2016 and 2014, less than one-third of respondents reported using CTA six or seven days per week.

**FIGURE 3-12: RIDERSHIP FREQUENCY BY YEAR**

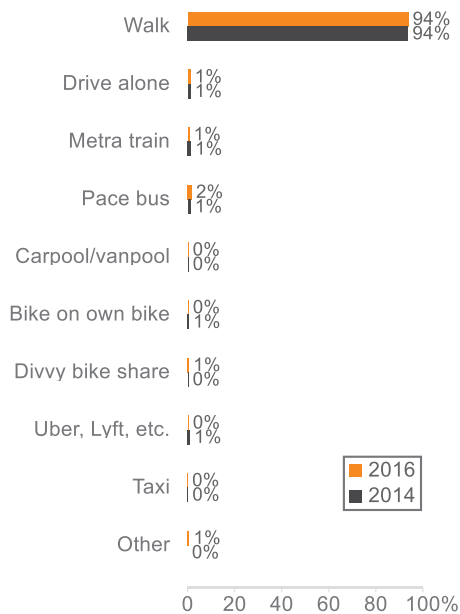




**FIGURE 3-13: ACCESS MODE BY YEAR**



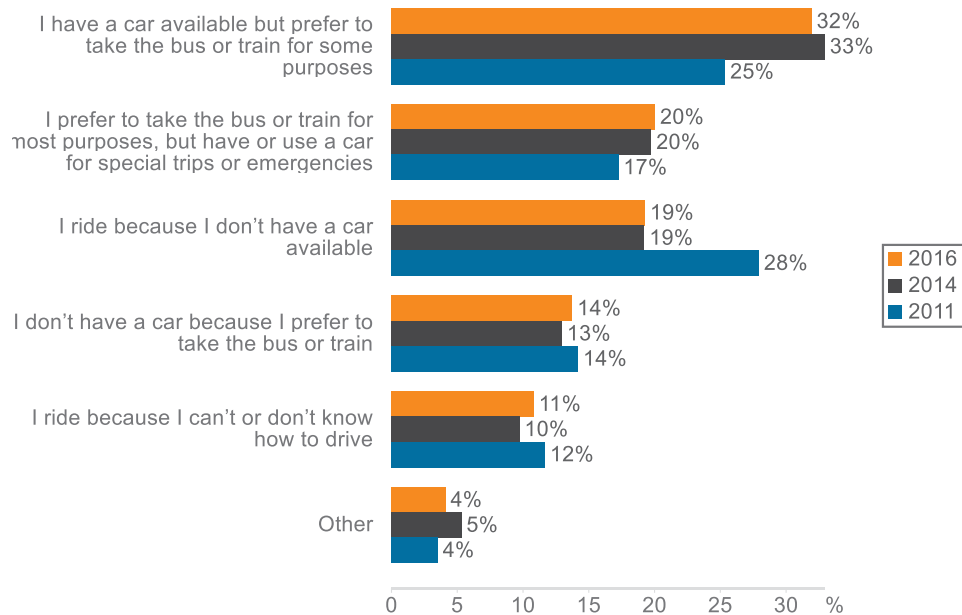
**FIGURE 3-14: EGRESS MODE BY YEAR**



Access and egress modes in 2016 are nearly unchanged from 2014: In both years, 88% of respondents reported accessing CTA service by walking and 94% of respondents reported walking from a CTA bus stop or train station to their destination. Access and egress mode data were not collected in 2011.

A majority of CTA's respondents (52%) have a car or have access to a car, but prefer to take the bus or train for some or most purposes. For nearly one third of respondents, the primary reason for riding CTA is a preference to take the bus or train for some purpose, even though a car is available to them, a finding consistent with 2014 (Figure 3-15).

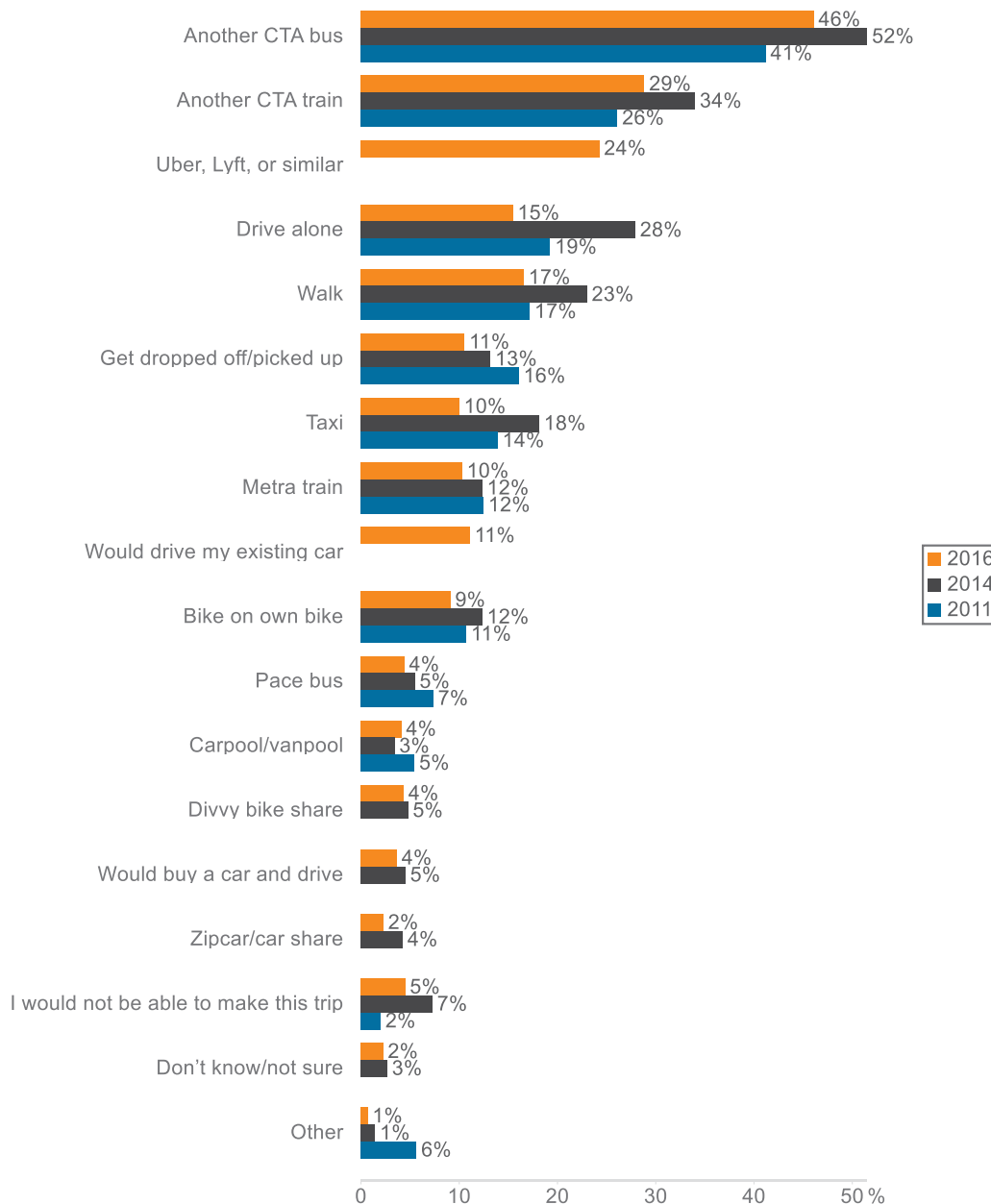
**FIGURE 3-15: PRIMARY REASON FOR RIDING CTA BY YEAR**





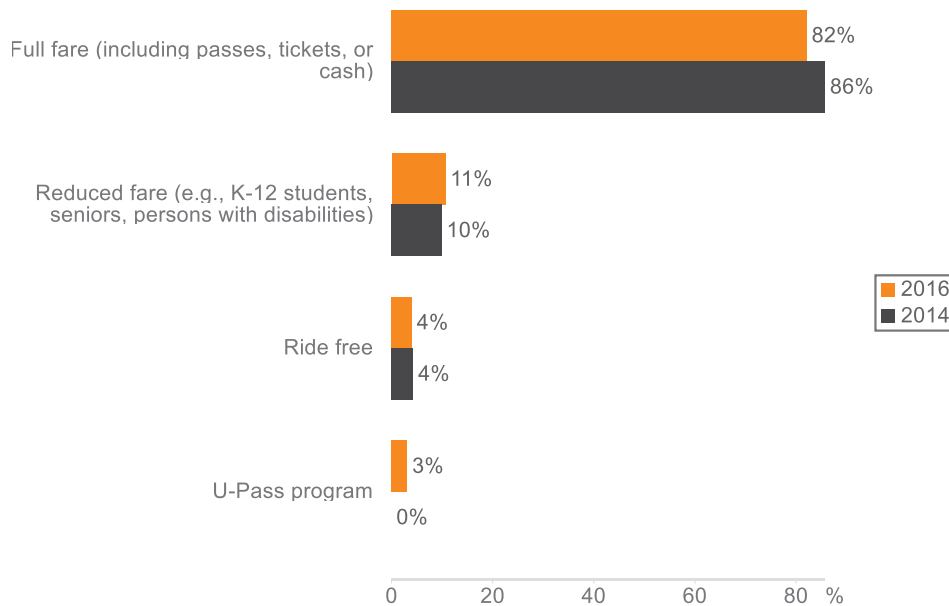
As shown in Figure 3-16, if confronted with a disruption to normal service most respondents would be able to substitute their regular mode by using another CTA bus (46%) or another CTA train line (29%). This represents a 11 percentage-point decrease year over year in a CTA transit option as an alternative. The new options that appeared on the 2016 survey for the first time (Uber, Lyft or similar and would drive my existing car) are popular as alternative modes with 24% of respondents indicating they would substitute their regular mode by using Uber, Lyft or a similar service.

**FIGURE 3-16: ALTERNATIVE MODE BY YEAR (ALL THAT APPLY)**



As shown in Figure 3-17, the percent of respondents paying each fare type to access CTA service remained relatively unchanged from 2014. The large majority of respondents (82%) pay the full fare amount, 11% pay a reduced fare because of student, senior, or disability status, 4% ride CTA for free, and 3% are enrolled in the U-Pass program.

**FIGURE 3-17: FARE TYPES BY YEAR**



Respondents who indicated that they used Ventra were asked how they reload their Ventra Card. Figure 3-18 shows that nearly one third of respondents reload their card through VentraChicago.com, nearly one quarter of respondents reload their card through the Ventra App and a slightly smaller percentage use train station vending machines.





**FIGURE 3-18: VENTRA RELOAD METHOD**

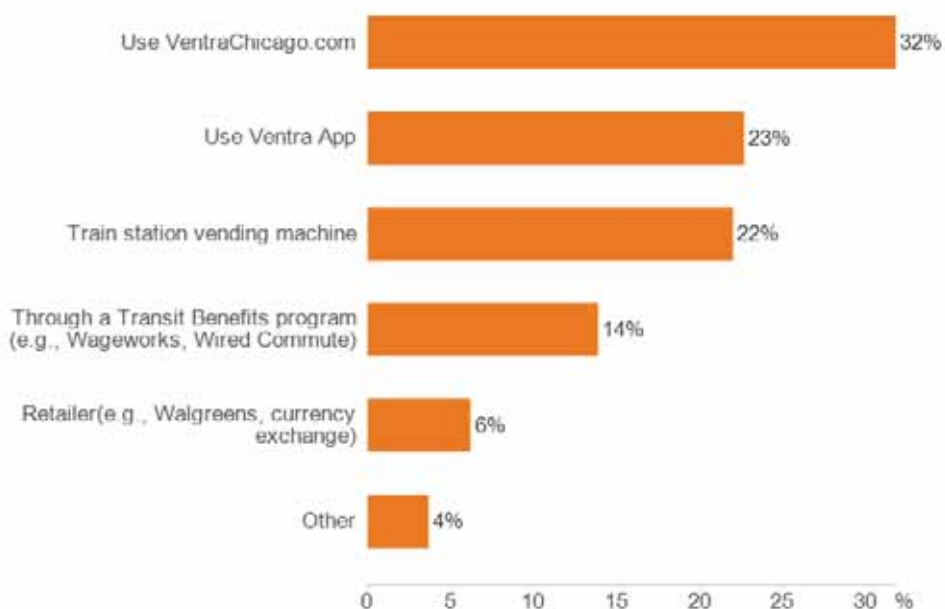
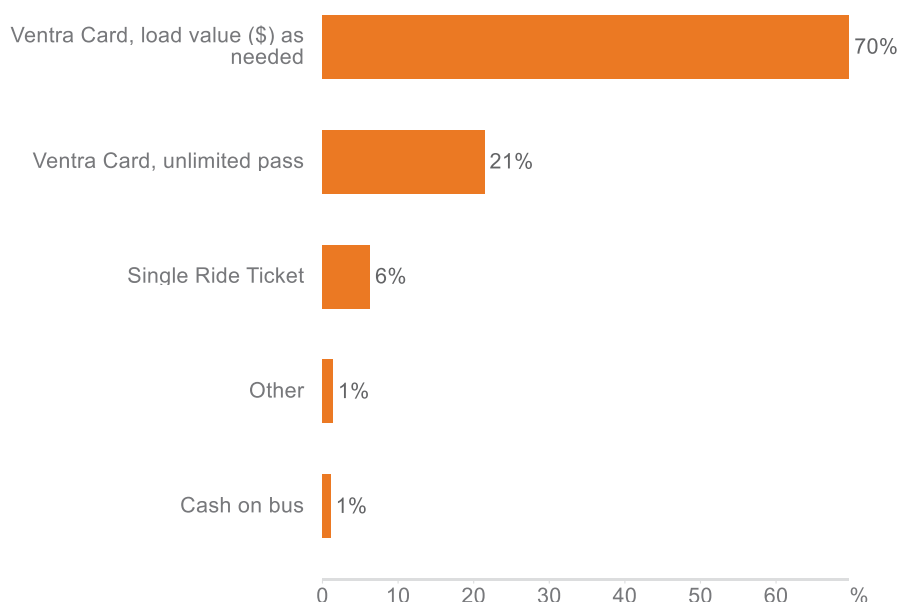


Figure 3-19 shows that the majority of Ventra Card users (70%) load money onto the card as it is needed, 21% use an unlimited pass, and 6% purchase a Single Ride Ticket.

**FIGURE 3-19: FARE PAYMENT WITH VENTRA**

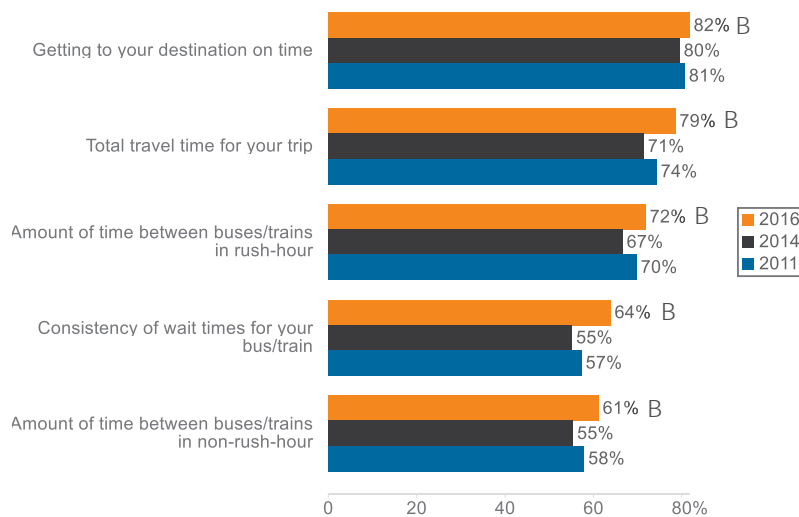


## SATISFACTION BY YEAR

Results in this section show how satisfaction with attributes has changed year over year for CTA respondents. For these yearly results, statistical tests were run to compare levels of satisfaction between 2014 and 2016.

Statistically significant changes between 2014 and 2016 are indicated with a “B” next to the 2016 results. Figure 3-20 shows customer satisfaction with each of the attributes in the Service Delivery category. The majority of respondents are satisfied with getting to their destination on time when riding on CTA’s system (82%). However, respondents are less satisfied with the number of buses/trains during off-peak hours and wait time consistency. This pattern is similar to results found in the previous two studies. Of note, satisfaction with each of the Service Delivery attributes increased in 2016 compared to both 2014 and 2011, especially for consistency of wait times (9 percentage points increase over 2014) and total travel time (8 percentage points increase over 2014).

**FIGURE 3-20: SERVICE DELIVERY BY YEAR**

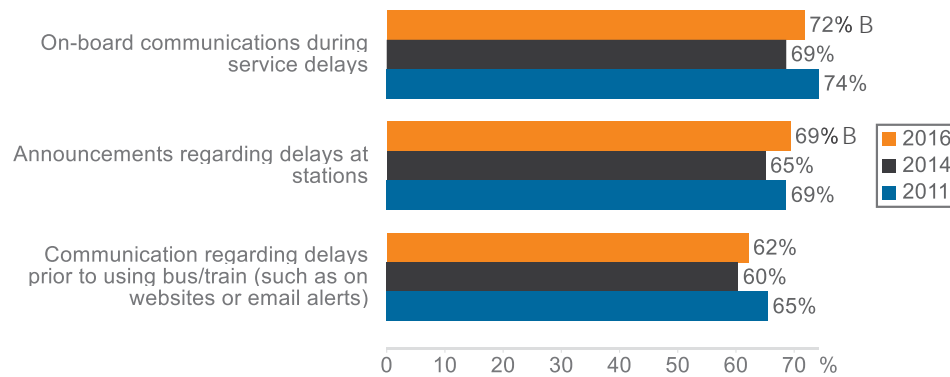


*Note: B indicates a statistically significant change between 2016 and 2014*

Consistent with results of the 2014 survey, among communication attributes, respondents are most satisfied with announcements at stations or on-board vehicles, and satisfied (although somewhat less so) with communications regarding delays prior to using the bus or train. Again, satisfaction with each item in this category increased between 2014 and 2016.



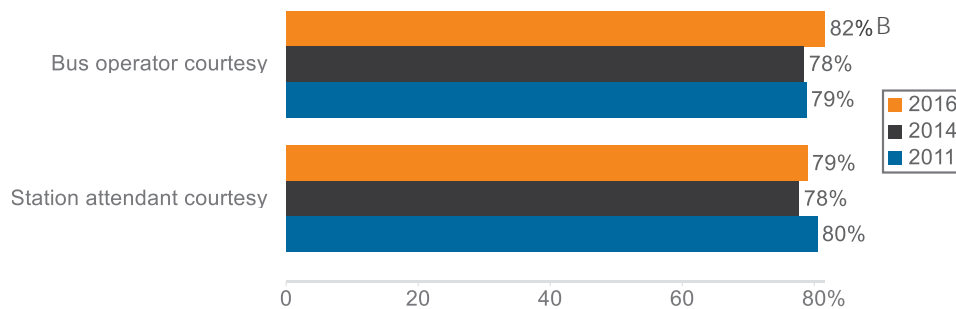
**FIGURE 3-21: COMMUNICATIONS ON BUS/TRAIN BY YEAR**



*Note: B indicates a statistically significant change between 2016 and 2014*

Figure 3-22 illustrates customer satisfaction with the attributes in the employee performance service category. Overall customer satisfaction is high within this category, with both bus operator courtesy and station attendant courtesy increasing since 2014.

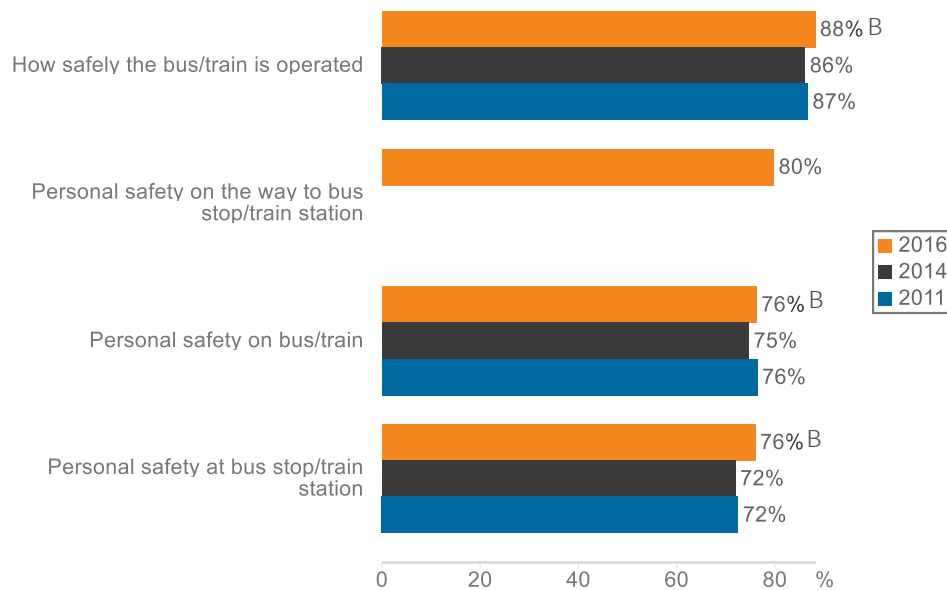
**FIGURE 3-22. EMPLOYEE PERFORMANCE BY YEAR**



*Note: B indicates a statistically significant change between 2016 and 2014*

Customer satisfaction with each of the attributes in the personal safety service category can be seen in Figure 3-23. Overall, a large majority of respondents are satisfied with how safely the bus or train is operated. However, respondents are somewhat less satisfied with personal safety at stations or onboard. A new category added in 2016 shows that respondents are more satisfied with their personal safety on the way to the bus or train station (80%) than on the bus or train (76%) or at the bus stop or train station (76%).

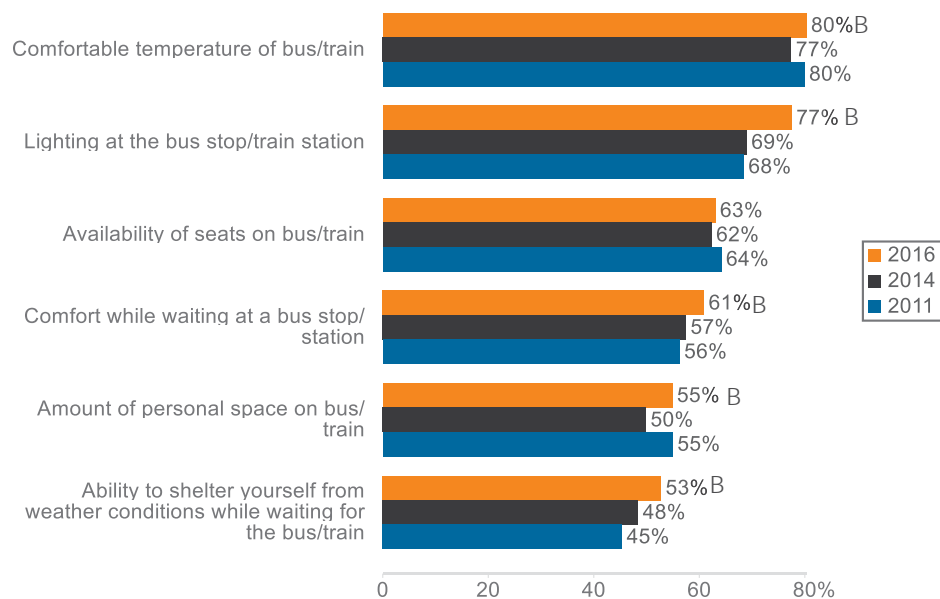
**FIGURE 3-23: PERSONAL SAFETY BY YEAR**



*Note: B indicates a statistically significant change between 2016 and 2014*

Customer satisfaction with each of the attributes in the comfort service category is shown in Figure 3-24. Consistent with the previous study, respondents are less satisfied with attributes in this service category than with other service categories. Satisfaction has increased from 2014 and 2011 for all comfort attributes with the biggest improvement in the area of lighting at the bus stop or train station (8 percentage-point increase over 2014).

**FIGURE 3-24: COMFORT WHILE RIDING BY YEAR**

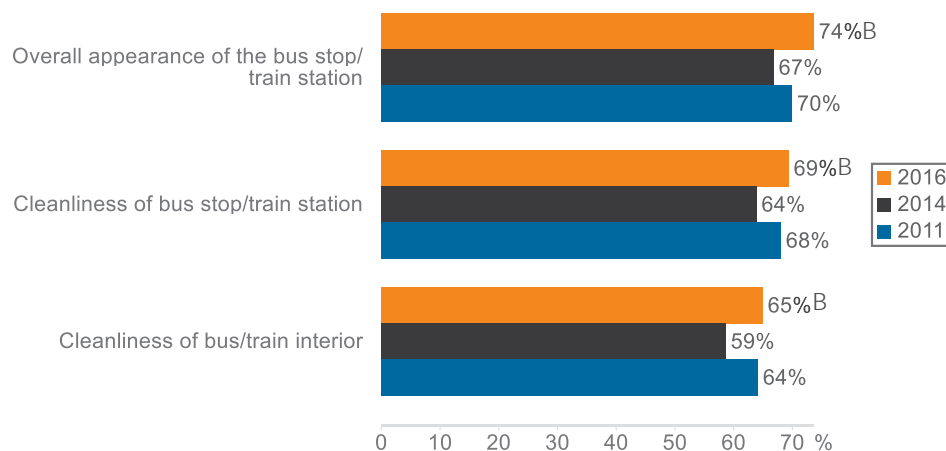


*Note: B indicates a statistically significant change between 2016 and 2014*



Figure 3-25 illustrates customer satisfaction with each of the attributes in the appearance service category. After a decrease in satisfaction from 2011 to 2014, levels of satisfaction with all attributes increased and now exceed 2011 levels of satisfaction. Even so, appearance was one of the lower-rated categories in 2016, which is consistent with results from the previous studies.

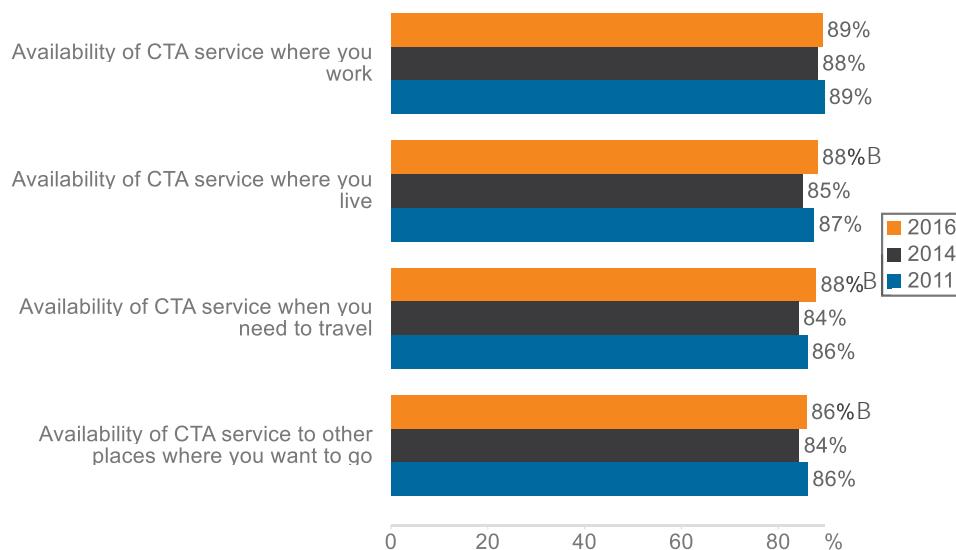
**FIGURE 3-25: APPEARANCE BY YEAR**



*Note: B indicates a statistically significant change between 2016 and 2014*

Figure 3-26 displays customer satisfaction with each of the attributes in the access to service category. Respondents are generally very satisfied with their access to CTA's services, with attributes rating higher on average than attributes from other service categories. Additionally, the rating for each attribute has improved since the previous study.

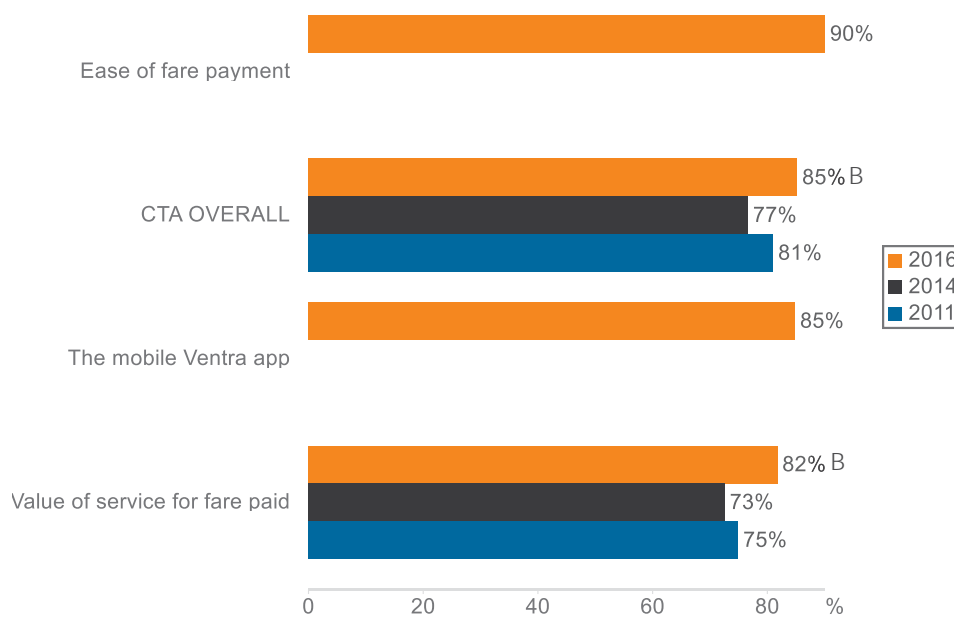
**FIGURE 3-26: ACCESS TO SERVICE BY YEAR**



*Note: B indicates a statistically significant change between 2016 and 2014*

Ratings for overall satisfaction with CTA services are shown in Figure 3-27. 85% of respondents are satisfied with service overall, indicating that a substantial majority are content with the services that CTA provides. The overall level of satisfaction jumped by seven percentage points since 2014, indicating that respondents are substantially more satisfied than they were in 2014. The satisfaction of the attribute value of service for fare paid has increased by nine percentage points from 2014, and is now 82%. The 2016 survey also inquired about the ease of fare payment and the mobile Ventra app for the first time, both of which received high satisfaction scores among respondents. Some increase in overall satisfaction is attributed to the timing of the 2014 study being conducted soon after the Ventra release when initial roll-out issues may have resulted in lower reported customer satisfaction.

**FIGURE 3-27: OVERALL SATISFACTION AND VALUE BY YEAR**



*Note: B indicates a statistically significant change between 2016 and 2014*

Table 3-4 shows CTA customer loyalty, which is measured by whether respondents would recommend using CTA to others. Overall, 91% of respondents would recommend CTA's services, an increase from 87% reported in 2014.

**TABLE 3-4: LIKELIHOOD TO RECOMMEND CTA TO OTHERS BY YEAR**

Likely to Recommend CTA to Others	Year		
	2016	2014	2011
Likely to Recommend CTA to Others	91%	87%	90%



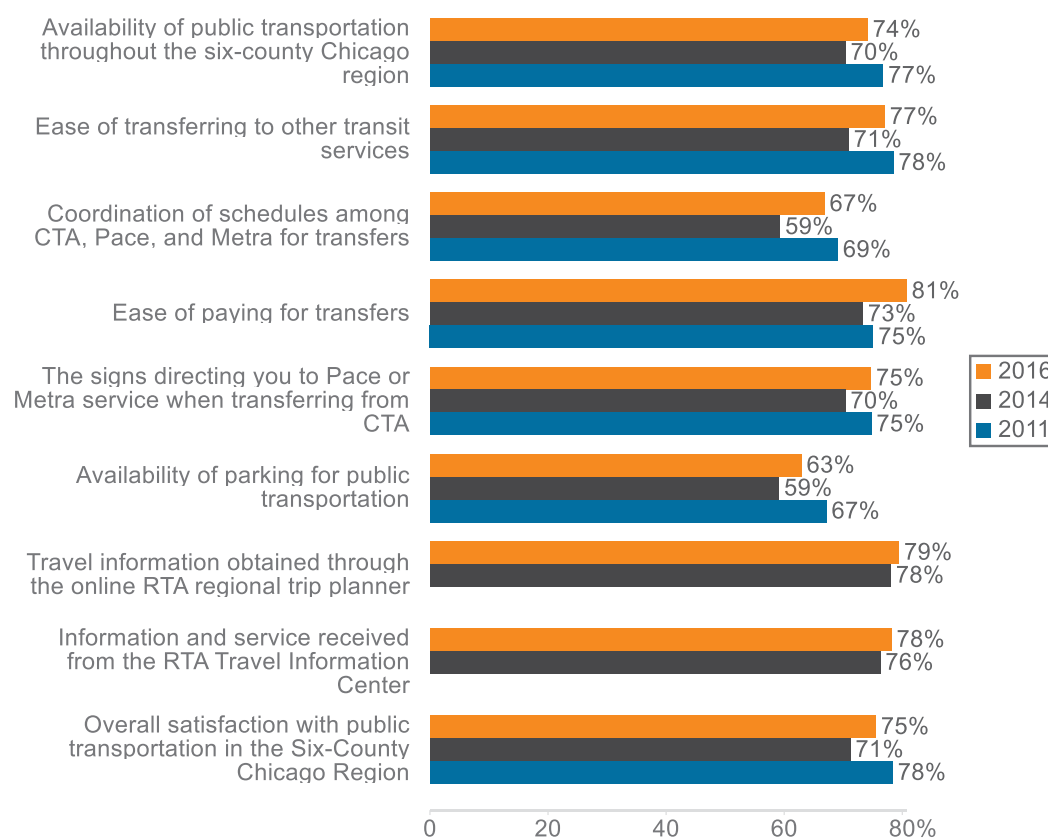
Similarly, Table 3-5 shows that 80% of respondents feel that CTA is meeting their expectations for overall service, which has increased 8 percentage points from 72% in 2014 and now exceeds ratings obtained in 2011.

**TABLE 3-5: MEETS OR EXCEEDS CUSTOMER EXPECTATIONS BY YEAR**

Meets or Exceeds Customer Expectations of Performance	Year		
	Column %	2016	2014 2011
Meets or Exceeds Customer Expectations of Performance	80%	72%	79%

Figure 3-28 illustrates customer satisfaction with each of the attributes in the regional transit service category. In general, CTA respondents are satisfied with regional transit, with 75% satisfied overall, which is an increase from the 2014 study results. Satisfaction in all categories has increased from 2014, and the ease of paying for transfers has increased six percentage points since 2011.

**FIGURE 3-28: REGIONAL PUBLIC TRANSIT BY YEAR**



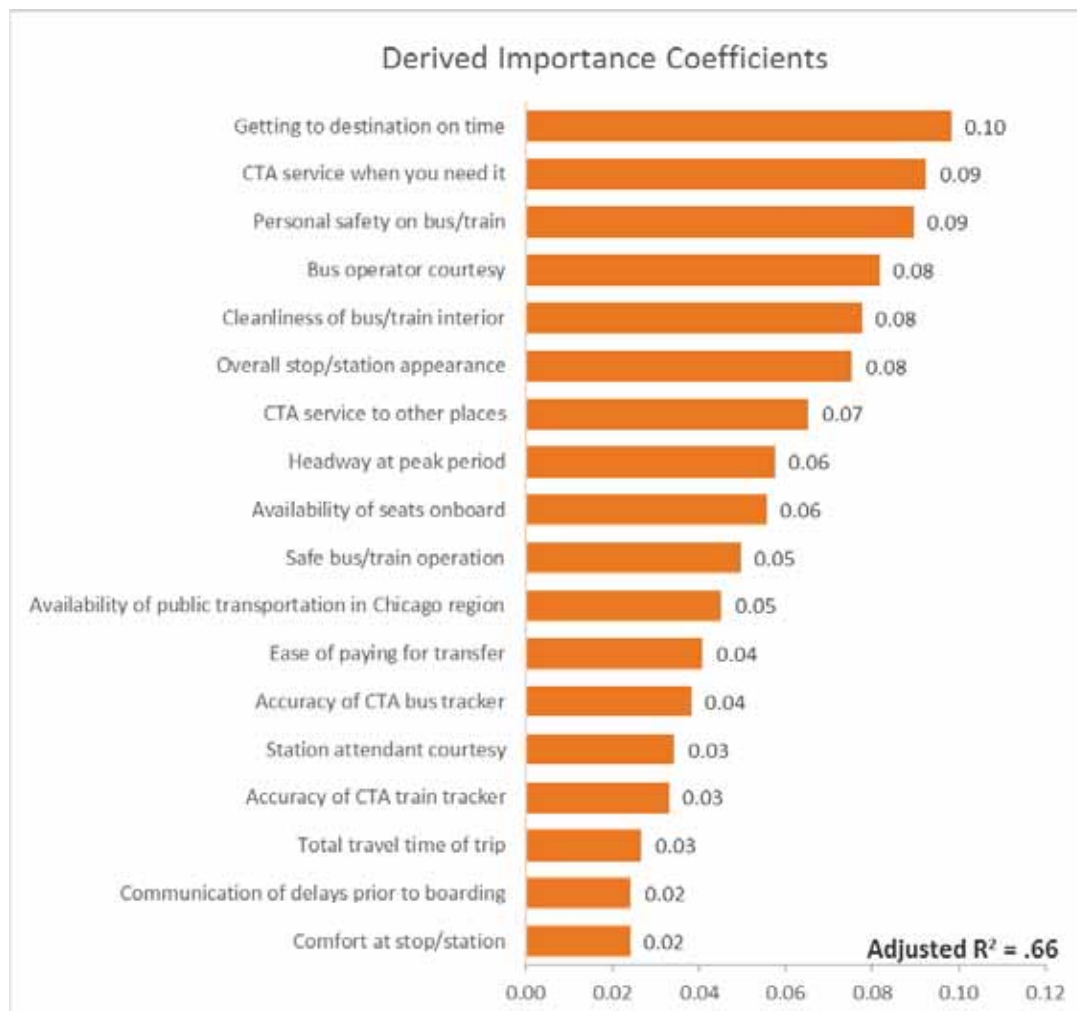
## KEY DRIVERS OF OVERALL SATISFACTION

Derived importance measures are found by statistically testing the strength that a collection of attributes has on influencing overall satisfaction. Calculating coefficients instead of using stated importance data considerably improves the clarity in answering which service attributes are the most important drivers of

overall satisfaction. Derived importance can help further understand the underlying factors driving overall customer satisfaction that a respondent may not explicitly state.

For this analysis, individual and regional service attributes were modeled as predictors that influence overall satisfaction with CTA. Consistent with the derived importance analysis of other service boards, the value of service for fare paid is considered a measure of overall satisfaction and was excluded from the model. A multiple regression model was developed using a backward step iterative process. In this approach, 31 service attributes and eight regional attributes were entered into the linear equation. Variables were removed if they were shown not to significantly influence overall satisfaction. If any variable did not increase the overall predictive power of the model, it was also eliminated from the equation. With an adjusted R<sup>2</sup> of 0.66, the final regression yielded eighteen of the initial thirty-nine service and regional attributes. The eighteen attributes shown in Figure 3-29 significantly influence respondents' overall satisfaction with CTA. The magnitude of each derived importance coefficient is a measure of the importance of the service attribute in determining respondents' overall satisfaction with CTA.

**FIGURE 3-29: 2016 DERIVED IMPORTANCE COEFFICIENTS**



In determining their overall satisfaction with CTA, arriving to their destination on time is the most important service attribute for respondents, a fact that remains unchanged from 2014. Availability of CTA service when





customers need to travel is the second most important service attribute driving customers' overall satisfaction. Personal safety on the bus or train is the third most important service attribute driving customers' overall satisfaction, but was ranked ninth in the 2014 study.

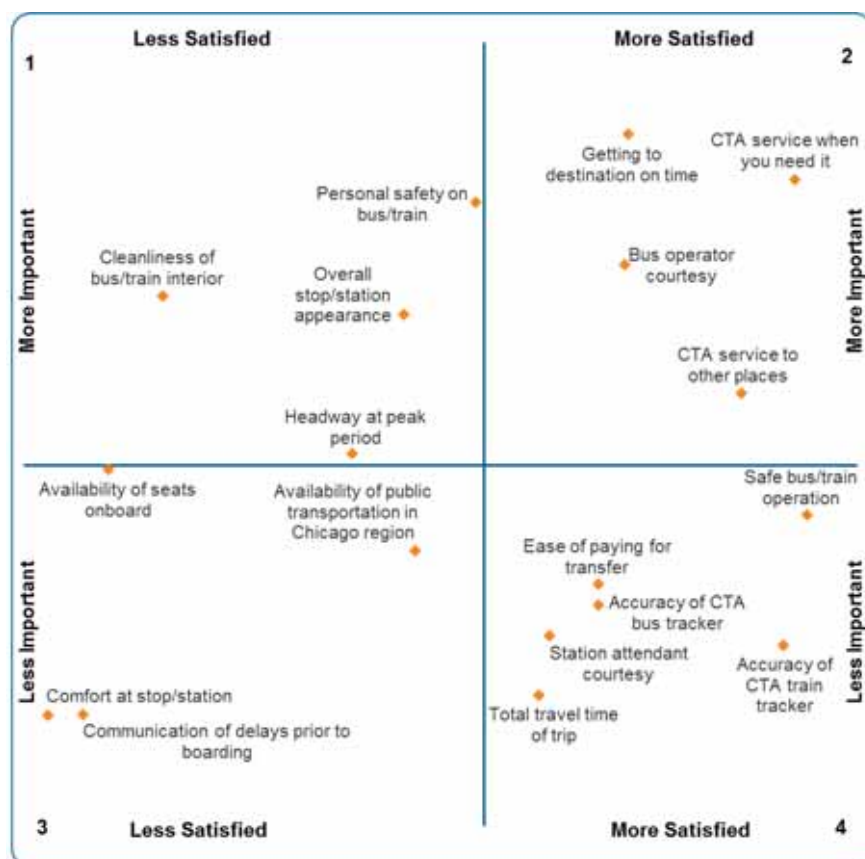
## QUADRANT CHARTS

A quadrant chart maps the derived importance and satisfaction of the 18 service and regional attributes identified above. These mapped points will provide insight as to where CTA should focus their efforts to maximize customer satisfaction. The Y-axis (vertical) measures importance and the X-axis measures attribute satisfaction. Both axes are split at their means, thus creating the four quadrants. Table 3-6 outlines what each quadrant represents and the appropriate action required by CTA to maximize customer satisfaction.

**TABLE 3-6: UNDERSTANDING QUADRANT CHARTS**

QUADRANT	LOCATION	SATISFACTION LEVEL	IMPORTANCE	ACTION
1	Top left	Relatively low	Relatively high	Attributes for improvement
2	Top right	Relatively high	Relatively high	Attributes to maintain
3	Bottom left	Relatively low	Relatively low	Attributes to monitor
4	Bottom right	Relatively high	Relatively low	Attributes with no immediate action

**FIGURE 3-30: KEY DRIVERS OF OVERALL SATISFACTION QUADRANT CHART**



The top-right quadrant contains attributes that are both important and performing better than mean satisfaction. CTA is currently meeting respondents' expectations with four attributes, getting to your destination on time, bus operator courtesy, availability of CTA service to other places where you want to go, and availability of CTA service when you need to travel. Maintaining the quality of these four service attributes should be a priority going forward.

The top-left quadrant contains attributes that are also important, but have satisfaction scores below the mean. When considering improvements to service, cleanliness of the bus or train interior, overall appearance of the bus stop or train station, personal safety on the bus or train, and the amount of time between buses or trains in rush-hour should be prioritized. Two of the four attributes identified as a priority for improvement in 2016 were also identified as a priority in 2011 and 2014: cleanliness of the bus or train interior and overall appearance of the bus stop or train station. A more concerted effort to address these priorities will likely improve customer satisfaction with CTA overall.

### **3.5 | CONCLUSION**

Overall, CTA's respondents are quite satisfied with the service, with 85% of respondents indicating that they are "satisfied" or "very satisfied." Most respondents feel that CTA is meeting their expectations and would recommend it to others. Since the 2014 study, satisfaction has increased in most attributes, as well as expectations of service and likelihood to recommend. The most important attributes influencing customer satisfaction are getting to the destination on time, service when the customer needs it, and personal safety on the bus or train. Satisfaction with these three attributes increased since 2014. Taken together, these results suggest that CTA riders are satisfied with CTA services, and that they perceive improvements in the level of service they have received since the last CSS was conducted in 2014.



## 4.0 METRA SURVEY

### 4.1 | SURVEY DESIGN

The 2016 Metra CSS was similar in approach to a 2015 study (which was conducted independently of the system-wide RTA customer satisfaction study) in that it was fielded entirely online. This approach was different from the 2014 and 2011 system-wide RTA studies, where Metra used a combination of onboard and online recruitment. In addition to the regional attributes that were part of each Service Board's survey, Metra measured a set of thirty-one attributes across seven service dimensions (see Figure 4-1 for a partial screenshot of the Cleanliness and Comfort satisfaction attributes).

**FIGURE 4-1: PARTIAL SCREENSHOT OF ATTRIBUTE SATISFACTION QUESTIONS IN METRA WEB SURVEY**

**2016 CUSTOMER SATISFACTION SURVEY**

Please rate your satisfaction with Metra service.  
Think about the last few trips you took on Metra and please indicate your satisfaction with the following features using a scale of 1-10. If the question does not apply to you, enter "N/A"

**Cleanliness & Comfort**

How satisfied are you with...	Very dissatisfied		Dissatisfied			Satisfied			Very satisfied		N/A
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Cleanliness of boarding station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness of destination station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Specifically, the service dimensions that were included in the survey consisted of:

- Service Delivery
- Safety
- Information and Communications
- Cleanliness and Comfort
- Employees' Performance
- Overall Service
- Likelihood to Recommend

In addition to the customer satisfaction questions, the survey also asked respondents to rank the attributes that are most important to them (see Figure 4-2).

**FIGURE 4-2: SCREENSHOT OF PART OF METRA RANKING QUESTION**

The screenshot shows a survey interface with a green header bar. On the left is a circular logo with a blue and orange design. To its right is a blue banner with the text "2016 CUSTOMER SATISFACTION SURVEY" in white and yellow. Below the header, the instructions read: "Please select and rank the three items that are most important to you. After you make a selection, it will disappear from the list. Please continue ranking the items until you have selected your top three." A list of 15 attributes is displayed, each in a white box with a grey border. The attributes are: Notification of service changes, How safely the train is operated, Onboard announcement of stations while riding, Station personnel courtesy at station, Comfort while waiting at station, Availability of schedule/route information, Getting to destination on time, The number of scheduled trains in rush hour, Onboard communications during service delays, Accuracy of train tracker, Clarity of signage at station, Announcements of delays at station, Station personnel knowledge of system to assist me, and Ease of ticket purchase. The first three items are slightly more prominent than the others.

Responses to this question provide insight about survey respondent priorities, including which attributes could be expected to improve the customer experience given how much importance riders give to an attribute. For example, survey respondents may not be very satisfied with an attribute (e.g., the availability of parking for public transit), but they also may not feel it is very important, thus the agency may want to focus its efforts more on improving satisfaction with a category that survey respondents view as an important aspect of service. Attribute ratings and a derived importance analysis can be found in the Drivers of Satisfaction subsection of the results presented on page 74. All responses in the web survey were validated to ensure respondents answered each question and that the response made logical sense. For example, an upper limit of 200 trips per month was set on the number of trips a respondent could report taking on Metra each month. If a respondent provided a number higher than 200 trips, an error message was displayed directing them to revise their answer.

## 4.2 | SURVEY ADMINISTRATION

The web-based survey was programmed using RSG's proprietary software, which allows for survey customization for each respondent to improve the quality of the data being collected while also reducing respondent burden and fatigue. Skip logic and customized question text were implemented based on answers to previous questions. For example, survey respondents who did not drive to access Metra were not shown the follow-up questions asking about parking fees.

The primary recruitment effort consisted of e-mailing survey invitations to Metra's service alert customer list and their marketing database. E-mail invitations were sent at the beginning of November 2016. This was



followed by three reminders (November 10th, November 17, and December 6, 2016) sent only to those on the contact list who had not completed the surveys by those dates. Additionally, survey invitations were included in Metra's "On the Bi-Level" passenger newsletter and an open link was posted on Metra's website and on the general Twitter feed, as well as the service alert Twitter feed for each line. It should be noted that since all respondents completed the survey online, they fall into a socioeconomic and age class that has access to the internet and is familiar enough with technology to complete the survey online, and some response bias cannot entirely be ruled out. Even so, the results provide a robust snapshot of how Metra is faring and how satisfaction has changed over the years.

## RESPONSE RATES

In total, the recruitment effort yielded 9,711 valid responses. The e-mail invitations were sent to roughly 64,414 valid e-mail addresses and resulted in 8,474 completed surveys, which translates into a response rate of 13%. An additional 1,237 respondents completed the survey through an open link. Specifically, 520 responses were obtained through an open link posted on the general or line-specific Twitter feeds, 513 completed surveys were obtained through the open link posted on Metra's website and a smaller number of completes were obtained from placing announcements with the open link in the newsletter (n = 142) or on Facebook (n = 62). Please note that the response rate of the open link recruitment methods cannot be calculated.

**TABLE 4-1: METRA 2016 COMPLETES BY RECRUITMENT SOURCE**

Recruitment Source	Survey Completes
Email Invitation	8,474
Twitter	520
Metra Homepage	513
Newsletter	142
Facebook	62
<b>Total</b>	<b>9,711</b>

## DATA EXPANSION

The survey data were expanded to average weekday boardings by line from July 2015 through June 2016, based on data reported in the 2017 Budget and Program Book. This expansion process allows for an accurate representation of Metra's respondents and ensures that oversampled lines (e.g., Metra/Union Pacific Northwest) are not overrepresented in the results. It should be noted that three lines, Metra/Heritage Corridor, Metra/SouthWest Service, and Metra/North Central Service, have limited service compared to the other lines and as a result have relatively fewer survey completes. All tabulations in the report were conducted using the expanded data.

**TABLE 4-2: RIDERSHIP DATA, SAMPLE COMPOSITION, AND EXPANSION FACTOR**

Metra Line	Average Weekday Ridership (July 2015-June 2016)	Percent of Total Ridership	Unweighted Sample	Survey Proportion (Completes for Line/Total Completes)	Expansion Factor
MED - Metra Electric District (University Park)	32,800	11.1%	635	6.5%	51.7
RI - Metra/Rock Island District (Joliet)	29,800	10.1%	979	10.1%	30.4
SWS - Metra/SouthWest Service (Manhattan)	9,900	3.4%	427	4.4%	23.2
HC - Metra/Heritage Corridor (Joliet)	2,400	0.8%	185	1.9%	13.0
BNSF - Metra/BNSF (Aurora)	65,300	22.2%	2,040	21.0%	32.0
UP-W - Metra/Union Pacific West (Elburn)	27,200	9.2%	944	9.7%	28.8
MD-W - Metra/Milwaukee District West (Elgin)	22,300	7.6%	777	8.0%	28.7
UP-NW - Metra/Union Pacific Northwest (Harvard)	40,700	13.8%	1,620	16.7%	25.1
NCS - Metra/North Central Service (Antioch)	5,800	2.0%	328	3.4%	17.7
MD-N - Metra/Milwaukee District North (Fox Lake)	22,900	7.8%	784	8.1%	29.2
UP-N - Metra/Union Pacific North (Kenosha)	35,500	12.1%	992	10.2%	35.8
<b>Total</b>	<b>294,600</b>	<b>100%</b>	<b>9,711</b>	<b>100%</b>	

## 4.3 | RESULTS

In this section, selected results from the 2016 Metra CS study are presented and compared to the 2011 and 2014 studies, where appropriate. When the 2016 data are shown in total and not broken out by other variables, there is an overall margin of error of +/- 1.0 at the 95% confidence level.

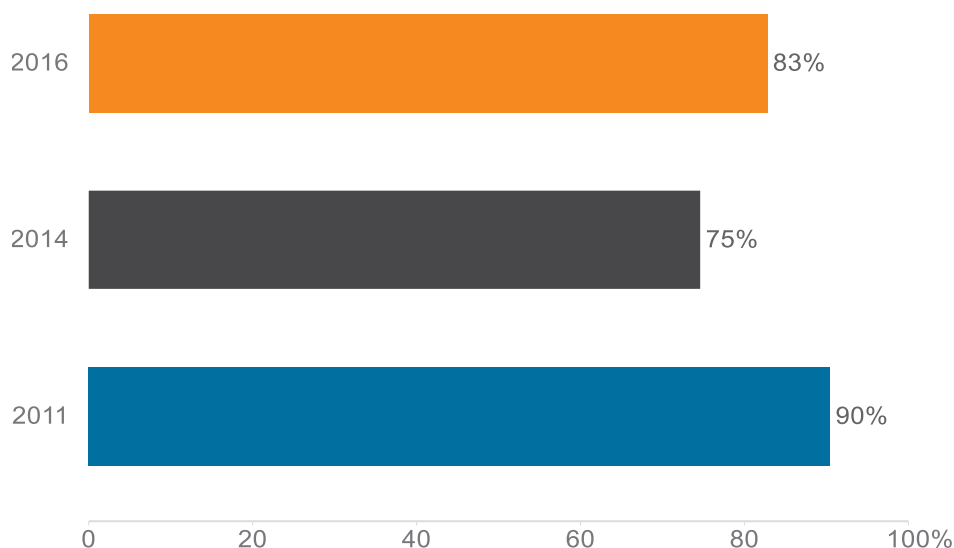
### RESULTS BY YEAR

The following section presents the satisfaction of attributes as measured in 2011, 2014 and 2016. The year-over-year analysis in this section primarily focuses on changes between 2014 and 2016, the period after the significant fare increase in 2012.

This year saw an increase in overall satisfaction among Metra customers that responded to the survey. Eighty-three percent of survey respondents are satisfied with Metra overall, an increase of eight percentage points from 2014. A more in-depth analysis of this year's overall satisfaction broken out by Metra line can be found in Figure 4-12.

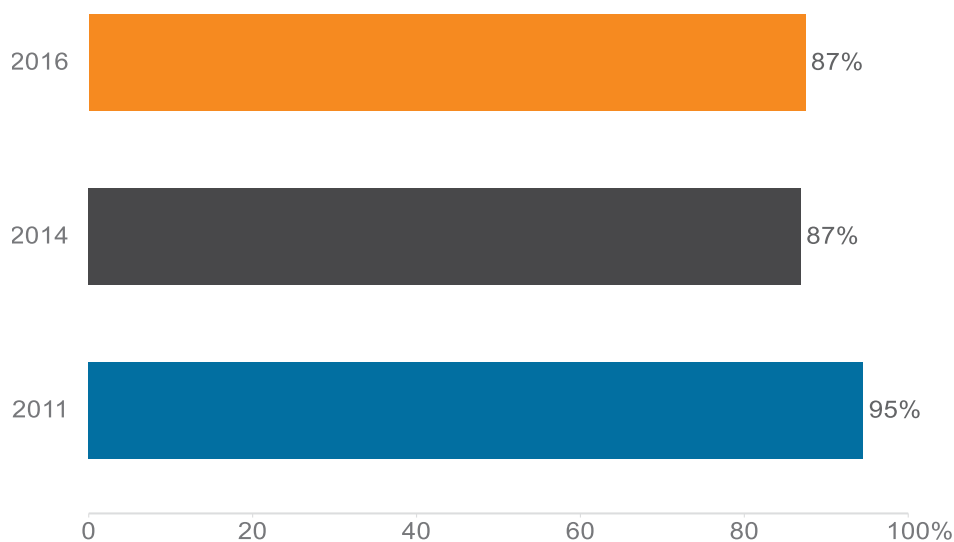


**FIGURE 4-3: OVERALL SATISFACTION BY YEAR**



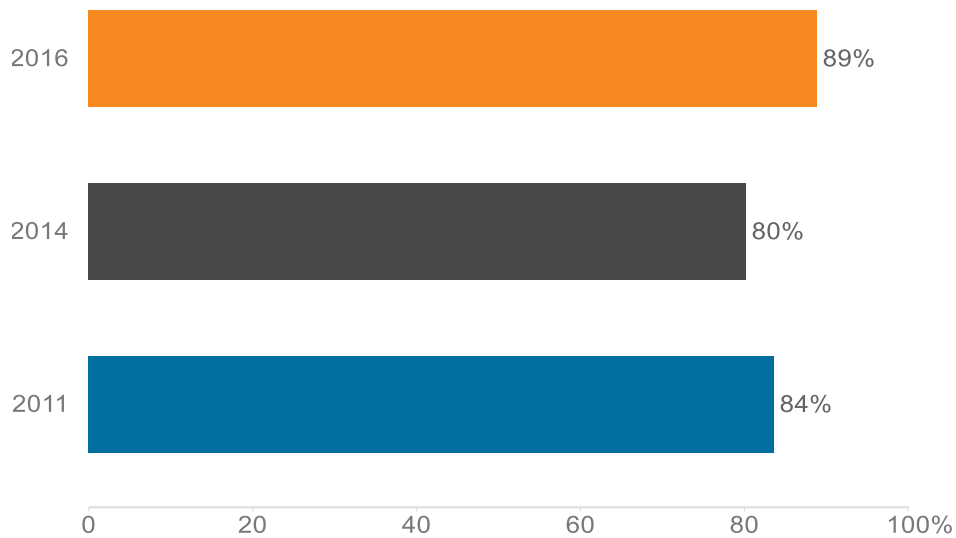
Survey respondents remain loyal to Metra, with nearly 9 in 10 likely to recommend Metra to others. Even though overall satisfaction increased, survey respondents are as likely to recommend Metra this year as they were in 2014 (87%).

**FIGURE 4-4: LIKELIHOOD TO RECOMMEND METRA BY YEAR**



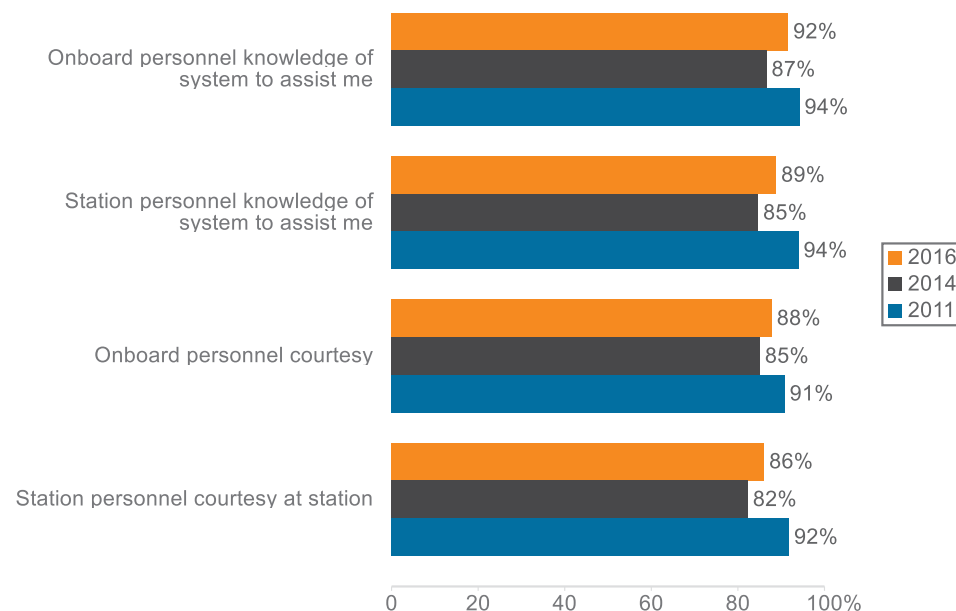
Eighty-nine percent of survey respondents report that they usually have a car available for their trip, an increase of nine percentage points since 2014. Nearly 9 in 10 Metra survey respondents are not dependent on Metra service but rather choose to ride Metra.

**FIGURE 4-5: AVAILABILITY OF CAR FOR TRIP BY YEAR**



Survey respondents are satisfied with the performance of Metra employees onboard the trains and in the stations. Satisfaction with each attribute that measures employee performance increased year-over-year. Of particular note, 92% of survey respondents are satisfied with the knowledge of Metra employees onboard the train and their willingness to assist customers.

**FIGURE 4-6: SATISFACTION WITH EMPLOYEE PERFORMANCE BY YEAR**



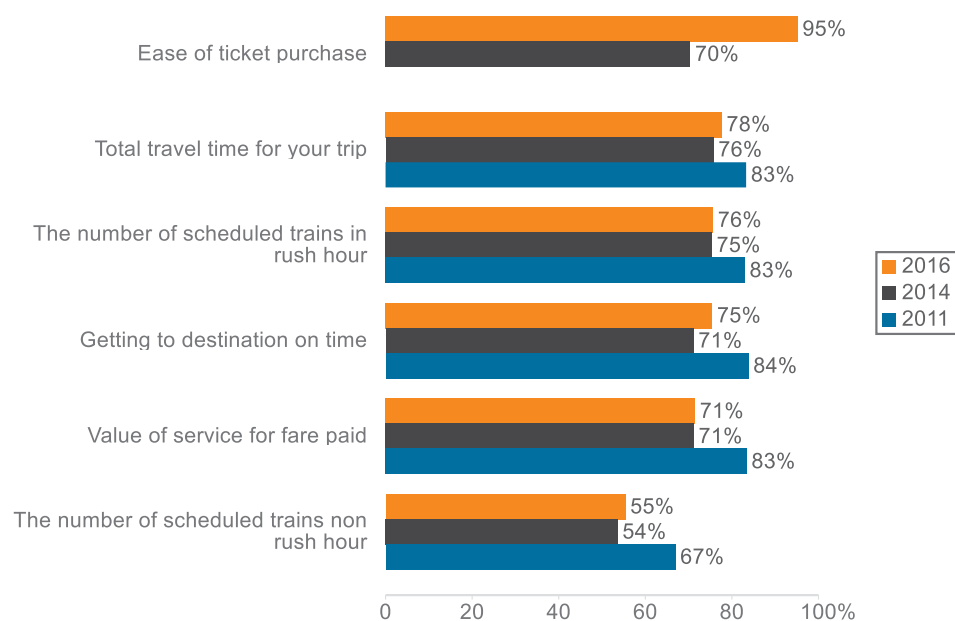
In all but one attribute measured, reported satisfaction with the delivery of Metra service remained relatively unchanged from 2014. Survey respondents reported comparable satisfaction levels with the service value and the number of trains scheduled throughout the day. This year, a greater percentage of survey respondents reported satisfaction with arriving to their destination on time (75% vs. 71% in 2014) and overall travel time





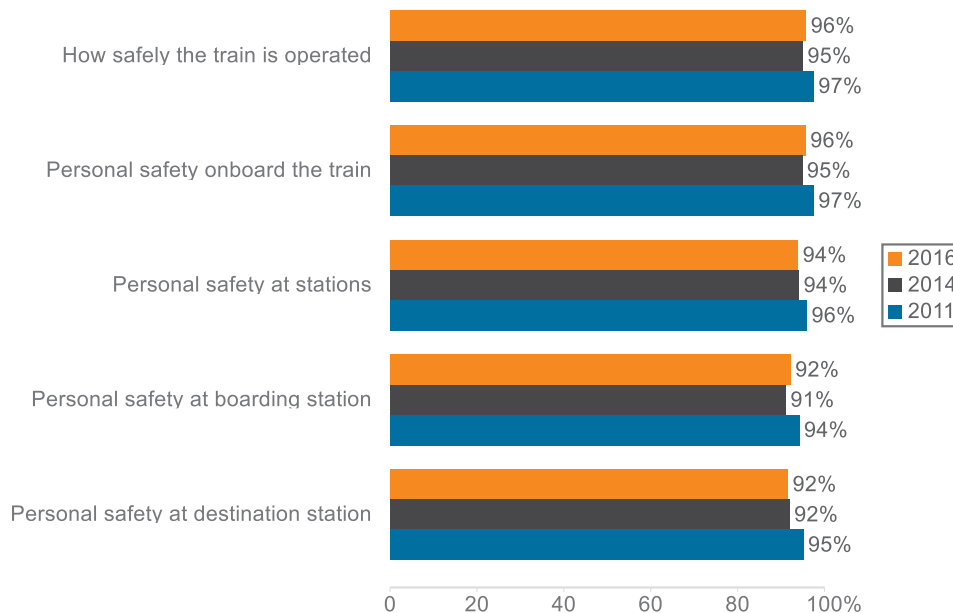
of their trip (78% vs. 76% in 2014). **The most notable finding is satisfaction with the ease of purchasing tickets, which jumped 25 percentage points from 2014.** This increase can most likely be attributed to the introduction of the Ventra app and mobile ticketing. It also confirms that this customer amenity now enjoys wide-spread support among Metra riders. Please note that respondents were not asked to rate the ease of Metra ticket purchase in 2011.

**FIGURE 4-7: SATISFACTION WITH SERVICE DELIVERY BY YEAR**



Consistent with prior years, satisfaction with safety, both onboard the train and at the station, remains very high among survey respondents. Reported satisfaction with safety attributes remained the same or increased slightly from 2014.

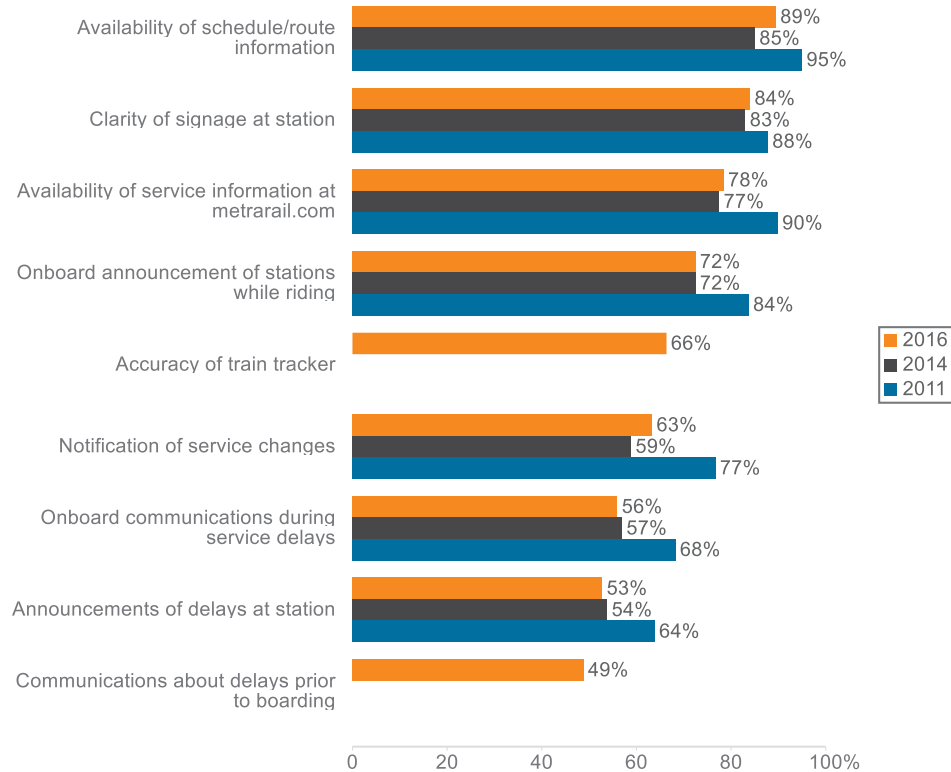
**FIGURE 4-8: SATISFACTION WITH SAFETY BY YEAR**



This year, respondents reported higher levels of satisfaction with four information and communication attributes. The only information and communication attributes to see decreased levels of satisfaction this year relate to the communication of delays. A slightly smaller percentage of survey respondents reported satisfaction with announcement of delays at the station (53% in 2016 vs. 54% in 2014) and onboard communications during service delays (56% in 2016 vs. 57% in 2014). Further, less than half of survey respondents are satisfied with the communications about delays received prior to boarding (49%). Please note that this attribute was added in 2016 and respondents were not asked to rate communications about delays prior to boarding or the accuracy of the train tracker in 2011 or 2014.

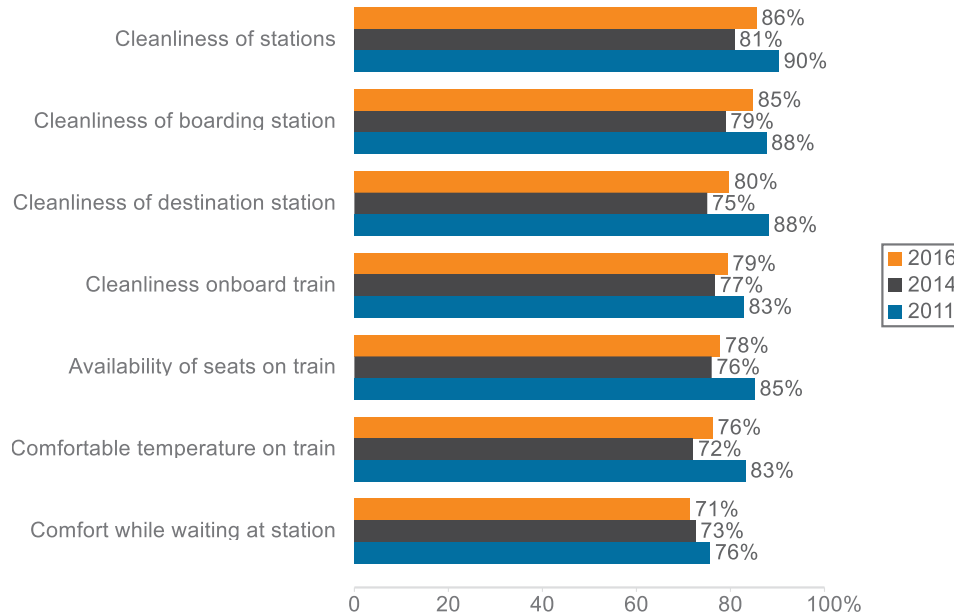


**FIGURE 4-9: SATISFACTION WITH INFORMATION AND COMMUNICATION BY YEAR**



Year over year, survey respondents are more satisfied with the cleanliness of the stations and the trains. Survey respondents reported increased satisfaction with the two comfort measures onboard, availability of seats and temperature of the train, but slightly lower satisfaction with comfort while waiting at the station which, while primarily a function of perceived safety and cleanliness at the station, is also influenced by wait times, communications, etc.

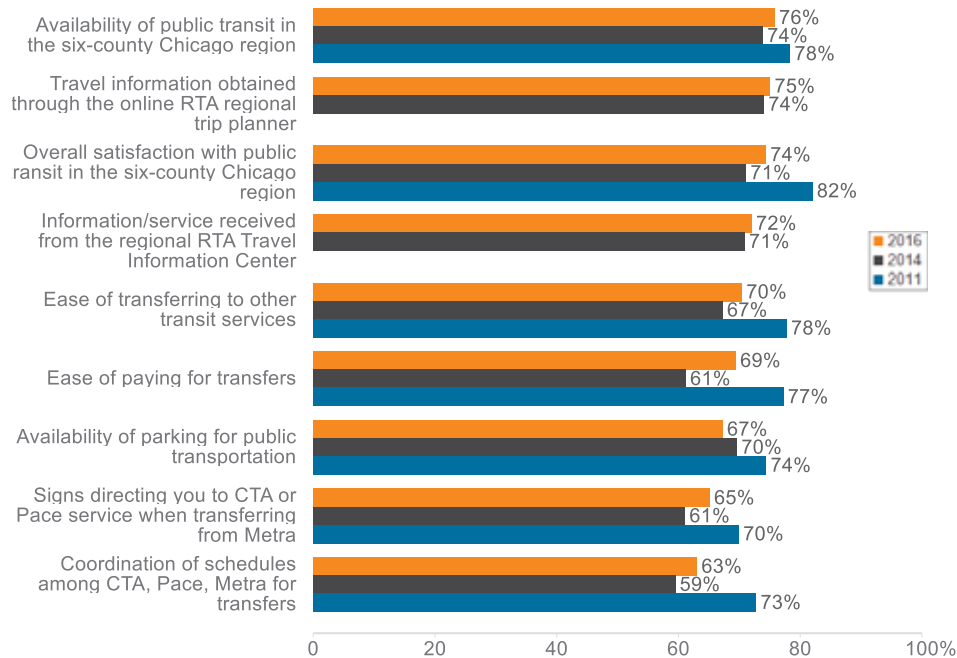
**FIGURE 4-10: SATISFACTION WITH CLEANLINESS AND COMFORT BY YEAR**



Except for one attribute, availability of parking for public transportation, survey respondents reported increased satisfaction in all regional public transportation measures in 2016. Satisfaction with the ease of paying for transfers increased eight percentage points since 2014. This is consistent with the substantial increase in satisfaction with the ease of purchasing Metra tickets and may relate to the rollout of the Ventra app and Metra Mobile Ticketing. Please note that respondents were not asked to rate travel information obtained through the online RTA regional trip planner or information and service received from the regional RTA Travel Information Center in 2011.



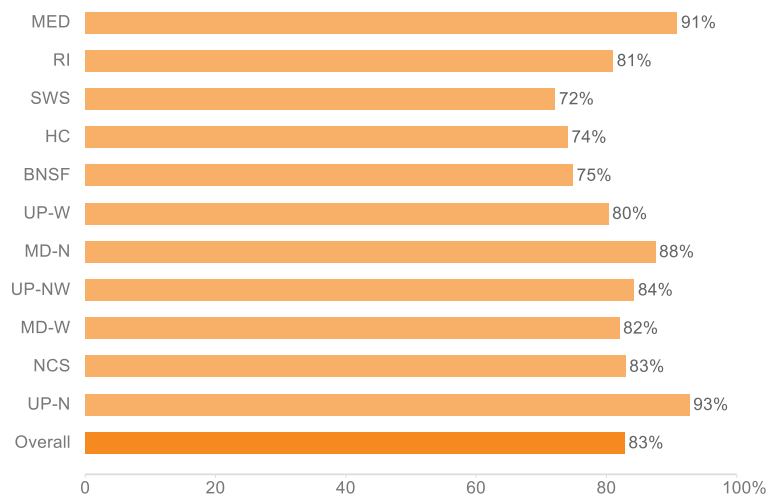
**FIGURE 4-11: SATISFACTION WITH REGIONAL TRANSPORTATION BY YEAR**



## RESULTS BY METRA LINE

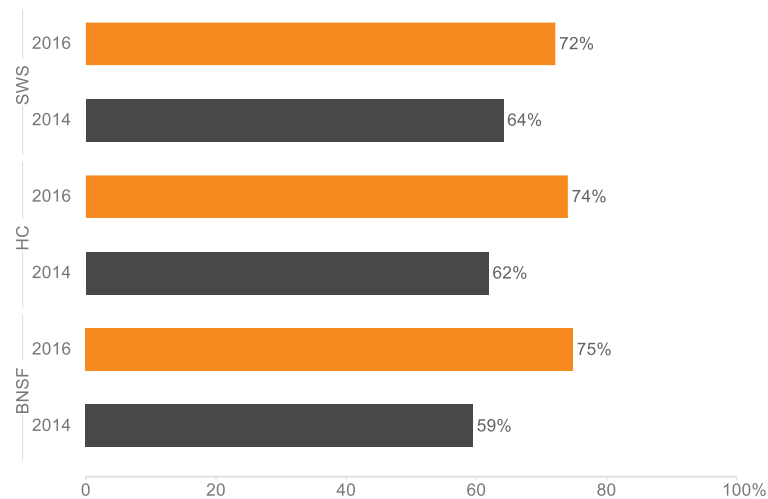
This year 83% of survey respondents reported satisfaction with Metra overall. Two of the eleven lines (Union Pacific North and Metra Electric District) report overall satisfaction scores exceeding 90%.

**FIGURE 4-12: OVERALL SATISFACTION BY METRA LINE**



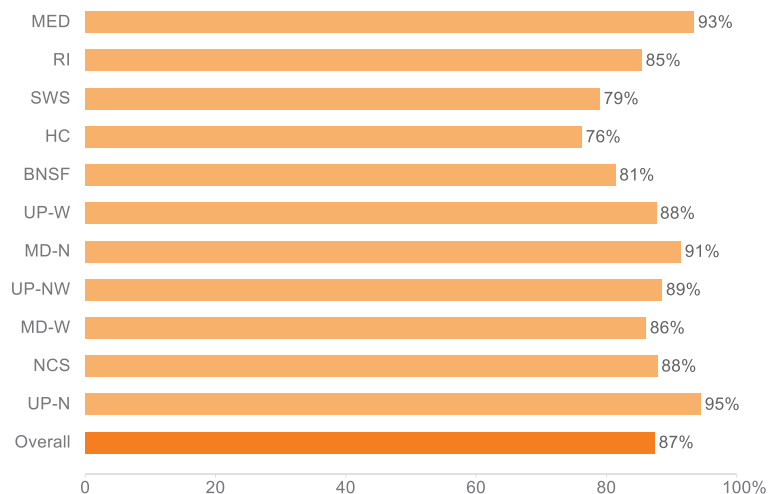
As shown in Figure 4-13, the three lines that reported overall satisfaction below 80% this year, Metra/SouthWest Service, Metra/Heritage Corridor, and Metra/BNSF, all saw a jump in overall satisfaction from 2014. This year, overall satisfaction increased 8 percentage points among SouthWest survey respondents, 12 percentage points among Heritage Corridor survey respondents, and 16 percentage points among BNSF survey respondents. These findings support the positive trend seen this year.

**FIGURE 4-13: OVERALL SATISFACTION BY SELECT METRA LINE BY YEAR**



As shown in Figure 4-14, overall 87% of survey respondents are likely to recommend Metra service to others. The most likely to recommend are survey respondents who ride on the Union Pacific North line (95%). Interestingly, for each line, a greater percentage of survey respondents report a likelihood to recommend Metra than are satisfied with Metra overall. This finding indicates a loyalty to Metra among survey respondents.

**FIGURE 4-14: LIKELIHOOD TO RECOMMEND BY METRA LINE**





Across all Metra lines, survey respondents report high levels of satisfaction with employee performance. In general, survey respondents are more satisfied with the performance of employees onboard the trains than the performance of employees in the stations, but the difference is slight. High satisfaction scores for these measures indicate that Metra employees are meeting the needs of survey respondents.

**TABLE 4-3: SATISFACTION WITH EMPLOYEE PERFORMANCE BY METRA LINE**

Satisfaction With Employee Performance	Metra Line											Over- all
	MED	RI	SWS	HC	BNSF	UP-W	MD-N	UP- NW	MD- W	NCS	UP-N	
	%	%	%	%	%	%	%	%	%	%	%	%
Onboard personnel knowledge of system to assist me	94%	93%	91%	86%	88%	92%	95%	92%	91%	97%	93%	92%
Station personnel knowledge of system to assist me	93%	90%	88%	84%	86%	88%	92%	88%	90%	93%	88%	89%
Onboard personnel courtesy	93%	88%	88%	87%	82%	90%	92%	87%	89%	94%	89%	88%
Station personnel courtesy at station	90%	88%	86%	80%	82%	87%	90%	85%	88%	89%	86%	86%

With overall satisfaction scores exceeding 90% for each attribute measured, survey respondents are satisfied with their safety and security. Survey respondents of all lines reported equal or more satisfaction with personal safety onboard the train than with personal safety at the stations. Metra prides itself on its safety record and survey respondents consistently report high levels of satisfaction with safety performance across all lines.

**TABLE 4-4: SATISFACTION WITH SAFETY BY METRA LINE**

Satisfaction With Safety	Metra Line											Over- all
	MED	RI	SWS	HC	BNSF	UP-W	MD-N	UP- NW	MD- W	NCS	UP-N	
	%	%	%	%	%	%	%	%	%	%	%	%
How safely the train is operated	97%	95%	96%	89%	94%	97%	98%	96%	95%	97%	97%	96%
Personal safety onboard the train	96%	96%	97%	92%	94%	96%	98%	96%	94%	97%	96%	96%
Personal safety at stations	88%	94%	93%	90%	94%	96%	95%	96%	93%	96%	96%	94%
Personal safety at boarding station	82%	91%	95%	87%	95%	94%	94%	95%	93%	96%	91%	92%
Personal safety at destination station	89%	93%	88%	89%	90%	96%	89%	95%	89%	90%	95%	92%

Survey respondents of all Metra lines are satisfied with the availability of schedule and route information. Overall, survey respondents are also satisfied with the availability of service information on Metra's website but satisfaction varies more by line. While most communication attributes reflect relative consistency among all the lines, SWS, HC and BNSF respondents report lower satisfaction with communications during/about delays. These lines terminate at Union Station, using the South Concourse, and experienced significant service issues which resulted in overcrowding at the station.

**TABLE 4-5: SATISFACTION WITH INFORMATION AND COMMUNICATION BY METRA LINE**

Satisfaction With Information and Communication	Metra Line											Over- all
	MED	RI	SWS	HC	BNSF	UP-W	MD-N	UP- NW	MD- W	NCS	UP-N	
	%	%	%	%	%	%	%	%	%	%	%	%
Availability of schedule/ route information	93%	90%	87%	82%	89%	90%	92%	87%	89%	91%	89%	89%
Clarity of signage at station	87%	86%	83%	81%	84%	85%	80%	82%	82%	82%	86%	84%
Availability of service information at metrarail.com	89%	81%	78%	75%	71%	78%	82%	75%	81%	82%	81%	78%
Onboard announcement of stations while riding	81%	74%	66%	63%	67%	73%	73%	71%	69%	74%	79%	72%
Accuracy of train tracker	86%	67%	61%	58%	55%	65%	72%	62%	69%	68%	72%	66%
Notification of service changes	78%	62%	57%	61%	56%	63%	68%	59%	67%	67%	67%	63%
Onboard communications during service delays	71%	54%	48%	47%	44%	56%	64%	52%	60%	66%	65%	56%
Announcements of delays at station	70%	50%	46%	43%	42%	54%	59%	47%	57%	62%	59%	53%
Communications about delays prior to boarding	65%	47%	39%	39%	38%	50%	54%	44%	53%	57%	55%	49%

For most Metra lines, survey respondents are more satisfied with the cleanliness than the comfort of trains and stations. Overall, survey respondents are also more satisfied with attributes that measure comfort onboard the train – temperature and availability of seats – than comfort while waiting at the station.



**TABLE 4-6: SATISFACTION WITH CLEANLINESS AND COMFORT BY METRA LINE**

Satisfaction With Cleanliness and Comfort	Metra Line											
	MED	RI	SWS	HC	BNSF	UP-W	MD-N	UP-NW	MD-W	NCS	UP-N	Over-all
	%	%	%	%	%	%	%	%	%	%	%	%
Cleanliness of stations	76%	85%	87%	83%	84%	91%	84%	92%	80%	89%	90%	86%
Cleanliness of boarding station	67%	84%	88%	81%	90%	87%	89%	88%	83%	92%	84%	85%
Cleanliness of destination station	79%	78%	77%	79%	73%	90%	70%	90%	69%	74%	90%	80%
Cleanliness onboard train	90%	81%	76%	68%	76%	79%	81%	76%	71%	80%	84%	79%
Availability of seats on train	89%	85%	79%	81%	71%	74%	82%	70%	72%	83%	84%	78%
Comfortable temperature on train	85%	74%	65%	60%	68%	79%	80%	79%	72%	75%	85%	76%
Comfort while waiting at station	73%	73%	75%	66%	69%	76%	69%	73%	69%	78%	69%	71%

## SATISFACTION WITH SERVICE DELIVERY

As shown in Table 4-7, survey respondents that purchase a monthly pass or a ten-ride ticket report higher levels of satisfaction with the ease of ticket purchase than survey respondents that purchase a single ride (one-way) ticket. However, compared to other ticket types, survey respondents that purchase single ride tickets report greater satisfaction in all other service delivery measures.

**TABLE 4-7: SATISFACTION WITH SERVICE DELIVERY BY TICKET TYPE**

Satisfaction With Service Delivery	Ticket Type		
	Mont-hly Pass	Ten-Ride	One-way
	%	%	%
Ease of ticket purchase	96%	95%	90%
Total travel time for your trip	77%	78%	82%
The number of scheduled trains in rush hour	74%	75%	85%
Getting to destination on time	72%	78%	86%
Value of service for fare paid	67%	76%	80%
The number of scheduled trains non rush hour	55%	54%	59%

Compared to those who use Metra to commute to work, survey respondents who ride Metra for entertainment, visiting, or recreation purposes report higher satisfaction in all but one service delivery measure, ease of ticket purchase. This finding can be explained by the fact that commuters, as frequent riders, are more likely to use a monthly pass or a ten-ride ticket.

**TABLE 4-8: SATISFACTION WITH SERVICE DELIVERY BY MOST COMMON TRIP PURPOSES**

Satisfaction With Service Delivery	Purpose of Most Recent Trip	
	Commuting	Entertainment
	%	%
Ease of ticket purchase	96%	93%
Total travel time for your trip	76%	86%
The number of scheduled trains in rush hour	74%	89%
Getting to destination on time	73%	89%
Value of service for fare paid	69%	86%
The number of scheduled trains non rush hour	55%	63%

## DRIVERS OF SATISFACTION

The attributes that are most important to survey respondents are getting to their destination on time (34%) and the value of service for the fare paid (30%). When combining the ratings for the most, second, and third most important attribute, over two-thirds of respondents, 67%, ranked getting to their destination on time in their top three most important attributes. Over half of respondents, 54%, ranked value of service for fare paid in their top three most important attributes. Considerably fewer respondents, 29%, ranked total travel time for the trip as among their top three most important attribute.

**TABLE 4-9: TOP FIVE MOST IMPORTANT ATTRIBUTES**

Most Important Attribute	%
Getting to destination on time	34%
Value of service for fare paid	30%
Total travel time for your trip	7%
Number of trains during rush hour	5%
How safely the train is operated	5%

**TABLE 4-10: TOP FIVE SECOND MOST IMPORTANT ATTRIBUTES**

Second Most Important Attribute	%
Getting to destination on time	22%
Value of service for fare paid	14%
Total travel time for your trip	11%
Number of trains during rush hour	9%
How safely the train is operated	6%



**TABLE 4-11: TOP FIVE THIRD MOST IMPORTANT ATTRIBUTES**

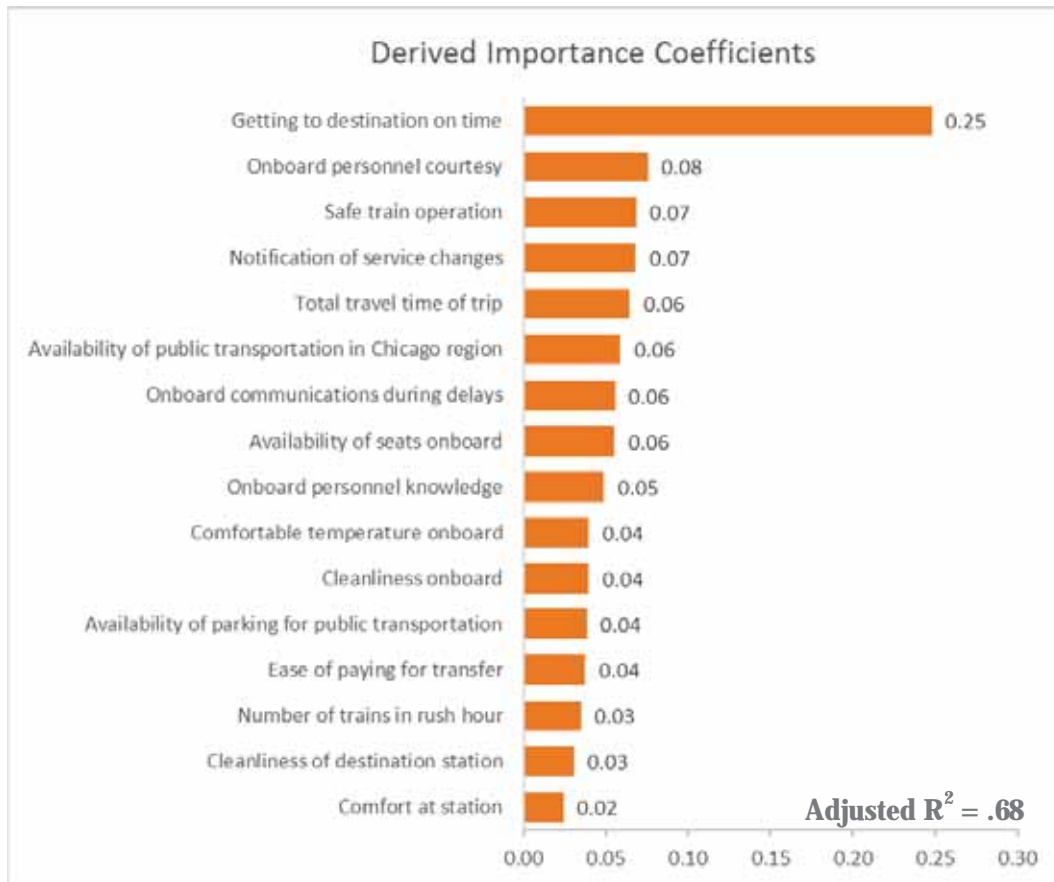
<b>Third Most Important Attribute</b>	<b>%</b>
Total travel time for your trip	11%
Getting to destination on time	10%
Value of service for fare paid	10%
Number of trains during rush hour	9%
Availability of seats on train	7%

## **DERIVED IMPORTANCE**

Derived importance measures are found by statistically testing the strength that a collection of attributes has on influencing overall satisfaction. Calculating coefficients instead of using stated importance data considerably improves the clarity in answering which service attributes are the most important drivers of overall satisfaction. Derived importance can help further understand the underlying factors driving overall customer satisfaction that a respondent may not explicitly state.

For this analysis, individual and regional service attributes were modeled as predictors that influence overall satisfaction with Metra. Consistent with the derived importance analysis of other Service Boards, the value of service for fare paid is considered a measure of overall satisfaction and was excluded from the model. A multiple regression model was developed using a backward step iterative process. In this approach, 30 service attributes and eight regional attributes were entered into the linear equation. Variables were removed if they were shown not to significantly influence overall satisfaction. If any variable did not increase the overall predictive power of the model, it was also eliminated from the equation. With an adjusted  $R^2$  of 0.68, the final regression yielded 16 of the initial thirty-eight service and regional attributes. The sixteen attributes shown in Figure 4-15 significantly influence customers' overall satisfaction with Metra. The magnitude of each derived importance coefficient is a measure of the importance of the service attribute in determining customers' overall satisfaction with Metra.

**FIGURE 4-15: 2016 DERIVED IMPORTANCE COEFFICIENTS**



Consistent with the rankings in Table 4-9 above, for Metra customers, arriving to their destination on time is the most important service attribute that determines overall satisfaction. Onboard personnel courtesy and safe operation of the train, the second and third most important service attribute respectively, also drive overall satisfaction but to a lesser degree.

## QUADRANT CHARTS

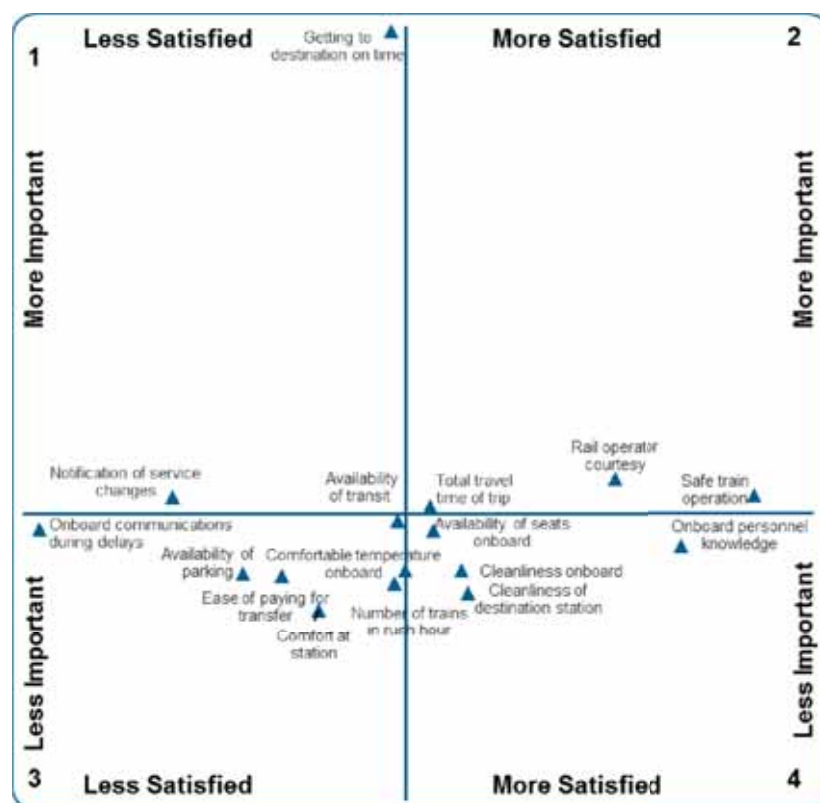
A quadrant chart serves as a measure of performance against importance. Figure 4-16 shows the derived importance and satisfaction of the sixteen service and regional attributes identified above. These mapped points will provide insight as to where Metra should focus efforts to maximize customer satisfaction. The Y-axis (vertical) measures importance and the X-axis (horizontal) measures attribute satisfaction. Both axes are split at their means, thus creating the four quadrants. Table 4-12 outlines what each of the four quadrants represent and the appropriate action required by Metra to maximize customer satisfaction.



**TABLE 4-12: UNDERSTANDING QUADRANT CHARTS**

QUADRANT	LOCATION	SATISFACTION LEVEL	IMPORTANCE	ACTION
1	Top left	Relatively low	Relatively high	Attributes for improvement
2	Top right	Relatively high	Relatively high	Attributes to maintain
3	Bottom left	Relatively low	Relatively low	Attributes to monitor
4	Bottom right	Relatively high	Relatively low	Attributes with no immediate action

**FIGURE 4-16: KEY DRIVERS OF OVERALL SATISFACTION CHART**



The top-right quadrant contains attributes that are both important and achieving better than average satisfaction ratings. Metra is currently meeting respondents' expectations with three attributes: the courtesy of rail operators, the safe operation of trains and the total travel time of respondents' trips. Metra should work to maintain the level of performance of these attributes.

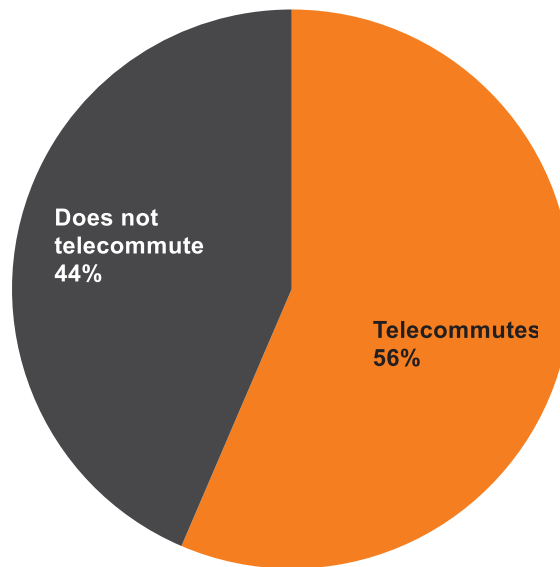
The top-left quadrant contains attributes that are also important, but have below-average satisfaction scores. Improvements that ensure respondents arrive to their destination on time and that ensure respondents are adequately notified of service changes should be prioritized. A more concerted effort to address these priorities will likely improve customer satisfaction with Metra overall.

## ADDITIONAL RESULTS

### *Telecommuters*

More than half of survey respondents report that they telecommute to their job one or more days per month (56%). Among the survey respondents who report telecommuting at least one day per month, the average number of days to do so was 9 days.

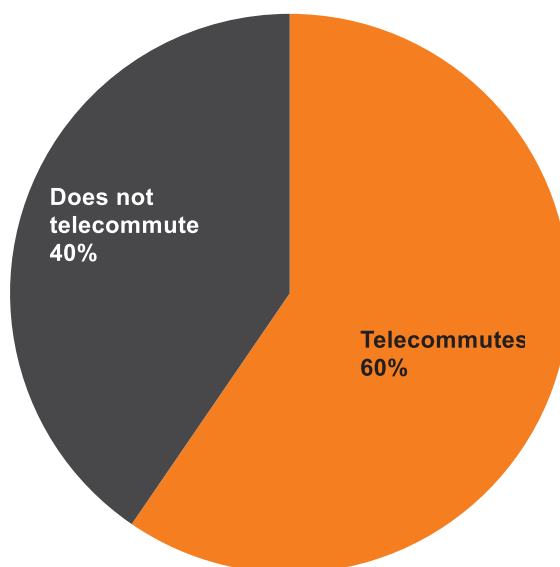
**FIGURE 4-17: TELECOMMUTING AMONG ALL RESPONDENTS**





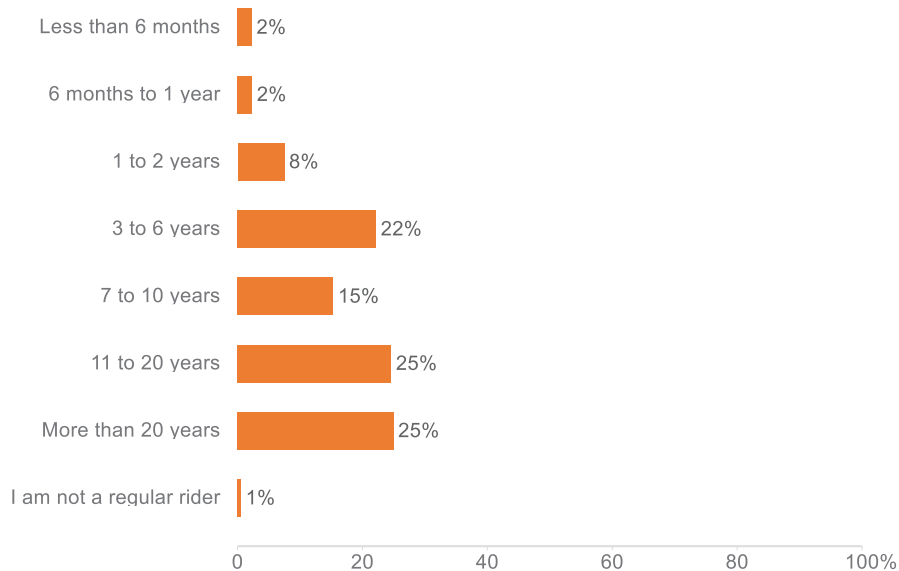
Investigating only survey respondents who indicated that they either work part- or full-time, the percentage of respondents who report that they telecommute increases to 60%. The average number of days that these individuals telecommute remains at 9 days per month.

**FIGURE 4-18: TELECOMMUTING AMONG FULL- AND PART-TIME EMPLOYED RESPONDENTS**



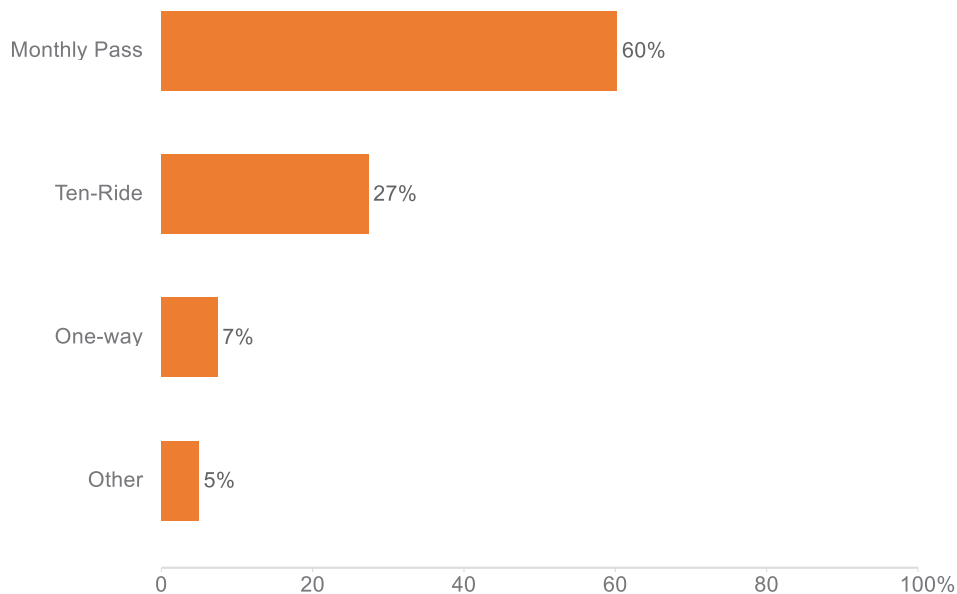
As shown in Figure 4-19, nearly all survey respondents, 99%, regularly ride Metra, taking a trip on Metra at least once a month. Half of survey respondents report they have been regularly riding Metra for over a decade. However, it should be pointed out that the 2014 Metra OD survey, because of its onboard recruitment method, is a better source of ridership retention and attrition.

**FIGURE 4-19: DURATION OF BEING REGULAR RIDER**



The majority of survey respondents, 60%, use a monthly pass to access service. Less than 10% of survey respondents use a single ride, one-way ticket.

**FIGURE 4-20: METRA TICKET TYPE**

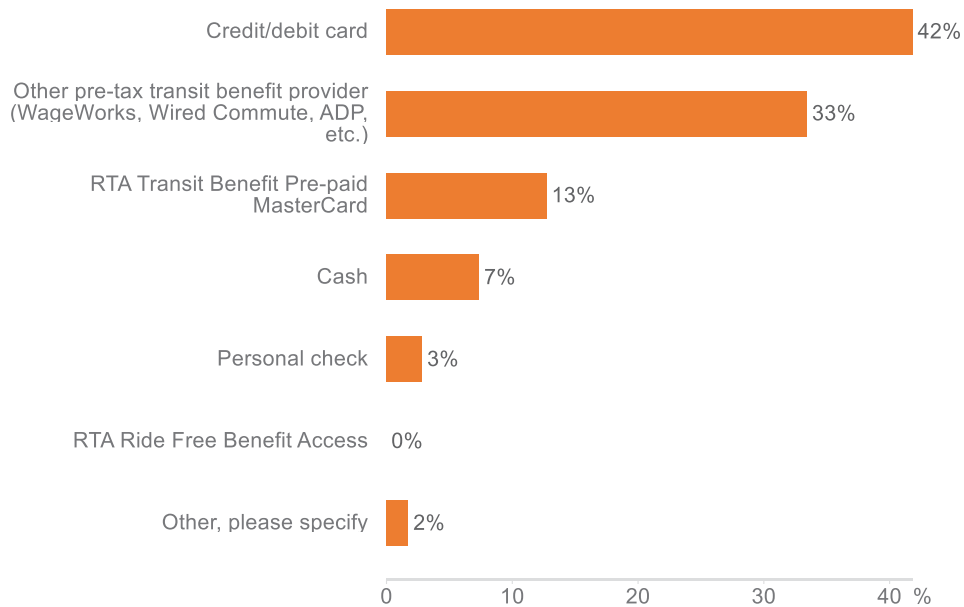


A credit or debit card is the most commonly cited payment method for Metra tickets among survey respondents (42%). A third of survey respondents use pre-tax transit benefit provider to pay for their tickets and an additional 13% use the RTA's pre-paid card, bringing to nearly one-half the population that uses some form of Transit Benefit to pay for their Metra tickets.



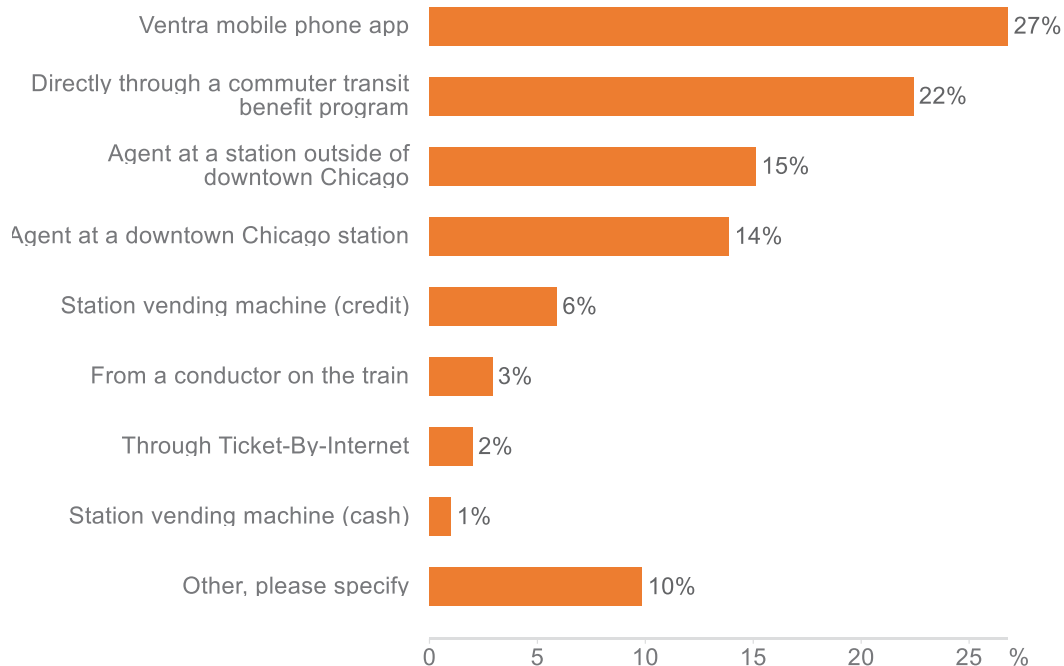


**FIGURE 4-21: USUAL PAYMENT METHOD FOR TICKET**



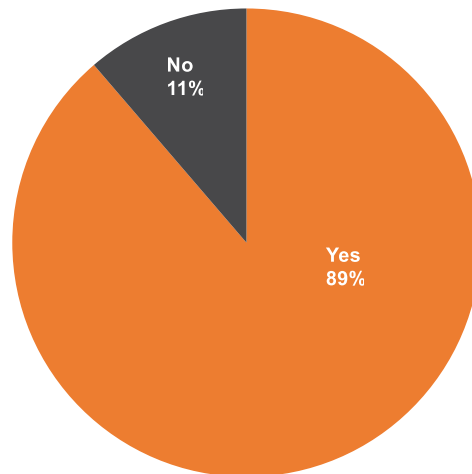
Twenty-seven percent of survey respondents report purchasing their Metra ticket on the Ventra app. A slightly smaller percentage of survey respondents, 22%, receive their Metra tickets directly through a commuter transit benefit program (Figure 4-22).

**FIGURE 4-22: PURCHASE LOCATION FOR TICKET**

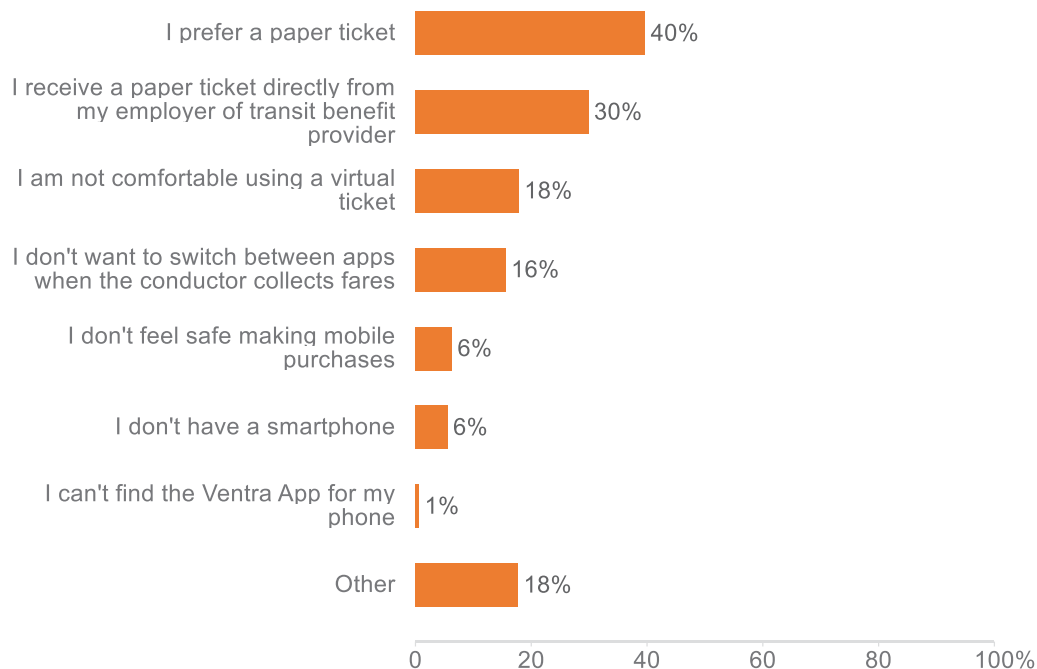


As shown in Figure 4-23, of the survey respondents who do not currently use the Ventra app to purchase their Metra tickets, nearly 90% are aware of the ability to do so. A preference for paper tickets is the most commonly cited reason for not using the Ventra app to purchase Metra tickets (see Figure 4-24).

**FIGURE 4-23: AWARE OF ABILITY TO PURCHASE TICKET THROUGH VENTRA APP**



**FIGURE 4-24: REASON FOR NOT USING VENTRA APP TO PURCHASE METRA TICKETS**





## Ventra App

Further analysis into who is using the Ventra app to purchase Metra tickets reveals that men are more likely than women to use the app.

**TABLE 4-13: GENDER BY VENTRA APP TICKET PURCHASE**

Gender	Purchased Metra Ticket Through Ventra App	
	Purchased Ticket on Ventra App	Other Ticket Purchase Option
	%	%
Female	43%	55%
Male	57%	45%

Of those who purchase Metra tickets through the Ventra app, over half, 59%, are between the ages of 35 and 54.

**TABLE 4-14: AGE BY VENTRA APP TICKET PURCHASE**

Age	Purchased Metra Ticket Through Ventra App	
	Purchased Ticket on Ventra App	Other Ticket Purchase Option
	%	%
Under 35	22%	11%
35-54	59%	50%
55-64	15%	29%
65 or over	4%	9%

## 4.4 | CONCLUSION

Survey respondents are satisfied with the service Metra provides, with 83% reporting satisfaction with Metra overall. Year over year, overall satisfaction with Metra increased eight percentage points. This positive trend was also seen across many Metra lines and across many service attributes. Overall, 87% of survey respondents are likely to recommend Metra service to others, a finding unchanged from 2014. Arriving to their destination on time is the most important service attribute that determines overall satisfaction for survey respondents. Improvements that ensure respondents arrive to their destination on time and that ensure respondents are adequately notified of service changes should be prioritized and will likely further increase overall satisfaction with Metra. Taken together, these results confirm that Metra is meeting the needs of its customers.

## 5.0 PACE SURVEY

### 5.1 | SURVEY DESIGN

In 2016, RSG conducted a CSS for Pace's fixed-route bus services. The goal of the CSS is to evaluate the service performance as perceived by Pace customers. These evaluations will provide data for informed decision-making toward improving customer loyalty, ridership, and service provision. The survey was conducted across the entire Pace system, and sampling was performed to be representative of Pace and contractor services at the division level throughout the suburban Chicago area. In addition to assessing overall satisfaction with Pace, Pace measured a set of 33 attributes that explored various aspects of employee performance, personal safety, comfort, and access to service (see Figure 5-1 screenshot of select satisfaction questions in online survey).

**FIGURE 5-1: SCREENSHOT OF SELECT SATISFACTION QUESTIONS IN PACE WEB SURVEY**

Based on your experience riding on Pace over the **PAST 30 DAYS**, please indicate your level of **SATISFACTION** with the following Pace service elements.  
Use a scale from 1 to 10, where 1 is Very Dissatisfied and 10 is Very Satisfied.

	Very Dissatisfied		Dissatisfied			Satisfied			Very Satisfied		Not Applicable
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Pace customer service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal safety on bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of fare payment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile Ventra App	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness of bus interior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distance to nearest bus stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total travel time for your trip	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
	Very Dissatisfied		Dissatisfied				Satisfied		Very Satisfied		Not Applicable

« Previous      Next »

Questions or comments? Contact us at [survey@rtarps.com](mailto:survey@rtarps.com)

Additionally, Pace respondents were asked to report their satisfaction with nine attributes related to regional service in the six-county Chicago area. Two additional questions related to customer loyalty inquired whether the respondent would likely continue riding Pace a year from now, and whether they would recommend Pace to a friend.

The Pace satisfaction survey also collected details about respondents' trips, which were used to better understand customer satisfaction among various segments of their ridership, and can also provide a better understanding of how and why respondents are using Pace.

The survey could be completed either as a paper questionnaire, or as a web-based survey. The paper version of the survey was available in English, the online version in either English or Spanish.



Respondents could return the survey to one of the surveyors on board their bus or mail it back, postage-paid. Alternatively, respondents had the option to complete the survey online using a link and unique password provided on the cover of the paper survey. The unique password ensured that each respondent could only take the survey once.

The web-based survey was designed to mirror the paper survey in order to obtain consistent responses between the two methods. The web-based survey was programmed using RSG's proprietary software, which allows for survey customization for each respondent in order to improve the quality of the data being collected and reduce respondent burden and fatigue.

## **5.2 | SURVEY ADMINISTRATION**

### **SAMPLING PLAN**

RSG worked with Pace to obtain annual ridership data from 2015 and the average APC ridership data by trip (route, direction, and time) from fall 2016. The ridership data were used to determine the number of surveys that would be targeted for each division. The goal was set to hand out surveys in each division roughly proportional to ridership. Greater emphasis was placed on routes that are directly operated by Pace as opposed to by contractors.

#### ***Onboard Sampling***

Pace buses operate out of one of nine garages or are operated by a contractor. Thus, the routes were aggregated into the nine divisions that Pace uses internally. Routes within a division serve similar areas and functions, and thus sampling and analyzing them together as a group is a logical choice. The contractor routes were aggregated together into a tenth group. In order to select shifts for fielding, a sampling approach based on block numbers was used. Block numbers ensured that a particular bus started and ended at the same location, usually one of the nine Pace garages.

### **STAFF TRAINING**

RSG and its subcontractors trained locally hired staff to distribute and collect a self-administered questionnaire onboard Pace vehicles. RSG held two different staff training sessions for surveyors. The first was held on November 29, 2016 in the building that houses the RSG offices in Chicago and was attended by surveyors of Seville, AREA and a representative of RTA. The second training session was held on December 6, 2016 at the offices of the subcontractor AREA and was attended only by surveyors of AREA.

### **SURVEY DISTRIBUTION AND DATA COLLECTION**

#### ***Main Fielding: Onboard Survey Administration***

The main onboard fielding began December 6, 2016 and continued through December 20, 2016. Members of the field staff were instructed to arrive at their assigned boarding stops at least 20 minutes ahead of scheduled departure times, wearing safety vests and carrying all necessary materials.

Respondents were instructed that they could either complete the paper questionnaires onboard and hand it back to the surveyor, complete them and mail them back with paid business reply mail or complete an online version of the survey in English or Spanish. However, surveyors were instructed to strongly encourage

respondents to complete their questionnaires while riding. This was done because of this method's much higher success rate as compared to relying on respondents remembering to complete and return the survey later. In the event of a bus becoming crowded to the point of inhibiting movement, surveyors simply tried to distribute and collect surveys from as many individuals as possible, and noted on their distribution sheets that some customers were unable to be reached.

Since a higher-than-expected number of surveys remained undistributed by the end of the main fielding effort (approximately 3,500) a decision was made to conduct supplementary fielding. Thirty-two additional shifts were scheduled between January 19<sup>th</sup> and January 27<sup>th</sup>, 2017. When survey distribution concluded, all but approximately 600 surveys had been distributed to Pace customers onboard buses. Completed, mailed-back surveys were accepted until February 14, 2017.

### ***Customer E-mail List Recruiting***

In addition to recruiting respondents by handing out paper questionnaires, invitations were e-mailed to respondents of the 2011 and 2013 Customer Satisfaction Survey (CSS) who agreed to be contacted for market research purposes. Each web link had a unique password associated with it to ensure respondents could not take the survey more than once with the e-mailed link. Subsequent e-mail reminders were only sent to those individuals who had not already completed the survey, in effect preventing repeated surveys by the same individuals. Further, as was done in 2013, e-mail invitations were also sent to subscribers of an e-mail list ("Gov Delivery") who receive alerts about Pace service announcements. The link that was sent to these subscribers was a generic link, meaning that anybody with the link could complete the survey. Online completes were accepted until February 21, 2017.

## **RESPONSE RATES**

The onboard survey effort resulted in roughly 9,400 surveys being distributed to Pace customers system-wide. Out of 2,603 completed surveys, 1,619 resulted from the onboard recruitment effort. While onboard distribution did yield the majority of the responses for this survey, other recruitment methods did help boost the response rate. For instance, e-mail invitations were sent to 2,787 respondents from prior customer satisfaction studies, resulting in 258 completes. E-mail invitations were also sent to approximately 6,000 recipients of Pace Gov Delivery notifications, which resulted in an additional 678 completes. The exact breakdown of completes by division can be seen in Table 5-1 and the breakdown of completes by recruitment type can be seen in Table 5-2.

**TABLE 5-1: DIVISION SAMPLE ALLOCATION**

Division	Average Weekday Ridership (2016)	Unweighted Sample	Survey Proportion (Completes in Division/Total Completes)	Expansion Factor
Fox Valley	1,997	211	8%	9.46
Heritage	4,233	284	11%	14.90
North	5,769	151	6%	38.21
North Shore	4,506	176	7%	25.60
Northwest	19,721	353	14%	55.87
River	4,253	104	4%	40.89
South	17,790	357	14%	49.83
Southwest	10,588	306	12%	34.60
West	23,255	469	18%	49.58
Contractor	8,717	192	7%	45.40
<b>Grand Total</b>	<b>100,829</b>	<b>2,603</b>	<b>100%</b>	<b>--</b>

*Notes: Sample sizes allow for 95% CI with a margin of error of +/-7.6% or less for results by division, given an assumed percentage of satisfied riders of 80% or greater, which is consistent with overall satisfaction by division for 2013 and 2016.*

**TABLE 5-2: COMPLETED SURVEYS BY RECRUITMENT METHOD**

Recruitment Method	Returned Surveys	Invitations Sent	Response Rates
Onboard Recruitment	1,619	9,400	17.2%
Pace Gov Delivery	678	6,000	11.3%
Prior Customer Satisfaction Respondents	258	2,787	9.3%
Social Media	48	--	--
<b>Total Returned</b>	<b>2,603</b>	<b>18,187</b>	<b>14.0%</b>

*Note: Results reflect unweighted, collected surveys. Response rate is not computed for social media outreach, since it is impossible to determine how many potential respondents were reached.*

## DATA MERGING, CLEANING, AND EXPANSION

Data cleaning was performed for a variety of purposes. First, survey data were linked to distribution tracking information in order to specify the surveyed route and garage where the route originated. This information was necessary in order to expand and analyze the survey data. Subsequently, the web and paper survey data needed to be merged, which required some recoding to maintain consistency between coded values.

The bulk of the data cleaning was done to ensure logical consistency of the survey data, and to ensure response quality. This involved maintaining data-consistency of open response questions, making sure reasonable values were recorded in each field, and making sure that the respondent followed the response logic flow. After initial cleaning, surveys were assessed to determine whether they met minimum criteria for completeness. Minimum criteria included: the survey must be associated with a division and the respondent must have provided at least 5 responses within the survey. Surveys that did not meet these minimum criteria

were excluded from analysis. Once data cleaning on the 2016 dataset was complete, it was merged with the 2011 and 2013 datasets in order to conduct comparative analyses of satisfaction trends.

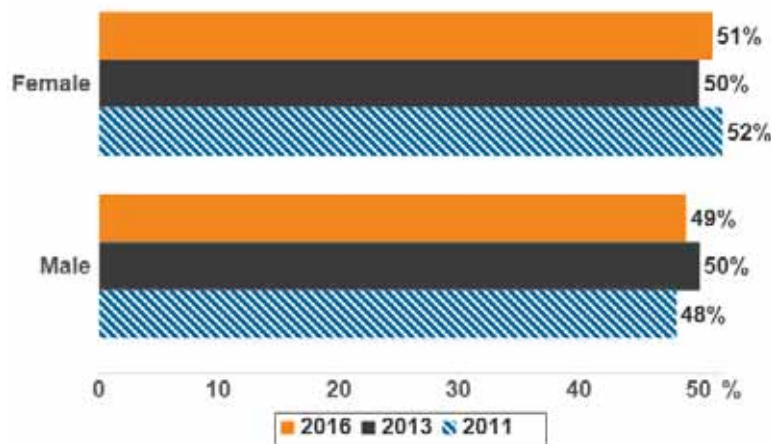
Expansion of the 2016 survey data was performed at the garage-level, based on an annual average weekday ridership derived from 2016 ridership data. This expansion process ensures that the results presented reflect each division's relative contribution to overall weekday ridership.

## 5.3 | RESULTS

### DEMOGRAPHICS BY YEAR

Similar to 2011 and 2013, there is an almost even split between female (51%) and male (49%) respondents (Figure 5-2).

FIGURE 5-2: GENDER BY YEAR

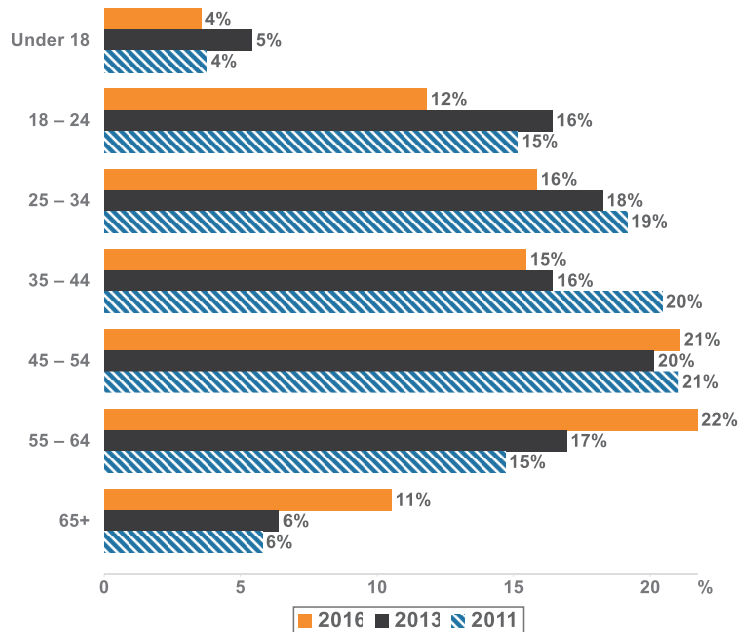






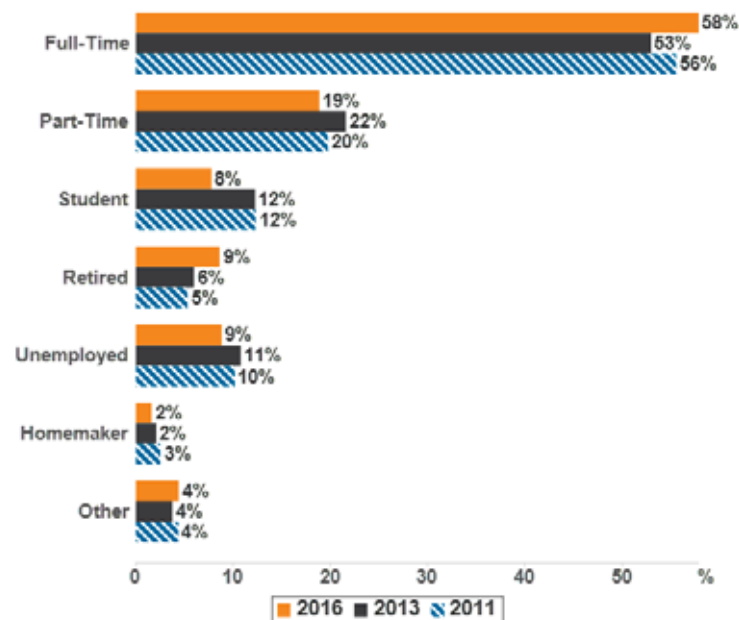
Compared to 2013, the respondent base appeared to be older, since the number of respondents in all age brackets 45 years of age and older increased, and all age brackets younger than 45 decreased (Figure 5-3).

**FIGURE 5-3: AGE BY YEAR**



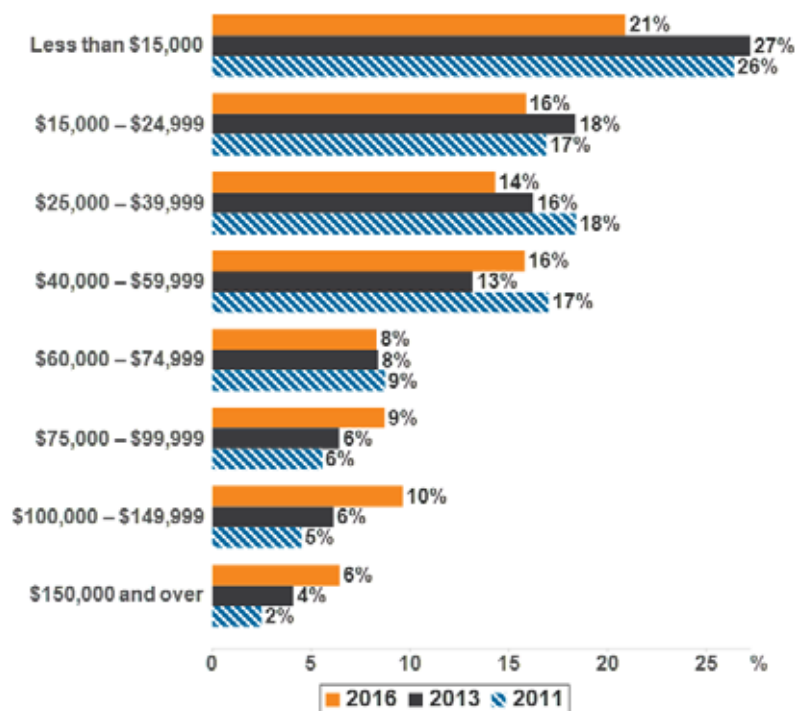
A majority of respondents are employed full time, showing a slight increase from previous studies. The number of respondents who are employed part-time, students or unemployed decreased in the 2016 survey compared to the 2013 survey (Figure 5-4).

**FIGURE 5-4: EMPLOYMENT STATUS BY YEAR**



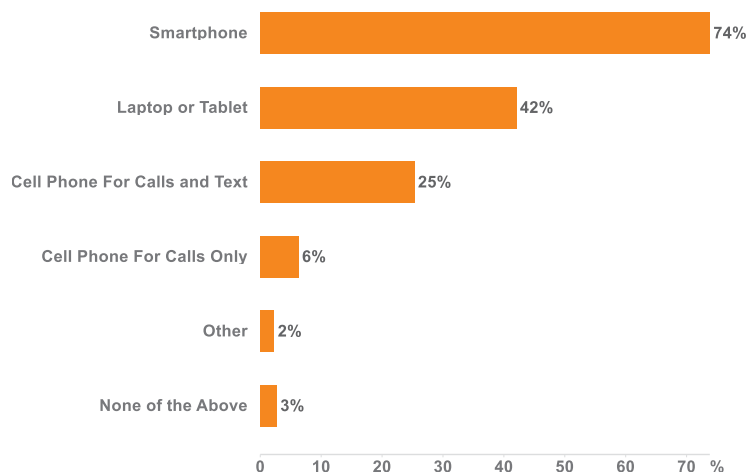
Similar to 2013, the largest household income bracket for respondents is a household annual income of less than \$15,000, demonstrating that Pace offers services to riders who are of relatively low socioeconomic status and therefore are most dependent on public transportation. Even so, the annual income brackets of less than \$40,000 have slightly decreased from 2013, as more respondents have a household annual income of greater than \$40,000 (Figure 5-5).

**FIGURE 5-5: HOUSEHOLD ANNUAL INCOME BY YEAR**



The vast majority of respondents use a smartphone (74%), and 42% of respondents use either a laptop or tablet. This was a new question on the 2016 questionnaire and, therefore, comparisons to prior years are unachievable (Figure 5-6).

**FIGURE 5-6: MOBILE DEVICE USE**

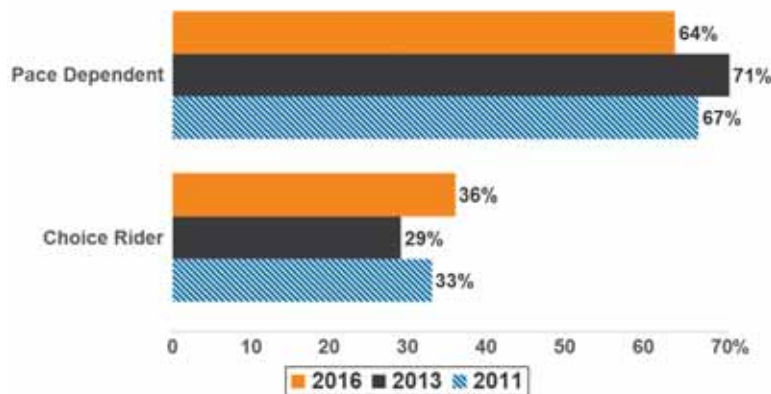




## TRAVEL BEHAVIOR AND TRIP CHARACTERISTICS BY YEAR

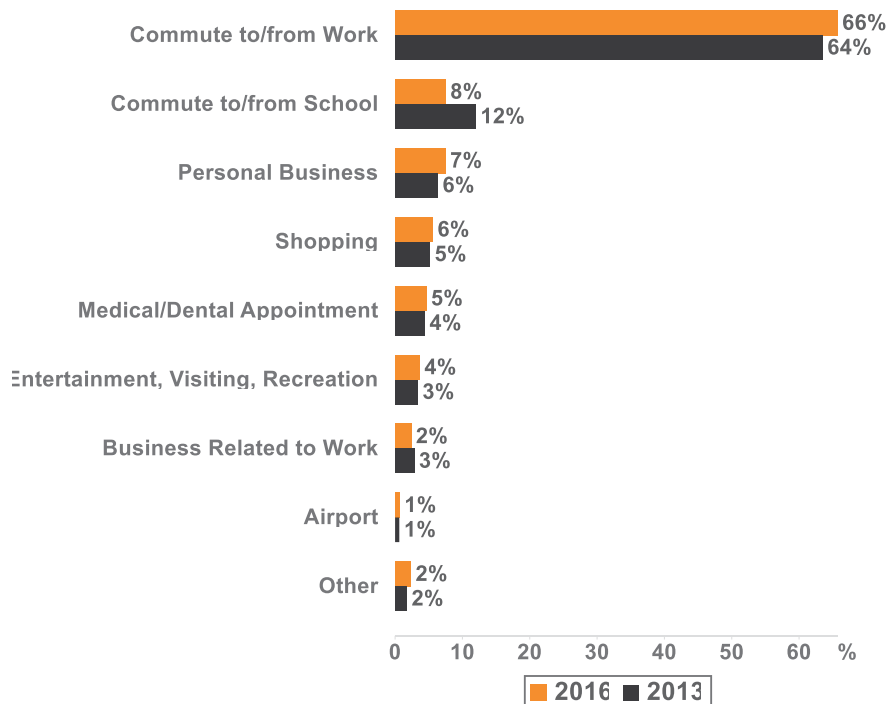
As shown in Figure 5-7, consistent with prior years, a majority of respondents are dependent on Pace buses (64%), though this percentage decreased by 7 percentage points from 2013. Thirty-six percent of 2016 survey respondents are not dependent on Pace buses as their means of transportation, but choose to take Pace buses.

**FIGURE 5-7: PACE RIDER DEPENDENCY BY YEAR**



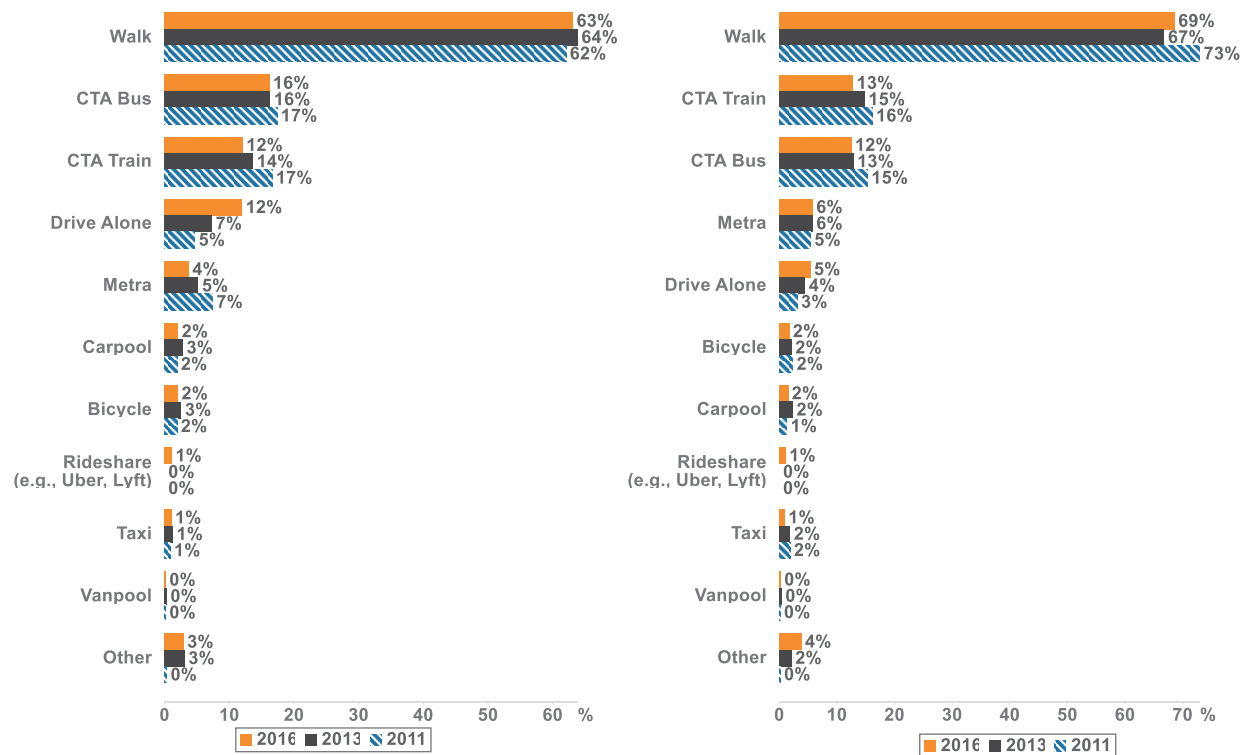
Similar to the 2013 survey, the majority of respondents (66%) use Pace buses to commute to or from work.

**FIGURE 5-8: PRIMARY TRIP PURPOSE BY YEAR**



Consistent with the study conducted in 2013, the majority of respondents (63%) access the Pace bus stop by walking. Other, less common, modes of access were using a CTA bus or train, or driving alone.

**FIGURE 5-9: ACCESS MODE TO PACE BUS STOP BY YEAR (LEFT) AND EGRESS MODE FROM PACE BUS STOP BY YEAR (RIGHT)**

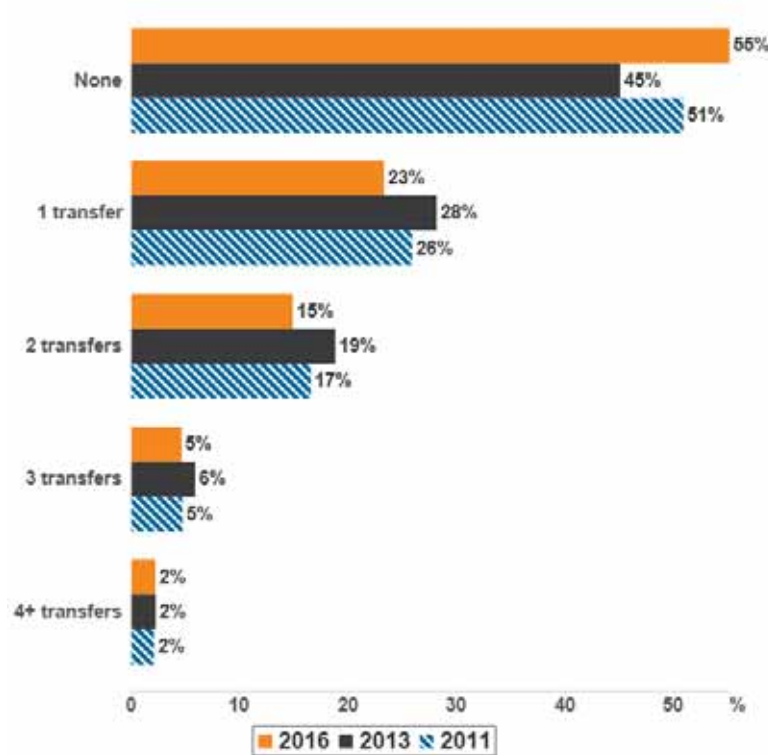


Similarly, a majority of respondents (69%) walk from their alighting Pace bus stop to their final destination. Other, less popular, modes of egress were using a CTA bus or train. Walking as an egress mode is slightly more common (69%) than walking as an access mode (63%).



The number of transfers made during a one-way bus trip decreased among respondents from the 2013 to the 2016 survey. The 2016 survey indicated that 55% of respondents now have no transfers, up ten percentage points from the 2013 survey (Figure 5-10).

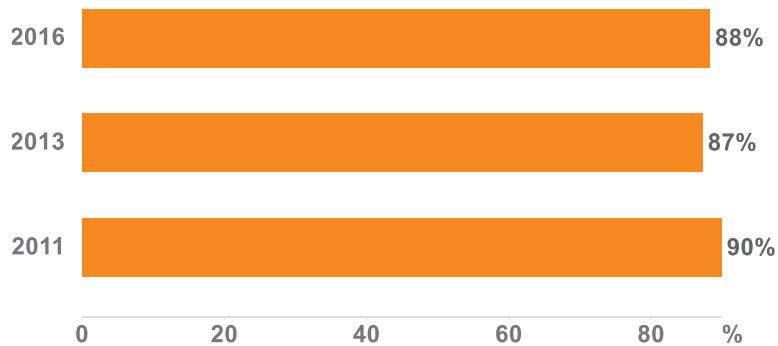
**FIGURE 5-10: NUMBER OF TRANSFERS PER ONE-WAY BUS TRIP BY YEAR**



## SATISFACTION BY YEAR

Pace riders were asked about their overall satisfaction with Pace, which was rated on a 10-point scale ranging from 1 = *very dissatisfied* to 10 = *very satisfied*. Figure 5-11 shows that 88% of the 2016 study respondents are satisfied with Pace overall. There was a slight increase in overall satisfaction from 2013 (87%) to 2016 (88%).

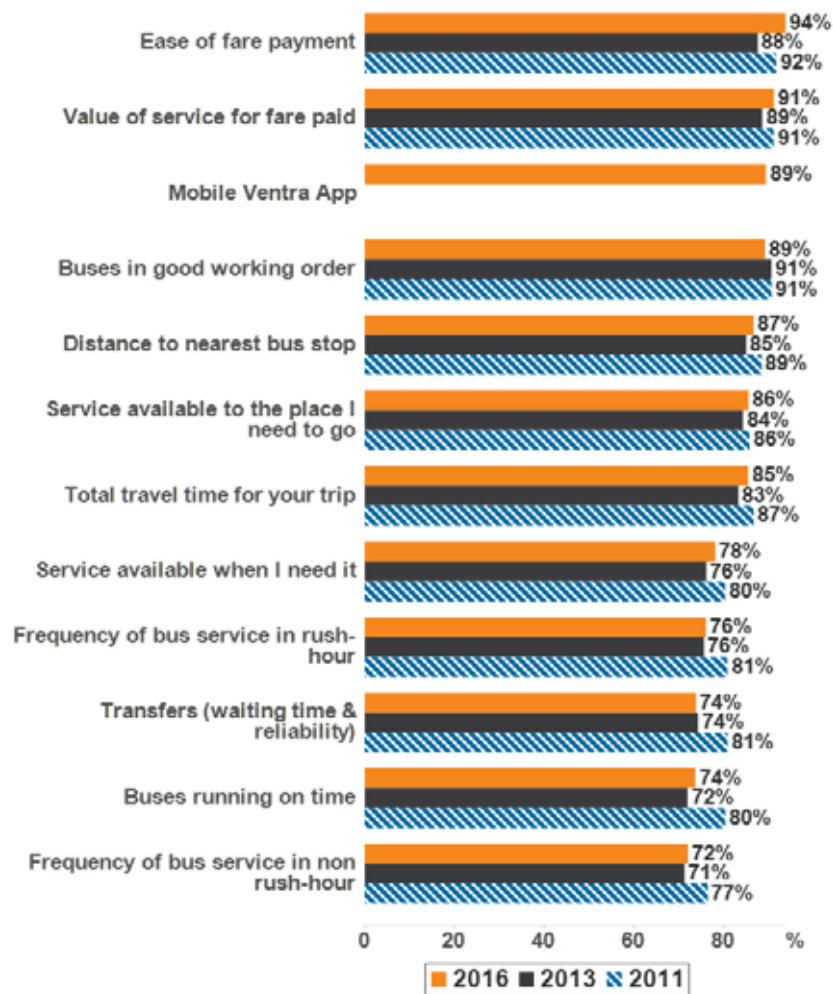
**FIGURE 5-11: OVERALL SATISFACTION**



A majority of respondents reported that they were satisfied with Pace's service delivery. It is notable that all attributes, except for buses being in good working order, either saw an increase or no change in satisfaction since the last study. Respondents were most satisfied with the ease of fare payment, which increased by six percentage points since 2013. This increase can most likely be attributed to riders being accustomed and comfortable with the transition to Ventra at this point, a process that had just started when the last study was conducted. Consistent with this conjecture, respondents indicated a level of high satisfaction with the Mobile Ventra App (89%). However, respondents were less satisfied in categories concerning bus service frequency and availability, the waiting time and the reliability of buses running on schedule.

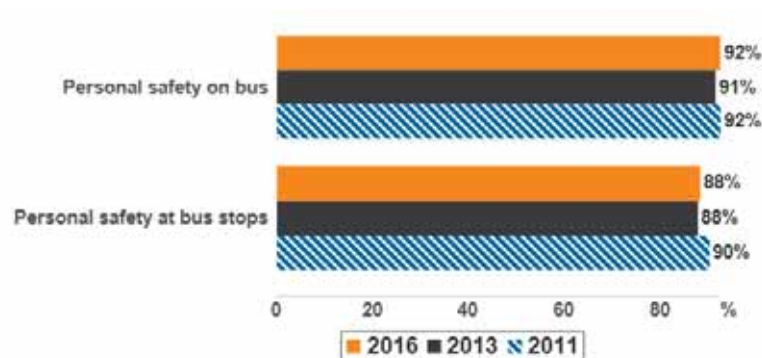


FIGURE 5-12: SERVICE DELIVERY BY YEAR



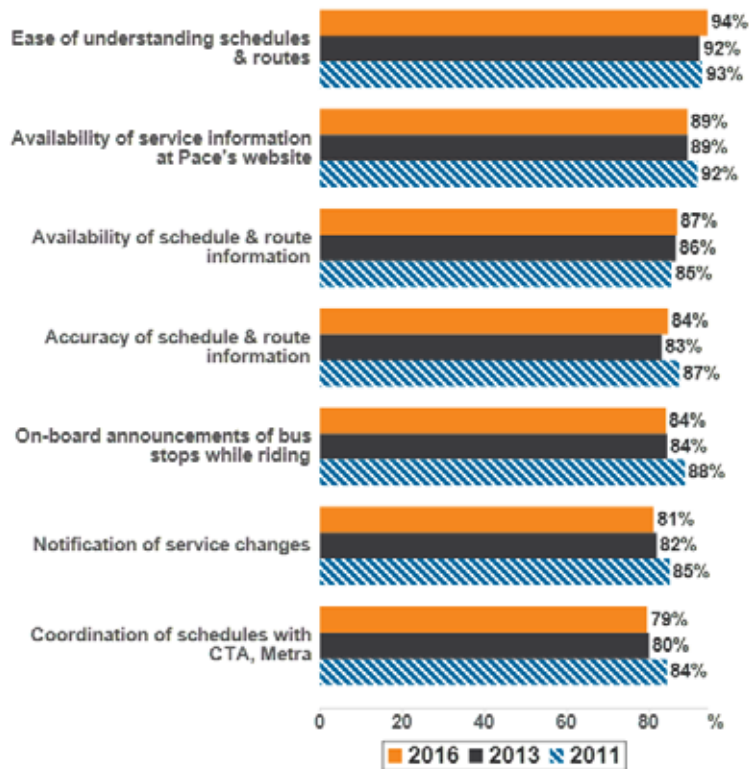
Consistent with previous surveys, 92% of respondents are satisfied with their safety on the bus. However, slightly less (88%) are satisfied with their personal safety at the bus stops.

FIGURE 5-13: SAFETY BY YEAR



Most respondents are satisfied with the information and communication provided by Pace. Ninety-four percent of respondents are satisfied with the ease of understanding schedules and routes. The lowest satisfaction level (79%) is associated with the coordination of schedules with CTA and Metra.

**FIGURE 5-14: INFORMATION AND COMMUNICATION BY YEAR**

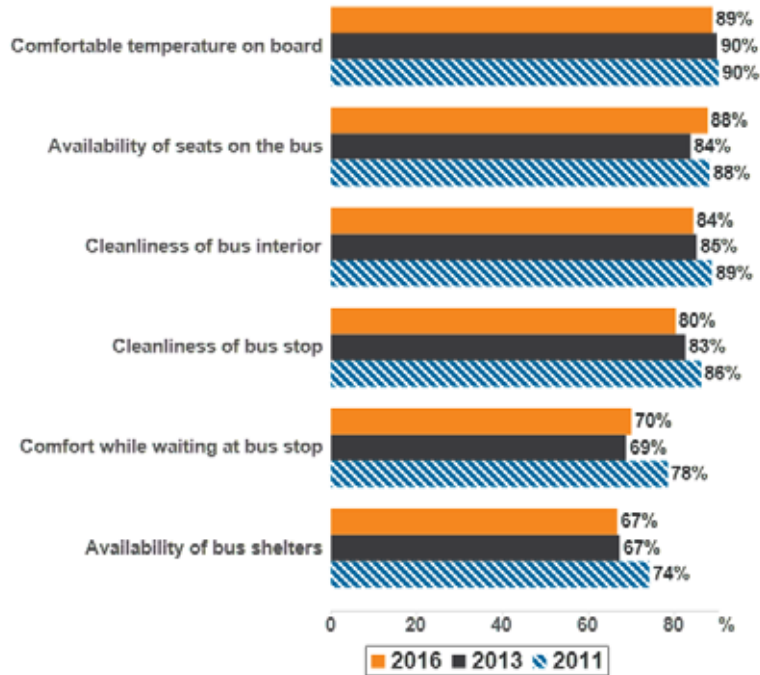


A majority of respondents are satisfied with the temperature and availability of seats on the bus and only slightly fewer respondents with the cleanliness of the bus interior and bus stop. However, only 70% of respondents indicated they were satisfied with their comfort while waiting at the bus stop and 67% were satisfied with the availability of bus shelters. The 2016 survey results were very similar to the results from the 2013 survey.



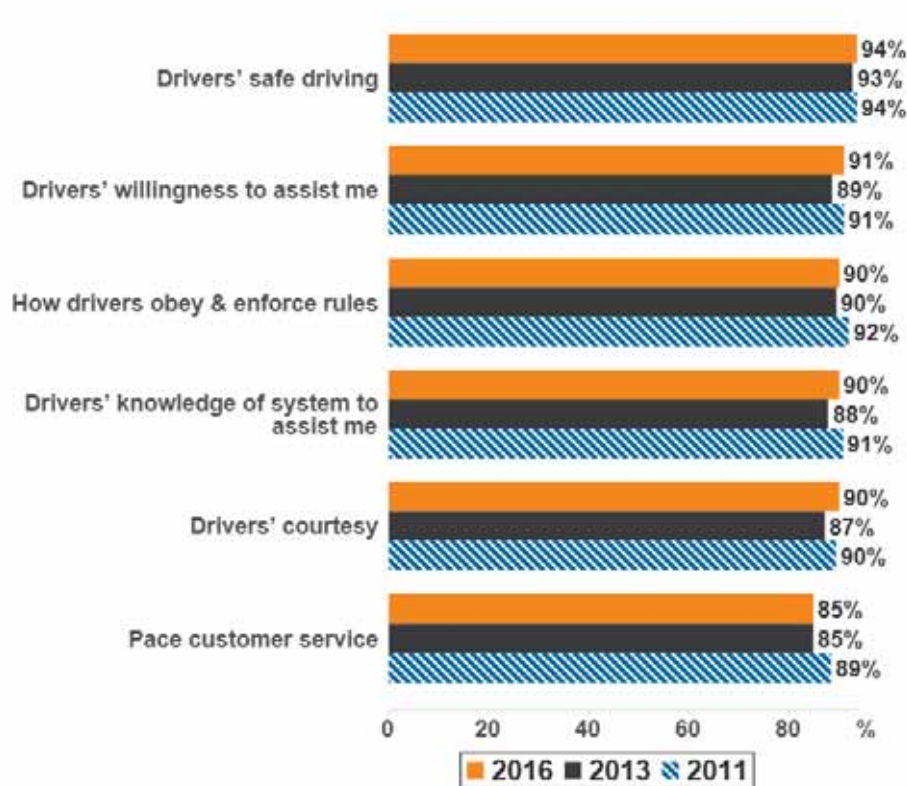


FIGURE 5-15: CLEANLINESS AND COMFORT BY YEAR



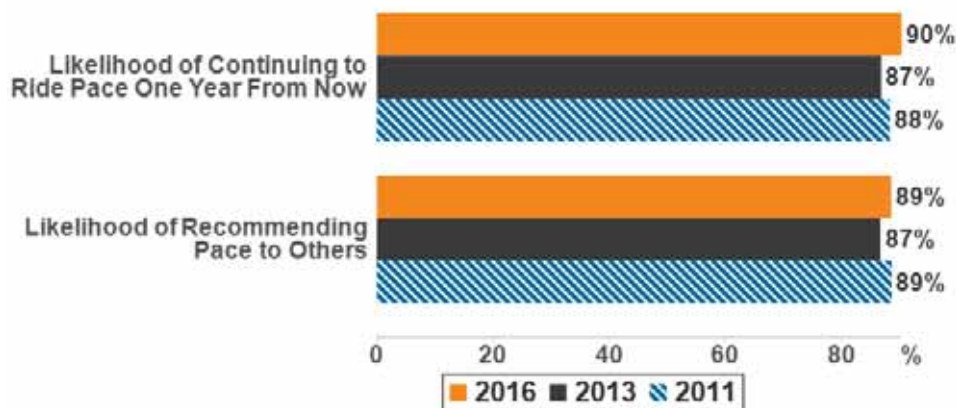
Similar to the survey in 2013, most respondents of the 2016 survey are very satisfied with the Pace drivers' performance. Even the lowest rating in this category, Pace customer service, received a high satisfaction score (85%).

**FIGURE 5-16: EMPLOYEE PERFORMANCE BY YEAR**



Ninety percent of respondents are likely to continue riding Pace buses a year from now, an increase of 3 percentage points since 2013. Also, similar to the 2013 survey, Pace has strong customer loyalty as 89% of respondents are likely to recommend Pace to others.

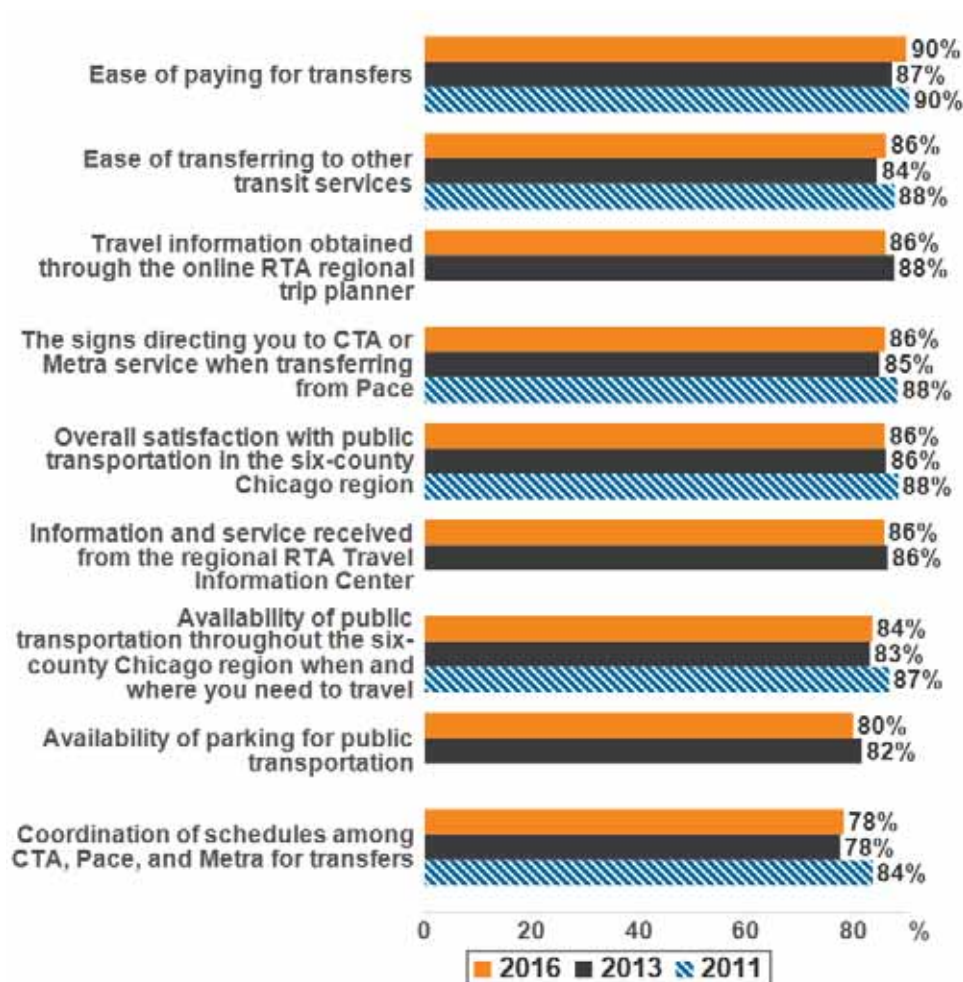
**FIGURE 5-17: LIKELIHOOD TO CONTINUE RIDING AND RECOMMENDING BY YEAR**



In general, Pace respondents are satisfied with regional transit. Overall, 86% of respondents are satisfied with the public transportation in the six-county Chicago region. These results are very similar to the survey results of 2013.



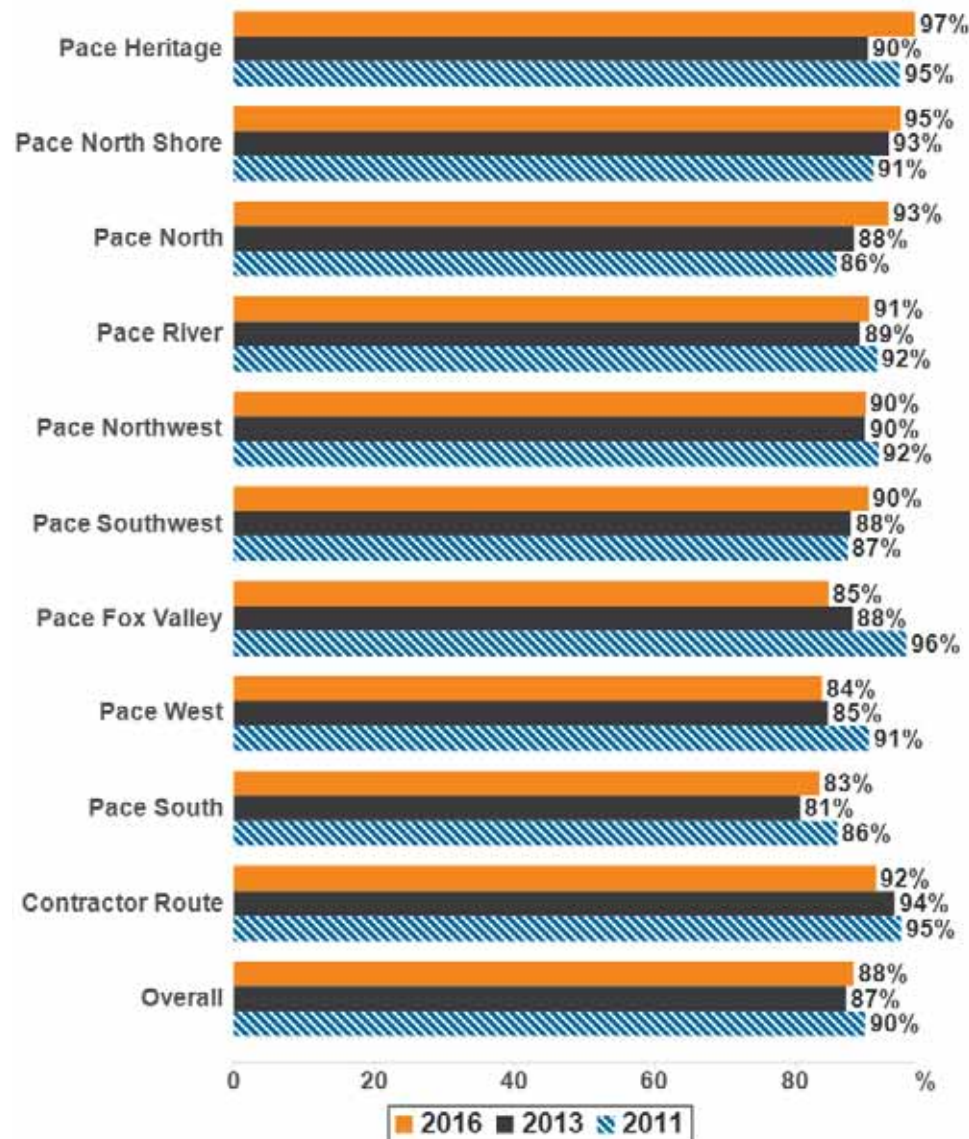
FIGURE 5-18: REGIONAL QUESTIONS BY YEAR



## SATISFACTION BY DIVISION

Most divisions showed an increase or constant satisfaction between the 2013 and 2016 studies. Increases in satisfaction ranged from a 7 percentage point increase among riders in the Pace Heritage division, to a 1 percentage point increase among riders of Pace River. Exceptions to this trend include riders of the Contractor routes, Pace Fox Valley division and the Pace West division, all of which decreased in overall satisfaction between 1 and 3 percentage points.

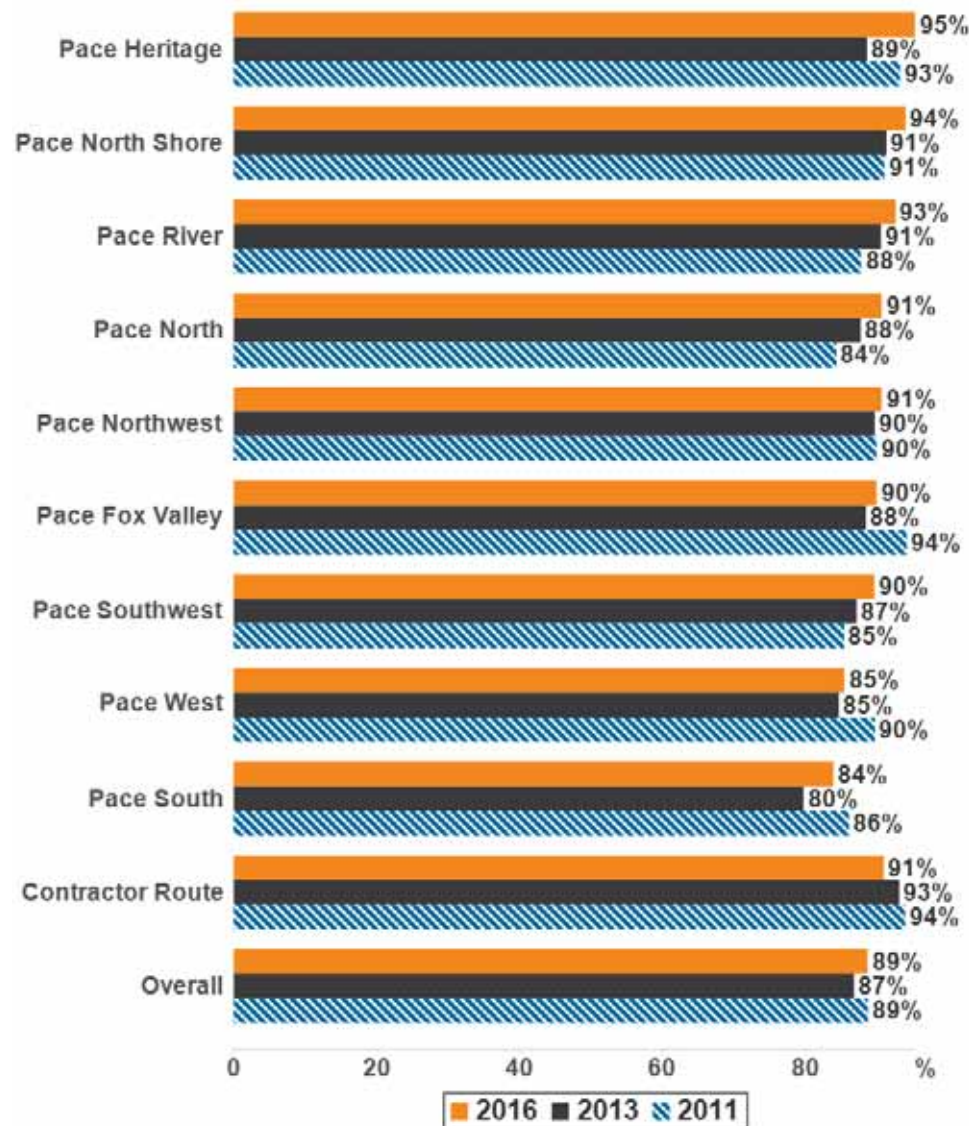
FIGURE 5-19: OVERALL SATISFACTION BY DIVISION AND YEAR





Most divisions showed an increase or constant likelihood to recommend Pace to others between the 2013 and 2016 studies. The largest increase in likelihood to recommend was for the Pace Heritage Division, which increased by 6 percentage points. The only exception to this trend includes riders of the Contractor routes, which decreased in the likelihood to recommend to others by 2 percentage points.

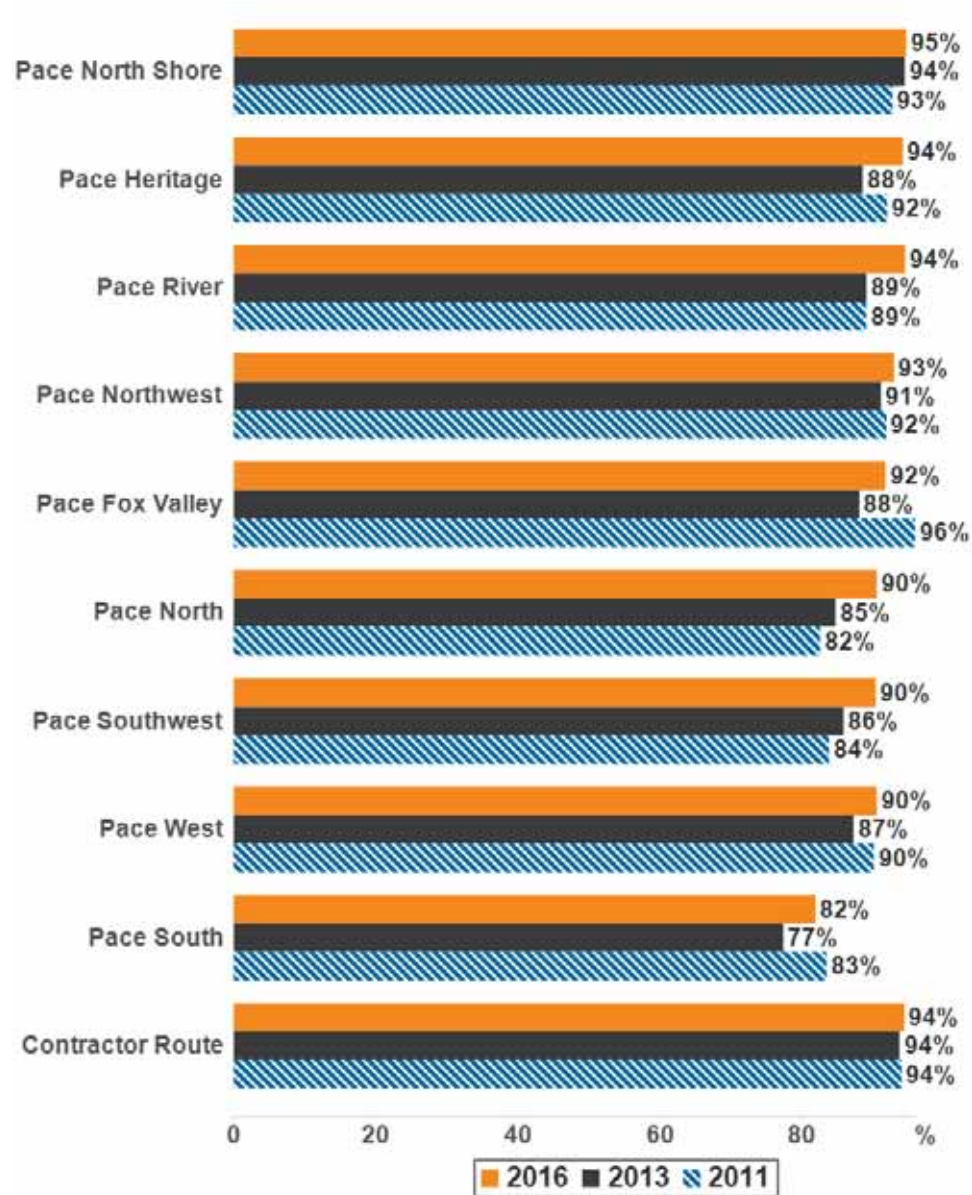
**FIGURE 5-20: LIKELIHOOD TO RECOMMEND BY DIVISION AND YEAR**





All divisions showed an increase or constant likelihood to continue riding Pace buses between 2013 and 2016. The largest increase in likelihood to continue riding Pace buses was for the Pace Heritage Division which increased by 6 percentage points from the 2013 survey.

**FIGURE 5-21: LIKELIHOOD TO CONTINUE RIDING BY DIVISION AND YEAR**





## SATISFACTION BY MAJOR MARKET

While satisfaction with different attributes is largely consistent across the major markets, there are some attributes where differences stand out. Suburb-to-Suburb riders have a 4-percentage point lower satisfaction score (90%) for value of service for fare paid. However, Suburb-to-Suburb riders and Chicago-to-Suburb riders are more satisfied with the availability of seats on the bus. Additionally, Chicago-to-Suburb riders are more satisfied with the accuracy of schedule and route information (90%).

**FIGURE 5-22: SATISFACTION BY MAJOR MARKET**

Satisfaction Variable	Suburb to Chicago	Chicago to Suburb	Suburb to Suburb
Overall satisfaction with Pace	87%	89%	89%
Ease of understanding schedules & routes	97%	94%	94%
Ease of fare payment	96%	96%	94%
Drivers' safe driving	96%	94%	94%
Value of service for fare paid	94%	91%	90%
Personal safety on bus	93%	94%	92%
Drivers' willingness to assist me	92%	90%	91%
Mobile Ventra App	92%	89%	89%
Drivers' knowledge of system to assist me	91%	92%	90%
How drivers obey & enforce rules	90%	93%	90%
Personal safety at bus stops	90%	90%	87%
Availability of service information at Pace's website	90%	91%	90%
Buses in good working order	89%	91%	89%
Comfortable temperature on board	89%	89%	90%
Drivers' courtesy	88%	89%	91%
Service available to the place I need to go	88%	84%	85%
Availability of schedule & route information	88%	85%	86%
Distance to nearest bus stop	88%	84%	88%
On-board announcements of bus stops while riding	86%	86%	82%
Cleanliness of bus interior	85%	87%	85%
Total travel time for your trip	84%	84%	87%
Pace customer service	83%	87%	85%
Availability of seats on the bus	83%	92%	90%
Accuracy of schedule & route information	83%	90%	84%
Notification of service changes	82%	81%	81%
Cleanliness of bus stop	79%	81%	81%
Coordination of schedules with CTA, Metra	79%	78%	78%
Service available when I need it	77%	76%	80%
Buses running on time	76%	77%	72%
Frequency of bus service in rush-hour	73%	79%	76%
Transfers (waiting time & reliability)	73%	78%	72%
Comfort while waiting at bus stop	67%	70%	68%
Frequency of bus service in non rush-hour	67%	74%	72%
Availability of bus shelters	64%	69%	65%

## DERIVED IMPORTANCE

Derived importance measures are found by statistically testing the strength that a collection of attributes has on influencing overall satisfaction. Calculating coefficients instead of using stated importance data considerably improves the clarity in answering which service attributes are the most important drivers of overall satisfaction. Derived importance can help further understand the underlying factors driving overall customer satisfaction that a respondent may not explicitly state.

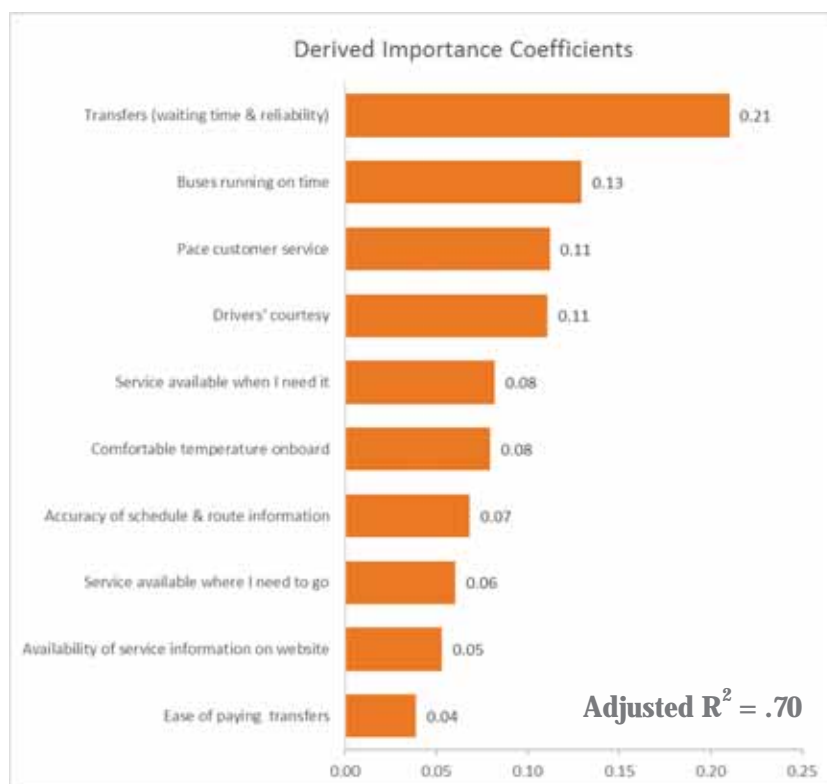
For this analysis, individual and regional service attributes were modeled as predictors that influence overall satisfaction with Pace. Consistent with the derived importance analysis of other service boards, the value of service for fare paid is considered a measure of overall satisfaction and was excluded from the model. A multiple regression model was developed using a backward step iterative process. In this approach, thirty-two service attributes and eight regional attributes were entered into the linear equation. Variables were removed if they were shown not to significantly influence overall satisfaction. If any variable did not increase the overall predictive power of the model, it was also eliminated from the equation. With an adjusted  $R^2$  of 0.70, the final regression yielded ten of the initial forty service and regional attributes. The ten attributes shown in Figure 5-23 significantly influence customers' overall satisfaction with Pace. The magnitude of each derived importance coefficient is a measure of the importance of the service attribute in determining customers' overall satisfaction with Pace.

Consistent with 2013, in determining their overall satisfaction with Pace, the waiting time and reliability of transfers is the most important service attribute for respondents and buses running on time is the second most important service attribute for respondents. Pace customer service is the third most important service attribute driving respondents' overall satisfaction, but was ranked fourth in the 2013 study.





FIGURE 5-23: 2016 DERIVED IMPORTANCE COEFFICIENTS



## QUADRANT CHARTS

A quadrant chart serves as a measure of performance against importance. Figure 5-24 maps the derived importance and satisfaction of the ten service and regional attributes identified above. These mapped points will provide insight as to where Pace should focus efforts to maximize customer satisfaction. The Y-axis (vertical) measures importance and the X-axis (horizontal) measures attribute satisfaction. Both axes are split at their means, thus creating the four quadrants. Table 5-3 outlines what each of the four quadrants represent and the appropriate action required by Pace to maximize customer satisfaction.

TABLE 5-3: UNDERSTANDING QUADRANT CHART

QUADRANT	LOCATION	SATISFACTION LEVEL	IMPORTANCE	ACTION
1	Top left	Relatively low	Relatively high	Attributes for improvement
2	Top right	Relatively high	Relatively high	Attributes to maintain
3	Bottom left	Relatively low	Relatively low	Attributes to monitor
4	Bottom right	Relatively high	Relatively low	Attributes with no immediate action

FIGURE 5-24: KEY DRIVERS OF OVERALL SATISFACTION QUADRANT CHART



The top-right quadrant contains attributes that were indicated by respondents as both important and achieved higher than average satisfaction ratings. Pace is currently meeting respondents' expectations with two attributes: customer service and driver courtesy. Maintaining the quality of these service attributes should be a priority for Pace going forward.

The top-left quadrant contains attributes that are also important, but have below-average satisfaction scores. Pace should prioritize improvements that ensure buses run on time and that reduce the difficulties and inconveniences associated with transferring buses. A more concerted effort to address these improvements will likely improve overall customer satisfaction.

## 5.4 | CONCLUSION

The results from these analyses indicate that the most important determinants of overall satisfaction with Pace are the waiting time and reliability of transfers and buses running on time, a finding consistent with 2013. This year's results indicate that a clear majority of customers (88%) are satisfied with Pace's service overall. Year over year, satisfaction with most individual service attributes increased. In addition, overall satisfaction with Pace increased or remained the same for most Pace divisions. Exceptions to this trend are three divisions (Pace Fox Valley, Pace West, and Contractor Route) that experienced a decrease in overall



satisfaction from 2013 to 2016. Finally, this year saw a greater percentage of respondents indicate that they were likely to continue riding Pace buses in the next year and were likely to recommend Pace to others. Taken together, these results confirm that Pace is meeting the needs of its customers and that Pace customers are overall satisfied with the services that Pace provides to them.





## APPENDIX A. ADDITIONAL RESULTS AND CROSSTABS (CTA)

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## APPENDIX B. ADDITIONAL RESULTS AND CROSSTABS (METRA)

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## APPENDIX C. ADDITIONAL RESULTS AND CROSSTABS (PACE)

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