

Customer Service Performance Quarter 1 2019

Bus SeaBus SkyTrain















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The Customer Service Performance study tracks performance on service attributes that are most strongly related to overall transit service ratings from customers.

Trends in the percentage of good-to-excellent scores (8, 9, 10 out of 10) are highlighted.

The analysis in the text focuses on the top key drivers for each area of service.

Where performance is excellent or poor, but the attribute is not one of the top key drivers, the text does not comment on it; however, customer ratings on the attribute will be shown in the graphs for each section.





Overview

- Overall Transit Service receives good-to-excellent scores from 66% of transit riders, which is similar to historical trends. The average score is unchanged at 7.8 out of 10.
- Scores for all the transit system attributes are stable this period, except for Value for Money, which has shown a decline compared to a year ago (53%, down 4 percentage points). These values were last seen in 2017.
- Similar to previous waves, the one area that continues to lag behind in its performance is Enough Shelters at Stops, earning top scores from only 36% of transit riders.



Overall Bus Service shows consistent performance at 65% this period. The average score continues to sit at 7.9 out of 10.

- Among all the top key drivers of Overall Bus Service, Having a Courteous Bus Operator (78%) has the strongest performance.
- The other three top key drivers continue to lag behind other aspects of service: Providing On-Time, Reliable Service (59%), Frequency of Service (51%) and Not Being Overcrowded (50%).
- No bus service attributes' ratings show any significant changes.



SkyTrain is the only transit mode that has shown a drop in ratings from last quarter, with three-quarters of SkyTrain riders giving top scores to Overall SkyTrain Service (75%, down 4 percentage points). The average score is still sitting strong at 8.2 out of 10.

- The only area in which SkyTrain performance has slipped is in the ratings for Clean and Graffiti-Free SkyTrain Cars and Stations (72%, down 6 percentage points from Q1 2018).
- Although Delays are Announced and Explained is still the lowest-rated SkyTrain service attribute, its ratings (40%) have gone up from a year ago (34%).
- Consistent with previous quarters, Canada Line riders are generally more positive than BCRTC riders.

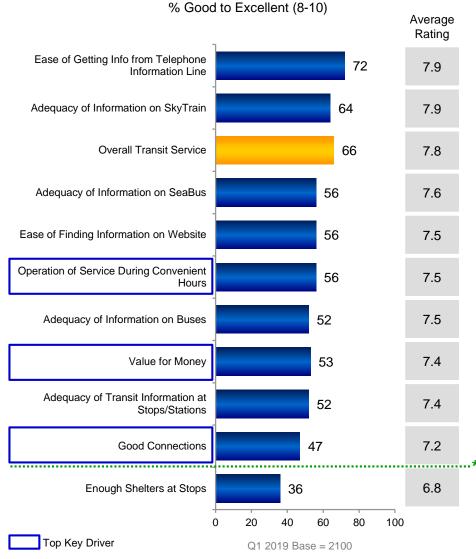


The strongest transit mode continues to be SeaBus, earning top ratings from 81% of riders and the average score is 8.5 out of 10.

- Similar to historical waves, all SeaBus service attributes perform well above the 7.0 positive-performance threshold.
- On-Time Reliable Service is the highestrated SeaBus service attribute, with nine-inten SeaBus riders (89%) awarding top scores.
- Although based on a smaller number who spoke with SeaBus staff, the proportion of riders who give a high score to Courteous, Competent and Helpful Staff has dropped this period (73%, down from 100% last wave).



Performance on Transit System Attributes



Transit System

- Two-thirds of transit riders (66%) award top scores to the Overall Transit Service, which is in-line with last quarter and a year ago. The average score is unchanged at 7.8 out of 10.
- Only Value for Money shows a significant change in its performance (53%, down from a year ago). No other transit service attributes show any significant changes.
- The lowest-rated transit system attribute continues to be Enough Bus Shelters at Bus Stops (36%), which earns an average score that is below the 7.0 positive-performance threshold (6.8 out of 10).

Performance on Top Key Drivers of Transit Overall Service

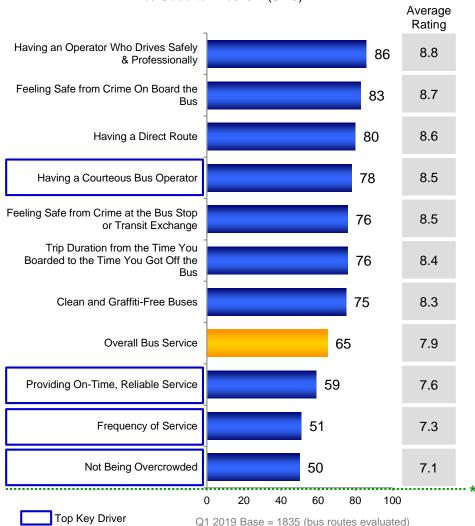
Key Drivers with Positive Performance*

- Operation of Service During Convenient Hours
 - Trending up over the last two quarters, Convenient Hours receives high scores from 56% of transit riders, making this the highest-rated top key driver of Overall Transit Service.
- Value for Money
 - This period, ratings for Value for Money have slipped from Q1 2018 (53%, down from 57%).
- Good Connections
 - Close to one-half of transit riders (47%) give top scores to Good Connections, which is directionally down from the previous quarter.

* An average rating of 7.0 or higher means an attribute's performance is positive, whereas a rating of less than 7.0 means improvements should be considered.



Performance on Bus System Attributes



% Good to Excellent (8-10)

* An average rating of 7.0 or higher means an attribute's performance is positive, whereas a rating of less than 7.0 means improvements should be considered.

Bus System

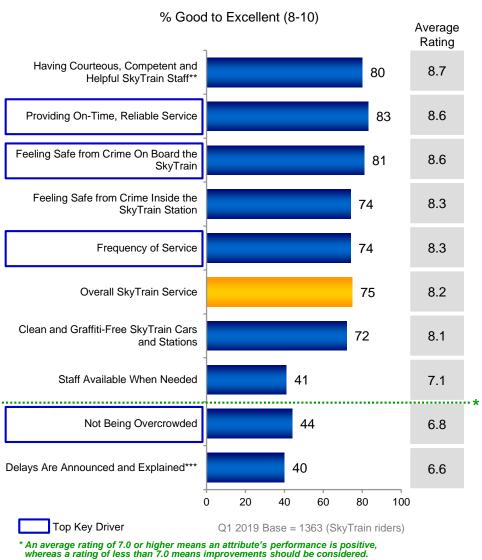
- Similar to historical trends, Overall Bus Service is rated highly by two-thirds of bus riders (65%) and the average score is stable at 7.9 out of 10.
- There are no significant changes this period and all attributes meet the 7.0 threshold for positive performance.

Performance on Top Key Drivers of Overall Bus Service Key Drivers with Positive Performance*

- Courteous Bus Operator
 - Courteous Bus Operator continues to be the strongestperforming top key driver for Overall Bus Service (78%). Scores for WVT have improved from a year ago.
- On-Time Reliable Service
 - Six-in-ten bus riders (59%) award top scores to On-Time, Reliable Service, which is in-line with Q1 and Q4 of 2018.
 Ratings for PCT have improved over a year ago while scores for RTC have slipped. HTC's performance has grown stronger compared to last quarter but has gone down from a year ago.
- Frequency of Service
 - Frequency of Service earns good-to-excellent scores from 51% of bus riders which is directionally down from the same period last year. Both RTC and HTC have shown a drop in performance compared to a year ago.
- Not Being Overcrowded
 - In-line with previous quarters, one-half of bus riders (50%) give a high rating to Not Being Overcrowded.



Performance on SkyTrain Attributes



SkyTrain System

- Overall SkyTrain Service has shown a drop in its performance compared to Q4 2018 (75%, down 4 percentage points). The average score is 8.2 out of 10.
- Compared to a year ago, ratings for three service attributes have changed significantly. Namely: Clean and Graffiti-Free SkyTrain Cars and Stations (72%, down 6 percentage points), Frequency of Service (74%, down 4 percentage points) and Delays are Announced and Explained (40%, up 6 percentage points).
- Not Being Overcrowded and Delays are Announced and Explained continue to perform below the 7.0 threshold at 6.8 and 6.6 out of 10 respectively.

Performance on Top Key Drivers of SkyTrain Overall Service

Key Drivers with Positive Performance*

- On-Time, Reliable Service
 - This continues to be one of the highest-performing top key drivers, earning top scores from 83% of SkyTrain riders. In particular, Canada Line's performance has gone up from the previous quarter.
- Feeling Safe from Crime On Board the SkyTrain
 - Another strong-performing top key driver is Feeling Safe from Crime On Board the SkyTrain (81%), which shows no changes in its ratings.
- Frequency of Service
 - Scores for Frequency of Service (74%) have decreased from the same period last year, especially among BCRTC riders.

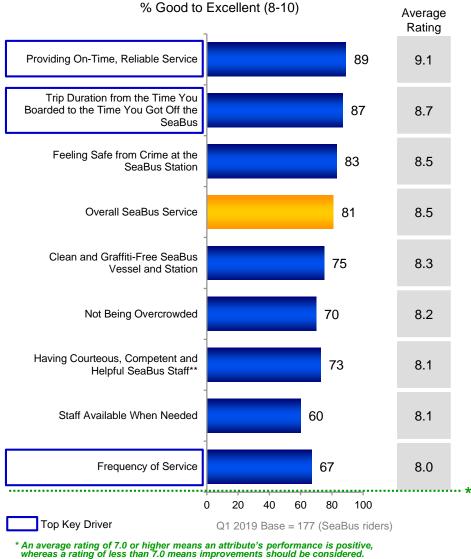
Key Drivers Needing Improvement*

- Not Being Overcrowded
 - Similar to previous quarters, Not Being Overcrowded (44%) shows relatively weaker performance compared to the other top key drivers.

** Caution: Small base size – only among SkyTrain riders who spoke with staff (n=64) *** Caution: Only among those who experienced delays (n=516)



Performance on SeaBus Attributes



SeaBus

- Eight-in-ten SeaBus riders (81%) continue to give good-toexcellent scores to the Overall SeaBus Service. The average score is the highest among all three transit modes (8.5 out of 10).
- All SeaBus attributes have earned an average score that is well above the 7.0 positive-performance threshold.
- Courteous, Competent and Helpful Staff is the only SeaBus service attribute that shows a drop in ratings this period (73%, down from 100% last quarter).

Performance on Top Key Drivers of SeaBus Overall Service

- On-Time, Reliable Service
 - On-Time Reliable Service continues to show the strongest performance at 89%.
- Trip Duration
 - Trip Duration also performs well, with 87% of SeaBus riders giving a high score, which is unchanged from Q1 and Q4 of 2018.
- Frequency of Service
 - Ratings for Frequency of Service (67%) are relatively lower compared to the other two top key drivers.



Transit Riders



- Transit riders have similar demographic characteristics to the broader adult population of Metro Vancouver. Notable exceptions observed this quarter include the following:
 - Transit riders tend to be younger, aged 18 to 24 years old (20% versus 12%)
 - They are less likely to be employed full-time (49% versus 57%)
 - They are more likely to be a student (16% versus 5%)
 - They are more likely to hold a university degree (52% versus 45%)

Trip Purpose



• The two most common type of transit trips made by transit riders are "going to or from work" (48%) and "for entertainment or social reasons" (44%). However, mentions of work trips have dropped from a year ago.

Choice versus Captive



- The proportion of Choice riders (those with regular access to a vehicle) is at 64% while the proportion of Captive riders (those who do not have vehicle access) is at 35%.
- Compared to Captive riders, Choice riders continue to be older (35+), have higher household incomes (\$80K+), work full-time, hold a university degree, and have been a regular transit rider for a longer period of time.
- On the other hand, Captive riders are more likely to be younger (18-34), have lower household incomes (under \$40K), unemployed, take the Bus, reside in Vancouver, and have taken more transit trips in the past week.





The primary objectives of this project are to:

- Evaluate the quality of service provided by Bus, SeaBus, and SkyTrain.
- Diagnose what aspects of service have the strongest impact on perceptions of service quality.
- Provide recommendations regarding what aspects of service need to be modified to increase and maintain high levels of service quality across transit modes.
- Assess customer behaviour and motivation related to the use of public transit.
- Starting in July 2017, this study uses a dual-frame of cell-phone and landline sample in order to make the sample more representative of the target population.

More details about the methodology used for this project are included in Appendix A.





This section presents an evaluation of the overall transit system, followed by evaluation of each of the three transit modes. For the transit system overall and for each mode, results are presented for the following:

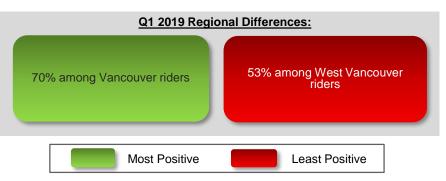
- · Perceptions of Overall Service
- Perceptions of Specific Attributes





Q6. How would you rate the overall service provided by the transit system in the Greater Vancouver Region?





Overall Service

Overall Transit Service's performance is holding stable this quarter, with two-thirds of riders (66%) giving top ratings. The average score is unchanged at 7.8 out of 10.

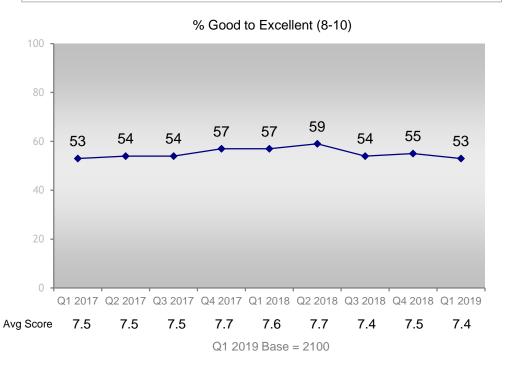
Good-to-	Last Quarter	Same Quarter Last Year
Excellent ratings compared to:	+ 1%	0%

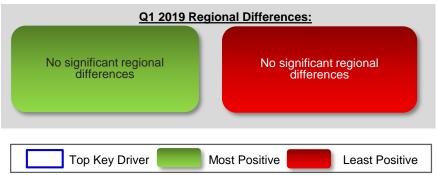
Compared to their counterparts, Low/Medium Frequency riders are more likely to give top ratings to the Overall Transit Service.





Q6.1 Still thinking about the service provided by the transit system in the Greater Vancouver Region, how would you rate it in terms of providing value for money?







Over one-half of riders (53%) award good-to-excellent scores to Value for Money, which is down from a year ago. The average score is 7.4 out of 10.

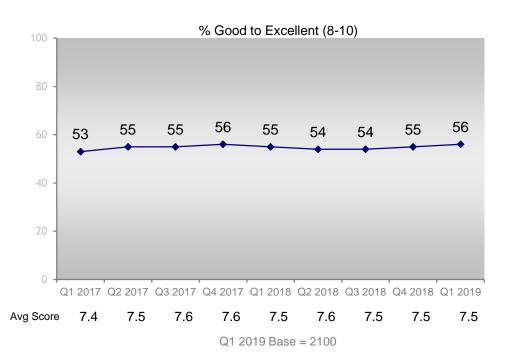
Good-to-	<u>Last Quarter</u>	Same Quarter Last Year
Excellent ratings compared to:	- 2%	- 4%

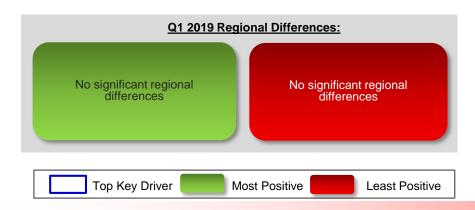
Seniors (65+) tend to give a higher rating to this area compared to their younger counterparts.





Q23C. Thinking of the regional transit system in Greater Vancouver, how would you rate it for having service that runs during convenient hours?





Convenient Hours

Scores for Convenient Hours have been steadily increasing over the last two quarters, from 54% in Q3 2018 to 56% to this period. This is a top-rated key driver, with an average score of 7.5 out of 10.

Good-to-	<u>Last Quarter</u>	<u>Same Quarter Last Year</u>
Excellent ratings compared to:	+ 1%	+ 1%

High/Medium Frequency users and seniors (65+) are more likely to give a score of 8 to 10 to this attribute.





Good Connections

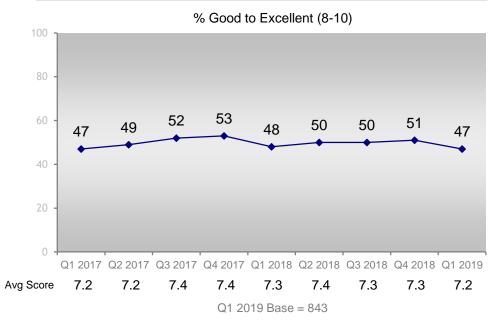
Q23AA. Again, thinking of the trip you take most often on transit, do you take more than one bus or transit mode?

Similar to historical trends, four-in-ten riders (41%) report taking more than one bus or transit mode on the trip that they take most often, especially among Captive riders, High/Medium Frequency users, Bus/SeaBus riders, 2-3 zone travelers, younger riders (18-24), school commuters, Compass Card users and those with a household income of less than \$40K.

Directionally down from last quarter, Good Connections is rated highly by 47% of those who have made connections. The average score is 7.2 out of 10. Those who are between the ages of 25 to 64 years old are more likely to give a lower score to this area.

Good-to-	<u>Last Quarter</u>	<u>Same Quarter Last Year</u>
Excellent ratings	40/	40/
compared to:	- 4%	- 1%

Q23AB. How would you rate the transit system in terms of having good connections between buses or transit modes with a reasonable wait time?







Q23D. How would you rate the transit system for having enough bus shelters at bus stops throughout the region?



riders

Top Key Driver

Westminster riders

Least Positive

Most Positive

Enough Bus Shelters at Bus Stops

Marginally up from the previous quarter but unchanged from a year ago, Enough Bus Shelters at Bus Stops earns top scores from 36% of transit riders. This continues to be the weakest transit system attribute which earns an average score of 6.8 out of 10.

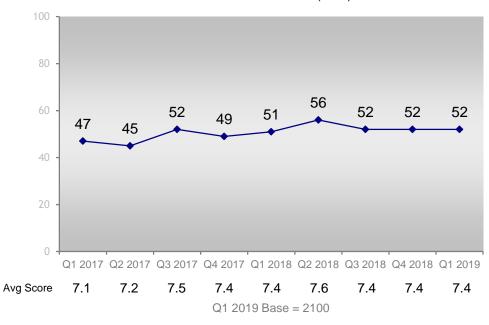
Good-to-	<u>Last Quarter</u>	Same Quarter Last Year
Excellent ratings compared to:	+ 2%	0%

Bus riders and High/Medium Frequency users tend to award higher scores to this attribute.





Q23A. Thinking of the transit system in Greater Vancouver, how would you rate it for providing adequate transit information at stops and stations?



% Good to Excellent (8-10)

Adequacy of Transit Information at Stops and Stations

Performance of Adequacy of Transit Information at Stops and Stations is holding stable at 52% and the average score is 7.4 out of 10.

Good-to-	Last Quarter	Same Quarter Last Year
Excellent ratings compared to:	0%	+ 1%

Younger riders and those who make an annual household income of less than \$40K are more likely to give a higher score to this area.



Q1 2019 Regional Differences:



Q23E.1 On a scale from one to ten, how would you rate it for ease of getting the information you wanted when you called the telephone information line?



% Good to Excellent (8-10)

Spoke To
ClerkCall Was
AutomatedClerk &
AutomatedBase = 129Base = 43**Base = 73*Base = 43**Base = 73*Clerk &
Base = 43**Clerk &
AutomatedBase = 43**Base = 73*Clerk &
Base = 73*Clerk &
Base = 73*Base = 43**Base = 73*Clerk &
Base = 73*Base = 6000 to Excellent (8-10)77%69%68%

Ease of Getting Information from the Telephone Information Line

One-in-ten transit riders (12%) continue to indicate that they have used the Telephone Information Line in the past three months, particularly among High Frequency users, Captive riders, Monthly Pass users and lower income earners (less than \$80K).

72% of those who have used the Telephone Line award top scores to Ease of Getting Information and the average score is 7.9 out of 10.

Good-to-	Last Quarter	Same Quarter Last Year
Excellent ratings compared to:	+ 5%	+ 1%

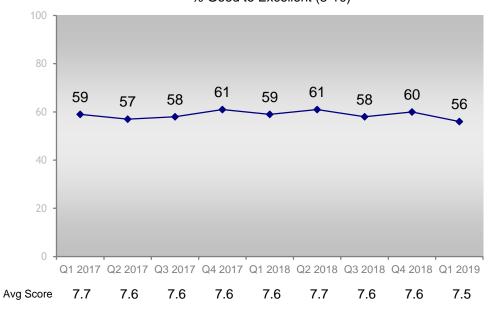
Riders who had spoken to a telephone information clerk are more likely to give a higher score to this area compared to those who heard full or partial automated information.



* Caution: Small base size



Q23F.1 On a scale from one to ten, how would you rate TransLink's website for being easy to find the information you wanted?



% Good to Excellent (8-10)

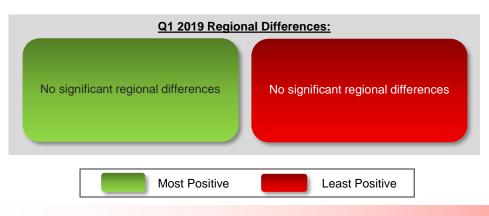
Ease of Finding Info on Website

Over one-half of transit riders (52%) say that they have used TransLink's website over the past three months, especially among university graduates, work commuters, riders who are between 45 and 64 years of age and those who make an annual household income of \$40K or more.

Directionally down from both Q1 and Q4 of 2018, 56% of those who have used the website give good-to-excellent scores to Ease of Finding Information. The average score is 7.5 out of 10. Those who are between the ages of 45 and 64 years old and make more than \$40K are less likely to award top scores to this attribute.

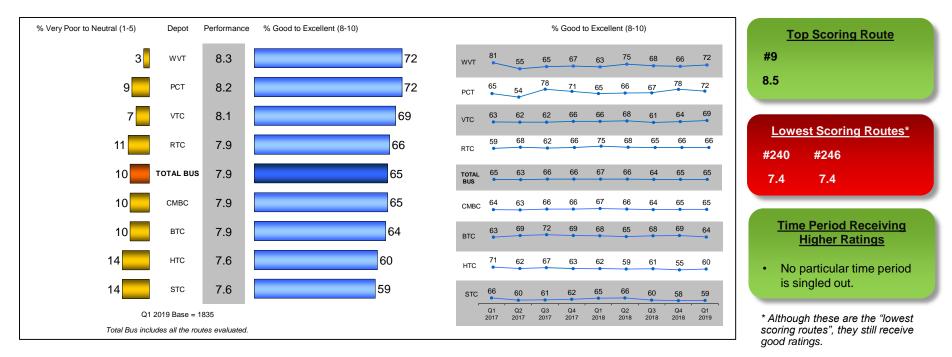
Good-to-	<u>Last Quarter</u>	<u>Same Quarter Last Year</u>
Excellent ratings compared to:	- 4%	- 3%
compared to.		

Q1 2019 Base = 1088 (used website)





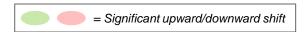
Q17/19/21. Thinking about the trip you made on the bus, how would you rate it for service overall?



Bus Service Overall

Two-thirds of bus riders (65%) continue to give top ratings to the Overall Bus Service and the average score is 7.9 out of 10.

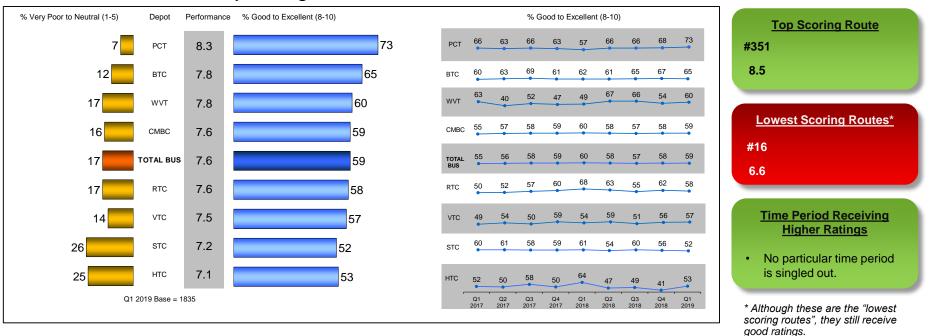
Good-to-Excellent ratings compared to:	Last Quarter	Same Quarter Last Year
Total Bus	0%	- 2%
RTC	0%	- 9%





Top Key Driver

Q18.9/20.9/22.9 Thinking about the last/2nd last trip you made on [ROUTE NUMBER] how would you rate it in terms of providing on-time reliable service?

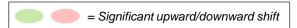


On-Time Reliable Service

On-Time Reliable Service is rated highly by six-in-ten bus riders (59%), which is a top key driver for Overall Bus Service. The average score is 7.6 out of 10.

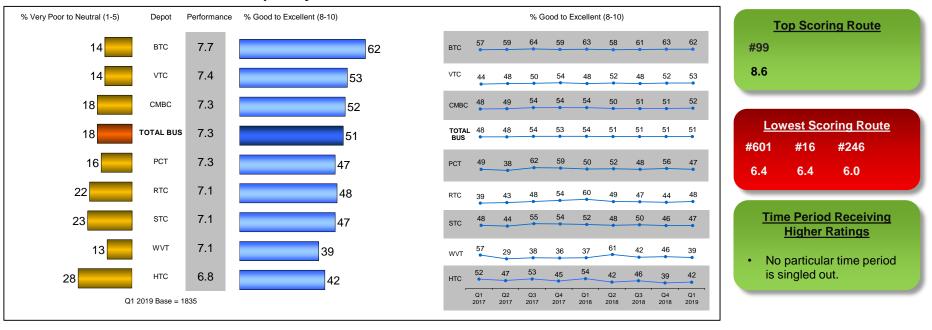
Good-to-Excellent

ratings compared to:	<u>Last Quarter</u>	<u>Same Quarter Last Year</u>
Total Bus	+ 1%	- 1%
PCT	+ 5%	+ 16%
RTC	- 4%	- 10%
HTC	+ 12%	- 11%





Q18.15/20.15/22.15 Thinking about the last/2nd last trip you made on [ROUTE NUMBER] how would you rate it in terms of frequency of service?

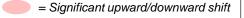


Frequency of Service

In-line with last quarter but directionally down from a year ago, Frequency of Service (another top key driver) earns good-to-excellent scores from one-half of bus riders (51%). The average score remains stable at 7.3 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total Bus	0%	- 3%
RTC	+ 4%	- 12%
HTC	+ 3%	- 12%

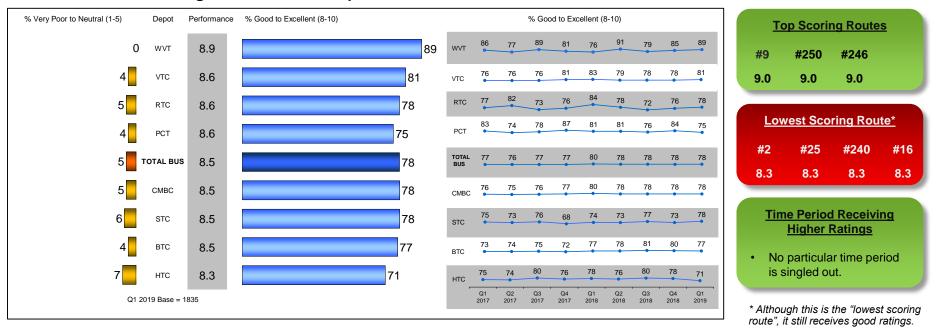






Top Key Driver

Q18.1/20.1/22.1 Thinking about the [ROUTE NUMBER] bus you took, how would you rate it in terms of having a courteous bus operator?

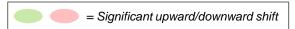


Courteous Bus Operator

Being the highest-rated top key driver of Overall Bus Service, Courteous Bus Operator earns top scores from close to eight-in-ten bus riders (78%). The average score remains strong at 8.5 out of 10.

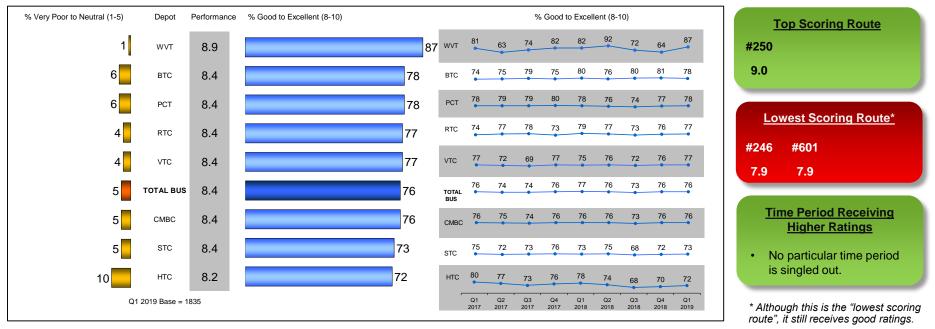
Good-to-Excellent

ratings compared to:	Last Quarter	Same Quarter Last Year
Total Bus	0%	- 2%
WVT	+ 4%	+ 13%





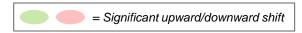
Q18.14/20.14/22.14 Thinking about the last/2nd last trip you made on [ROUTE NUMBER] how would you rate it in terms of trip duration from the time you boarded to the time you got off the bus?



Trip Duration

Consistent with Q1 and Q4 of 2018, three-quarters of bus riders (76%) give a score of 8 to 10 to Trip Duration. The average score is strong at 8.4 out of 10.

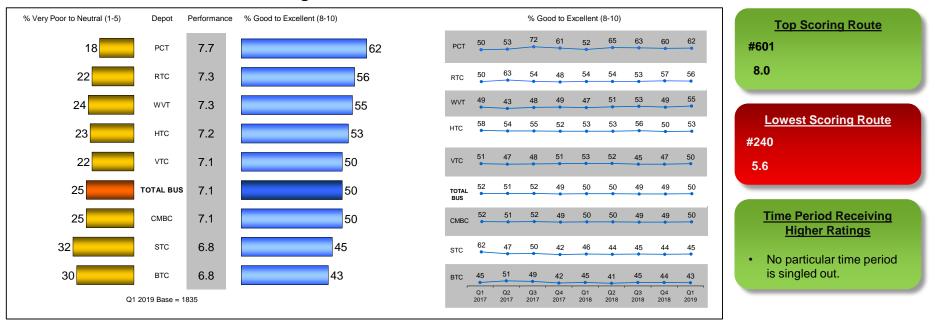






Top Key Driver

Q18.4/20.4/22.4 Thinking about the last/2nd last trip you made on [ROUTE NUMBER] how would you rate it in terms of not being overcrowded?



Not Being Overcrowded

One-half of bus riders (50%) continue to give good-to-excellent scores to another top key driver, Not Being Overcrowded and the average score is 7.1 out of 10.

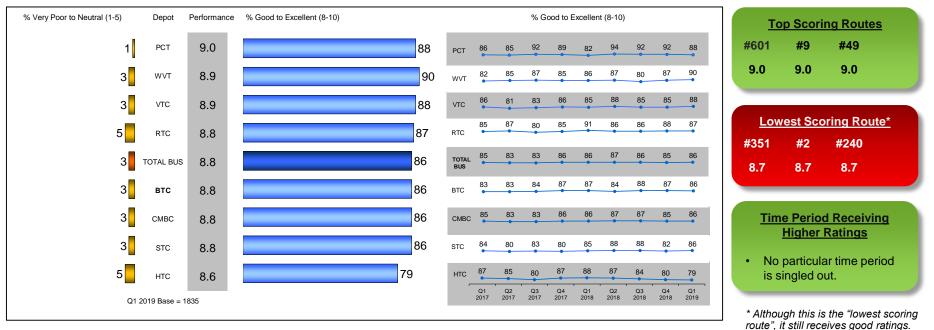
Good-to-Excellent

ratings compared to:Last QuarterSame Quarter Last YearTotal Bus+ 1%0%

Significant upward/downward shift



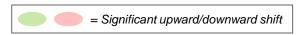
Q18.1a/20.1a/22.1a Thinking about the [ROUTE NUMBER] bus you took, how would you rate it in terms of having an operator who drives safely and professionally?



Safe and Professional Bus Operator

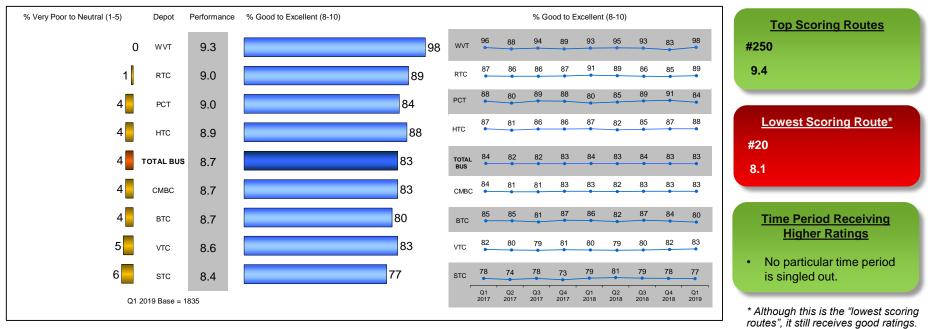
A large majority of bus riders (86%) award top scores to Safe and Professional Bus Operator and the average score remains high at 8.8 out of 10.

Good-to-Excellent
ratings compared to:Last QuarterSame Quarter Last YearTotal Bus+ 1%0%HTC- 1%- 9%





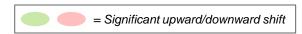
Q18.2/20.2/22.2 Thinking about the [ROUTE NUMBER] bus you took, how would you rate it in terms of feeling safe from crime on board the bus?



Feeling Safe from Crime On Board the Bus

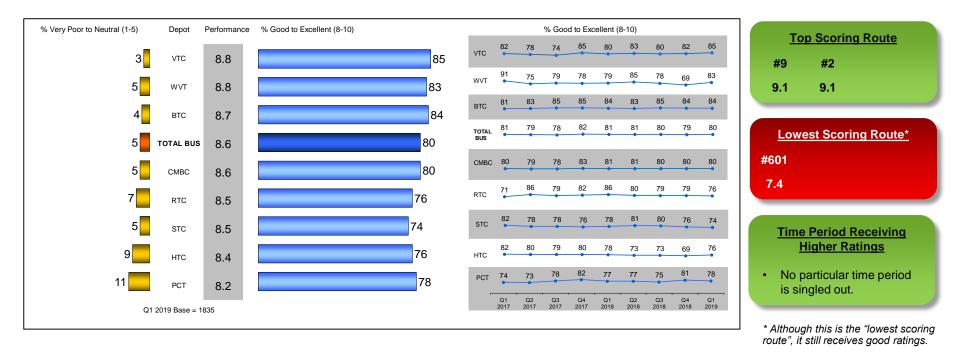
Feeling Safe from Crime On Board the Bus earns a score of 8 to 10 from 83% of bus riders, and the average score is strong at 8.7 out of 10.







Q18.11/20.11/22.11 How would you rate the [ROUTE NUMBER] bus for having a direct route?



Having a Direct Route

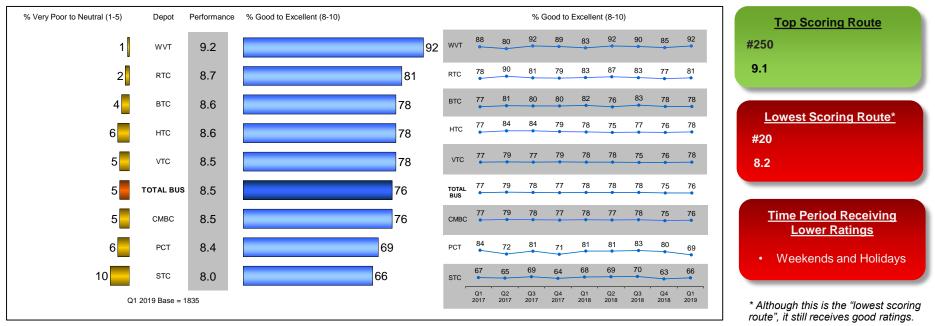
Eight-in-ten bus riders (80%) award top scores to Having a Direct Route, which is consistent with historical waves. The average score is high at 8.6 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total Bus	+ 1%	- 1%
VTC	+ 3%	+ 5%
WVT	+ 14%	+ 4%
RTC	- 3%	- 10%

Significant upward/downward shift



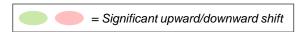
Q18.3/20.3/22.3 Thinking about the [ROUTE NUMBER] bus you took, how would you rate it in terms of feeling safe from crime at the bus stop or transit exchange where you boarded?



Feeling Safe from Crime at the Bus Stop or Transit Exchange Where You Boarded

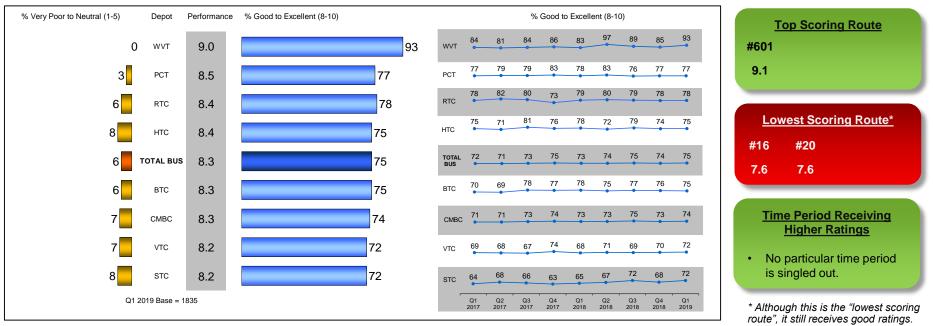
Three-quarters of bus riders (76%) continue to give top ratings to Feeling Safe from Crime at Stops or Exchanges. The average score remains to be strong at 8.5 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total Bus	+ 1%	- 2%
WVT	+ 7%	+ 9%
PCT	- 11%	- 12%





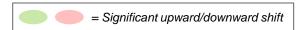
Q18.10/20.10/22.10 Thinking about the last/2nd last trip you made on [ROUTE NUMBER] how would you rate it in terms of clean and graffiti-free buses?



Clean and Graffiti-Free Buses

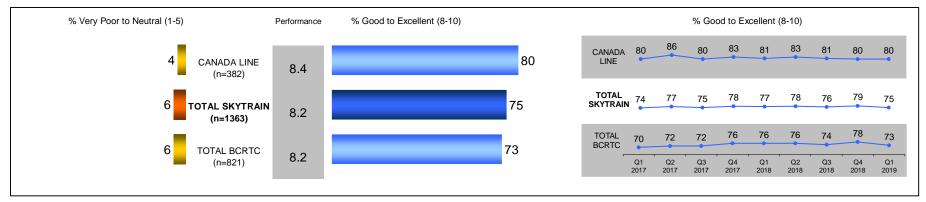
Consistent with last quarter and the same quarter a year ago, Clean and Graffiti-Free Buses earns high scores from three-quarters of bus riders (75%). The average score is unchanged at 8.3 out of 10.







Q12. Thinking about the last/2nd last trip you made by SkyTrain, how would you rate the SkyTrain in terms of service overall?



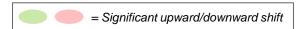
SkyTrain Overall Service

Down from last quarter but in-line with a year ago, Overall SkyTrain Service is rated highly by 75% of SkyTrain riders. The average score has dropped slightly to 8.2 out of 10 this period.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total SkyTrain:	- 4%	- 2%
Total BCRTC:	- 5%	- 3%
Canada Line:	0%	- 1%

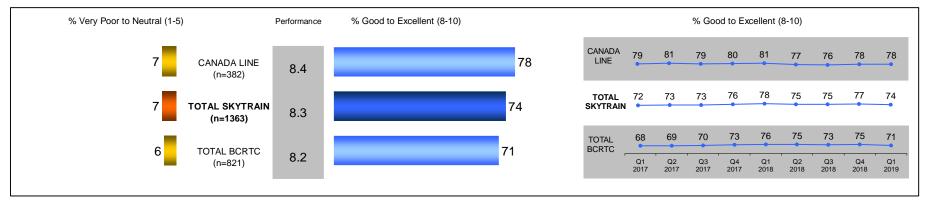
Notes: Total SkyTrain ridership includes all riders of this mode regardless of the lines they rode.

Total BCRTC riders are those who only rode the Millennium Line (including the Evergreen Extension) and/or the Expo Line on the trip they evaluated. Canada Line riders are those who only rode the Canada Line on the trip they evaluated.





Q13.12 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate it in terms of frequency of service?

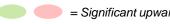


Top Key Driver

Frequency of Service

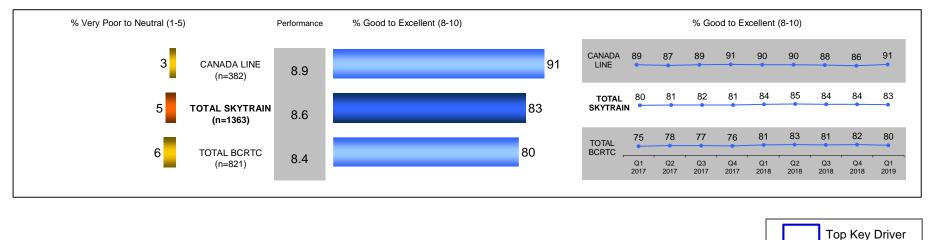
Frequency of Service, a top key driver of Overall SkyTrain Service, earns top scores from three-quarters of SkyTrain riders (74%), which is down from a year ago. The average score remains stable at 8.3 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total SkyTrain:	- 3%	- 4%
Total BCRTC:	- 4%	- 5%
Canada Line:	0%	- 3%





Q13.8 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate it in terms of providing on-time, reliable service?



On-Time, Reliable Service

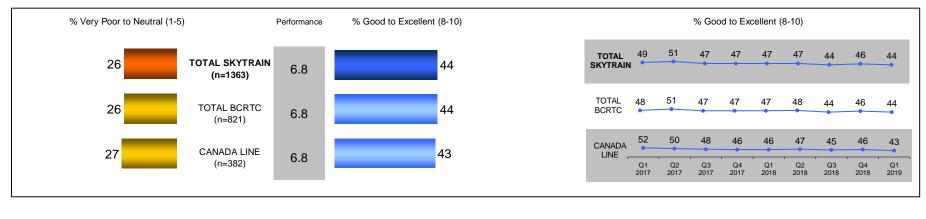
Another top key driver, On-Time, Reliable Service continues to receive high scores from 83% of SkyTrain riders. The average score is 8.6 out of 10, which makes it one of the highest-rated SkyTrain attributes.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total SkyTrain:	- 1%	- 1%
Total BCRTC:	- 2%	- 1%
Canada Line:	+ 5%	+ 1%





Q13.4 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate it in terms of not being overcrowded?



Top Key Driver

Not Being Overcrowded

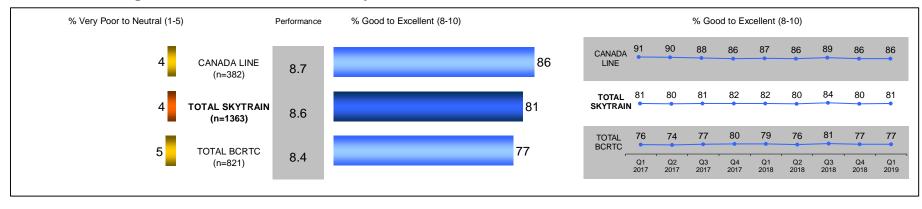
Scores for another top key drive, Not Being Overcrowded (44%) have directionally gone down from a year ago and its average score continues to be performing under the positive performance threshold at 6.8 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total SkyTrain:	- 2%	- 3%
Total BCRTC:	- 2%	- 3%
Canada Line:	- 3%	- 3%





Q13.2 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate the SkyTrain in terms of feeling safe from crime on board SkyTrain?



Top Key Driver

Feeling Safe from Crime On Board SkyTrain

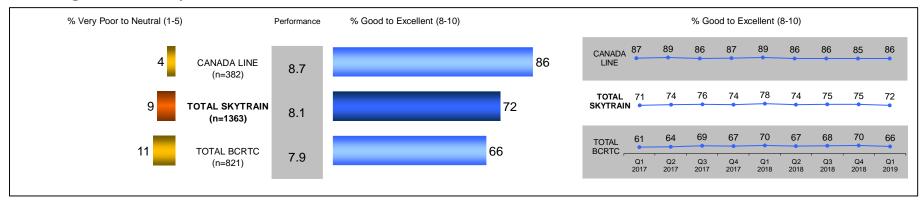
In-line with previous quarters, Feeling Safe from Crime On Board SkyTrain (a top key driver) earns good-to-excellent scores from 81% of SkyTrain riders this period. Its average score is stable at 8.6 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	Same Quarter Last Year
Total SkyTrain:	+ 1%	- 1%
Total BCRTC:	0%	- 2%
Canada Line:	0%	- 1%





Q13.9 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate it in terms of clean and graffiti-free SkyTrain cars and stations?



Clean and Graffiti-Free SkyTrain Cars and Stations

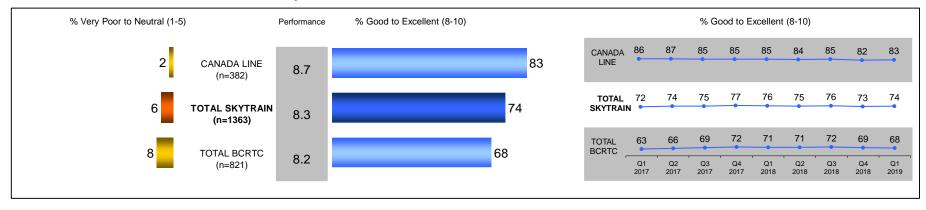
Seven-in-ten SkyTrain riders (72%) award top scores to Clean and Graffiti-Free SkyTrain Cars and Stations, which is down from the same period a year ago. The average score has also dropped from 8.3 out of 10 in Q1 2018 to 8.1 out of 10 this quarter.

Good-to-Excellent ratings compared to:	Last Quarter	Same Quarter Last Year
Total SkyTrain:	- 3%	- 6%
Total BCRTC:	- 4%	- 4%
Canada Line:	+ 1%	- 3%





Q13.3 Thinking about your last/2nd last trip on SkyTrain, how would you rate that station in terms of feeling safe from crime inside the SkyTrain station?



Feeling Safe from Crime Inside the SkyTrain Station

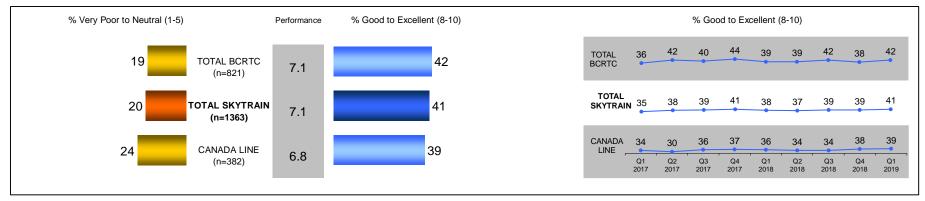
Three-quarters of SkyTrain riders (74%) give top ratings to Feeling Safe from Crime Inside the SkyTrain Station, which is similar to historical trends. The average score remains stable at 8.3 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	Same Quarter Last Year
Total SkyTrain:	+ 1%	- 2%
Total BCRTC:	- 1%	- 3%
Canada Line:	+ 1%	- 2%





Q13.10 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate it for staff available when needed?



Staff Available When Needed

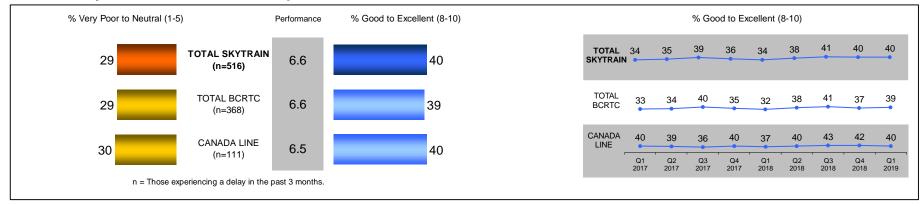
Staff Availability is rated highly by 41% of SkyTrain riders, which has been trending up over the last three quarters. The average score is unchanged at 7.1 out of 10. However, 18% of SkyTrain riders were unable to answer to this question.

Good-to-Excellent ratings compared to:	Last Quarter	<u>Same Quarter Last Year</u>
Total SkyTrain:	+ 2%	+ 3%
Total BCRTC:	+ 4%	+ 3%
Canada Line:	+ 1%	+ 3%





Q13.11 Thinking about the last time you experienced a delay on SkyTrain, how would you rate it in terms of delays are announced and explained?



Delays are Announced and Explained

Up from a year ago, four-in-ten SkyTrain riders (42%) report experiencing a delay on the SkyTrain in the past three months. BCRTC riders continue to be more likely than Canada Line riders to experience delays (49% versus 32%).

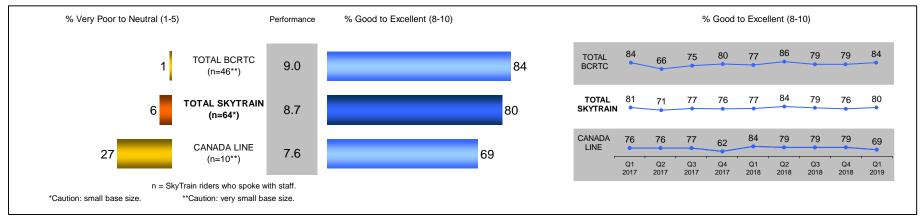
Also increased from Q1 2018, 40% of those who have experienced a delay give top scores to Delays are Announced and Explained. The average score is below the positive performance threshold at 6.6 out of 10. This continues to be the lowest-rated SkyTrain service attribute.

Last Quarter	<u>Same Quarter Last Year</u>
0%	+ 6%
+ 2%	+ 7%
- 2%	+ 3%
	0% + 2%





Q13.1 Thinking about the last/2nd last trip you made by SkyTrain, how would you rate the SkyTrain in terms of having courteous, competent and helpful SkyTrain staff?



Courteous, Competent and Helpful SkyTrain Staff

Unchanged from previous waves, only a very small proportion of SkyTrain riders (4%) say they have spoken with a SkyTrain staff this period.

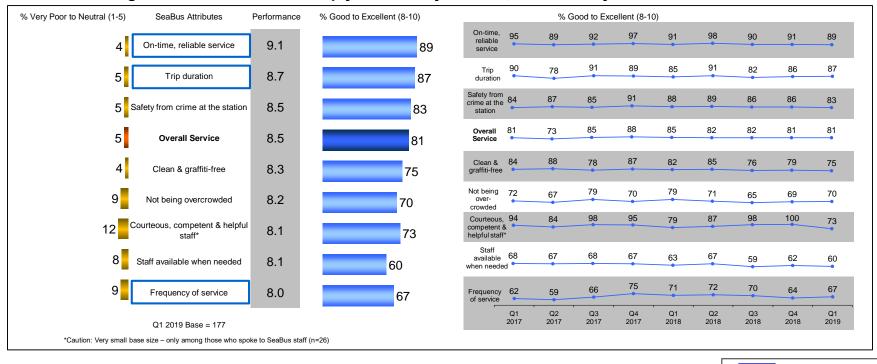
Among those who have interacted with staff, eight-in-ten (80%) continue to give a high score to Courteous, Competent and Helpful SkyTrain Staff. The average score is holding stable at 8.7 out of 10.

Good-to-Excellent ratings compared to:	Last Quarter	Same Quarter Last Year
Total SkyTrain:	+ 4%	+ 3%
Total BCRTC:	+ 5%	+ 7%
Canada Line:	- 10%	- 15%





Q8/9. Thinking about the last/2nd last trip you made by SeaBus, how would you rate the SeaBus in terms of ...



SeaBus

Top Key Driver

Eight-in-ten SeaBus riders (81%) award top ratings to the Overall SeaBus Service, which is consistent with last quarter and a year ago. The average score has been trending downward from 8.8 in Q4 2017 to 8.5 this period. All SeaBus attributes meet the 7.0 threshold for positive performance.

Good-to-Excellent ratings compared to:	<u>Last Quarter</u>	<u>Same Quarter Last Year</u>
Overall SeaBus Service	0%	- 4%
Courteous, Competent & Helpful Staff	- 27%	- 6%

— Significant upward/downward shift

Note: SeaBus ratings are based on a small sample size and typically require a difference of 10 percentage points to be considered statistically significant.



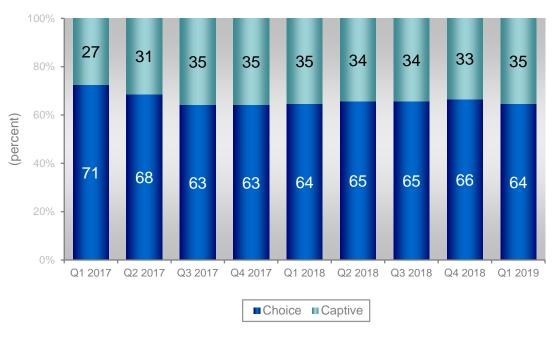


This section presents trends in transit use. It illustrates trends in the following areas:

- Choice vs. Captive customers
- Purpose of trip
- Length of time taking transit
- · Likely future transit usage
- Method of fare payment
- Reasons for taking transit as opposed to another mode of transportation
- Changes in level of ridership in the last six months
- Reasons for riding transit more or less regularly in the past six months
- Average number of trips made in the past 7 days



Q25B. Do you regularly have access to a car, van or truck as a driver or passenger for the trips you make using public transit?



Q1 2019 Base = 2100

Choice Versus Captive

Two-thirds of transit users (64%) continue to fall into the category of Choice riders, meaning they have access to a vehicle on a regular basis.

The remaining one-third of riders (35%) are known as Captive riders; they are the ones who do not have regular access to a vehicle.

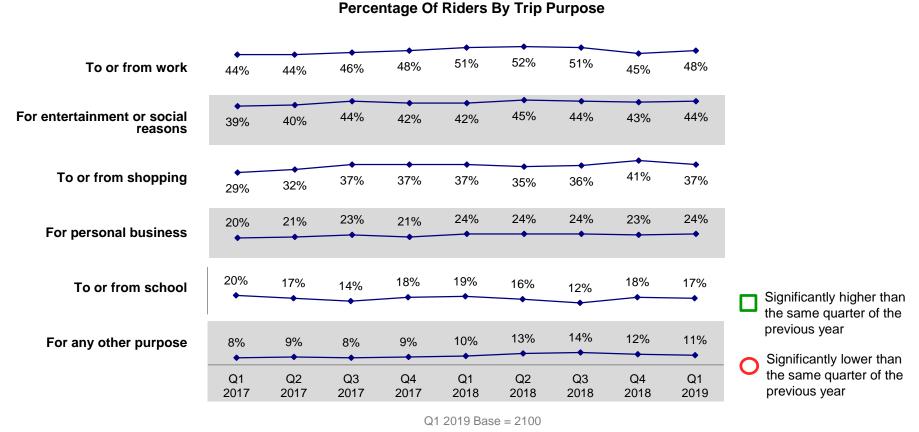
When compared to Captive riders, Choice riders are more likely to be 35 years of age or older, work full-time, university graduates, higher income earners (\$80K+), and have taken transit for a longer period of time.

In comparison, Captive riders tend to be younger (18-34 years old), unemployed, lower income earners (under \$40K), ride the Bus, reside in Vancouver and have taken more transit trips in the past week.

A detailed profile of these two rider groups can be found in the Customer Profiles section of the report.



Q2.1 How many one-way transit trips did you make in the last seven/thirty days [TRIP PURPOSE]?

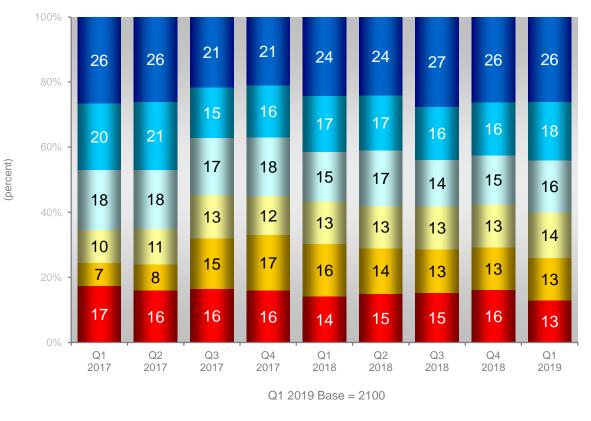


Trip Purpose

Work purposes (48%, down from a year ago) and entertainment purposes (44%) are the two main reasons for riders to be making transit trips.

Q28. Approximately how long have you been riding transit on a regular basis?

Avg. # of Years11.411.09.6	9.1 9.7	10.0 11.0	10.5 10.5
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■ Not a regular rider ■ Less than one year ■1 - 2 years ■3 - 5 years ■6 - 10 years ■11+ years

Length of Time Taking Transit on a Regular Basis

The average length of time (10.5 years) that transit riders have been taking transit remains the same as last quarter but marginally up from a year ago.

In particular, North Vancouver/West Vancouver residents, Low Frequency riders, one zone travelers, seniors (65+), higher income earners (\$40K+), Choice riders and those who only take the Canada Line are more likely to have taken transit for a longer period of time.





Q30a. How likely are you to take transit as often as you do now in the foreseeable future? Will you () continue as often?



Likelihood of Continuing to Take Transit as Often in Future

Six-in-ten riders (62%) continue to indicate that they will definitely take transit as often as they do now in the future. This is more common among High/Medium Frequency riders and seniors (65+).

In-line with last quarter and a year ago, close to three-in-ten riders (28%) report that their future transit usage will probably remain the same.

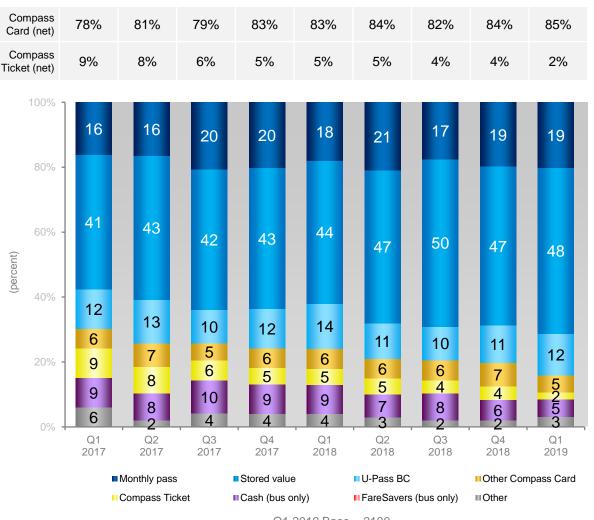
The rest either report feeling uncertain about their future usage (5%) or that they will likely take transit less often compared to now (4%).

Other/don't know/refused

Definitely not Probably not Might or might not Probably Definitely



Q23H. Which method of payment did you use most often in the last seven/thirty days when you took transit?



Q1 2019 Base = 2100

Note: Starting in Q3 2017, Single Use Compass Ticket, Day Pass and FareSavers (Bus only) options have been removed from the questionnaire.

Fare Payment Method Used

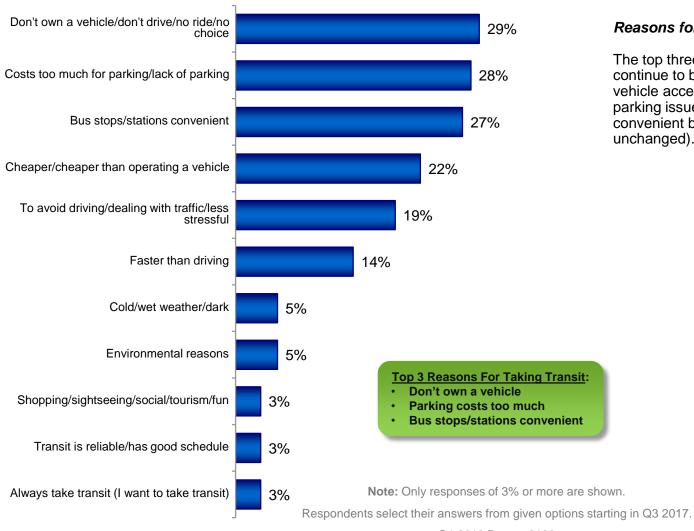
A large majority of riders (85%) continue to report using the Compass Card most often.

The most frequently used Compass Card product remains to be Stored Value (48%), which is up from a year ago. Compared to their counterparts, Low/Medium Frequency users, high income earners (\$80K+), university graduates, Choice riders, North Vancouver residents and those who are 25 years old or older are more likely to use this method of payment.

One-in-five riders (19%) indicate using a Monthly Pass most often, specifically among High Frequency users, Bus/SkyTrain riders and work commuters.



Q25A. What are the reasons you most recently decided to take transit rather than taking some other mode of transportation?



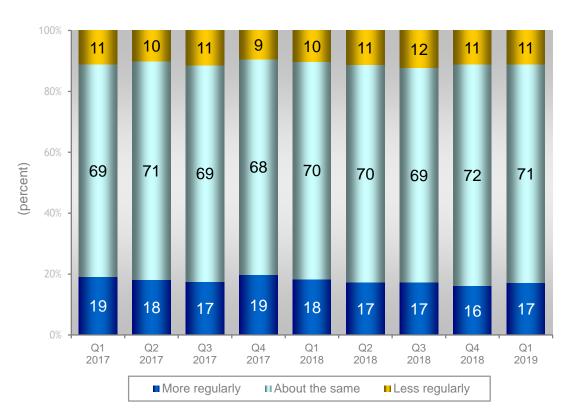
Reasons for Taking Transit

The top three reasons for taking transit continue to be related to having no vehicle access (29%, unchanged), parking issues (28%, unchanged), and convenient bus stops/stations (27%, unchanged).

Q1 2019 Base = 2100



Q26. Compared to six months ago, would you say you are now riding transit more regularly, less regularly or about the same?



Q1 2019 Base = 2100

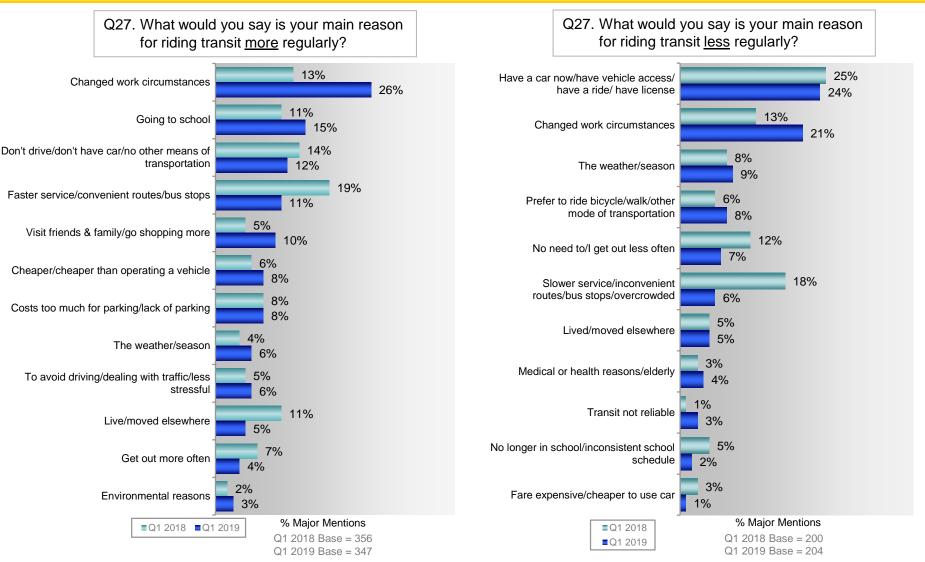
Changes in Transit Usage Last Six Months

In-line with historical trends, seven-inten transit users (71%) indicate that they are now riding transit as often as six months ago, particularly among university graduates, transit riders who are 25 years old or older and those who make \$40K or more.

The proportion of riders who report taking transit more regularly remains stable at 17%. This is more common among younger riders (18-24), High/Medium Frequency riders, lower income earners (<\$40K) and school commuters.

Another 11% continue to mention that they have been taking transit less regularly compared to six months ago.



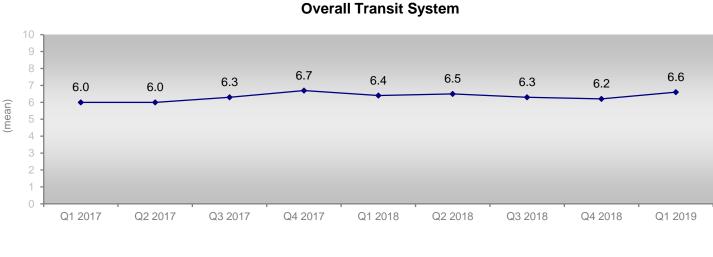


Note: Major mentions of 3% or more in either current wave or past wave are shown in the charts above.

The top reason for riding transit more regularly is due to changes in work circumstances (26%, up from a year ago). On the other hand, the most cited reasons for taking transit less regularly are because there is now access to a vehicle (24%) and changes in work circumstances (21%, up from a year ago).



Q2.1/2.2 How many one-way transit trips did you make in the last seven/thirty days for [TRIP PURPOSE SUMMED] ...?



Q1 2019 Base = 2100

Average Number of Trips

The average number of one-way transit trips made by transit riders in the past seven days is 6.6, which is marginally up from last quarter.

Specifically, average weekly transit usage among Bus, SkyTrain and SeaBus riders for this quarter are as follows:

- Bus users: 7.6 one-way transit trips (no change)
- SkyTrain users: 7.1 one-way transit trips (up from Q4 2018)
- SeaBus users: 6.8 one-way transit trips (up from Q4 2018)





This section presents profiles of key customer segments including: Choice versus Captive riders, Bus, SkyTrain, and SeaBus users, and Low, Medium, and High Frequency riders. The demographic profile of past 30-day transit users is also presented, relative to the demographic profile of Metro Vancouver residents who are age 16 or older.



	TOTAL	CHOICE	CAPTIVE
Base	2100	1445	638
Average past-week transit trips	6.6	5.1	9.4
Years been a transit rider	10.5	11.8	8.4
Transit system – Overall Service Rating	7.8	7.8	7.7
Mode	%	%	%
Bus	75	68	88
SkyTrain	69	71	66
SeaBus	7	7	5
Age	%	%	%
18-34 years	38	27	58
35-54 years	35	40	25
55 + years	26	32	16
Gender	%	%	%
Male	48	49	48
Female	52	51	52
Employment status*	%	%	%
Full-time	49	53	42
Part-time	17	16	19
Not employed	37	34	43
Education	%	%	%
High school or less	17	12	26
Vocational/college/technical	17	18	15
Some university	14	13	16
Graduated university	52	57	42
Household Income	%	%	%
Under \$40K	23	15	37
\$40K to < \$80K	23	22	24
\$80K or more	36	44	21

Choice and Captive

Choice riders are those who have regular access to a vehicle and they account for 64% of transit users. Another 35% are considered as Captive riders, which means they do not have regular access to a vehicle.

Significantly different characteristics of each rider group are highlighted on the table to the left and on the following page.

Significantly higher than the other rider group

* Question switched to multiple response March 2014.



	TOTAL	CHOICE	CAPTIVE
Base	2100	1445	638
Travel Purpose	%	%	%
Work	48	43	56
Entertainment	44	45	44
Shopping	37	32	48
Personal Business	24	22	26
School	17	12	27
Payment Method	%	%	%
Cash fare	5	7	3
Compass Ticket	2	3	2
Compass Card	85	82	92
Other	3	3	2
Region	%	%	%
Vancouver	38	34	44
Surrey / North Delta / White Rock / Langley	18	18	19
Burnaby / New West	15	15	17
Richmond / South Delta	11	12	8
Northeast Region	9	10	6
North Vancouver	8	9	5
West Vancouver	2	2	1





	TOTAL	LOW	MEDIUM	HIGH
Base	2100	1058	525	517
Years been a transit rider	10.5	13.2	10.3	7.8
Transit system – Overall Service Rating	7.8	7.9	7.9	7.6
Average age*	42.7	48.5	42.1	34.8
Age	%	%	%	%
18-34 years	38	23	40	59
35-54 years	35	39	33	29
55 + years	26	37	26	11
Gender	%	%	%	%
Male	48	46	48	52
Female	52	54	52	48
Employment status**	%	%	%	%
Full-time	49	49	43	55
Part-time	17	14	21	18
Not employed	37	38	38	34
Household Income	%	%	%	%
Under \$40K	23	14	25	33
\$40K to < \$80K	23	23	24	21
\$80K or more	36	42	33	29
Mode	%	%	%	%
Bus	75	62	78	90
SkyTrain	69	64	71	74
SeaBus	7	7	7	6

Low, Medium and High Frequency Riders

44% of transit users are categorized as Low Frequency users, which is up from a year ago. This category refers to riders who make 3 one-way transit trips or less in a week.

Another one-quarter of riders (25%) are classified as Medium Frequency users, or those who take between 4 to 9 one-way transit trips per week.

The remaining 31% are considered as High Frequency users, which make 10 or more one-way transit trips per week.

Significantly different characteristics of each rider group are highlighted on the table to the left and on the following page.

Significantly higher than the other rider group(s)

* Average age was estimated using the midpoints of each age category. For the 65-and-older category, 69.5 years was used.

** Question switched to multiple response March 2014.



	TOTAL	LOW	MEDIUM	HIGH
Base	2100	1058	525	517
Travel Purpose	%	%	%	%
Work	48	26	53	75
Entertainment	44	43	42	48
Shopping	37	28	42	48
Personal Business	24	17	29	28
School	17	5	18	34
Payment Method	%	%	%	%
Cash fare	5	8	4	2
Compass Ticket	2	4	2	1
Compass Card	85	76	90	94
Other	3	4	2	1
Region	%	%	%	%
Vancouver	38	33	40	43
Surrey / North Delta / White Rock / Langley	18	18	20	18
Burnaby / New West	15	14	16	18
Richmond / South Delta	11	13	9	8
Northeast Region	9	11	8	7
North Vancouver	8	10	6	6
West Vancouver	2	3	1	1



Significantly higher than the other rider group(s)

Detailed Findings Customer Profiles – Mode User Profiles



	TOTAL	BUS	SKYTRAIN	SEABUS
Base	2100	1552	1363	177
Average past-week transit trips	6.6	7.6	7.1	6.8
Years been a transit rider	10.5	10.4	9.9	12.7
Transit System – Overall Service Rating	7.8	7.8	7.8	8.0
Average age*	42.7	42.0	41.4	45.9
Age	%	%	%	%
18-34 years	38	42	41	27
35-54 years	35	31	35	41
55+ years	26	26	23	31
Gender	%	%	%	%
Male	48	47	50	56
Female	52	53	50	44
Employment status**	%	%	%	%
Full-time	49	46	53	50
Part-time	17	18	17	15
Not employed	37	41	33	37
Education	%	%	%	%
High school or less	17	18	15	9
Vocational/college/technical	17	17	17	17
Some university	14	15	13	11
Graduated university	52	48	53	62
Household Income	%	%	%	%
Under \$40K	23	26	21	24
\$40K to < \$80K	23	23	24	17
\$80K or more	36	32	39	43

Mode Usage

Bus remains as the most popular transit mode (75%) among transit users. Following next is SkyTrain (69%).

SeaBus usage continues to be low at 7%.

Significantly different characteristics of each mode rider group are highlighted on the table to the left and on the following page.

Significantly higher than the other rider group(s)

* Average age was estimated using the midpoints of each age category. For the 65-and-older category, 69.5 years was used.

** Question switched to multiple response March 2014.



	TOTAL	BUS	SKYTRAIN	SEABUS
Base	2100	1552	1363	177
Travel Purpose	%	%	%	%
Work	48	51	51	45
Entertainment	44	44	49	59
Shopping	37	41	37	34
Personal Business	24	26	23	30
School	17	21	18	11
Payment Method	%	%	%	%
Cash fare	5	5	3	3
Compass Ticket	2	1	3	3
Compass Card	85	89	86	82
Other	3	2	4	3
Choice/Captive Riders	%	%	%	%
Choice	64	58	66	72
Captive	35	41	33	28
Region	%	%	%	%
Vancouver	38	42	34	27
Surrey / North Delta / White Rock/ Langley	18	19	20	3
Burnaby / New West	15	13	19	10
Richmond / South Delta	11	9	12	2
Northeast Region	9	7	11	1
North Vancouver	8	8	4	56
West Vancouver	2	2	1	1



Significantly higher than the other rider group(s)

Detailed Findings <u>Customer Profiles</u> – Demographic Profile of Transit Customers

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	Metro Vancouver Population 16 Years or older*	(Q1- 2017)	(Q2- 2017)	(Q3- 2017)	(Q4- 2017)	(Q1- 2018)	(Q2- 2018)	(Q3- 2018)	(Q4- 2018)	(Q1- 2019)
BASE	2000	2100	2100	2100	2101	2100	2101	2100	2100	2100
Average Years Riding Transit	n/a	11.4	11.0	9.6	9.1	9.7	10.0	11.0	10.5	10.5
Age:	%	%	%	%	%	%	%	%	%	%
Aged 16 to 24 years	12	27	28	22	24	22	19	20	22	20
Aged 25 to 34 years	18	11	10	15	14	17	19	19	16	18
Aged 35 to 44 years	18	12	12	14	16	14	15	15	16	14
Aged 45 to 54 years	20	22	21	19	18	20	19	20	18	20
Aged 55 to 64 years	16	10	10	9	10	11	11	11	10	10
Aged 65 years and over	17	16	16	16	16	16	15	16	16	16
Gender:	%	%	%	%	%	%	%	%	%	%
Male	48	48	48	49	49	49	49	49	49	48
Female	52	52	52	51	51	51	51	51	51	52
Employment	%	%	%	%	%	%	%	%	%	%
Employed full-time	57	44	42	45	46	47	52	51	45	49
Employed part-time	13	18	19	18	18	18	16	17	18	17
Student	5	19	18	14	17	17	14	13	17	16
Not employed	3	5	4	5	4	5	4	4	4	4
Homemaker	2	1	2	2	2	2	2	3	4	3
Retired	18	16	17	16	15	16	15	17	17	16
Refused	1	2	2	4	2	1	1	1	1	1
Education:	%	%	%	%	%	%	%	%	%	%
High school or less	21	23	25	21	24	18	18	18	18	17
Voc./college/tech.	26	19	16	18	16	18	20	19	19	17
Some university	7	15	13	11	13	12	12	11	12	14
Graduated university	45	40	43	45	45	50	49	51	50	52
Refused	0	2	3	4	3	1	1	1	2	1

Transit tenure is at 10.5 years

This table illustrates the demographics of transit riders compared with the demographics of the entire Metro Vancouver population (16 years and older).

Significantly higher than Metro Vancouver general public

Significantly lower than Metro Vancouver general public

* Source: Mustel – 2000 surveys conducted among Metro Vancouver residents in the February, March, June, September and November 2017 Omnibus waves.



APPENDIX A – Methodology

<u>Methodology</u>

The TransLink Customer Satisfaction Tracking Survey began in October 2002. Prior to October 2002, the survey (referred to as the TransLink Rider Satisfaction Study) was conducted by Synovate (formerly "MarkTrend Research") and ran from 1989 through to September 2002. While CGT conducted the study from October 2002 to December 2003, Ipsos (formerly Synovate) took over the data collection component starting in July 2003 and assumed total project management in January 2004.

In this section, we present the methodology Ipsos currently uses to collect and weight the data, as well as the sampling errors associated with the survey results. We also note any changes in methodology that have occurred since the study's redesign in October 2002, as well as in July 2017.

Sampling

Sample Source

The landline sample for this study is drawn from Canada Survey Sampler (CSS), which is the most advanced and up-to-date sampling method available. Canada Survey Sampler is a computer list of all Canadian phone numbers and has replaced other methods such as Random Digit Dialing (RDD) and buying lists from companies such as Dominion Directories. Not only are the telephone lists from Canada Survey Sampler the most up-to-date, but they are divided into listed and unlisted telephone numbers. This ensures that we contact the correct proportion of unlisted phone numbers in our sampling.

Also, starting in July 2017, we have included cellphone sample, which accounts for 40% of the total quarterly surveys. The cellphone sample is purchased from SSI International, and it is pulled based on a a list of cellphone numbers from wireless service providers linking phone numbers with billing towers. In order to target specific regions, we order cellphone sample based on billing tower and the numbers are randomly generated for the area codes/exchange combinations within each billing tower.

Sampling Population and Target Respondent

The sampling population for this survey is all individuals who are 18 years of age or older* who live in a household within the MVRD, have used the Bus, SkyTrain, or SeaBus within the past 30 days, and are not employed by TransLink, one of its subsidiaries or a marketing research firm. Those individuals who have participated in any surveys related to public transit within the last 6 months are excluded from the study. To ensure that a random selection of transit customers is made within households that contain more than one transit customer, the target respondent is the transit customer in the household who will celebrate the next birthday.

*Prior to January 2018, age restriction was 16 years old or above

Survey Quotas and Sample Sizes

The survey quotas shown in the following table are designed to achieve two goals: 1) to obtain statistically reliable data within each region; 2) to minimize the need to apply substantial weights to ensure the sample represents the MVRD population of past 30-day transit customers accurately. Some regions are oversampled relative to their share of past 30-day transit users (e.g., West Vancouver) and some regions are undersampled (e.g., Vancouver), but the difference between the proportion of transit riders in each region and the proportion of surveys conducted in each region is kept to a minimum and is not substantial.



The table below shows the estimated proportion of past 30-day transit riders (i.e., rider share) within each region, the number of surveys conducted quarterly and annually within each region by Ipsos, and the proportion of surveys conducted within each region. Note that quotas per region changed in 2005 for Vancouver (currently 680 per quarter, up from 600) and West Vancouver (currently 100, down from 180).

Region	Proportion of past 30-day users (Rider Share)	Surveys per quarter	Surveys per year	% of total sample
Burnaby/New Westminster	14%	300	1,200	14%
Richmond/South Delta	9%	240	960	12%
Surrey/North Delta/White Rock/Langley	18%	300	1,200	14%
Vancouver	41%	680	2,720	32%
Northeast Sector (Coquitlam/Port Coquitlam/Port Moody/Pitt Meadows/ Maple Ridge/Anmore & Belcarra)	8%	240	960	11%
North Vancouver	7%	240	960	11%
West Vancouver	3%	100	400	5%
Total		2,100	8,400	

Regional Quotas

To further ensure that the data represent the experiences and behaviours of all past 30-day transit riders in the MVRD, surveys quotas are also set for each region on a monthly and weekly basis.

Every week, we try to spread out the dialing as evenly as possible across regions. Since we cannot target specific regions using the cellphone sample, we would dial more cellphone sample in the beginning of the week, and then dial more landline sample near the end of the week to make sure we are meeting the weekly regional soft quotas:

Sunday to Tuesday: 70% cellphone/30% landline Wednesday to Thursday: 50% cellphone/50% landline Friday to Saturday: 30% cellphone/70% landline

In total, we aim for 1260 landline completes and 840 cellphone completes per quarter.

Data Weighting

Given that the regions are sampled disproportionately, weight variables are applied to the data to adjust the regional distribution of past 30-day transit riders so that it matches the actual proportion of transit riders in each region. The weight variables were sourced from Mustel Omnibus surveys, which collected data from a total of 2,000 Metro Vancouver residents in February, March, June, and September of 2017. Specifically, 42 weight values are calculated (3 age groups by 2 genders by 7 regions), which are subsequently applied to the relevant cells in the TransLink Customer Service Performance data.



Projected Evaluations for Bus, SkyTrain, SeaBus

During the course of the survey, customers evaluate a combination of modes or buses up to a maximum of three. Based on the data for the quarter ending September 2017, we expect to obtain approximately 14,344 evaluations in the course of conducting 8,400 surveys annually. The number of evaluations expected for each mode annually and for each mode per respondent are shown in the table below.

Number of Evaluations Expected by Ipsos

Mode	Anticipated # of Evaluations per year	Anticipated # of Evaluations per respondent
Bus	7,640	0.91
SkyTrain	5,800	0.69
SeaBus	904	0.11
Total # of Evaluations	14,344	1.71
Total # of Interviews	8,400	

Margins of Error

Proportions

All samples have a margin of error associated with them, reflecting the fact that we are drawing a sample from a population. In the current context, margins of error will vary because the size of particular samples and sub samples will vary. For example, at the 95% level of confidence, the margin of error for the total guarterly sample of 2,100 is +/- 2.1%; the margin of error for the guarterly Vancouver sample of 700 is +/- 3.7%. When comparing independent samples across two guarters, the margins of error increase by about 40%. For example, when comparing proportions across two quarterly samples of 2,100 each, the proportions must differ by at least 3.0% for the difference to be considered statistically significant. The table below illustrates the maximum margins of error when evaluating a single independent sample and the maximum margins of error when comparing the proportions for two independent samples at the 95% level of confidence for various sample sizes.

Sample Size	Maximum margin of error for sample of this size	Maximum margin of error for comparing two samples of this size
50	+/- 13.6%	+/- 19.6%
100	+/- 9.8%	+/- 13.9%
200	+/- 6.9%	+/- 9.8%
300	+/- 5.7%	+/- 8.0%
400	+/- 4.9%	+/- 6.9%
500	+/- 4.4%	+/- 6.2%
600	+/- 4.0%	+/- 5.7%
700	+/- 3.7%	+/- 5.2%
2,100	+/- 2.1%	+/- 3.0%
8,400	+/- 1.1%	+/- 1.5%



Means (Average Ratings)

To determine the margins of error for means (or average ratings), the sample sizes and standard deviations for each rating need to be taken into account. The following table serves as a general guide for determining the margins of error for means.

Sample	Standard		um margin of rror for:			
Size	Deviation	Sample of this size	Comparing two samples of this size			
50	1.0	0.28	0.39			
200	1.0	0.14	0.20			
700	1.0	0.07	0.10			
2100	1.0	0.04	0.06			
50	1.5	0.42	0.59			
200	1.5	0.21	0.29			
700	1.5	0.11	0.16			
2100	1.5	0.06	0.09			
50	2.0	0.55	0.78			
200	2.0	0.28	0.39			
700	2.0	0.15	0.21			
2100	2.0	0.09	0.12			

Survey Instrument

The survey instrument was redesigned jointly by TransLink Marketing Research and CGT Research in 2002 and has received minor updates since. Other personnel at TransLink and TransLink subsidiaries were also consulted regarding the survey content. The survey takes an average of 17 minutes to administer. The survey instrument is in Appendix B.

Fieldwork

All surveys are conducted by Ipsos from their virtual call centre (VCC) with Metro Vancouver interviewers. Surveys are conducted during weekdays between 4:00pm and 9:00pm, on Saturdays between 10:00am and 5:00pm, and on Sundays between noon and 5:00pm.



TRANSLINK CUSTOMER SATISFACTION RESEARCH (BUS, SEABUS, SKYTRAIN) – Jan 2019 Questionnaire

[READ ALL QUESTIONS VERBATIM – NO EXCEPTIONS]

[PURPOSE: Evaluate service provided by Bus, SeaBus, SkyTrain, and identify specific ways to improve service.]

[POPULATION TO BE SURVEYED: 18 + in Metro Vancouver who have used Bus, SeaBus, SkyTrain in past 30 days]

[TARGET AVERAGE SURVEY LENGTH: 15 MINUTES]

[HIDDEN VARIABLE]

- S1. Sample Source
- 1. Landline Sample
- 2. Cellphone Sample

[INTRODUCTION]

Hello, this is ______ and I'm conducting a survey on behalf of TransLink. I'm calling from Ipsos, a research company in Vancouver. This call may be recorded for quality control purposes. (INTERVIEWER NOTE: GREATER VAN IS NOW OFFICIALLY CALLED METRO VANCOUVER; THE TWO NAMES REFER TO THE SAME REGION.)

(IF REQUIRED: The survey is about the quality of public transit in Metro Vancouver.)

- A1. How many people in your household are aged 18 or over and have taken public transit that is the bus, SeaBus or SkyTrain in the last thirty days? (INTERVIEWER: RECORD NUMBER OF PEOPLE IN HOUSEHOLD AGE 18 OR OVER AND HAVE TAKEN PUBLIC TRANSIT, THAT IS THE BUS, SEABUS OR SKYTRAIN IN THE LAST THIRTY DAYS.)
 - [0 30 RECORD NUMBER]

(IF NECESSARY: Public transit includes the Canada Line.)

[IF S1 = LANDLINE SAMPLE:

IF NO ONE 18+ HAS USED TRANSIT THANK AND TERMINATE. IF ONLY ONE PERSON 18+ HAS USED TRANSIT, ASK TO SPEAK TO THAT PERSON, THEN GO TO SCREENER A.

IF TWO OR MORE PERSONS HAVE USED TRANSIT IN Q.A1, SAY: I would like to speak to the Transit rider 18 or older who had the most recent birthday. **[REINTRODUCE]**

IF NOT AVAILABLE, ARRANGE CALLBACK.

IF NECESSARY: We ask for the person with the last birthday as a means of randomizing the respondents in our sample.

(RE-INTRODUCE IF NECESSARY: Hi, we are doing a short study on behalf of TransLink.)]

[FOR INTERVIEWERS TO RECORD ONLY]

A1b. Did the respondent pass the phone to another household member?

YES NO

NO



[ASK AC1 ONLY IF S1 = CELLPHONE SAMPLE. OTHERWISE, GO TO SCREENING QUESTIONS]

AC1. Are you age 18 or older?

YES

NO

[IF NO IN AC1, THANK & TERMINATE. OTHERWISE CONTINUE]

SCREENING QUESTIONS

A. Do you or anyone in your household work for TransLink or the public transit system? **(IF NECESSARY:** Public transit includes the bus, SeaBus, West Coast Express or SkyTrain, including the Canada Line.**)**

YES

NO

[IF NO AT QA CONTINUE, OTHERWISE THANK & TERMINATE]

B. Have you taken the Bus, SeaBus or SkyTrain in the last thirty days? **(IF NECESSARY:** SkyTrain includes the Canada Line.**)**

YES

NO

[IF QB = YES CONTINUE, OTHERWISE THANK AND TERMINATE]

- C. Have you or anyone in your household participated in any surveys related to public transit within the last six months?
 - YES
 - NO

[IF C = NO CONTINUE, OTHERWISE THANK & TERMINATE]

[IDENTIFY REGION]

- Q1. In which municipality do you live? (DO NOT READ LIST BUT IF NECESSARY CLARIFY/PROBE FROM LIST. IF DELTA MENTIONED ASK: Would that be North Delta or South Delta?)
 - 1. BURNABY
 - 2. COQUITLAM
 - 3. BELCARRA/ANMORE
 - 4. LANGLEY
 - 5. LION'S BAY
 - 6. MAPLE RIDGE/PITT MEADOWS
 - 7. NEW WESTMINSTER
 - 8. NORTH DELTA
 - 9. NORTH VANCOUVER



- 10. PORT COQUITLAM
- 11. PORT MOODY
- 12. RICHMOND
- 13. SOUTH DELTA/TSAWWASSEN/LADNER
- 14. SURREY/CLOVERDALE
- 15. VANCOUVER
- 17. WEST VANCOUVER
- 18. WHITE ROCK
- 19. DEEP COVE
- 21. HORSESHOE BAY
- 22. BOWEN ISLAND
- 23. ABBOTSFORD
- 24. MISSION
- OTHER (SPECIFY)

[IF Q1 = CODE 23 ABBOTSFORD OR CODE 24 MISSION THANK & TERMINATE, ALL OTHERS CONTINUE] [IF S1 = CELLPHONE SAMPLE AND Q1 = DK/REFUSED/OTHER, THANK AND TERMINATE] [IF S1 = LANDLINE SAMPLE: PROGRAMMER SET MARKET QUOTAS BASED ON Q1, USE SAMPLE VARIABLE TO CALCULATE REGION IF Q1 DK/REFUSED OR OTHER]

ASSESS FREQUENCY OF USE, MODE, TIME, AND TRIP PURPOSE

- 2. (2.0) Have you taken the bus, SeaBus or SkyTrain- including the Canada Line, in the past 7 days?
 - YES NO

[PROGRAMMER: SET TEXT INSERT FOR REMAINDER OF SURVEY CALLED "DAYS", IF YES IN Q2, THEN ASK inserts "7"; OTHERWISE INSERT "30".]

2a. (2.1) How many one-way transit trips did you make in the last [DAYS] days [INSERT FROM LIST]?
[PROGRAMMER DISPLAY TEXT FOR 1ST ITEM, AND THEN AS READ IF NECESSARY FOR 2ND+ ITEMS] A one-way trip is any trip to a single destination not counting any transfers along the way. For example, a trip to [INSERT DESTINATION UNDER DISCUSSION] and home again would count as two one-way trips.

How about... [INSERT ITEM]? (INTERVIEWER PROMPT IF DON'T KNOW OR REFUSED, ASK: "May I have your best guess?")

To or from work To or from school To or from shopping For personal business such as the doctor or bank For entertainment or social reasons For any other purpose

[RANGE= 0-96]



[PROGRAMMER ADD TOTAL NUMBER OF TRIPS IN Q2A] [IF DK OR REFUSE TO ANY OR ZERO TO ALL IN Q2A THANK & TERMINATE] [PROGRAMMER: IF TOTAL AT Q2A IS 15+ ASK INT1, OTHERWISE SKIP TO Q3] [ONLY ASK INT1 ONCE MAXIMUM, IF AFTER SECOND PASS OF Q2A ANSWERS STILL TOTAL 15+ SKIP INT1 AND PROCEED TO Q3]

INT1. Just to remind you, a trip to a single destination, like work or school, counts as one one-way trip. A trip back home from the destination would count as another one-way trip. For example, a trip to work and back home with one stop to shop along the way would be 3 one-way trips (3 destinations). A trip to and from work using 3 modes (e.g. Bus, SeaBus and SkyTrain) would be 2 one-way trips. Based on these descriptions, would you like to review your answers? **(IF NEEDED:** Your total of number of trips equaled **[INSERT TOTAL FROM Q2A])**

YES

NO

[IF YES LOOP BACK TO Q2A AND RE-ASK SERIES]

- 3. Of the [INSERT TOTAL FROM Q2A] one-way trips you made in the last [DAYS] days, how many did you make using the ... [INSERT ITEM]? And how about ... [INSERT SECOND ITEM, ETC.]? (IF DON'T KNOW OR REFUSED, ASK: "May I have your best guess?")
 - 1. Bus only
 - 2. SkyTrain only
 - 3. SeaBus only
 - 4. Bus and SkyTrain
 - 5. Bus and SeaBus
 - 6. SkyTrain and SeaBus
 - 7. Bus, SeaBus and SkyTrain

[0-96]

[PROGRAMMER: ONCE TOTAL IS REACHED DO NOT ASK REMAINING ITEMS AND AUTOCODE THEM TO ZERO] [PROGRAMMER: DISPLAY ALL ITEMS AT Q3 AND PERCENTAGES GIVEN, DISPLAY VALIDATION SCREEN FOR INTERVIEWER & RESPONDENT.] [PROGRAMMER: ANSWERS FROM Q3 MUST ADD TO TOTAL GIVEN AT Q2A.] [IF DK/REF TO ANY OR ZERO TO ALL AT Q3, THANK & TERMINATE]

- 4. Of the **[INSERT TOTAL FROM Q2A]** one-way trips you made in the last [DAYS] days, how many did you make ... **[INSERT ITEM]**? And how about ... **[INSERT SECOND ITEM, ETC.]**? **(IF DON'T KNOW OR REFUSED, ASK:** "May I have your best guess?")
 - 1. Monday to Friday between 5am and 9:30am
 - 2. Monday to Friday between 9:30am and 3pm
 - 3. Monday to Friday between 3pm and 6:30pm
 - 4. Monday to Friday after 6:30pm
 - 5. On a Saturday or Sunday or a statutory holiday

[0-96]



[PROGRAMMER: ONCE TOTAL IS REACHED DO NOT ASK REMAINING ITEMS AND AUTOCODE THEM TO ZERO] [PROGRAMMER: ANSWERS FROM Q4 MUST ADD TO TOTAL GIVEN AT Q2A] [IF DK/REF TO ANY OR ZERO TO ALL AT Q4, THANK & TERMINATE]

SATISFACTION WITH SYSTEM OVERALL

6. Based on your own experience in the past **[DAYS**] days, on a scale of one to ten, where "10" means "excellent" and "one" means "very poor", how would you rate the overall service provided by the transit system in Metro Vancouver?

[1-10]

[FOR THOSE PROVIDING A RATING OF 5 OR LESS, ASK 6.1.2.]

6c. (6.1.2) What could have been done to improve the overall transit system service? (INTERVIEWER: PROBE TWICE)

[OPEN END]

6b. (6.1.1) Still thinking about the service provided by the transit system in Metro Vancouver, how would you rate it in terms of providing Value for Money? **(REPEAT SCALE IF NECESSARY:** On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".**)**

[1-10]

SATISFACTION WITH SEABUS SERVICE; IDENTIFY WAYS TO IMPROVE SERVICE

[Q.8 – Q.9 FOR SEABUS RIDERS ONLY (Q.3_3 – SeaBus only, Q3_5 – Bus & SeaBus, Q3_6 – SkyTrain & SeaBus, OR Q3_7 – Bus, SeaBus and SkyTrain > 0)]

[PROGRAMMER: SET TEXT INSERT FOR REMAINDER OF SURVEY CALLED "Trip" IF ONLY ONE TRAVEL TIME IN Q.4, INSERT : "last" OTHERWISE, ROTATE EITHER "Last" or "2nd to last"]

I'm now going to ask you about your **[TRIP]** one-way trip(s) on SeaBus. Just to clarify, if you used SeaBus to travel to work and back home again, your **[TRIP]** one-way trip would be your trip **[IF Trip= "Last" insert:** "back home"/ **IF TRIP = "2nd to last" insert:** "to work"].

[IF ONLY TRAVELED DURING ONE TIME PERIOD IN Q4, GO TO 8B] [PROGRAMMER: ONLY INCLUDE CODES BELOW WHERE AT Q4 ITEM IS > 0]

8a. (8.1.) Did you make your **[TRIP]** one way trip on SeaBus ... **(READ LIST). [ACCEPT ONE RESPONSE]**

- 1. Monday to Friday between 5am and 9:30am
- 2. Monday to Friday between 9:30am and 3pm
- 3. Monday to Friday between 3pm and 6:30pm
- 4. Monday to Friday after 6:30pm
- 5 Saturday, Sunday or Holiday



8b. (8.2) Thinking about the **[TRIP]** trip you made by SeaBus, on a scale of one to ten, where "ten" means <u>"excellent"</u> and "one" means <u>"very poor"</u>, how would you rate the SeaBus service overall?

[1-10]

9. [PROGRAMMER DISPLAY FOR FIRST ITEM ASKED IF ATTRIBUTE = 1, 2, 5, 7 OR 8 IN ROTATION] Using the same scale, how would you rate the SeaBus in terms of ... [INSERT FIRST ITEM]? (CLARIFY IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".]

[PROGRAMMER DISPLAY FOR REMAINING ITERATIONS IF ATTRIBUTE = 1,2,5,7 OR 8] And how about ... [INSERT SECOND ITEM, ETC.]? (REPEAT SCALE AS NEEDED)

[PROGRAMMER DISPLAY FOR ATTRIBUTES: 3, 4 & 6] Still thinking about the [TRIP] trip you made on SeaBus, [INSERT ITEM]? (REPEAT SCALE AS NEEDED)

[1-10]

9a. (9) Did you speak to SeaBus staff on your [TRIP] trip on SeaBus?

YES NO

- 1 [ONLY ASK IF YES TO Q9A] (9.1.) Having courteous, competent and helpful SeaBus staff?
- 2 (9b9.2) Feeling safe from crime at the SeaBus station?
- 3 (9.3) How would you rate it in terms of frequency of service? **(CLARIFY IF NECESSARY:** Does the SeaBus run often enough throughout the day?**)**
- 4 (9.4) How would you rate it in terms of not being overcrowded? (CLARIFY IF NECESSARY: Was there enough room onboard?)
- 5 (9.8) Trip duration from the time you boarded to the time you got off SeaBus? (CLARIFY IF NECESSARY: We are only referring to the time spent <u>onboard</u> the SeaBus.)
- 6 (9.9) How would you rate it in terms of providing on time, reliable service?
- 7 (9.10) Clean and graffiti free SeaBus vessel and stations? (CLARIFY IF NECESSARY: Please think about the overall cleanliness during your [last/2nd last] SeaBus trip.)
- 8 (9.11) Staff available when needed? (IF RESPONDENT SAYS 'NOT APPLICABLE RECORD AS DK)

[1-10]



SATISFACTION WITH SKYTRAIN; IDENTIFY WAYS TO IMPROVE SERVICE

[Q.10- Q.13 FOR SKYTRAIN RIDERS ONLY (Q.3_2 – SkyTrain only, Q3_4 – Bus & SkyTrain, Q3_6 – SkyTrain and SeaBus OR Q3_7 – Bus, SeaBus and SkyTrain > 0]

I'm now going to ask you about your **[TRIP]** one-way trip on SkyTrain, which includes the Canada Line. Just to clarify, if you used SkyTrain to travel to work and back home again, your **[TRIP]** one-way trip would be your trip **[IF Trip= "Last" insert:** "back home"/ **IF TRIP = "2nd to last" insert:** "to work"].

[IF ONLY TRAVELED DURING ONE TIME PERIOD IN Q4 GO TO 11A, OTHERWISE CONTINUE]

[PROGRAMMER: ONLY INCLUDE CODES BELOW WHERE AT Q4 ITEM IS > 0]

10. Did you make your **[TRIP]** one-way trip on SkyTrain ... **(READ LIST)**. **[ACCEPT ONE RESPONSE]**

- 1. Monday to Friday between 5am and 9:30am
- 2. Monday to Friday between 9:30am and 3pm
- 3. Monday to Friday between 3pm and 6:30pm
- 4. Monday to Friday after 6:30pm
- 5. Saturday, Sunday or Holiday
- 11a. (11.1) At which SkyTrain station did you <u>first</u> board the SkyTrain during your **[TRIP]** trip? **(RECORD ONE FROM LIST BELOW.)**
 - 1. WATERFRONT (also a Canada Line station)
 - 2. BURRARD
 - 3. GRANVILLE
 - 4. STADIUM
 - 5. MAIN STREET/SCIENCE WORLD
 - 6. BROADWAY
 - 7. NANAIMO
 - 8. 29TH AVENUE
 - 9. JOYCE COLLINGWOOD
 - **10. PATTERSON**
 - **11. METROTOWN**
 - 12. ROYAL OAK
 - 13. EDMONDS
 - 14. 22ND STREET
 - 15. NEW WESTMINSTER
 - 16. COLUMBIA
 - 17. SCOTT ROAD
 - 18. GATEWAY
 - **19. SURREY CENTRAL**
 - 20. KING GEORGE
 - 21. COMMERCIAL DRIVE
 - 22. RENFREW
 - 23. RUPERT
 - 24. GILMORE



25. BRENTWOOD TOWN CENTRE 26. HOLDOM 27. SPERLING-BURNABY LAKE 28. PRODUCTION WAY-UNIVERSITY 29. LOUGHEED TOWN CENTRE 30. BRAID **31. SAPPERTON** 34. LAKE CITY WAY 35. VCC-CLARK **36. VANCOUVER CITY CENTRE 37. YALETOWN ROUNDHOUSE 38. OLYMPIC VILLAGE 39. BROADWAY CITY HALL** 40. KING EDWARD **41. OAKRIDGE 41ST AVENUE** 42. LANGARA 49TH AVENUE 43. MARINE DRIVE 44. BRIDGEPORT **45. TEMPLETON 46. SEA ISLAND CENTRE** 47. YVR AIRPORT 48. ABERDEEN **49. LANSDOWNE 50. RICHMOND BRIGHOUSE** 51. BURQUITLAM **52. MOODY CENTRE 53. INLET CENTRE** 54. COQUITLAM CENTRAL 55. LINCOLN 56. LAFARGE LAKE - DOUGLAS OTHER (SPECIFY EXACT LOCATION) [SPECIFY]

11b. (11.2) Which SkyTrain station was your final stop during your [TRIP] trip? (RECORD ONE FROM LIST BELOW)

[SHOW CODE-LIST FROM Q11a, EXCLUDE STATION MENTIONED AT Q11A]

12. Thinking about the **[TRIP]** trip you made by SkyTrain, on a scale of one to ten, where "ten" means "excellent" and "one" means "very poor", how would you rate the SkyTrain service overall?

[1-10]



Q13a. [PROGRAMMER DISPLAY FOR FIRST ITEM ASKED IF ATTRIBUTE= 1, 2, 3 or 6 IN ROTATION] Using the same scale, how would you rate the SkyTrain in terms of ... [INSERT FIRST ITEM] (CLARIFY IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".)

[PROGRAMMER DISPLAY FOR REMAINING ITERATIONS IF ATTRIBUTE = 1, 2, 3 OR 6] And how about ... [INSERT SECOND ITEM, ETC.]? (REPEAT SCALE AS NEEDED)

[PROGRAMMER DISPLAY FOR ATTRIBUTES: 4, 5, 7 OR 8] Still thinking about the [TRIP] trip you made by SkyTrain, [INSERT ITEM]

13. Did you speak to SkyTrain staff on your **[TRIP]** trip on SkyTrain?

YES NO

- 1 [ONLY ASK IF YES AT Q13] (13.1) Having courteous, competent and helpful SkyTrain staff?
- 2 (13.2) How would you rate your [TRIP] trip in terms of feeling safe from crime onboard SkyTrain?
- 3 (13.3) Thinking about your [TRIP] trip on SkyTrain where you [IF STATION PROVIDED AT BOTH Q11A & Q11B RANDOMLY INSERT EITHER: boarded/got off at [INSERT STATION NAME]] [IF ONLY PROVIDED STATION NAME AT Q11A INSERT: boarded [INSERT STATION NAME]] IF ONLY PROVIDED STATION NAME AT Q11B INSERT: got off at [INSERT STATION NAME]] [IF STATION NOT PROVIDED AT Q11A OR Q11B RANDOMLY INSERT: board/got off at]],how would you rate that station in terms of feeling safe from crime?
- 4 (13.4) How would you rate it in terms of not being overcrowded? (CLARIFY IF NECESSARY: Was there enough room onboard?)
- 5 (13.8) How would you rate it in terms of providing on-time reliable service?
- 6 (13.9) Clean and graffiti free SkyTrain cars and stations? (CLARIFY IF NECESSARY: Please think about the overall cleanliness during your [last/2nd last] SkyTrain trip.)
- 7 (13.10) How would you rate it for staff available when needed? (IF RESPONDENT SAYS 'NOT APPLICABLE RECORD AS DK)
- 8 (13.12) How would you rate it in terms of frequency of service? (CLARIFY IF NECESSARY: Do the trains run often enough throughout the day?)

[1-10]

13X1. Within the past 3 months, have you experienced any SkyTrain delays?

YES

NO



[IF Q13X1 = NO/DK/REF SKIP TO INSTRUCTION BEFORE Q14, OTHERWISE CONTINUE]

13X2. Thinking about the last time you experienced a delay on SkyTrain, how would you rate the SkyTrain service in terms of "delays are announced and explained"? (IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".)

[1-10]

ASSESS SATISFACTION WITH BUS ROUTES; IDENTIFY WAYS TO IMPROVE SERVICE

[Q.14-Q.22 FOR BUS RIDERS ONLY (Q.3_1 – Bus Only, Q3_4 – Bus & SkyTrain, Q3_5 Bus & SeaBus OR Q3_7 – Bus, SeaBus and SkyTrain > 0]

Now thinking about your **[TRIP]** one-way trip on the Bus. Just to clarify, if you used the Bus to travel to work and back home again, your **[TRIP]** one-way trip would be your trip **[IF Trip= "**Last" **insert:** "back home"/ **IF TRIP =** "2nd to last" **insert:** "to work"].

[IF ONLY TRAVELED DURING ONE TIME PERIOD IN Q4, GO TO 15]

[PROGRAMMER: ONLY INCLUDE CODES BELOW WHERE AT Q4 ITEM IS > 0]

- 14. Did you make your [TRIP] one-way trip on the Bus ... (READ LIST, ACCEPT ONE RESPONSE)
 - 1. Monday to Friday between 5am and 9:30am
 - 2. Monday to Friday between 9:30am and 3pm
 - 3. Monday to Friday between 3pm and 6:30pm
 - 4. Monday to Friday after 6:30pm
 - 5. Saturday, Sunday or Holiday
- 15. How many different buses did you take on this trip? (RECORD NUMBER OF BUSES)

[RANGE = 1-9]

[PROGRAMMER: IF Q15 = 1 USE SINGULAR WORDING BELOW, ALL OTHERS USE PLURAL]

16. What was/were the route number(s) of the bus(es) you took on this trip? (RECORD ROUTE NUMBERS. ACCEPT UP TO 3 ROUTE NUMBERS.) (IF RESPONDENT UNABLE TO GIVE ROUTE NUMBER, PROBE FOR ROUTE NAME. IN INSTANCES WHERE THE SAME ROUTE NAME IS ASSOCIATED WITH DIFFERENT ROUTE NUMBERS, THE INTERVIEWER SHOULD GIVE THESE ROUTE NUMBERS TO THE RESPONDENT TO DETERMINE IN THE RESPONDENT CAN IDENTIFY THE ROUTE NUMBER. IF THE RESPONDENT CANNOT, THE INTERVIEWER WILL USE ONE OF THE CODES BELOW THAT REPRESENT THE DEPARTURE POINT FOR THE BUS THAT THEY DID TAKE) (ANY GENERIC MENTIONS OF NORTH VANCOUVER, PLEASE PUT THAT IN CODE 922 BBY/NEW WEST/NORTH VANCOUVER).

922. Bby/New West/North Vancouver923. Sry/Lang/WR924. Coq/Pt. Coq.925. Rmd/S Del.



926. Vancouver927. West Vancouver993. Downtown/Westminster/Sry (N19)

994. Downtown/SFU (N35)

[PROGRAMMER: REFER TO ROUTE LIST FOR ACCEPTABLE CODES] [PROGRAMMER: SAME ROUTE CANNOT BE CHOSEN MORE THAN ONCE AT Q16] [ASK Q17 – Q18 FOR UP TO 3 DIFFERENT ROUTE NUMBERS BASED ON THE FOLLOWING LOGIC] [IF BOTH SEABUS AND SKYTRAIN SECTION ALREADY ASKED, ASK BUS SECTION FOR ONLY ONE BUS ROUTE RANDOMLY CHOSEN BASED ON ANSWERS AT Q16.] [IF ONLY ONE OR OTHER OF SKYTRAIN OR SEABUS ASKED, ASK ABOUT TWO BUS ROUTES ONLY RANDOMLY CHOSED BASED ON ANSWERS AT Q16. IF NEITHER SKYTRAIN NOR SEABUS RATED, ASK ABOUT UP TO 3 BUS ROUTES CHOSEN BASED ON ANSWERS AT Q16]

[PROGRAMMER: INSERT "#" on all of the inserts for route numbers]

17. Thinking about the trip you made on the **[route number]** bus, on a scale of one to ten, where "ten" means "excellent" and "one" means "very poor", how would you rate it for service overall?

[1-10]

18. [PROGRAMMER DISPLAY FOR FIRST ITEM ASKED IF ATTRIBUTE = 1, 2, 3,7, 8 OR 9] Still thinking about the [route number] bus you took and using the same 10-point scale, how would you rate it in terms of ... [INSERT FIRST ITEM]? (CLARIFY IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".]

[PROGRAMMER DISPLAY FOR REMAINING ITERATIONS IF ATTRIBUTE = 1, 2, 3, 7, 8 OR 9] How about ... [INSERT SECOND ITEM, ETC.]? (INTERVIEWER: REPEAT SCALE AS NEEDED)

[PROGRAMMER DISPLAY FOR ATTRIBUTES: 4, 5, 6, OR 10] Still thinking about the [TRIP] trip you made on the [INSERT ROUTE NUMBER],

- 18.1 Having a courteous bus operator?
- 18.2 Having an operator who drives safely and professionally?
- 18.3 Feeling safe from crime onboard the bus?
- 18.4 How would you rate it for feeling safe from crime at the bus stop or transit exchange where you boarded?
- 18.5 How would you rate it in terms of not being overcrowded? (CLARIFY IF NECESSARY: Was there enough room onboard?)
- 18.6 How would you rate it in terms of providing on-time reliable service?
- 18.7 Clean and graffiti free bus (CLARIFY IF NECESSARY: Please think about the overall cleanliness during your [last/2nd last] bus trip.)
- 18.8 The **[INSERT ROUTE NUMBER]** bus for having a direct route? (**CLARIFY IF NECESSARY:** By direct route, we mean having a route that follows the shortest possible path between where you got on and where you got off the bus.)
- 18.9 Trip duration from the time you boarded to the time you got off the bus? **(CLARIFY IF NECESSARY:** We are only referring to the time spent <u>onboard</u> the bus.**)**
- 18.10 How would you rate it in terms of frequency of service? **(CLARIFY IF NECESSARY:** Does the bus run often enough throughout the day?**)**



[1-10]

23AA. Again, thinking of the trip you take most often on transit, do you take more than one bus or transit mode?

YES NO

[ASK Q23AB IF Q23AA = YES, OTHERWISE SKIP TO Q23A]

Q23AB. Using the 10-point scale, how would you rate the transit system in terms of having good connections between buses or transit modes with a reasonable wait time? **(IF NECESSARY:** On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".**)**

[1-10]

[ASK Q23AC IF RATING IN 23AB IS 5 OR LESS, OTHERWISE SKIP TO Q23A]

Q23AC. Between which transit modes or buses would you like a better connection? (SINGLE MENTION)

- 1. Between [ENTER BUS NUMBER] and [ENTER BUS NUMBER]
- 2. Between [ENTER BUS NUMBER] and SkyTrain
- 3. Between [ENTER BUS NUMBER] and SeaBus
- 4. Between SkyTrain And SeaBus

None

Other (Specify) [SPECIFY]

[PROGRAMMER: REFER TO ROUTE LIST FOR ACCEPTABLE CODES]

- 23AD. And at what time of day would you like the connection to be improved? (MULTIPLE RESPONSE QUESTION, ACCEPT UP TO 5 RESPONSES. DO NOT READ LIST. IF NECESSARY INTERVIEWER CAN CLARIFY/PROBE FROM LIST) [PROGRAMMER: CAPTURE ORDER OF MENTIONS]
 - 1. Monday to Friday between 5am and 9:30am
 - 2. Monday to Friday between 9:30am and 3pm
 - 3. Monday to Friday between 3pm and 6:30pm
 - 4. Monday to Friday after 6:30pm
 - 5. Saturday, Sunday or Holiday
- 23A. And still thinking of the transit system in Metro Vancouver, how would you rate it for providing adequate transit information at stops and stations? (IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".)

[1-10]

3



[ASK Q23B & Q23B2 BEFORE MOVING ON TO NEXT TRANSIT MODE]

23B. And how about for providing adequate information onboard transit vehicles, starting with ... [INSERT ITEM]? (IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".)

[IF USED BUS IN Q3: Q3_1 – Bus Only, Q3_4 – Bus & SkyTrain, Q3_5 – Bus & SeaBus, OR Q3_7 – Bus, SeaBus and SkyTrain > 0] Bus

[IF USED SKYTRAIN IN Q3: Q3_2 – SkyTrain only, Q3_4 – Bus & SkyTrain, Q3_6 – SkyTrain and SeaBus, OR OR Q3_7 – Bus, SeaBus and SkyTrain > 0] SkyTrain

[IF USED SEABUS IN Q3: Q3_3 – SeaBus Only, Q3_5 – Bus & SeaBus, Q3_6 – SkyTrain and SeaBus OR Q3_7 – Bus, SeaBus and SkyTrain > 0] SeaBus

[1-10]

23C. Again, thinking of the regional transit system in Metro Vancouver, how would you rate it for having service that runs during convenient hours? (IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".)

[1-10]

23D. And how about for having enough bus shelters throughout the region? (IF NECESSARY: On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".) (CLARIFY IF NECESSARY: Thinking about what you have seen or heard and the route(s) you travelled on, how would you rate the transit system for having enough bus shelters at bus stops?)

[1-10]

Q23E. Have you called TransLink's telephone information line in the past 3 months?

YES NO

[ASK IF Q23E = YES, OTHERWISE SKIP TO Q23F]

Q23E1. Thinking of the last time you called the telephone information line, on a scale of one to ten where 'ten' means 'excellent' and 'one' means 'very poor', how would you rate it for ease of getting the information you wanted?

[1-10]

- Q23E2. Did you speak to a telephone information clerk, or was the call totally automated, or did you speak to a clerk as well as hearing automated information?
 - 1. Spoke to clerk only
 - 2. Call was totally automated
 - 3. Spoke to clerk and heard automated information



23F. Have you used TransLink's website in the past 3 months?

YES NO

[ASK IF Q23F = YES, OTHERWISE SKIP TO 23H]

23F1. Thinking of the <u>last time</u> you used TransLink's website, and using the same 10-point scale, how would you rate it for being easy to find the information you wanted? **(IF NECESSARY:** On a scale of one to ten, where "ten" means "excellent" and "one" means "very poor".**)**

[1-10]

TRANSIT DEMOGRAPHICS

23H. Which method of payment did you use <u>MOST</u> often in the last [DAYS] days when you took transit? (READ LIST, ONE RESPONSE ONLY) (INTERVIEWER: IF A RESPONDENT SAYS THEY GOT A DAY PASS, CLARIFY IF THEY MEANT BUYING A DAY PASS ON A COMPASS TICKET – OR - A DAY PASS ON A COMPASS CARD)

1. Pay cash on the bus

- 5. Compass Ticket (IF NEEDED TO CLARIFY: SINGLE USE OR A DAY PASS ON A COMPASS TICKET)
- 9. Compass Card (all types including U-Pass)

11. Tap to Pay (IF NEEDED TO CLARIFY: TAPPING WITH CONTACTLESS CREDIT CARDS OR MOBILE DEVICE)

7.Other [PROGRAMMER: NOT AN OTHER SPECIFY]

[PROG: ASK 23H1B IF SELECTED CODE 9 "COMPASS CARD" IN 23H. ASK 23H1C IF SELECTED CODE 5 "COMPASS TICKET"OTHERWISE, SKIP TO 24]

- [NEW ADDED JULY 2015]
- 23H1b. Which one of the following Compass Card products are you using <u>THE MOST</u>? (READ LIST, ONE RESPONSE ONLY)
 - 1. BC Government Pass (DO NOT READ FURTHER IF THIS IS SELECTED)
 - 2. Monthly Pass
 - 3. Stored Value (CLARIFY IF NECESSARY: cash or credit loaded onto the Compass card to allow "pay-asyou-go" travel, replacing FareSavers and some WCE fare products)
 - 4. U-Pass BC
 - 5. Other types of passes

[IF OPTION 1 or 8 IS SELECTED in 23H1B, SKIP TO 24. OTHERWISE CONTINUE]



23H1c. Is the Compass Card or Ticket that you are using a Concession Compass Card/Ticket? **(CLARIFY IF NECESSARY:** This is for riders who qualify for discounted fares such as children 5-13, youth 14 to18 with a valid photo ID or seniors who are 65+.)

YES NO

24. Thinking about the distance travelled, and not about the fare you paid: How many zones do you most often travel through when you take public transit?

ONE TWO THREE

- 25A. What are the reasons you most recently decided to take transit rather than taking some other mode of transportation? (PROBE FOR UP TO THREE RESPONSES) (DO NO READ THE CODE LIST. INTERVIEWER TO SELECT APPLICABLE CODES)
 - 1. Costs too much for parking/lack of parking
 - 2. Don't own a vehicle/don't drive/no ride/no choice
 - 3. To avoid driving/dealing with traffic/less stressful

4. Bus stops/stations convenient [ONLY SELECT IF RESPONDENTS ACTUALLY MENTION ABOUT BUS STOP/STATIONS BEING CONVENIENT OR IF NO OTHER SPECIFICS PROVIDED. E.G. IF THEY SAY "It's convenient because they don't have to deal with traffic", SELECT CODE 3 ONLY]

5. Cheaper/cheaper than operating a vehicle

6. Faster than driving

7.Other (specify) [RECORD VERBATIM]

25B. Do you regularly have access to a car, van or truck as a driver or passenger for the trips you make using public transit? (IF RESPONDENT OFFERS MOTORCYCLE, OK TO CODE YES)

YES

NO

26. Compared to six months ago, would you say you are now riding transit more regularly, less regularly, or about the same? **(READ LIST ONLY IF NECESSARY)**

MORE REGULARLY THAN 6 MONTHS AGO LESS REGULARLY THAN 6 MONTHS AGO ABOUT THE SAME

[IF Q26 = CODE 1 OR 2 ASK Q27, OTHERWISE SKIP Q40]

27. What is your main reason for riding transit [IF Q26=CODE 1 INSERT: more; IF Q26=CODE2 INSERT: less) regularly? (PROBE FOR SPECIFIC REASON. RECORD FOR UP TO THREE RESPONSES, RECORD VERBATIM)

[RECORD VERBATIM]



[NEW QUESTIONS - ADDED FOR JULY 2016]

40. On a scale of 1 to 10, where 10 means excellent and 1 means very poor, how would you rate your <u>overall experience</u> with the Compass Card and Faregate System?

[1-10]

Next, I would like to ask you a few questions for classification purposes only.

28. Approximately how long have you been taking transit on a regular basis? (PROBE WITH MONTHS AND YEARS)

[PROGRAMMER BOTH YEARS AND MONTHS CAN BE CHOSEN TOGETHER] RECORD YEARS [range 0-50] RECODES MONTHS [range 0 – 11] NOT A REGULAR RIDER

- 30a. How likely are you to take transit as often as you do now in the foreseeable future? Will you ... (READ LIST, ACCEPT ONE RESPONSE)
 - 5. Definitely continue (as often as you do now)
 - 4. Probably continue (as often as you do now)
 - 3. Might or might not continue (as often)
 - 2. Probably not continue (as often, OR)
 - 1. Definitely not continue (as often)

(DO NOT READ) Other/depends

DEMOGRAPHICS]

33. Into which of the following age categories do you fall? (READ LIST, STOP WHEN APPROPRIATE AGE REACHED)

[PROGRAMMER: IF ANSWER OF RIDERSHIP TIME AT Q28 IS GREATER THAN ACTUAL UPPER RANGE OF ANSWER AT Q33, "i.e., 25-34 years at q33 & 45 years at q28 "DISPLAY THE FOLLOWING ERROR: "INTERVIEWER: YOUR ANSWER AT Q33 DOESN'T LINE UP WITH Q28, PLEASE REVISE"]



[CHANGED FROM SINGLE TO MULTI-RESPONSE – MARCH 13, 2014]

- 34. Which of the following <u>best</u> describe your current employment status? **(READ LIST AND RECORD ALL MENTIONS)**
 - 1. Employed full time 30 or more hours per week
 - 2. Employed part time less than 30 hours per week
 - 3. Student
 - 4. Not employed [PN: MUTUALLY EXCLUSIVE WITH CODE 1, 2 AND 6]
 - 5. Homemaker
 - 6. Retired [PN: MUTUALLY EXCLUSIVE WITH CODE 1,2 AND 4]
- 35. What is the highest level of education you have completed? (READ AND STOP WHEN APPROPRIATE)
 - 1. Some high school or less
 - 2. Graduated high school
 - 3. Vocational/college/technical
 - 4. Some university
 - 5. Graduated university

[NEW: ADDED MARCH 2014]

[PROG: ASK Q36A IF STUDENT (CODE 3) NOT SELECTED AT Q34. ELSE, SKIP TO Q36a4]

36a. Are you currently a student? (IF NECCESARY: currently attending a school, college, or university)

YES

NO

36A4. How many cellphones does your household own? [FOR CELLPHONE RESPONDENTS, ANSWER HAS TO BE 1 OR MORE]

[0-99]

- 37a. Which of the following best describes your total household income for 2017? **(READ AND STOP WHEN APPROPRIATE)**
 - 1. Under 20,000
 - 2. \$20,000 to less than \$40,000
 - 3. \$40,000 to less than \$60,000
 - 4. \$60,000 to less than \$80,000
 - 5. \$80,000 to less than \$100,000
 - 6. \$100,000 or more

[RECORD GENDER – DO NOT READ]

Male
Female
Unable to tell/not sure



38. What is your Postal Code? (INTERVIEWER: POSTAL CODE FROM SAMPLE IS: [INSERT POSTAL CODE FROM SAMPLE]) (IF DON'T KNOW FULL SIX DIGITS ASK FOR FIRST THREE DIGITS)

[OPEN END]

39. Do you have any comments or suggestions that you would like me to forward directly to TransLink? Your comments will remain completely confidential.

[RECORD VERBATIM] DECLINE/NOTHING/DON'T KNOW

Thank you very much for your time and co-operation.

Language: INTERVIEWER: ENTER LANGUAGE OF INTERVIEW.

English Punjabi Chinese



APPENDIX C – Routes/Modes Where Connections Rated 5 or Lower

Routes/ Modes	Total	Percent	Routes/ Modes	Total	Percent
SkyTrain	47	26.0%	Route 214	1	0.0%
SeaBus	12	4.0%	Route 215	2	0.0%
Route 2	2	1.0%	Route 228	1	0.0%
Route 7	2	1.0%	Route 229	3	1.0%
Route 8	1	0.0%	Route 230	2	1.0%
Route 9	3	2.0%	Route 232	1	0.0%
Route 10	2	2.0%	Route 236	2	1.0%
Route 15	3	3.0%	Route 239	4	1.0%
Route 16	2	1.0%	Route 240	4	3.0%
Route 17	2	1.0%	Route	1	1.0%
Route 19	1	0.0%	Route 246	6	3.0%
Route 20	2	2.0%	Route 255	2	2.0%
Route 22	1	1.0%	Route 258	1	0.0%
Route 25	2	2.0%	Route 316	1	1.0%
Route 28	1	1.0%	Route 319	1	1.0%
Route 41	3	1.0%	Route 323	3	3.0%
Route 44	1	2.0%	Route 335	2	2.0%
Route 49	1	0.0%	Route 351	1	1.0%
Route 84	2	2.0%	Route 352	1	1.0%
Route 95 B-Line	1	0.0%	Route 373	1	1.0%
Route 96 B-Line	1	1.0%	Route 388	1	1.0%
Route 99 B-Line	6	5.0%	Route 394	1	1.0%
Route 100	3	2.0%	Route 402	3	2.0%
Route 101	1	0.0%	Route 403	1	0.0%
Route 106	2	2.0%	Route 405	2	1.0%
Route 116	1	1.0%	Route 406	3	4.0%
Route 128	1	1.0%	Route 407	1	1.0%
Route 130	2	2.0%	Route 408	1	0.0%
Route 132	1	0.0%	Route 410	1	1.0%
Route 133	1	2.0%	Route 480	1	0.0%
Route 136	1	2.0%	Route 501	1	1.0%
Route 143	1	1.0%	Route 601	9	6.0%
Route 144	2	2.0%	Route 602	1	0.0%
Route 151	1	1.0%	Route 603	1	0.0%
Route 153	1	0.0%	Route 618	1	0.0%
Route 155	2	1.0%	Route 640	3	3.0%
Route 159	1	1.0%	Route 701	4	2.0%
Route 160	1	0.0%	Route 791	2	1.0%
Route 182	1	0.0%	Grand Total	204	100.0%
Route 210	4	1.0%		1 1	
Route 211	1	0.0%			
Route 212	1	0.0%			



ROUTE	TRIPS	OVERALL	COURTEOUS	SAFETY ON BOARD	SAFETY AT STOP	OVER- CROWDED	ON-TIME	CLEAN	DIRECT	DURATION	FREQUENCY	DRIVES SAFELY PROFESSIONALLY
Total	1835	7.9	8.5	8.7	8.5	7.1	7.6	8.3	8.6	8.4	7.3	8.8
2	33	8.3	8.3	8.8	8.8	7.1	7.8	8.4	9.1	8.6	7.8	8.7
3	23	8.4	8.7	8.6	8.1	7.2	8.1	8.3	9.1	8.6	7.9	9.3
4	20	8.3	8.6	8.5	8.2	7.6	7.5	8.0	8.2	8.4	7.2	8.7
5	12	8.4	8.9	8.1	9.0	7.6	8.2	8.5	8.4	8.6	7.8	8.8
6	12	8.7	8.3	8.3	8.3	7.6	8.4	8.8	8.9	8.8	7.4	9.3
7	20	7.3	8.5	8.7	8.1	7.0	6.7	8.3	8.4	7.7	5.8	8.3
8	16	7.5	8.5	8.4	8.0	7.3	6.8	8.3	8.8	8.4	6.9	9.0
9	46	8.5	9.0	8.9	8.7	6.9	7.9	8.6	9.1	8.5	7.9	9.0
10	27	7.8	8.6	8.7	8.9	7.4	7.4	8.1	8.8	8.4	7.4	8.6
14	29	8.4	9.1	8.6	8.7	6.8	8.0	8.1	9.0	8.4	7.8	9.1
15	8	7.6	8.2	7.3	7.4	7.9	7.7	7.0	7.4	7.7	7.1	8.5
16	34	7.7	8.3	8.2	8.4	7.5	6.6	7.6	8.6	8.6	6.4	8.8
17	17	8.5	8.8	8.8	9.0	7.6	6.1	8.6	8.9	8.0	6.5	8.9
19	19	6.9	8.5	7.9	8.4	6.7	7.0	7.3	8.2	8.1	7.4	8.8
20	32	7.8	8.6	8.1	8.2	7.5	7.0	7.6	8.8	8.4	7.0	8.8
22	26	8.4	8.9	8.8	8.1	7.6	7.7	8.6	8.8	8.5	7.7	9.0
23	10	8.6	9.1	9.6	9.5	5.7	7.8	9.5	9.2	8.9	7.5	9.2
25	42	8.2	8.3	8.9	8.8	7.0	8.0	8.5	8.9	8.5	7.6	8.9
26	13	8.4	8.6	9.7	9.1	9.0	7.4	9.3	8.7	8.8	7.2	9.6
27	8	8.4	9.0	9.0	8.9	8.5	7.6	8.5	8.3	8.7	7.9	9.2
28	8	7.4	8.0	8.8	8.8	7.1	6.4	7.9	7.8	7.6	6.6	8.1
29	3	8.6	8.9	8.7	8.1	7.7	7.5	8.1	8.2	7.7	6.5	8.9
32	1	7.0	0.0	7.0	9.0	3.0	9.0	7.0	8.0	10.0	10.0	10.0
33	10	8.0	8.7	9.1	8.9	7.5	7.6	9.0	9.2	8.6	8.0	9.0
41	28	7.8	8.2	8.5	8.3	5.7	7.2	7.7	8.6	8.1	7.5	8.6
43	7	8.3	8.9	9.3	9.0	7.0	8.2	8.7	9.2	8.3	8.1	8.5
44	9	7.5	8.1	9.1	8.9	5.6	6.6	8.8	8.9	8.6	6.3	8.6
49	44	8.1	8.8	8.8	8.5	6.8	7.6	8.1	8.7	8.3	7.8	9.0
50	12	8.7	8.7	9.1	9.0	8.6	7.7	9.0	8.4	9.1	7.5	8.9
70	1	6.0	10.0	10.0	10.0	8.0	2.0	10.0	6.0	8.0	2.0	10.0
84	19	8.5	9.0	8.9	8.7	6.5	8.4	8.5	9.1	8.3	7.6	9.1
95 B-Line	40	8.1	8.5	8.5	9.0	6.8	8.3	8.3	8.8	8.3	8.0	8.9
96 B-Line	19	8.7	8.8	8.5	8.3	6.9	8.7	8.5	9.1	8.9	8.7	8.9
99 B-Line	103	7.9	8.5	8.3	8.3	6.0	8.1	8.0	9.0	8.6	8.6	8.8
100	18	7.7	8.4	9.2	9.1	6.8	7.2	8.6	9.0	8.6	7.5	8.7
101	3	6.4	7.3	7.7	6.7	6.1	7.0	7.1	5.1	5.0	3.3	7.3
103	4	8.4	8.8	9.6	9.6	6.4	8.0	8.8	10.0	10.0	6.5	8.8
105	3	7.6	6.9	8.0	8.8	6.8	7.3	7.4	8.5	9.8	7.1	6.7
106	17	7.6	8.5	8.8	8.6	6.8	7.1	7.8	8.4	8.3	7.0	8.6



ROUTE	TRIPS	OVERALL	COURTEOUS	SAFETY ON	SAFETY AT STOP	OVER- CROWDED	ON-TIME	CLEAN	DIRECT	DURATION	FREQUENCY	DRIVES SAFELY PROFESSIONALLY
109	3	7.9	9.6	board 9.6	8.9	9.3	8.7	9.0	8.2	9.6	5.5	9.6
110	6	7.2	8.0	8.8	8.3	8.3	6.1	7.9	7.7	7.9	6.3	9.0
112	2	9.0	7.0	10.0	10.0	9.0	7.1	10.0	10.0	9.0	7.1	9.5
116	3	5.4	8.1	8.6	8.3	9.3	5.6	7.0	7.5	8.1	4.6	8.1
119	4	8.3	8.8	9.3	9.3	7.4	7.6	8.8	9.6	9.6	7.9	9.0
123	20	8.1	8.4	8.6	8.1	6.6	7.8	8.7	9.3	8.9	7.4	8.6
128	4	6.2	7.0	6.9	6.4	6.7	5.6	7.1	6.0	7.1	5.9	7.5
129	8	8.1	8.6	9.0	9.0	8.7	6.8	8.9	8.9	9.4	6.5	9.0
130	12	7.6	8.5	9.1	8.1	6.6	7.9	7.9	8.2	8.4	7.7	8.7
132	2	7.3	7.5	9.4	8.7	8.7	5.4	9.4	8.7	10.0	5.6	9.4
133	3	8.9	8.9	8.5	8.9	7.4	8.5	9.5	8.6	6.7	6.9	9.2
134	5	8.9	9.4	9.7	9.6	8.4	8.5	9.3	10.0	9.8	6.7	9.6
136	4	8.0	7.9	9.0	8.4	7.6	7.9	9.6	8.3	7.9	6.7	8.9
143	5	8.3	9.1	9.8	9.2	5.5	7.8	8.3	8.4	8.7	7.4	9.1
144	22	7.0	8.2	9.3	8.9	7.3	6.5	8.5	7.7	7.8	6.5	8.3
145	15	8.6	8.5	9.3	8.9	7.3	7.9	8.6	9.0	8.9	8.3	9.0
147	1	7.0	8.0	7.0	7.0	8.0	6.0	8.0	8.0	8.0	7.0	8.0
151	1	5.0	7.0	9.0	9.0	10.0	8.0	7.0	8.0	8.0	5.0	8.0
152	12	8.4	8.8	8.1	8.3	8.1	8.3	8.0	8.4	8.5	6.9	9.0
153	6	8.5	8.3	8.5	8.6	7.4	7.8	8.2	8.6	9.4	6.6	9.3
155	4	7.1	8.1	7.9	7.4	6.4	6.8	6.9	7.9	8.0	6.0	8.5
156	8	7.9	8.6	9.0	8.1	7.5	8.4	8.0	8.5	8.9	7.5	8.9
157	5	8.7	9.0	9.2	9.0	8.2	8.2	8.7	8.7	8.6	6.3	9.2
159	3	6.6	8.2	8.2	8.2	9.4	8.7	8.8	7.8	8.7	6.5	8.8
160	9	9.3	9.5	9.7	9.5	9.7	9.4	9.5	9.2	9.5	9.0	9.4
169	2	7.0	8.7	9.3	9.0	5.7	10.0	9.0	7.1	9.3	7.1	9.3
171	4	7.8	8.2	8.9	8.6	8.5	8.3	8.9	9.1	8.2	5.4	8.3
172	4	8.8	9.4	9.2	7.7	5.3	8.2	9.7	8.1	8.0	6.9	9.3
173	2	8.6	10.0	10.0	9.6	9.6	9.2	9.2	8.6	9.2	8.0	10.0
180	6	8.3	7.7	7.7	7.8	6.9	7.8	7.8	6.0	7.6	7.6	7.8
181	1	9.0	6.0	9.0	9.0	9.0	9.0	9.0	7.0	9.0	3.0	8.0
183	6	9.7	8.7	10.0	9.9	9.1	9.5	9.8	8.3	9.2	6.9	9.7
186	3	8.2	9.5	9.5	7.6	7.8	8.1	8.6	6.0	7.6	7.5	9.3
187	2	8.0	8.0	8.6	6.9	8.7	7.1	7.7	8.0	7.1	8.0	8.7
188	6	7.8	9.3	9.5	7.7	8.2	7.5	9.4	9.0	8.1	6.6	9.1
209	1	6.0	5.0	5.0	5.0	6.0	3.0	5.0	7.0	6.0	5.0	4.0
210	9	7.9	8.5	8.4	8.5	6.7	7.5	8.3	9.0	8.2	7.1	8.7
211	7	8.6	9.7	9.6	9.7	7.7	8.7	9.3	9.5	8.9	6.9	9.3
212	4	7.8	9.7	9.6	8.5	9.8	8.1	9.2	9.7	9.7	6.6	9.7
214	3	7.9	8.8	9.2	9.1	7.2	6.4	8.8	7.8	8.2	5.6	8.8



				SAFETY ON	SAFETY AT	OVER-						DRIVES SAFELY
<u>коите</u> 215	trips 5	OVERALL 8.6	COURTEOUS	BOARD 9.9	<u>втор</u> 9.9	CROWDED 8.2	<u>он-тіме</u> 6.9	CLEAN 8.9	DIRECT 9.7	DURATION 9.7	FREQUENCY 6.9	PROFESSIONALLY 6.8
228	8	8.7	9.3	9.4	9.4	8.8	8.5	9.0	8.9	8.8	7.6	9.5
229	23	7.5	8.3	8.5	8.5	7.2	7.7	7.8	8.8	8.2	7.6	8.6
230	14	7.9	8.3	9.2	8.8	6.7	7.9	8.0	8.9	9.0	6.7	8.5
230	14	6.8	5.6	9.1	9.3	8.1	5.0	8.3	8.4	7.6	5.2	5.9
232	4	9.2	9.9	10.0	9.9	7.9	6.9	7.8	7.9	8.4	8.3	9.4
230	18	7.1	7.3	7.3	6.8	6.1	7.7	6.5	7.6	7.2	7.2	8.3
239	39	7.4	8.3	8.5	8.4	5.6	7.1	8.3	8.3	8.0	7.2	8.3
240	2	9.2	8.4	8.8	10.0	5.6	9.0	10.0	8.2	10.0	8.8	10.0
241	33	7.4	9.0	9.1	8.7	7.3	7.8	9.0	8.1	7.9	6.0	8.8
240	70	8.4	9.0	9.1	9.1	7.2	7.7	9.0	9.0	9.0	7.3	8.9
253	9	7.3	9.5	9.4	9.1	8.2	7.5	9.5	7.9	9.0	6.9	9.0
253	2	8.7	8.8	9.0	9.0	9.0	8.8	9.0	8.8	8.8	7.3	8.8
255	17	8.5	9.1	8.8	9.2	6.9	8.5	9.0	7.9	7.9	7.3	9.4
255	7	8.9	8.8	8.9	8.5	6.7	9.0	8.8	8.9	8.8	6.3	8.8
250	9	8.9	9.3	8.9	8.9	5.9	9.1	9.6	9.2	9.1	6.9	9.4
258	1	9.0	10.0	10.0	10.0	6.0	9.0	10.0	10.0	9.0	6.0	9.0
301	10	7.0	7.7	8.3	7.9	6.2	6.7	7.5	8.2	7.8	6.4	8.2
311	2	8.0	8.6	9.3	8.1	8.4	7.4	8.6	9.3	9.3	6.7	9.3
312	2	7.1	8.8	8.2	8.8	5.7	6.5	7.1	7.1	7.7	7.7	8.8
314	2	8.6	8.6	7.2	6.5	6.5	7.3	10.0	8.6	10.0	7.2	8.6
316	7	8.1	9.2	9.1	7.3	7.9	7.7	8.4	8.8	8.6	5.9	8.9
319	21	6.7	8.3	8.4	7.7	5.6	6.4	7.9	8.2	7.6	7.7	8.4
320	7	9.0	8.3	9.6	8.5	8.0	7.7	9.3	9.7	9.8	8.0	9.7
321	7	7.8	9.2	7.4	7.5	6.4	7.7	8.3	9.0	9.0	7.6	9.1
322	, 1	5.0	9.0	7.0	8.0	4.0	3.0	8.0	6.0	6.0	4.0	7.0
323	11	6.4	8.1	8.0	7.9	5.8	6.8	7.9	7.8	7.8	5.9	8.3
324	8	9.0	9.4	9.6	9.3	8.3	7.8	9.0	8.9	8.5	8.4	9.6
325	4	8.7	9.3	8.5	9.0	8.5	7.7	8.8	9.0	9.3	8.3	9.0
326	1	7.0	8.0	9.0	10.0	10.0	10.0	8.0	10.0	10.0	10.0	10.0
329	1	10.0	8.0	9.0	9.0	5.0	7.0	9.0	10.0	8.0	8.0	9.0
335	18	6.7	7.5	7.5	7.4	5.9	6.5	7.6	7.5	7.6	6.2	7.9
337	3	7.7	8.8	9.4	8.4	9.1	8.0	9.4	10.0	10.0	8.0	9.4
340	6	8.4	9.3	9.4	9.1	7.1	8.7	9.0	9.0	9.4	6.6	9.4
341	1	7.0	10.0	10.0	10.0	10.0	5.0	6.0	7.0	10.0	6.0	10.0
342	1	7.0	9.0	8.0	7.0	5.0	4.0	7.0	8.0	8.0	6.0	9.0
345	10	7.6	7.8	8.7	8.9	7.0	6.7	9.0	9.4	8.5	5.9	8.3
351	39	7.9	8.6	9.0	8.5	7.2	8.5	8.5	8.4	8.5	7.6	8.7
352	1	9.0	8.0	9.0	9.0	7.0	8.0	9.0	9.0	9.0	9.0	9.0
354	2	10.0	10.0	10.0	9.1	9.4	9.6	10.0	10.0	10.0	10.0	10.0



ROUTE	TRIPS	OVERALL	COURTEOUS	SAFETY ON BOARD	SAFETY AT STOP	OVER- CROWDED	ON-TIME	CLEAN	DIRECT	DURATION	FREQUENCY	DRIVES SAFELY PROFESSIONALLY
360	1	8.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
361	1	1.0	2.0	1.0	5.0	9.0	10.0	5.0	10.0	10.0	1.0	1.0
363	2	10.0	10.0	10.0	10.0	10.0	9.7	8.2	7.5	7.5	4.3	10.0
364	4	7.3	8.3	8.6	7.9	7.7	7.7	8.2	8.3	8.6	4.7	8.5
371	1	10.0	0.0	10.0	8.0	10.0	10.0	9.0	10.0	10.0	10.0	10.0
373	3	5.5	5.5	7.3	7.3	5.3	5.3	7.0	7.1	6.5	4.8	7.3
375	2	7.5	6.6	8.5	9.0	7.0	7.5	7.5	7.5	8.0	5.1	8.5
388	4	9.0	9.3	9.7	9.0	8.8	8.7	8.5	8.5	8.5	8.8	9.5
393	1	1.0	10.0	9.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0
394	1	5.0	7.0	8.0	7.0	7.0	5.0	6.0	7.0	7.0	4.0	8.0
401	21	8.0	8.9	9.1	8.7	8.3	7.4	8.8	8.6	8.6	7.6	9.0
402	15	6.9	8.7	9.2	9.0	9.1	5.9	7.7	8.7	8.9	6.5	9.1
403	9	8.0	7.9	8.4	7.9	6.4	6.9	7.9	9.5	8.7	6.1	8.1
404	1	7.0	10.0	8.0	7.0	10.0	10.0	10.0	10.0	10.0	6.0	10.0
405	4	7.7	7.8	8.8	9.1	9.5	8.8	8.6	7.4	7.7	6.9	8.4
406	16	8.1	7.8	8.7	8.6	7.4	7.5	8.4	8.8	8.0	7.4	7.5
407	4	5.8	8.1	8.8	9.0	5.9	6.6	8.3	8.2	7.2	6.8	9.5
408	9	8.4	8.5	8.8	8.4	7.9	7.3	7.9	8.6	8.9	7.2	8.8
410	19	7.9	8.4	8.4	7.8	7.2	7.7	7.5	7.9	7.4	7.8	8.3
412	1	5.0	9.0	9.0	9.0	10.0	8.0	9.0	9.0	7.0	5.0	9.0
418	1	9.0	8.0	7.0	7.0	10.0	10.0	6.0	7.0	7.0	7.0	9.0
430	11	7.9	8.8	9.2	9.3	6.0	7.4	8.7	8.3	8.2	5.6	9.4
480	6	5.9	7.3	8.1	8.5	4.7	8.0	6.9	7.5	7.5	5.7	7.1
501	7	8.1	9.0	7.9	7.1	6.1	6.7	8.3	8.7	8.6	6.6	9.4
502	17	8.0	8.6	8.0	7.6	5.9	7.1	7.9	8.5	8.0	8.0	8.7
503	2	9.5	9.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0	7.5	9.0
509	1	10.0	9.0	10.0	10.0	10.0	9.0	10.0	10.0	10.0	6.0	10.0
531	4	5.5	8.9	9.5	8.3	7.6	4.3	8.5	8.5	8.5	4.2	9.2
555	13	8.2	8.2	9.2	8.3	7.5	8.5	8.5	9.3	9.1	8.2	9.0
562	1	5.0	8.0	7.0	7.0	7.0	4.0	4.0	7.0	5.0	5.0	8.0
595	3	6.8	8.8	6.7	7.3	6.6	6.4	7.3	9.0	7.9	3.9	8.8
601	35	8.0	8.7	9.3	9.0	8.0	7.4	9.1	7.4	7.9	6.4	9.0
602	5	8.0	8.6	9.0	9.1	7.5	7.4	9.3	8.4	8.6	5.9	8.9
603	4	6.7	9.9	9.5	8.7	6.2	9.0	8.0	9.9	9.4	6.5	9.9
604	5	8.5	9.3	9.3	9.1	8.0	8.5	8.4	9.1	9.2	8.1	9.3
614	1	9.0	10.0	10.0	10.0	10.0	9.0	10.0	7.0	7.0	7.0	10.0
618	1	8.0	10.0	10.0	10.0	10.0	2.0	10.0	2.0	8.0	2.0	10.0
620	4	9.2	9.5	9.2	8.5	4.4	8.0	7.7	8.7	8.7	7.0	10.0
640	4	8.3	8.5	9.0	8.4	8.4	7.5	9.7	8.6	9.4	5.8	9.5
701	22	8.1	8.8	8.9	8.9	6.7	8.1	8.2	9.0	8.1	8.0	9.2



ROUTE	TRIPS	OVERALL	COURTEOUS	SAFETY ON BOARD	SAFETY AT STOP	OVER- CROWDED	ON-TIME	CLEAN	DIRECT	DURATION	FREQUENCY	DRIVES SAFELY PROFESSIONALLY
719	1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.0	10.0	6.0	10.0
741	1	10.0	10.0	10.0	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
791	8	8.1	6.9	8.0	6.6	7.7	7.7	7.0	5.9	7.1	6.7	8.1
BTC	29	8.6	9.1	8.9	8.4	7.3	8.0	8.7	8.9	8.6	7.8	9.0
STC	8	7.3	8.4	8.1	7.2	7.7	7.9	6.9	8.2	8.0	7.4	8.8
РСТ	5	9.1	9.5	9.3	8.6	7.4	9.6	9.8	9.5	9.8	8.8	9.2
RTC	9	8.2	8.3	9.4	9.5	8.1	6.6	8.8	8.6	7.9	4.8	8.5
VTC	42	8.3	8.8	8.2	8.2	7.1	7.5	8.4	8.8	8.5	7.7	8.9
WVT	5	8.6	8.8	9.1	9.2	8.4	9.8	9.3	9.2	9.8	9.7	9.8
N24	1	7.0	8.0	6.0	7.0	7.0	8.0	8.0	8.0	8.0	4.0	8.0
N9	1	3.0	10.0	10.0	9.0	6.0	5.0	10.0	1.0	2.0	3.0	10.0



APPENDIX D – Performance Ratings for Routes, With 30 Ratings or More, Ranked by Overall

ROUTE	TRIPS	OVERALL	COURTEOUS	SAFETY ON BOARD	SAFETY AT STOP	OVER- CROWDED	ON-TIME	CLEAN	DIRECT	DURATION	FREQUENCY	DRIVES SAFELY PROFESSIONALLY
Total	1835	7.9	8.5	8.7	8.5	7.1	7.6	8.3	8.6	8.4	7.3	8.8
9	46	8.5	9.0	8.9	8.7	6.9	7.9	8.6	9.1	8.5	7.9	9.0
250	70	8.4	9.0	9.4	9.1	7.2	7.7	9.0	9.0	9.0	7.3	8.9
VTC	42	8.3	8.8	8.2	8.2	7.1	7.5	8.4	8.8	8.5	7.7	8.9
2	33	8.3	8.3	8.8	8.8	7.1	7.8	8.4	9.1	8.6	7.8	8.7
25	42	8.2	8.3	8.9	8.8	7.0	8.0	8.5	8.9	8.5	7.6	8.9
49	44	8.1	8.8	8.8	8.5	6.8	7.6	8.1	8.7	8.3	7.8	9.0
95 B-Line	40	8.1	8.5	8.5	9.0	6.8	8.3	8.3	8.8	8.3	8.0	8.9
601	35	8.0	8.7	9.3	9.0	8.0	7.4	9.1	7.4	7.9	6.4	9.0
99 B-Line	103	7.9	8.5	8.3	8.3	6.0	8.1	8.0	9.0	8.6	8.6	8.8
351	39	7.9	8.6	9.0	8.5	7.2	8.5	8.5	8.4	8.5	7.6	8.7
20	32	7.8	8.6	8.1	8.2	7.5	7.0	7.6	8.8	8.4	7.0	8.8
16	34	7.7	8.3	8.2	8.4	7.5	6.6	7.6	8.6	8.6	6.4	8.8
240	39	7.4	8.3	8.5	8.4	5.6	7.1	8.3	8.3	8.0	7.2	8.7
246	33	7.4	9.0	9.1	8.7	7.3	7.8	9.0	8.1	7.9	6.0	8.8

OVERALL PERFORMANCE RATINGS JANUARY 2018 - MARCH 2018 VERSUS JANUARY 2019 - MARCH 2019 (Routes With 35+ Trips Per Quarter)

		January - I	March 2018	January -	March 2019	Net Difference
	Route Number	# of Trips	Overall Performance	# of Trips	Overall Performance	Jan'18-Mar'18 vs. Jan'19-Mar'19
#	240	31	7.9	39	7.4	-0.5
#	25	31	7.7	42	8.2	0.5
#	250	56	8.1	70	8.4	0.3
#	351	35	8.8	39	7.9	-0.9
#	41	38	7.6	28	7.8	0.2
#	49	46	8.0	44	8.1	0.1
#	601	38	8.1	35	8.0	-0.1
#	9	38	8.1	46	8.5	0.4
#	95	36	8.2	40	8.1	-0.1
#	99	112	8.2	103	7.9	-0.3
#	BTC	40	8.2	29	8.6	0.4
#	VTC	53	7.9	42	8.3	0.4

OVERALL PERFORMANCE RATINGS OCTOBER 2017 - MARCH 2018 VERSUS OCTOBER 2018 - MARCH 2019 (Routes With 35+ Trips Per 6 Months)

		October 2017	′ - March 2018	October201	8 - March 2019	Net Difference
	Route Number	# of Trips	Overall Performance	# of Trips	Overall Performance	Oct'17-Mar'18 vs. Oct'18-Mar'19
#	10	76	8.1	54	8.3	0.2
#	100	45	7.3	27	7.9	0.6
#	106	61	7.9	34	7.7	-0.2
#	14	73	7.9	61	8.2	0.3
#	144	32	8.1	35	6.8	-1.3
#	16	59	7.8	69	7.8	0.0
#	17	40	7.9	40	7.9	0.0
#	19	54	8.0	41	7.5	-0.5
#	2	62	8.2	64	8.1	-0.1
#	20	57	6.9	58	7.7	0.8
#	210	38	8.6	28	8.3	-0.3
#	22	38	7.9	46	8.4	0.5
#	239	58	8.2	46	7.8	-0.4
#	240	76	7.5	71	7.5	0.0
#	246	49	8.0	58	7.4	-0.6
#	25	81	7.8	74	8.1	0.3
#	250	127	8.1	142	8.3	0.2
#	3	61	7.8	52	7.8	0.0
#	319	53	8.0	36	7.0	-1.0
#	321	38	7.3	27	7.8	0.5
#	351	66	8.6	72	8.3	-0.3
#	4	44	7.9	42	8.3	0.4
#	401	54	8.0	39	8.0	0.0
#	41	86	7.9	57	7.7	-0.2
#	410	66	8.0	37	7.6	-0.4
#	49	96	8.0	82	7.9	-0.1
#	6	41	8.0	28	8.1	0.1
#	601	76	8.0	74	7.8	-0.2
#	7	51	8.0	47	7.1	-0.9
#	701	54	7.7	44	7.9	0.2
#	8	40	8.0	34	7.6	-0.4
#	84	46	8.4	36	7.9	-0.5

Γ		October 2017	′ - March 2018	October201	8 - March 2019	Net Difference		
	Route Number	# of Trips	Overall Performance	# of Trips	Overall Performance	Oct'17-Mar'18 vs. Oct'18-Mar'19		
#	9	78	8.2	83	8.4	0.2		
#	95	69	8.1	68	8.1	0.0		
#	96	49	8.6	45	8.7	0.1		
#	99	213	8.1	195	8.1	0.0		
#	BTC	54	8.1	66	8.2	0.1		
#	VTC	76	7.9	94	8.1	0.2		

OVERALL PERFORMANCE RATINGS APRIL 2017 - MARCH 2018 VERSUS APRIL 2018 - MARCH 2019 (Routes With 35+ Trips Per Year)

		April 2017 -	March 2018	April 2018	- March 2019	Net Difference
	Route Number	# of Trips	Overall Performance	# of Trips	Overall Performance	Apr'17-Mar'18 vs. Apr'18-Mar'19
#	10	149	7.9	116	8.2	0.3
#	100	78	7.6	49	7.6	0.0
#	106	133	8.0	78	7.4	-0.6
#	123	46	8.2	63	8.1	-0.1
#	129	41	7.7	30	7.4	-0.3
#	130	67	8.1	60	8.0	-0.1
#	14	133	8.0	123	8.1	0.1
#	144	60	8.3	55	7.1	-1.2
#	145	58	8.2	40	8.4	0.2
#	15	35	8.3	40	8.3	0.0
#	152	36	7.8	37	7.9	0.1
#	16	128	7.8	127	7.9	0.1
#	160	56	8.2	45	8.7	0.5
#	17	80	7.4	83	7.7	0.3
#	19	100	7.8	101	7.3	-0.5
#	2	121	7.8	131	7.9	0.1
#	20	109	6.9	113	7.7	0.8
#	210	63	8.3	53	7.6	-0.7
#	211	56	8.2	43	7.9	-0.3
#	22	80	7.8	97	8.0	0.2
#	228	59	7.8	36	8.0	0.2
#	229	37	7.8	59	7.9	0.1
#	230	55	8.2	62	7.9	-0.3
#	239	107	8.0	89	8.2	0.2
#	240	155	7.6	131	7.7	0.1
#	246	109	7.8	114	7.7	-0.1
#	25	161	7.8	158	8.0	0.2
#	250	258	7.9	281	8.2	0.3
#	255	58	8.0	62	8.1	0.1
#	257	39	7.7	37	8.0	0.3
#	26	38	8.0	35	8.0	0.0
#	28	30	7.9	39	7.5	-0.4
#	3	124	7.8	105	7.8	0.0

		April 2017 - March 2018		April 2018 - March 2019		Net Difference
	Route Number	# of Trips	Overall Performance	# of Trips	Overall Performance	Apr'17-Mar'18 vs. Apr'18-Mar'19
#	319	96	8.0	103	7.5	-0.5
#	320	54	8.3	46	8.2	-0.1
#	321	58	7.2	58	7.6	0.4
#	323	26	7.4	39	6.9	-0.5
#	33	51	8.3	47	8.3	0.0
#	335	46	7.0	50	7.1	0.1
#	351	144	8.5	144	8.1	-0.4
#	4	79	7.9	71	8.0	0.1
#	401	105	7.9	89	8.1	0.2
#	402	37	7.8	39	7.2	-0.6
#	403	45	7.7	45	8.0	0.3
#	407	40	8.0	37	8.0	0.0
#	41	164	8.0	129	7.8	-0.2
#	410	142	7.7	111	7.5	-0.2
#	430	27	7.6	45	7.6	0.0
#	44	32	8.2	47	8.3	0.1
#	49	182	7.9	153	7.9	0.0
#	5	75	7.6	65	7.9	0.3
#	50	56	8.0	43	8.6	0.6
#	502	62	7.6	57	7.8	0.2
#	555	47	7.9	47	8.6	0.7
#	6	101	7.7	71	7.8	0.1
#	601	152	7.5	149	7.6	0.1
#	7	105	7.8	97	7.7	-0.1
#	701	103	7.8	93	7.8	0.0
#	8	72	7.9	58	7.5	-0.4
#	84	77	8.3	73	8.0	-0.3
#	9	183	8.1	159	8.2	0.1
#	95	123	8.2	138	8.0	-0.2
#	96	82	8.6	81	8.8	0.2
#	99	412	8.0	430	8.1	0.1
#	BTC	98	7.9	135	8.0	0.1
#	STC	38	8.0	44	7.8	-0.2
#	VTC	153	8.0	171	8.1	0.1