

# Langara.

THE COLLEGE OF HIGHER LEARNING.

## Transportation Survey Report

2017

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## EXECUTIVE SUMMARY

This report summarizes the results of the Langara College Transportation Survey conducted in 2017. The online survey was administered between September 25 and October 10, 2017 and collected 3,067 responses from 1,458 domestic students, 1,042 international students, 298 staff, and 269 faculty members.

Key findings of the survey are explained in detail within the report but are summarized as follows:

- **Langara students moving away from Vancouver:** While Vancouver remains the city where the largest number of our students live in, the proportion that lives in Vancouver has decreased over the last seven years. In contrast, the proportion of the student population living in Surrey has increased dramatically. This may have an impact on their commuting patterns and experiences.
- **Low Awareness of Carpool Parking and Ride-Matching Program:** 38% of respondents drive to Langara, including driving alone, carpool/vanpool/dropped off, car share, or motorcycle/moped. A majority of these respondents drive alone, while carpooling is less common. The level of awareness of the carpool reserved parking and the carpool ride-matching program is still low, and they need to be promoted to be used by more commuters.
- **Need for Better Transit Service/Connections:** 88% of respondents have travelled to Langara using transit, and 61% of respondents said better transit service/connections would encourage them to take transit more frequently. Providing more frequent service is especially important since as many as 73% of the transit commuters reported having been passed up by a bus or train.
- **High Level of Satisfaction among Bicycle Commuters:** 12% of respondents have ridden their bicycles to Langara. Cycling to Langara is convenient with a number of bikeways nearby. 65% of those who bike to Langara use the Ontario Street bikeway, and most of them are satisfied with the convenience and quality of their bike routes.
- **Many Taking Transit and Walking Part of the Way:** 19% of respondents said they walked to Langara while 43% walked part of the way (at least 2 blocks). 98% of the respondents who walk part-way also use transit (bus and/or train) to get to Langara.
- **Better Communication Needed about Travel-Related Services:** Most of the respondents are not aware of the travel-related services at Langara. Only between 30% and 35% of the respondents said they were aware of the Langara Student Union (LSU) Bike Services, the location of the bike repair station, and the location of electric vehicle charging stations on campus.
- **Creating an Employee U-Pass Program would Encourage Transit Use amongst Employees:** 61% of faculty and staff said that an employee U-Pass program would encourage them to take transit more frequently, and the majority of them considered it to be of high priority among the initiatives listed in the survey.
- **The Majority of Langara Commuters are Satisfied:** Overall, 10% of the respondents are very satisfied and 45% are satisfied with their commute to Langara. The level of satisfaction is higher among those who walk or bike to Langara.

The Langara Transportation Survey will be conducted every two years starting in 2017. We will track changes in the survey results over the coming years to help us understand changes in travel characteristics of the Langara community as well as impacts of our transportation-related initiatives.

**BACKGROUND**

The number of students and employees commuting to Langara College has increased over the last several years, and it is important for us to study their travel behaviour and patterns. We implemented the 2017 Transportation Survey in order to better understand how transportation services may be improved at Langara and/or within the Metro Vancouver transportation network.

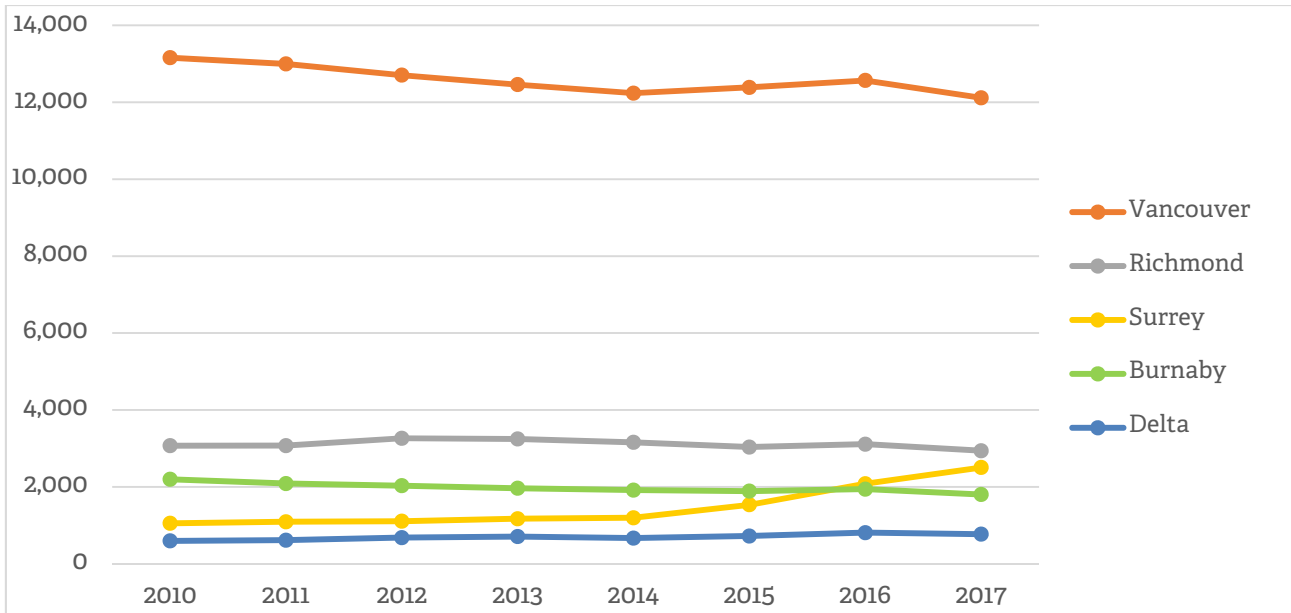
Our data shows that Langara’s student population is increasingly moving away from Vancouver and into neighbouring cities – especially Surrey. **Table 1** and **Figure 1** show which cities our students have lived in over the last seven years. The number of students living in Vancouver has decreased by 8% over the last seven years. Over the same period, the numbers of those living in Richmond and Burnaby have also decreased by 4% and 18% respectively. In contrast, the number of students who commute to Langara from Surrey has increased by 138% from 2010 to 2017.

**Table 1: Number of Langara Students by City of Residence, 2010-2017**

City of Residence	2010	2011	2012	2013	2014	2015	2016	2017	% Change 2010-2017
Vancouver	13,159	12,996	12,705	12,459	12,237	12,387	12,567	12,117	-8%
Richmond	3,070	3,071	3,263	3,244	3,157	3,035	3,109	2,938	-4%
Surrey	1,051	1,092	1,106	1,170	1,195	1,535	2,082	2,503	138%
Burnaby	2,196	2,085	2,030	1,963	1,914	1,888	1,939	1,801	-18%
Delta	595	613	680	707	667	720	809	768	29%
Coquitlam/PoCo/ Pt. Moody	707	677	604	624	578	620	599	541	-23%
North Vancouver	447	438	485	482	478	527	502	501	12%
New Westminster	363	362	371	385	406	394	450	392	8%
Other Provinces	291	298	298	269	263	277	230	224	-23%
Langley/Aldergrove	119	112	117	128	135	158	170	146	23%
West Vancouver	157	169	173	159	155	142	156	136	-13%
Mission/Abbotsford	57	71	74	99	79	89	127	121	112%
Maple Ridge/ Pitt Meadows	97	112	99	109	99	113	120	88	-9%
White Rock	73	67	70	55	48	49	53	44	-40%
Other B.C.	570	516	540	522	471	505	586	471	-17%
Unknown	411	376	403	422	496	663	979	1,651	302%
<b>Total</b>	<b>23,363</b>	<b>23,055</b>	<b>23,018</b>	<b>22,797</b>	<b>22,378</b>	<b>23,102</b>	<b>24,478</b>	<b>24,442</b>	<b>5%</b>

Source: Office of Institutional Research. The numbers include both Regular Studies and Continuing Studies students.

**Figure 1: Number of Langara Students Living in Top 5 Cities, 2010-2017**



As Langara College is located in a residential neighbourhood with limited parking, we encourage commuters to travel without a car. However, if more commuters are travelling longer distances to get to our campus, travel by car may increase. One of the purposes of this study is to investigate Langara commuters' travel characteristics and find ways to encourage them to carpool, take transit, ride their bikes, or walk to Langara.

## SURVEY RESULTS

### Respondent Profiles

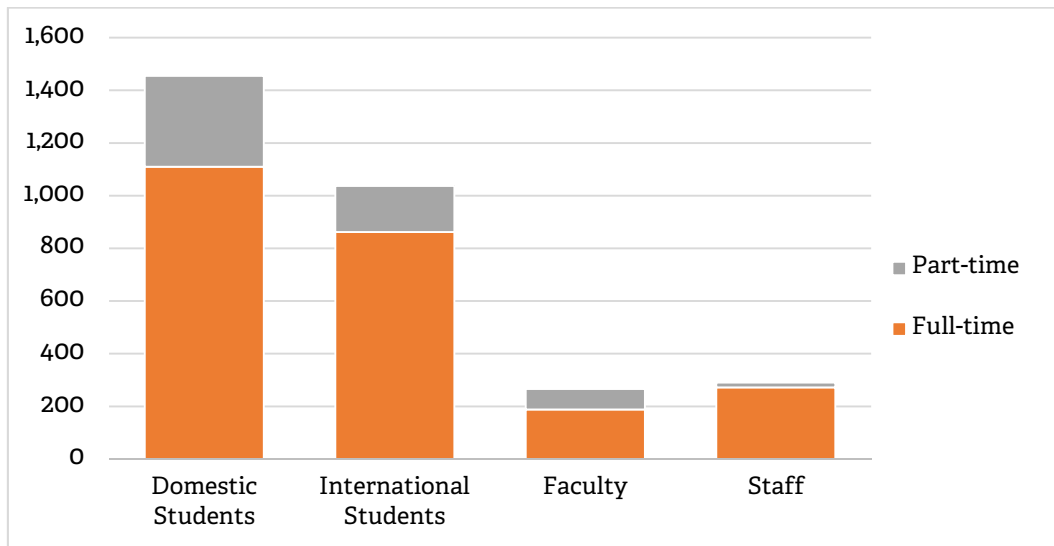
The 2017 Langara College Transportation Survey was implemented from September 25 to October 10, 2017. The link to the survey was sent out to the College community via email and also posted on the College website. All respondents used the link to respond to the survey online. The response rate was 16% among students and 38% among faculty and staff.

The survey received responses from 3,067 people. As **Table 2** shows, over 80% of the respondents were students. Staff and faculty accounted for 10% and 9% of the respondents respectively. Most of the respondents were full-time students or employees (See **Figure 2**).

**Table 2: Number of Respondents by Primary Role at Langara**

	Number of Respondents	Percent
Domestic Students	1,458	48%
International Students	1,042	34%
Staff	298	10%
Faculty	269	9%
<b>Total</b>	<b>3,067</b>	<b>100%</b>

**Figure 2: Number of Respondents by Primary Role at Langara & Full-time/Part-time Status**



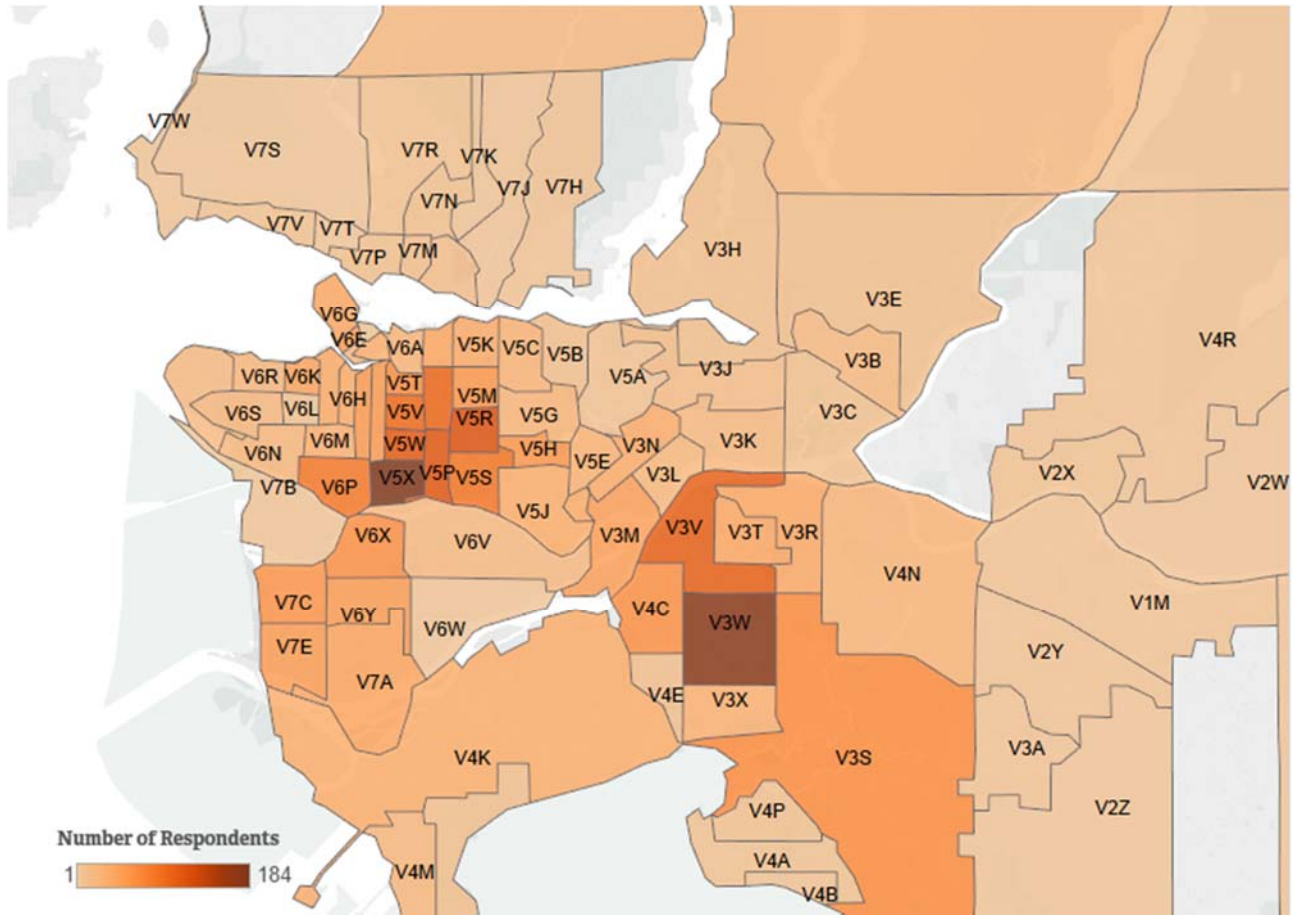
An increasing number of Langara students and employees have moved away from Vancouver, Richmond, and Burnaby, and moved into Surrey over the last seven years. Our previous transportation survey conducted in 2010 showed that 57.9% of the respondents lived in Vancouver, 11.1% in Richmond, 9.6% in Burnaby, and 2.8% in Surrey. In comparison, the 2017 survey showed that 51.0% of the respondents lived in Vancouver, 9.1% in Richmond, 7.0% in Burnaby, and 16.3% in Surrey (See **Table 3**).

**Table 3: Number of Survey Respondents by City of Residence (2017)**

City	Number of Respondents	Percent
Vancouver	1,564	51.0%
Surrey	499	16.3%
Richmond	278	9.1%
Burnaby	214	7.0%
Delta	132	4.3%
Coquitlam/PoCo/Pt. Moody	77	2.5%
New Westminster	67	2.2%
North Vancouver	53	1.7%
Mission/Abbotsford	20	0.7%
Langley/Aldergrove	16	0.5%
Maple Ridge/Pitt Meadows	11	0.4%
West Vancouver	10	0.3%
White Rock	4	0.1%
Other B.C.	12	0.4%
Unknown	110	3.6%
<b>Total</b>	<b>3,067</b>	<b>100%</b>

**Figure 3** shows where the survey respondents live by Forward Sortation Area (FSA). The darker colour gradients on the map reveal that there are a larger number of respondents in FSA V5X, Vancouver (SE Oakridge / East Marpole / South Sunset). There are also a large number of respondents in FSA V3W, Surrey Upper West. For the actual number of respondents by FSA, see **Table 4**.

**Figure 3: Map of Respondents by FSA**



**Table 4: Number of Respondents by FSA**

City	FSA	Area	# of resp.	%
Vancouver	V5X	Vancouver (SE Oakridge / East Marpole / South Sunset)	184	6.0%
	V5R	Vancouver (South Renfrew Collingwood)	117	3.8%
	V5P	Vancouver (Victoria Fraserview)	113	3.7%
	V5W	Vancouver (SE Riley Park Little Mountain / North Sunset)	109	3.6%
	V5N	Vancouver (South Grandview Woodland)	98	3.2%
	V5V	Vancouver (West Kensington Cedar Cottage)	95	3.1%
	V5S	Vancouver (Killarney)	84	2.7%
	V6P	Vancouver (SE Kerrisdale / West Marpole)	82	2.7%
	V5T	Vancouver (East Mount Pleasant)	62	2.0%
	V5M	Vancouver (South Hastings Sunrise)	55	1.8%
	V5Z	Vancouver (East Fairview / South Cambie)	52	1.7%
	V5Y	Vancouver (West Mount Pleasant)	51	1.7%
	V6E	Vancouver (SE West End / Davie Village)	46	1.5%
	V6K	Vancouver (Central Kitsilano / Greektown)	42	1.4%
	V5L	Vancouver (North Grandview Woodland)	39	1.3%



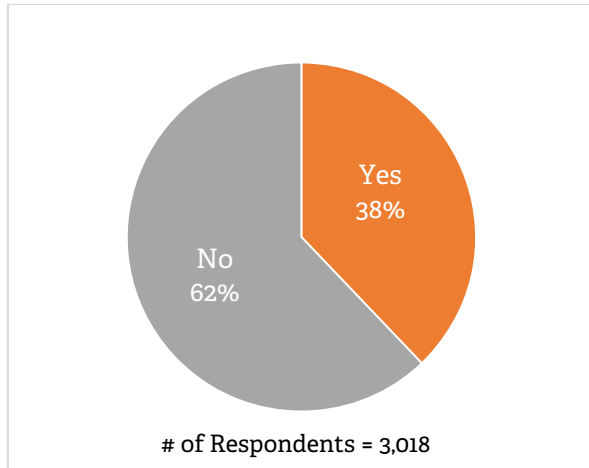
City	FSA	Area	# of resp.	%
Vancouver (cont.)	V6G	Vancouver (NW West End / Stanley Park)	38	1.2%
	V5K	Vancouver (North Hastings Sunrise)	36	1.2%
	V6J	Vancouver (NW Shaughnessy / East Kitsilano)	36	1.2%
	V6H	Vancouver (West Fairview / Granville Island)	35	1.1%
	V6B	Vancouver (NE Downtown / Yaletown)	31	1.0%
	V6M	Vancouver (South Shaughnessy / SE Arbutus Ridge)	29	0.9%
	V6A	Vancouver (Strathcona / Downtown Eastside)	24	0.8%
	V6N	Vancouver (West Kerrisdale / Musqueam)	22	0.7%
	V6R	Vancouver (West Kitsilano / West Point Grey / Jericho)	21	0.7%
	V6S	Vancouver (NW Dunbar Southlands / Chaldecutt)	21	0.7%
	V6Z	Vancouver (SW Downtown)	17	0.6%
	V6T	Vancouver (UBC)	16	0.5%
	V6L	Vancouver (NW Arbutus Ridge / NE Dunbar Southlands)	7	0.2%
	V6C	Vancouver (Waterfront / Coal Harbour / Canada Place)	2	0.1%
Surrey	V3W	Surrey Upper West	177	5.8%
	V3V	Surrey Outer Northwest	105	3.4%
	V3S	Surrey East	65	2.1%
	V3T	Surrey Inner Northwest	39	1.3%
	V3R	Surrey North	38	1.2%
	V3X	Surrey Lower West	29	0.9%
	V4N	Surrey Northeast	23	0.7%
	V3Z	Surrey Lower East	9	0.3%
	V4P	Surrey South	8	0.3%
	V4A	Surrey Southwest	6	0.2%
Richmond	V6X	Richmond North	60	2.0%
	V7C	Richmond Northwest	56	1.8%
	V6Y	Richmond Central	49	1.6%
	V7E	Richmond Southwest	49	1.6%
	V7A	Richmond South	42	1.4%
	V6V	Richmond Northeast	18	0.6%
	V6W	Richmond Southeast	2	0.1%
	V7B	Richmond (Sea Island / YVR)	2	0.1%
Burnaby	V5H	Burnaby (Maywood / Windsor)	54	1.8%
	V3N	Burnaby (East Big Bend / Edmonds)	35	1.1%
	V5J	Burnaby (Suncrest / West Big Bend)	33	1.1%
	V5E	Burnaby (Kingsway Beresford)	27	0.9%
	V5C	Burnaby (Burnaby Heights / Willingdon Heights)	25	0.8%
	V5G	Burnaby (Cascade Schou / Douglas Gilpin)	23	0.7%
	V5B	Burnaby (Parkcrest Aubrey / Ardingley Sprott)	10	0.3%
	V5A	Burnaby (Lake City / Burnaby Mountain)	7	0.2%
Delta	V4C	Delta Northeast	60	2.0%
	V4K	Delta Northwest	33	1.1%

City	FSA	Area	# of resp.	%
Delta (cont.)	V4M	Delta Southwest	21	0.7%
	V4E	Delta East	9	0.3%
	V4L	Delta Southeast	9	0.3%
Coquitlam/PoCo/Pt.Moody	V3B	Port Coquitlam Central	18	0.6%
	V3K	Coquitlam South	18	0.6%
	V3J	Coquitlam North	13	0.4%
	V3E	Coquitlam North	10	0.3%
	V3H	Port Moody	10	0.3%
	V3C	Port Coquitlam South	8	0.3%
New Westminister	V3M	New Westminister Southwest	47	1.5%
	V3L	New Westminister Northeast	20	0.7%
North Vancouver	V7L	North Vancouver South Central	11	0.4%
	V7M	North Vancouver Southwest Central	9	0.3%
	V7N	North Vancouver Northwest Central	8	0.3%
	V7P	North Vancouver Southwest	8	0.3%
	V7R	North Vancouver Northwest	7	0.2%
	V7H	North Vancouver Inner East	4	0.1%
	V7J	North Vancouver East Central	3	0.1%
	V7K	North Vancouver North Central	3	0.1%
Mission/Abbotsford	V2T	Abbotsford Southwest	8	0.3%
	V2S	Abbotsford Southeast	4	0.1%
	V2V	Mission East	4	0.1%
	V4S	Mission West	2	0.1%
	V4X	Abbotsford West	2	0.1%
Langley/Aldergrove	V1M	Langley Township North	5	0.2%
	V2Y	Langley Township Northwest	5	0.2%
	V3A	Langley City	4	0.1%
	V2Z	Langley Township Southwest	2	0.1%
Maple Ridge/Pitt Meadows	V2X	Maple Ridge West	6	0.2%
	V4R	Maple Ridge Northwest	4	0.1%
	V2W	Maple Ridge East	1	0.0%
West Vancouver	V7V	West Vancouver South	6	0.2%
	V7W	West Vancouver West	2	0.1%
	V7S	West Vancouver North	1	0.0%
	V7T	West Vancouver Southeast	1	0.0%
White Rock	V4B	White Rock	4	0.1%
Others			122	4.0%
<b>Total</b>			<b>3,067</b>	<b>100%</b>

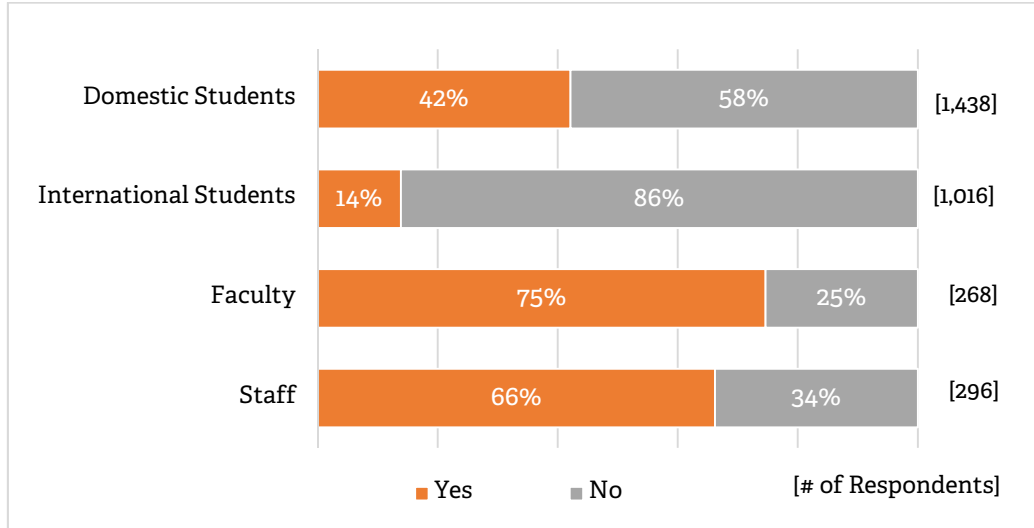
**Driving to Langara**

Of the 3,018 respondents who responded to the survey question, 38% said they drove to Langara, including driving alone, carpool/vanpool/dropped off, car share, and motorcycle/moped (See **Figure 4**). The proportion differed significantly among the respondent groups – 42% of domestic students, 14% of international students, 75% of faculty, and 66% of staff said they drove to Langara (See **Figure 5**).

**Figure 4: Percentage of Respondents that Drive to Langara**



**Figure 5: Percentage of Respondents that Drive to Langara by Primary Role**

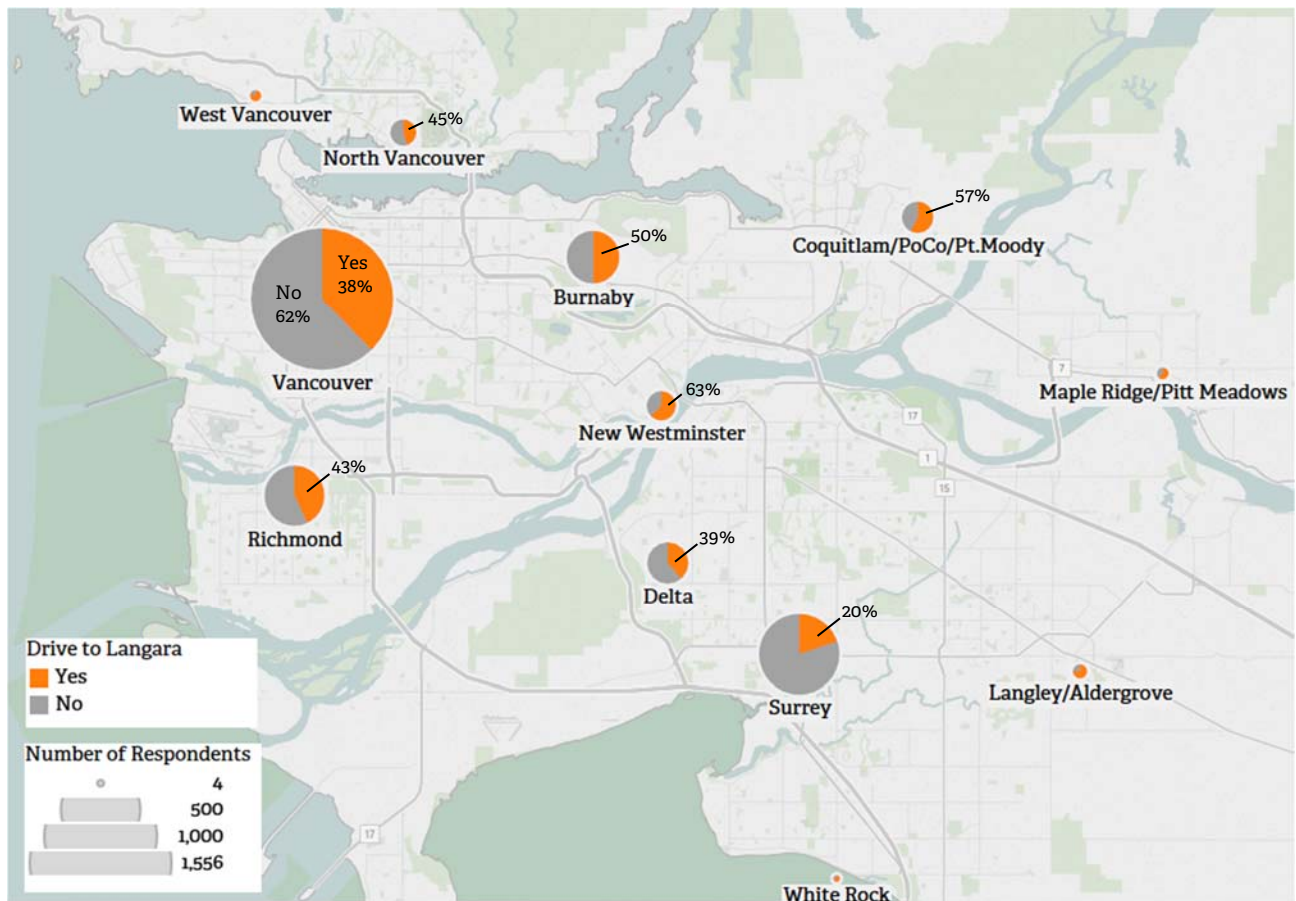


**Table 5** and **Figure 6** show the percentage of respondents that drive to Langara by their city of residence. 38% of respondents living in Vancouver, 43% of respondents living in Richmond, and 50% of respondents living in Burnaby said they drove to Langara.

**Table 5: Respondents that Drive to Langara by City of Residence**

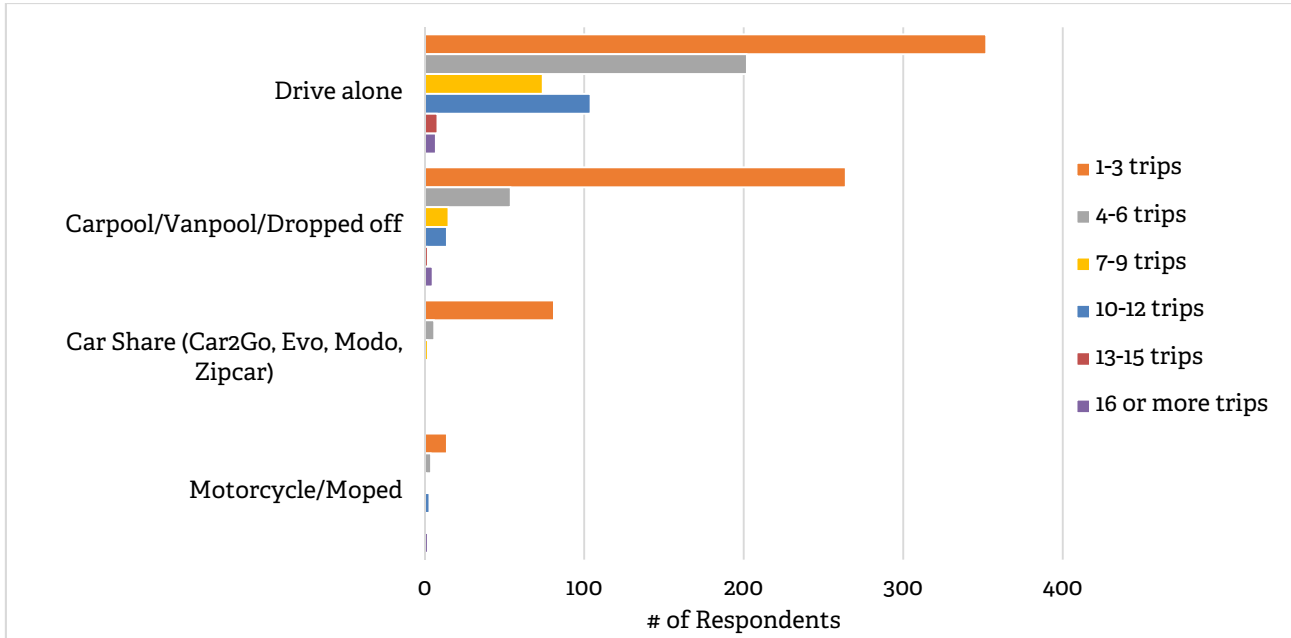
	Drive	Do not Drive	% Drive	% Do not drive	Total
Vancouver	588	968	38%	62%	1,556
Surrey	99	397	20%	80%	496
Richmond	119	158	43%	57%	277
Burnaby	107	107	50%	50%	214
Delta	51	81	39%	61%	132
Coquitlam/PoCo/Pt. Moody	44	33	57%	43%	77
New Westminster	42	25	63%	37%	67
North Vancouver	24	29	45%	55%	53
Mission/Abbotsford	7	12	37%	63%	19
Langley/Aldergrove	12	4	75%	25%	16
Maple Ridge/Pitt Meadows	7	4	64%	36%	11
West Vancouver	8	2	80%	20%	10
White Rock	3	1	75%	25%	4
Other B.C.	6	6	50%	50%	12
Unknown	26	48	35%	65%	74
<b>Total</b>	<b>1,143</b>	<b>1,875</b>	<b>38%</b>	<b>62%</b>	<b>3,018</b>

**Figure 6: Percentage of Respondents that Drive to Langara by City of Residence**



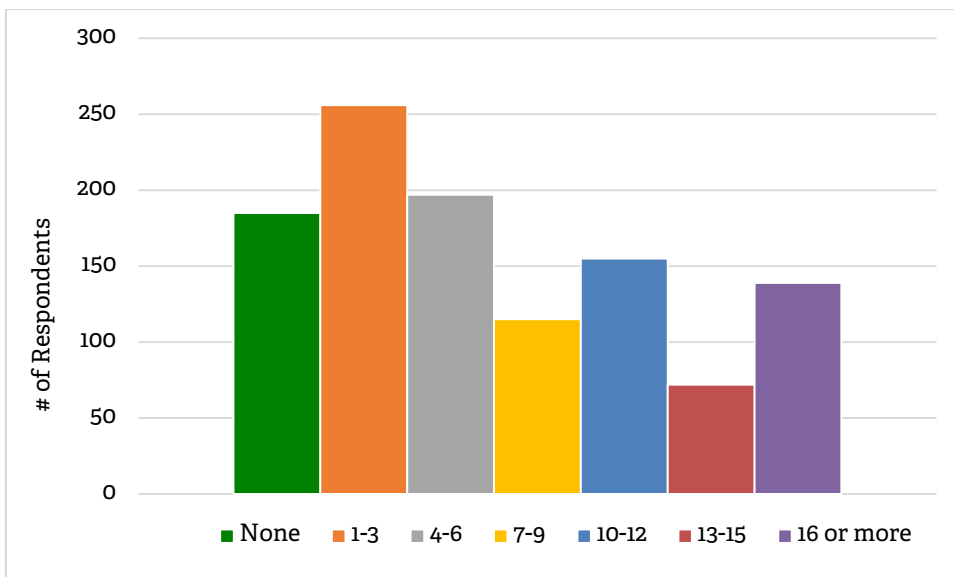
A total of 747 respondents said they drove alone to Langara as opposed to carpool/vanpool/dropped off (354 respondents), car share (89 respondents), and motorcycle/moped (24 respondents). About half of those who drive alone to Langara make only 1-3 one-way trips to and from Langara in a normal week (See **Figure 7**).

**Figure 7: Number of One-Way Driving Trips to or from Langara during a Normal Week by Mode**



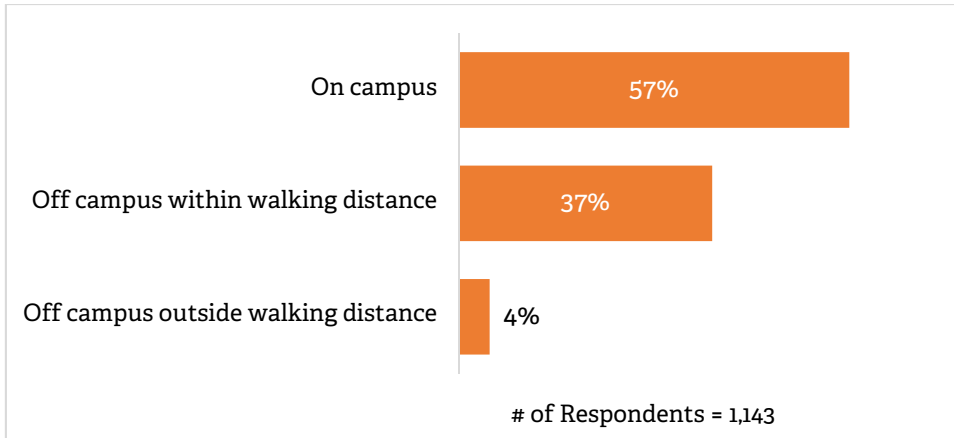
Among the 1,119 people who responded to the question about one-way driving trips to all destinations in a normal week, 23% selected 1-3 trips, 18% selected 4-6 trips, and 10% selected 7-9 trips (See **Figure 8**).

**Figure 8: Number of One-Way Driving Trips to All Destinations During a Normal Week**



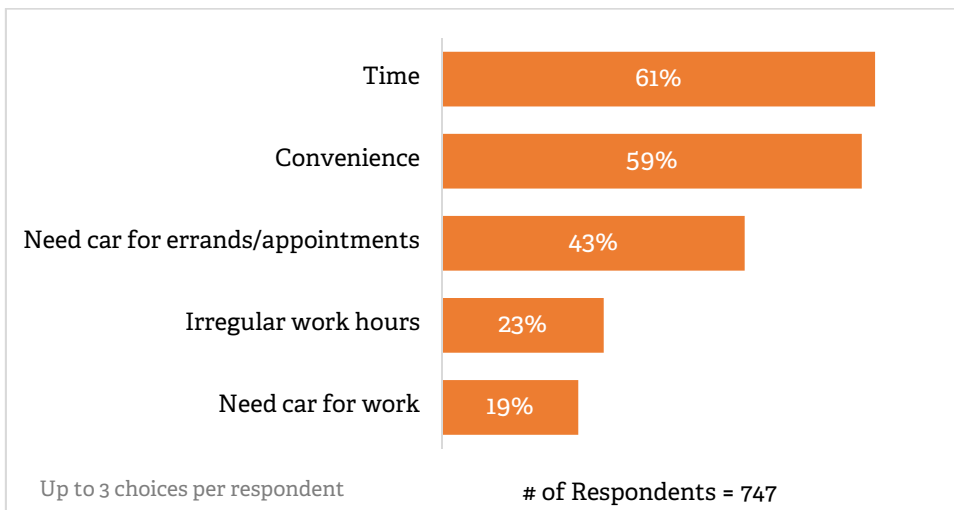
57% of the respondents said they parked on campus after driving to Langara, while 37% parked off campus within walking distance, and 4% parked off campus outside walking distance (See **Figure 9**).

**Figure 9: Parking Used after Driving to Langara**



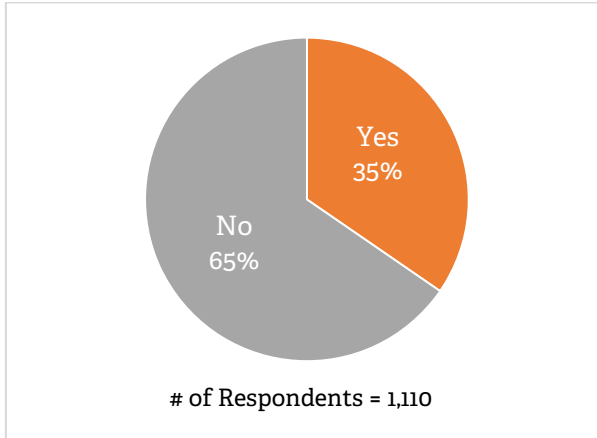
The top reasons for driving alone to Langara are: time (61% of the respondents), convenience (59%), and need for car for errands/appointments (43%) (See **Figure 10**).

**Figure 10: Reasons for Driving Alone to Langara**



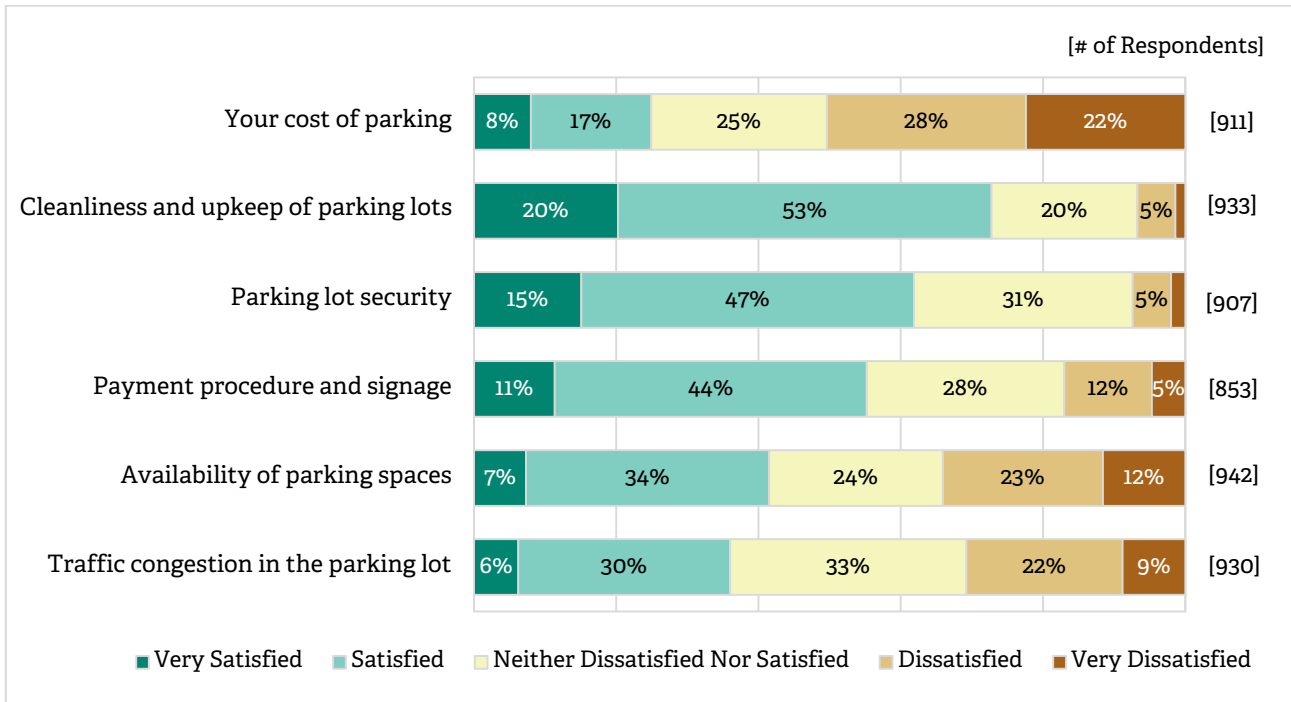
**Figure 11** shows that 35% of the respondents said carpooling/vanpooling was a viable option for them. However, among these respondents, only 59% actually reported commuting to Langara by carpooling/vanpooling in a normal week.

**Figure 11: Carpooling/Vanpooling Is a Viable Option to Commute to Langara**



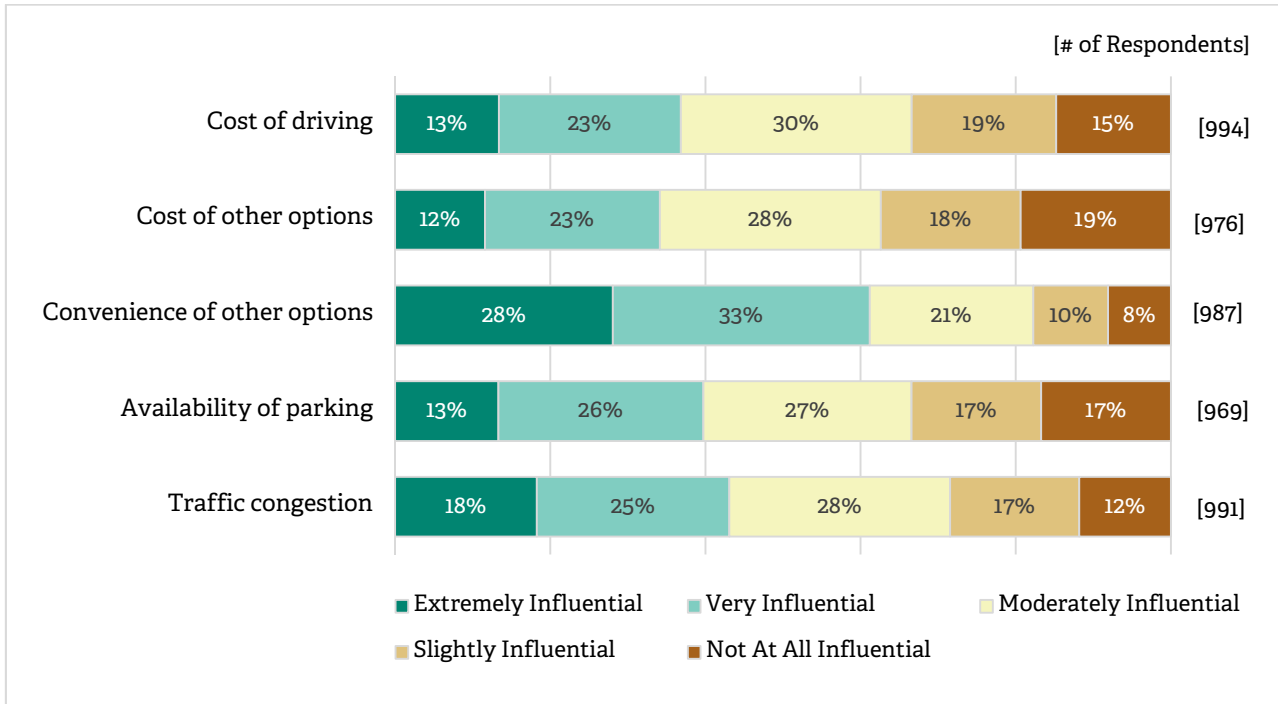
73% of the respondents are satisfied or very satisfied with the cleanliness and upkeep of the Langara parking lots, and 62% are satisfied with parking lot security. However, only 25% are satisfied or very satisfied with the cost of parking at Langara, while 50% of the respondents feel dissatisfied or very dissatisfied with their cost of parking (See **Figure 12**).

**Figure 12: Satisfaction with Parking at Langara**



As **Figure 13** shows, the factor that has the most influence on the respondents' driving behaviour to and from Langara is "convenience of other options." 61% of the respondents said that this is extremely influential or very influential. A majority of the respondents also considered cost of driving, cost of other options, availability of parking, and traffic congestion to be at least moderately influential.

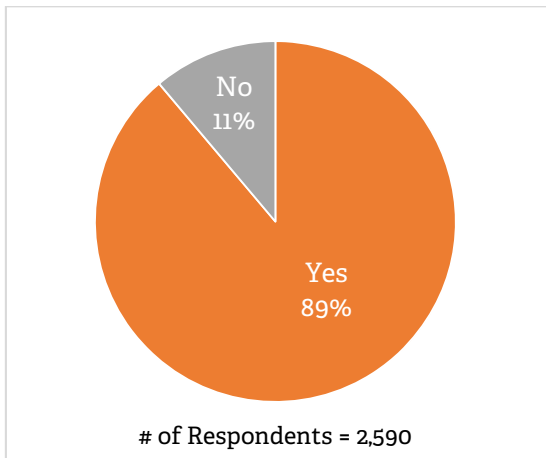
**Figure 13: Factors that Influence Driving Behaviour to Langara**



**Travelling Without a Car**

**Figure 14** shows that 89% of the respondents said yes to the question "Do you ever travel without a car (i.e. use transit, bike, or walk) to Langara?"

**Figure 14: Percentage of Respondents that Use Transit/Bike/Walk to Langara**





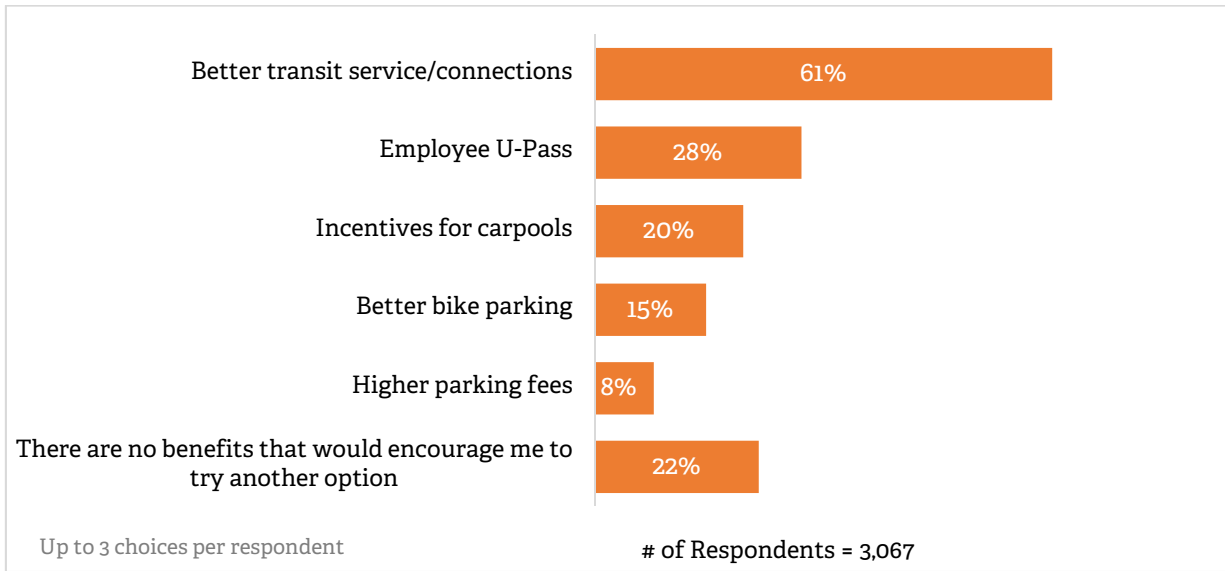
The top reasons that motivate respondents to travel to Langara without a car are: “Saves money” (52% of the respondents), “I do not have a car” (51%), and “More environmentally friendly” (38%) (See **Figure 15**).

**Figure 15: Reasons for Traveling without a Car to Langara**

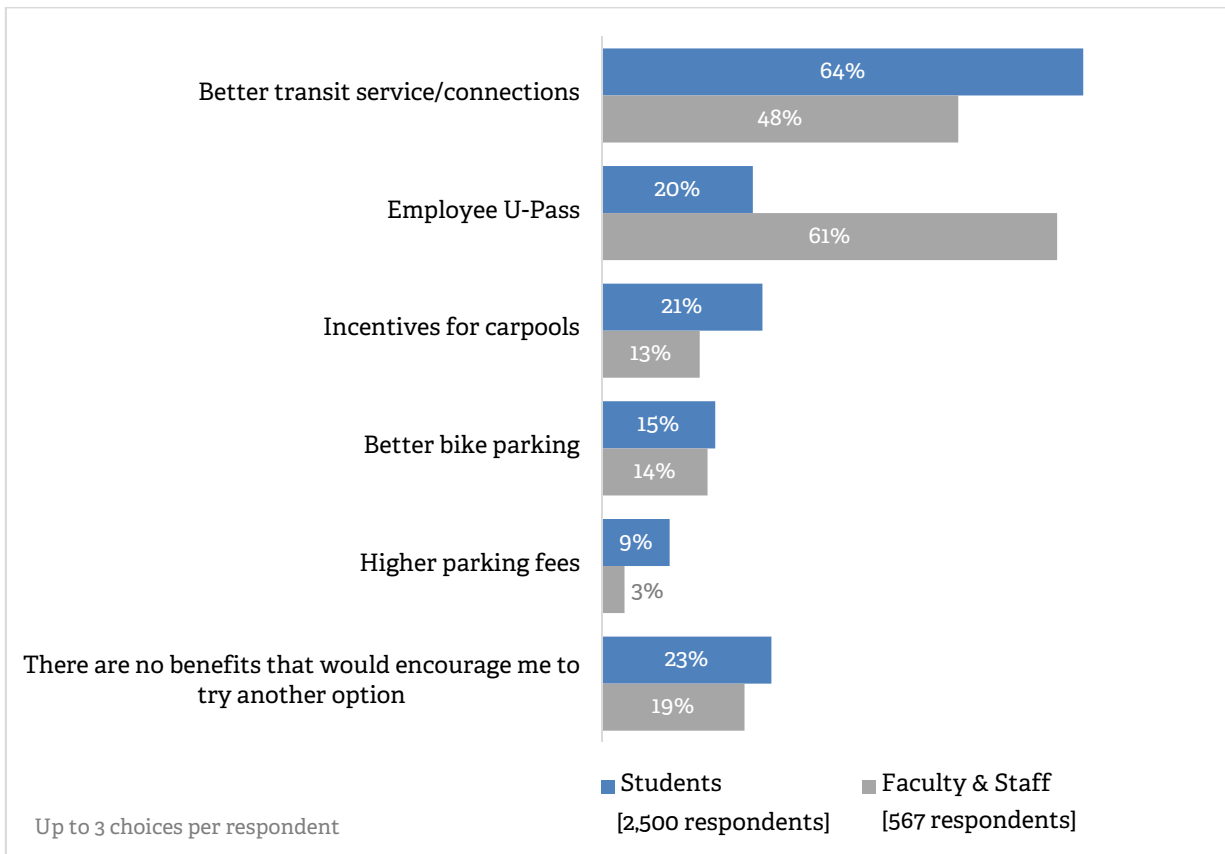


**Figure 16** shows that most of the respondents (61%) said better transit service/connections would encourage them to travel to Langara without a car. 28% of respondents (61% of faculty and staff) said that the addition of an “Employee U-Pass” would encourage them to travel without a car (See **Figure 16** & **Figure 17**).

**Figure 16: Programs/Incentives that would Encourage More Frequent Carpool/Transit/Bike/Walk**



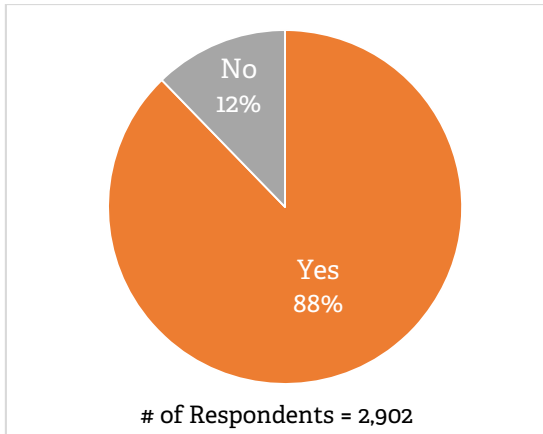
**Figure 17: Programs/Incentives that would Encourage More Frequent Carpool/Transit/Bike/Walk – Students vs. Faculty & Staff**



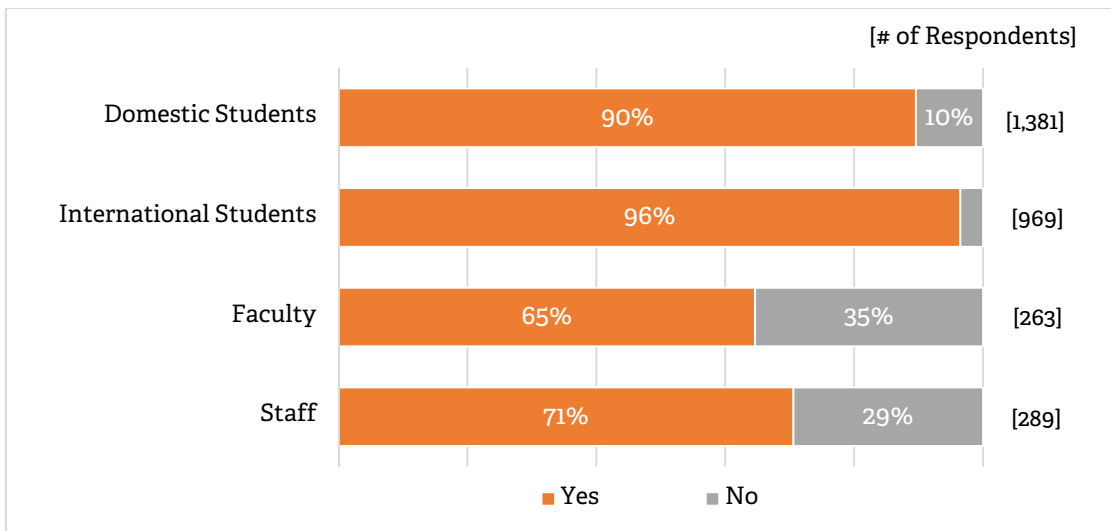
**Taking Transit to Langara**

Langara is easily accessible by transit, and 88% of the respondents take the bus and/or train to commute to our campus (**Figure 18**). The proportion of respondents that take transit is higher among students (90% of domestic students and 96% of international students) than among faculty (65%) and staff (71%) (**Figure 19**).

**Figure 18: Percentage of Respondents that Transit (by Bus or Train) to Langara**



**Figure 19: Percentage of Respondents that Transit to Langara by Primary Role**

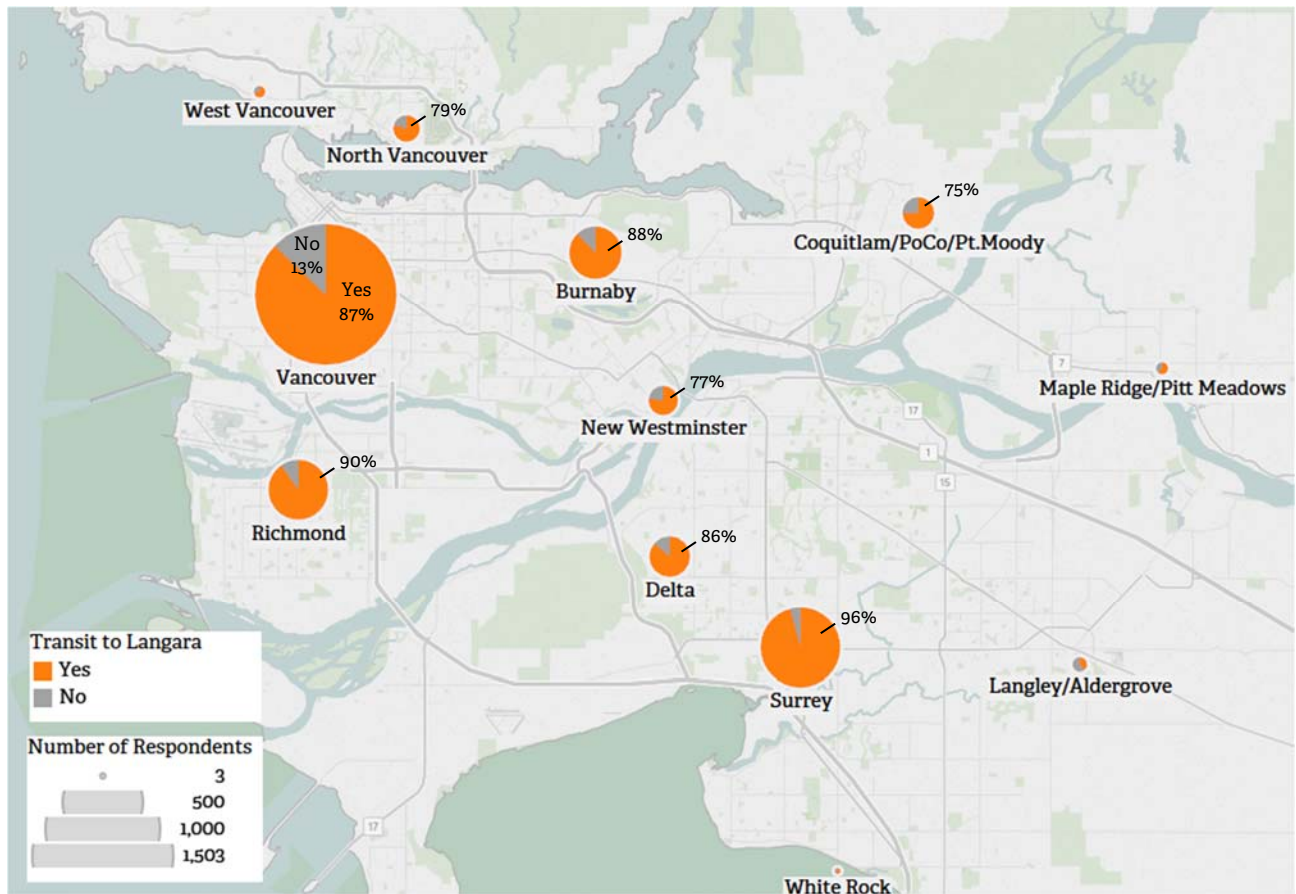


87% of the respondents who live in Vancouver take transit to Langara. In comparison, this percentage is 90% and 88% for those living in Richmond and Burnaby, respectively. Although Surrey is farther away, 96% of respondents living there take transit to commute to Langara (See **Table 6** and **Figure 20**).

**Table 6: Respondents that Transit to Langara by City of Residence**

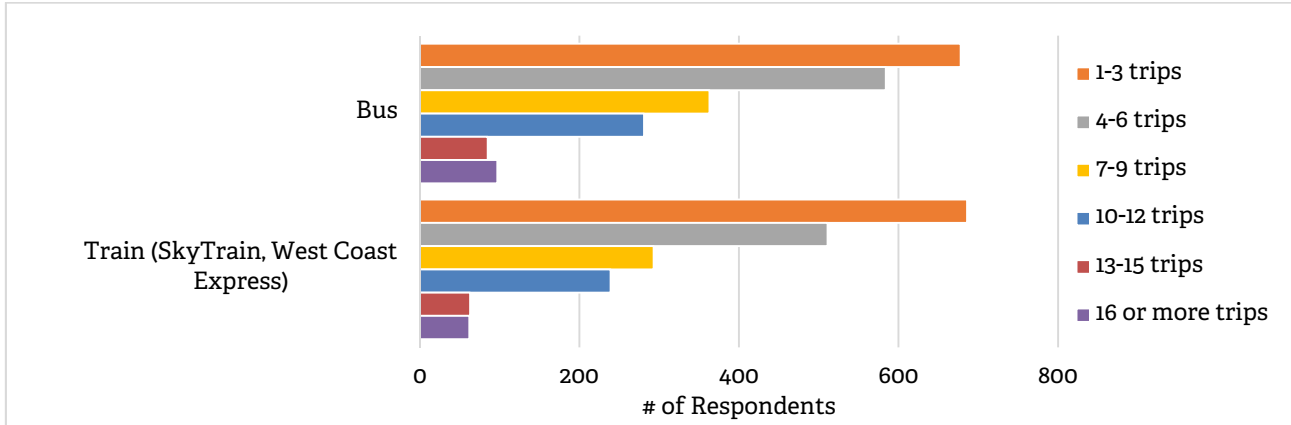
	Transit	Do not Transit	% Transit	% Do not Transit	Total
Vancouver	1,310	193	87%	13%	1,503
Surrey	456	20	96%	4%	476
Richmond	241	26	90%	10%	267
Burnaby	180	25	88%	12%	205
Delta	108	17	86%	14%	125
Coquitlam/PoCo/Pt. Moody	57	19	75%	25%	76
New Westminster	50	15	77%	23%	65
North Vancouver	42	11	79%	21%	53
Mission/Abbotsford	14	3	82%	18%	17
Langley/Aldergrove	6	10	38%	63%	16
Maple Ridge/Pitt Meadows	7	4	64%	36%	11
West Vancouver	7	3	70%	30%	10
White Rock	2	1	67%	33%	3
Other B.C.	9	3	75%	25%	12
Unknown	57	6	90%	10%	63
<b>Total</b>	<b>2,546</b>	<b>356</b>	<b>88%</b>	<b>12%</b>	<b>2,902</b>

**Figure 20: Percentage of Respondents that Transit to Langara by City of Residence**



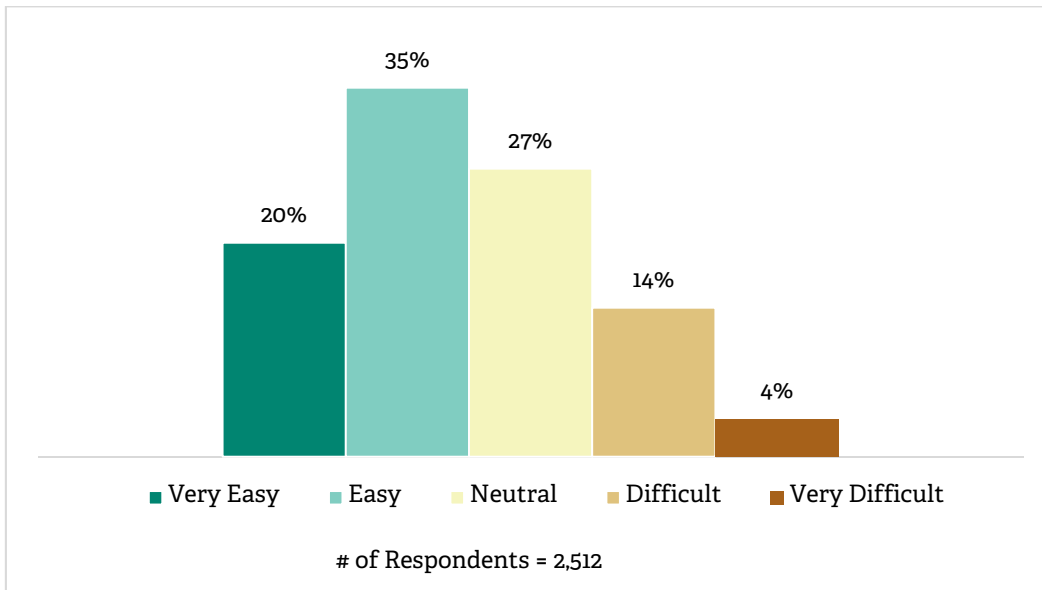
A total of 2,088 respondents reported taking a bus to commute to Langara in a normal week. About a third (32%) of these respondents make 1-3 one-way bus trips to or from Langara per week. On the other hand, 1,854 respondents said they took a train (SkyTrain/West Coast Express) to Langara. 37% of these respondents make 1-3 one-way train trips to or from Langara in normal week (See **Figure 21**).

**Figure 21: Number of One-Way Trips to or from Langara during a Normal Week by Transit Mode**



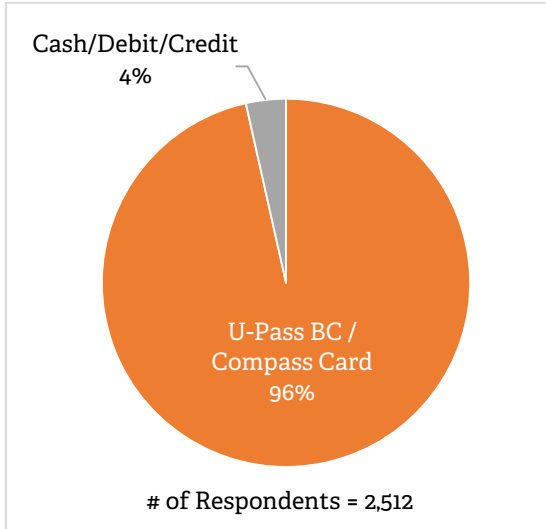
A majority of the respondents said taking transit to Langara was very easy (20%) or easy (35%) (See **Figure 22**).

**Figure 22: How Easy Is Taking Transit to Langara**



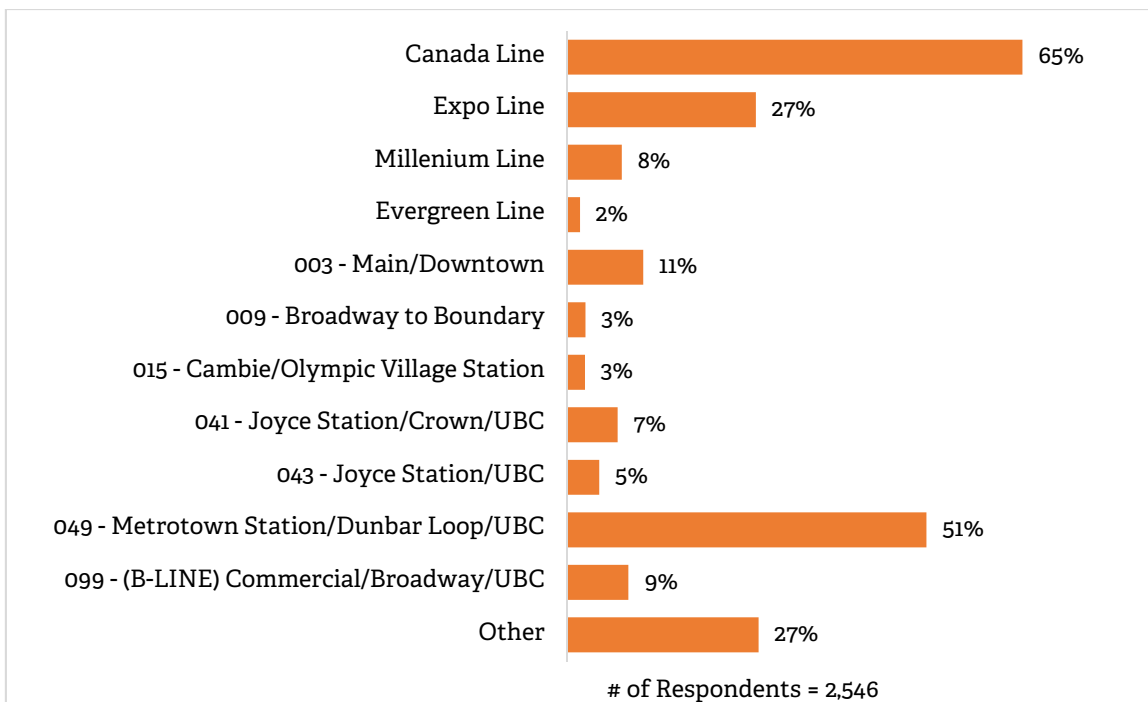
Langara College participates in the U-Pass BC Program which provides students with unlimited all-zone access to TransLink bus, SkyTrain and SeaBus services and discounts on the West Coast Express. 96% of the respondents use either U-Pass BC or Compass Card to pay for transit (See **Figure 23**).

**Figure 23: Primary Payment Method for Transit**



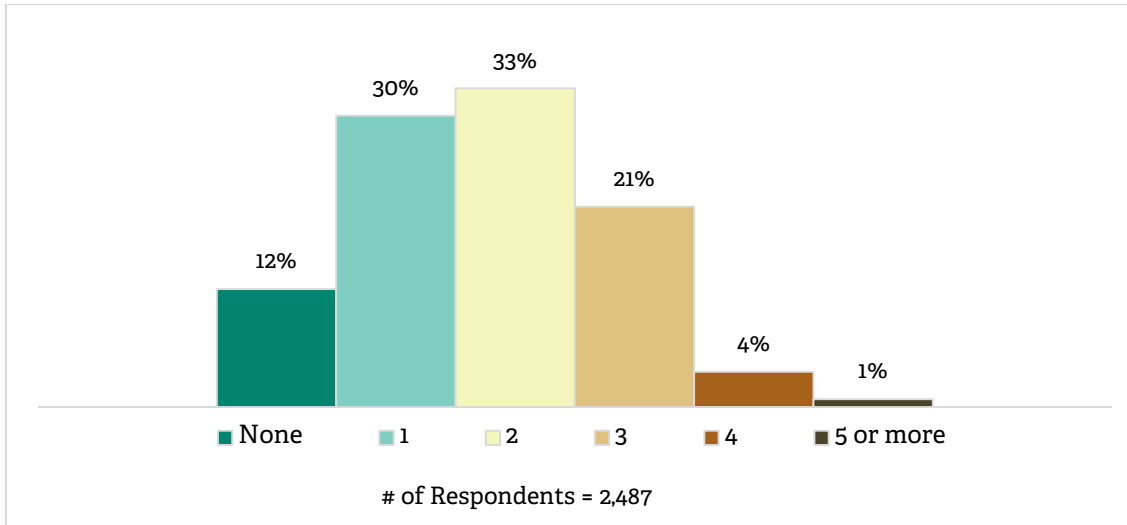
Langara is within walking distance of the Langara – 49th Station of the Canada Line, and 65% of the respondents who transit to Langara use the Canada Line. 51% use TransLink Bus #49 which runs on the 49th Avenue with two stops adjacent to the campus. In addition, 27% of the respondents take the Expo Line, and 11% take Bus #3 (See **Figure 24**).

**Figure 24: Transit Routes Used to Commute to Langara**



30% of the respondents that take transit to Langara need to transfer once, and 33% need to transfer twice (Figure 25).

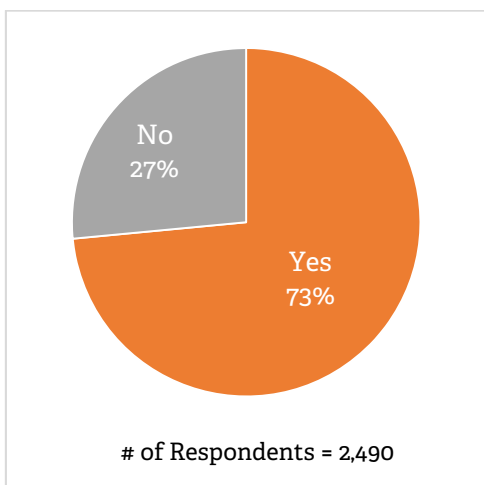
**Figure 25: Number of Transfers Needed to Reach Langara**



Percentages may not add up to 100% due to rounding.

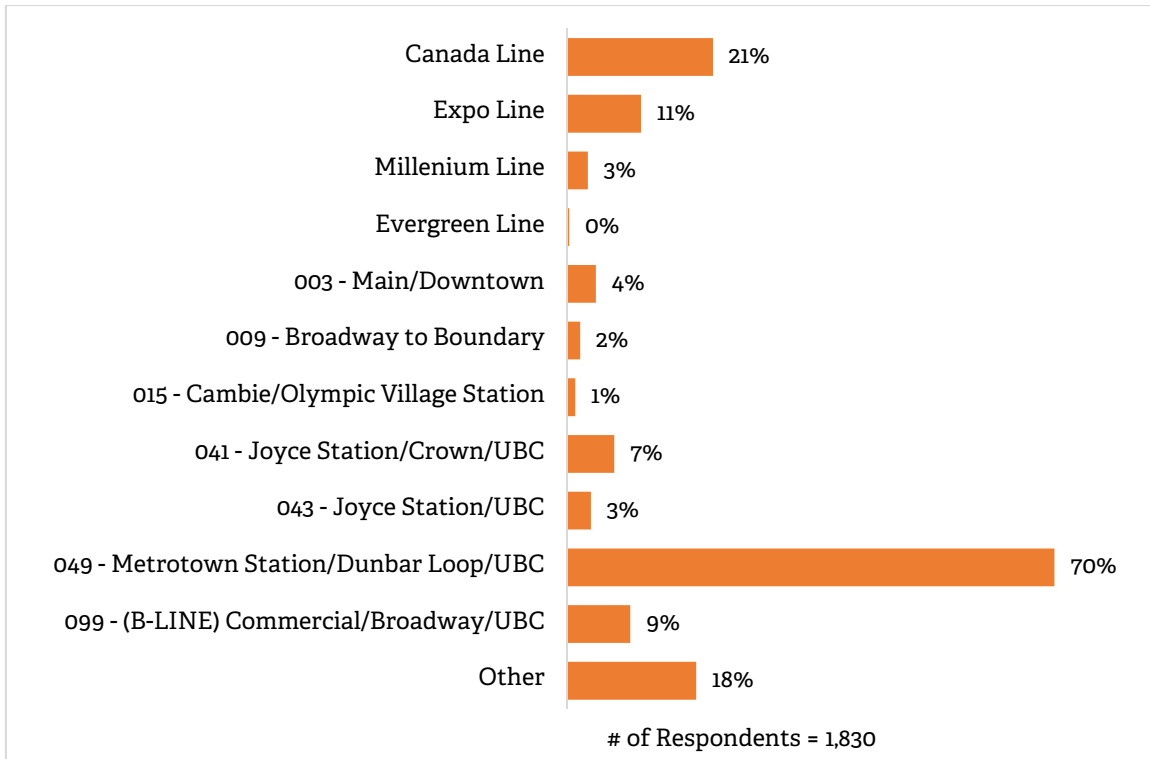
Figure 26 shows that 73% of the respondents said they have been passed up by a bus or a train when travelling to or from Langara. “Passed up” refers to a situation where a bus or a train is full and does not accept passengers.

**Figure 26: Have Been Passed Up by Bus or Train while Commuting to Langara**



The survey results show that the frequency of service of Bus #49 needs to be improved. 1,274 respondents, or 70% of the respondents who reported being passed up while commuting to Langara, were passed up by Bus #49 (See **Figure 27**). Over 100 respondents provided detailed comments regarding Bus #49, and many reported being passed up by not just one but several buses before they could board one to commute to or from Langara.

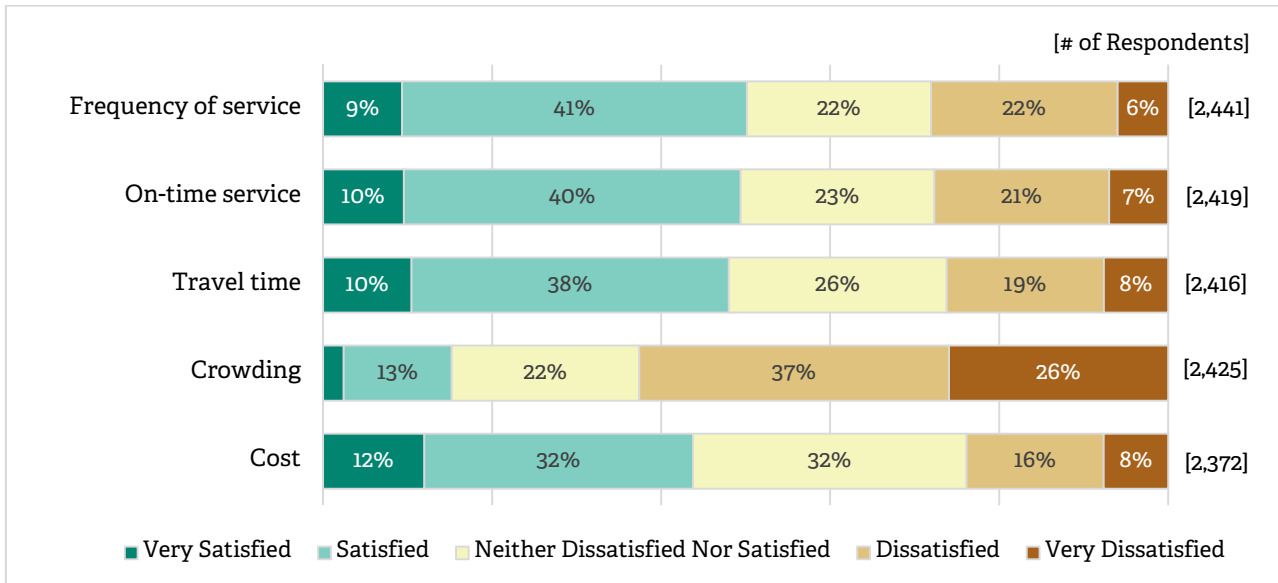
**Figure 27: Have Been Passed Up while Commuting to Langara by Route**



50% of the respondents that take transit to Langara are either satisfied or very satisfied with the frequency of service and on-time service. However, only 15% of the respondents are satisfied or very satisfied in terms of crowding. A majority of them are either dissatisfied (37%) or very dissatisfied (26%) with how crowded the buses/trains are when they commute to Langara (See **Figure 28**).

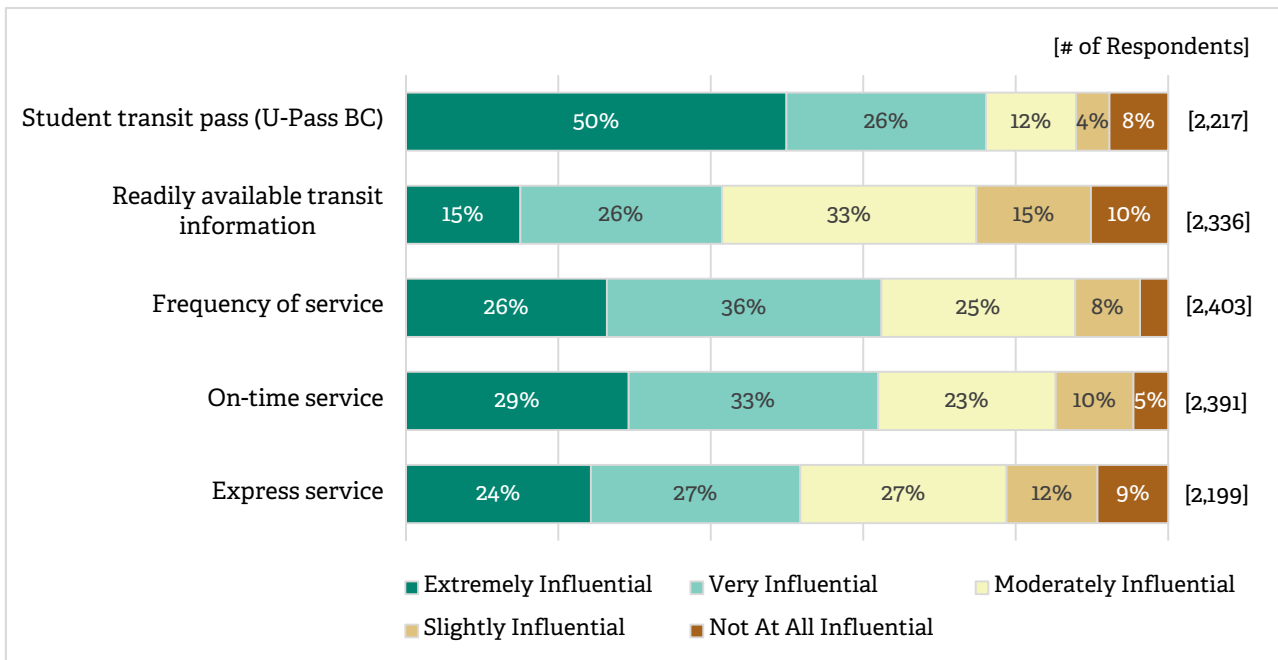


**Figure 28: Satisfaction with Transit Services**



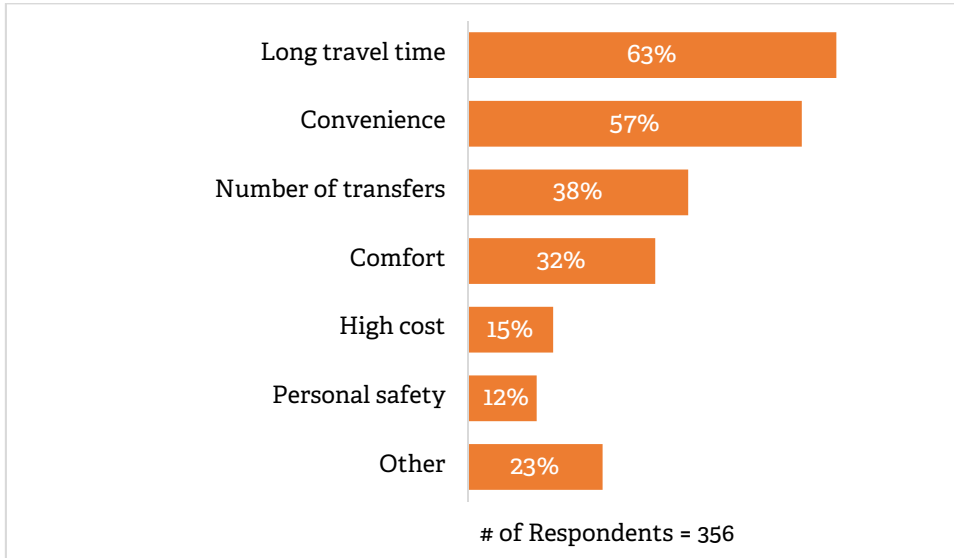
The service that has the most influence on the respondents' transit use is the student transit pass (U-Pass BC). Half of the respondents said it was extremely influential. In addition, frequency of service, on-time service, and express service are either very influential or extremely influential for over half of the respondents (Figure 29).

**Figure 29: Factors that Influence Transit Use**



Among the respondents who do not take transit to Langara, the most common reasons for it are: long travel time (63% of the respondents), convenience (57%), and the number of transfers (38%) (See **Figure 30**).

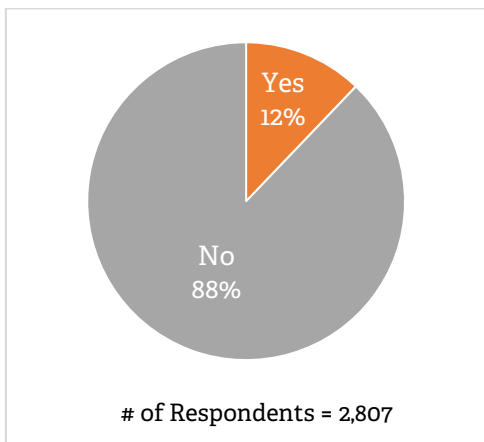
**Figure 30: Reasons for Not Taking Transit to Langara**



### Cycling to Langara

Cycling to Langara is convenient as there are bikeways nearby that are part of the extensive Vancouver cycling routes. 12% of respondents bike to Langara (**Figure 31**).

**Figure 31: Percentage of Respondents that Bicycle to Langara**

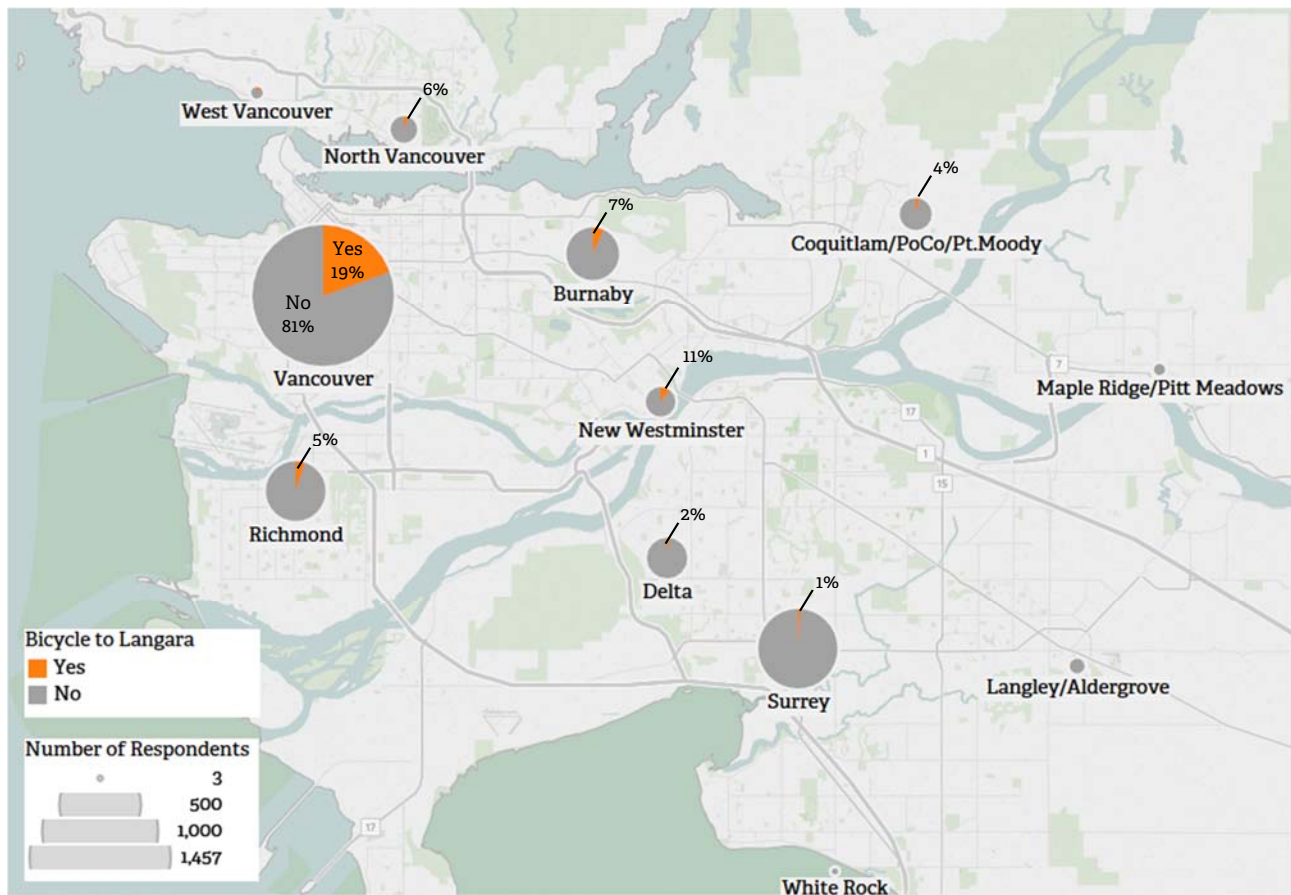


19% of respondents living in Vancouver ride their bikes to Langara. This percentage is lower for those who live in the other cities (See **Table 7** and **Figure 32**).

**Table 7: Respondents that Bicycle to Langara by City of Residence**

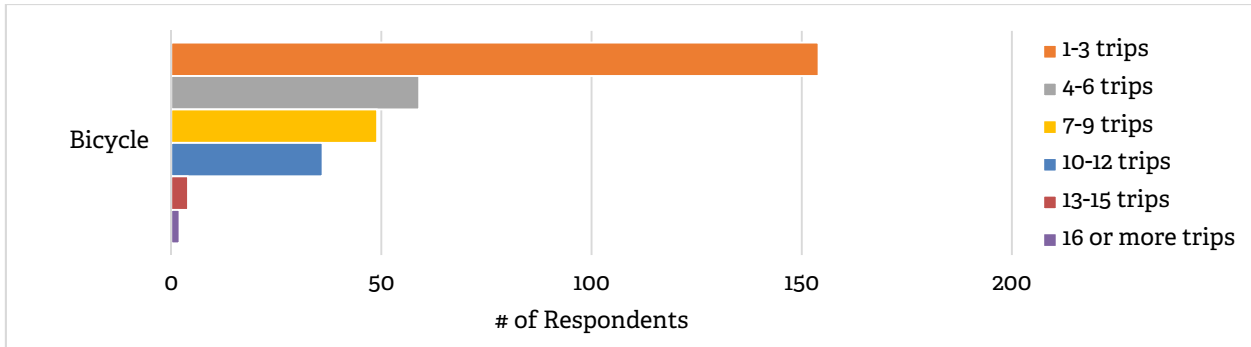
	Bicycle	Do not Bicycle	% Bicycle	% Do not Bicycle	Total
Vancouver	284	1,173	19%	81%	1,457
Surrey	5	451	1%	99%	456
Richmond	13	246	5%	95%	259
Burnaby	14	187	7%	93%	201
Delta	2	118	2%	98%	120
Coquitlam/PoCo/Pt.Moody	3	72	4%	96%	75
New Westminster	7	57	11%	89%	64
North Vancouver	3	49	6%	94%	52
Mission/Abbotsford	–	17	0%	100%	17
Langley/Aldergrove	–	16	0%	100%	16
Maple Ridge/Pitt Meadows	–	9	0%	100%	9
West Vancouver	1	9	10%	90%	10
White Rock	–	3	0%	100%	3
Other B.C.	1	11	8%	92%	12
Unknown	8	48	14%	86%	56
<b>Total</b>	<b>341</b>	<b>2,466</b>	<b>12%</b>	<b>88%</b>	<b>2,807</b>

**Figure 32: Percentage of Respondents that Bicycle to Langara by City of Residence**



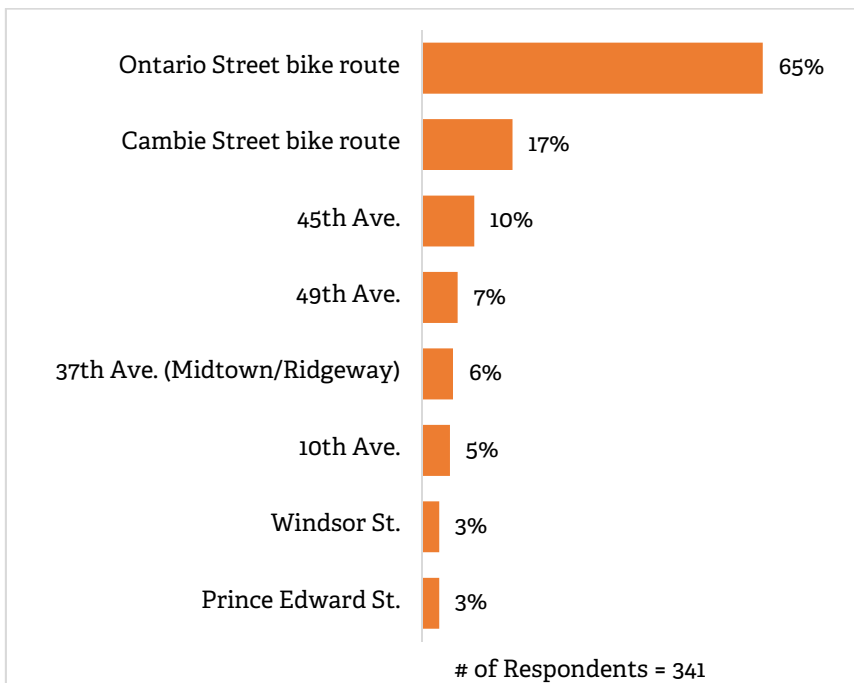
154 respondents, or 51% of the respondents who reported biking to Langara in a normal week, said they made 1-3 one-way trips to or from Langara per week (Figure 33).

**Figure 33: Number of One-Way Cycling Trips to or from Langara during a Normal Week**



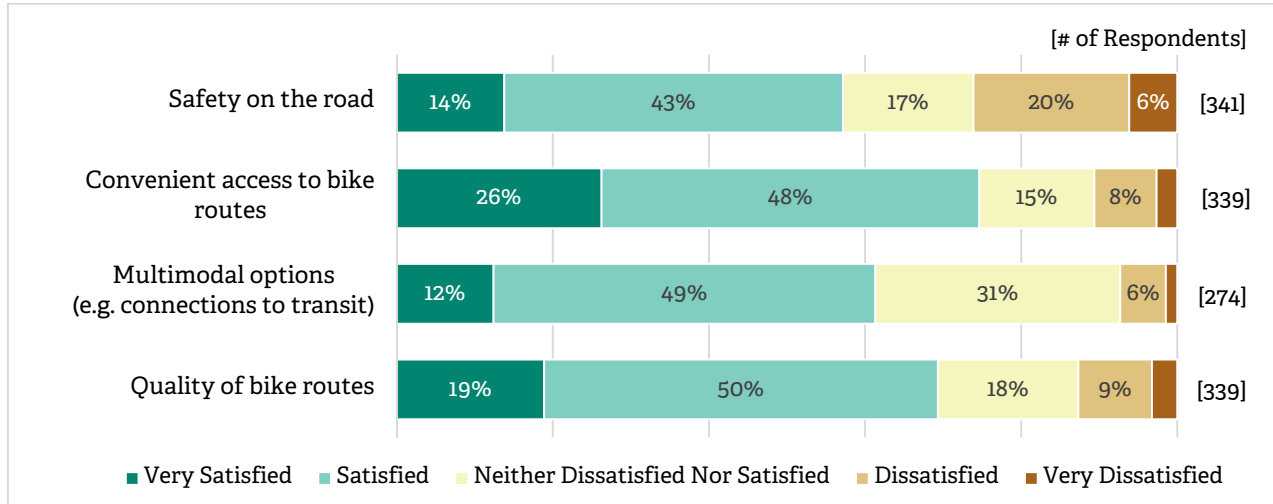
The Ontario Street bikeway is the most popular bike route among Langara commuters. 223 respondents (65% of those who ride their bicycles to Langara) said they used the Ontario Street bike route to commute to Langara. 17% said they used the Cambie Street bike route. The other routes used by the respondents included 45th Avenue (10% of the respondents), 49th Avenue (7%), 37th Avenue (6%) and 10th Avenue (5%) (See Figure 34).

**Figure 34: Bike Routes Used to Access Langara College**



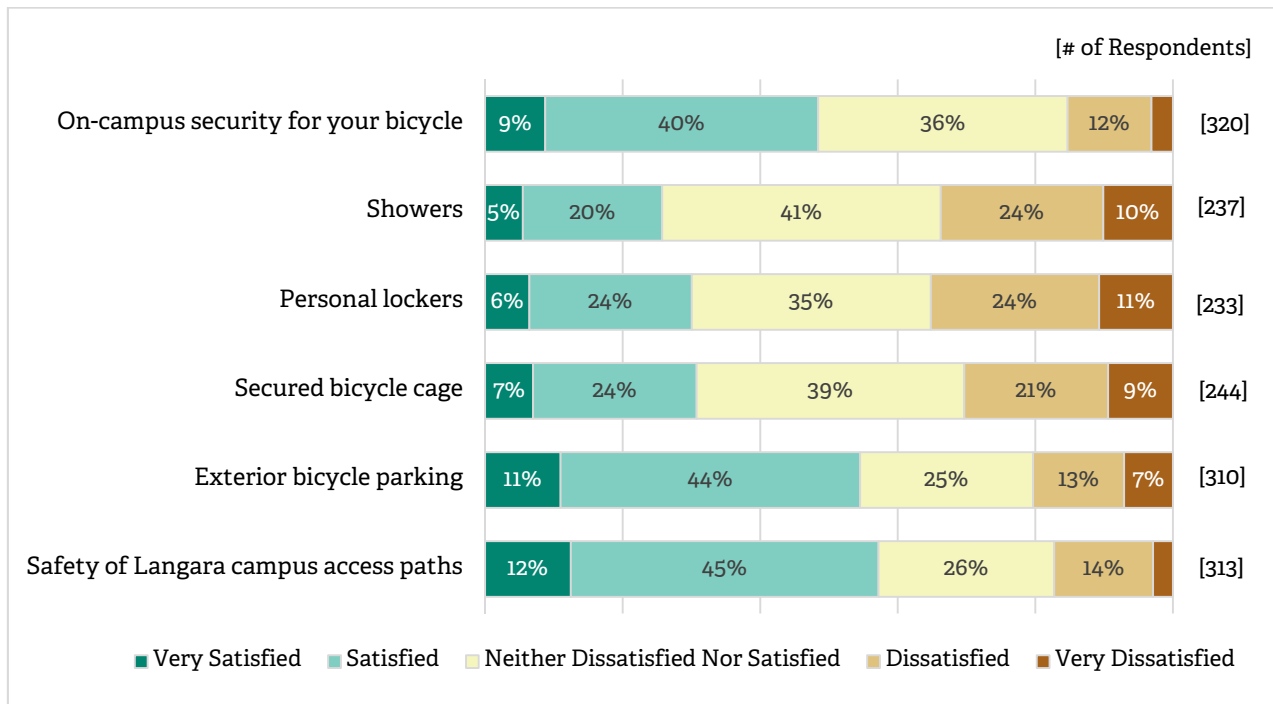
**Figure 35** shows that most of the respondents are either very satisfied (26%) or satisfied (48%) with convenient access to bike routes. They also expressed a high level of satisfaction with the quality of bike routes. On the other hand, 26% of the respondents were either dissatisfied or very dissatisfied with safety on the road.

**Figure 35: Satisfaction with Bicycle Ride to Langara**



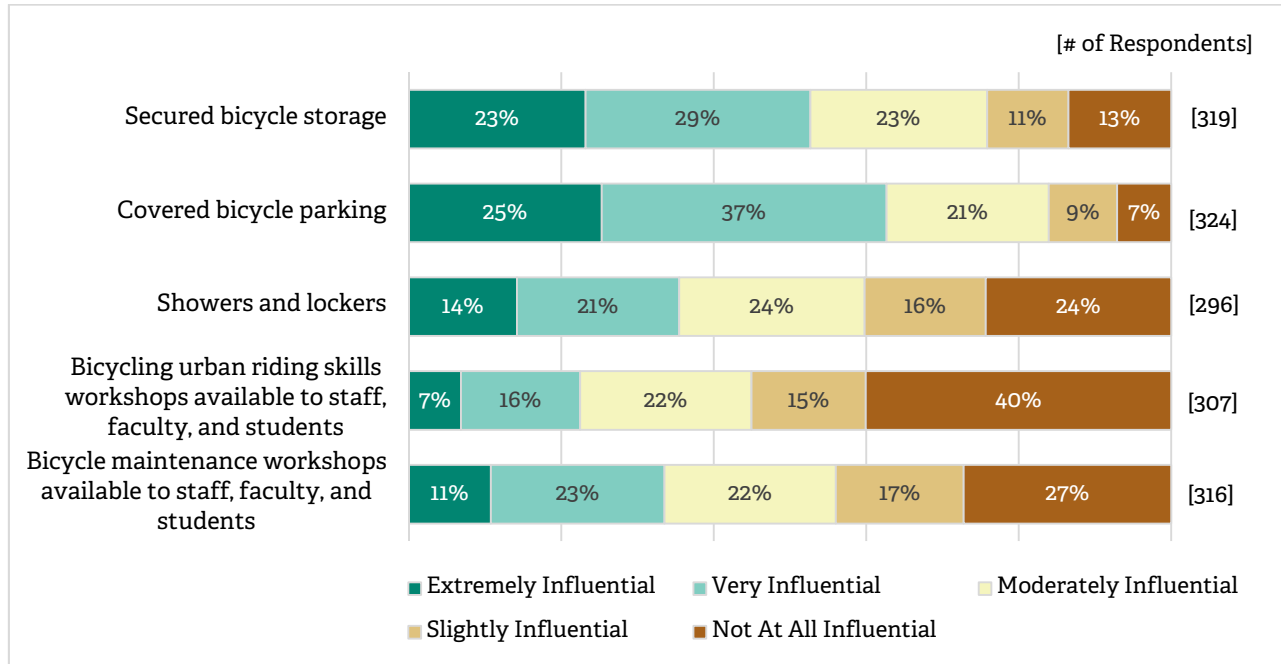
Over half of respondents are satisfied or very satisfied with the exterior bicycle parking at Langara (55%), and with the safety of Langara campus access paths (57%). About a third of the respondents are dissatisfied or very dissatisfied with showers (34%) and personal lockers (35%) at Langara (**Figure 36**).

**Figure 36: Satisfaction with Langara College Services for Cyclists**



Over 90% of the respondents said that covered bicycle parking had at least some influence on their decision to ride their bicycles with 25% selecting “extremely influential” and 37% selecting “very influential.” Bicycle-related workshops are not considered as influential as bicycle storage, showers and lockers on cyclists’ behaviour (See **Figure 37**).

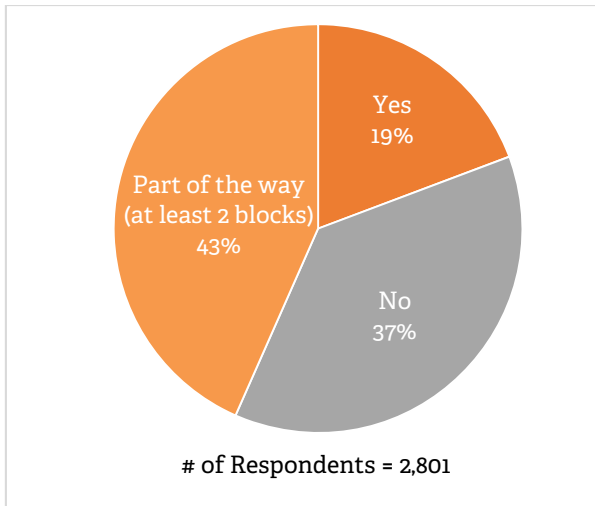
**Figure 37: Factors that Influence Cycling Behaviour**



**Walking to and around Langara**

19% of the respondents said they walked to Langara while 43% said they walked part of the way (at least 2 blocks) (See **Figure 38**). 98% of the respondents who walk part-way also used transit. Note that commuters often walk 2-3 blocks between the Langara – 49th Canada Line station and Langara College.

**Figure 38: Percentage of Respondents that Walk to Langara**

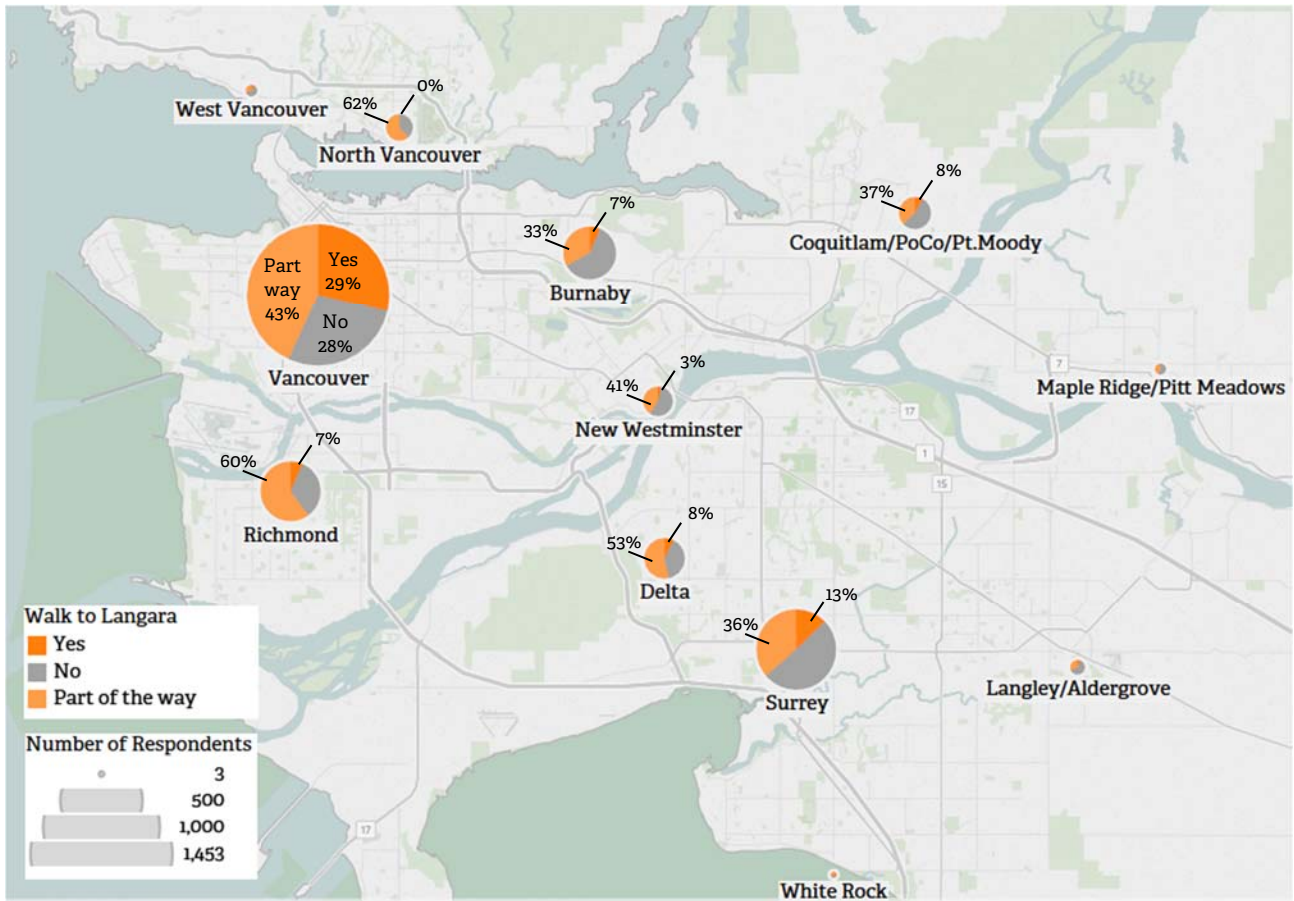


**Table 8** and **Figure 39** show that, among the respondents who live in Vancouver, 29% walk to Langara, 43% walk part of the way, and 28% do not walk at all when they commute to Langara. The percentage of respondents that do not walk at all when commuting to Langara was 33% for Richmond, 51% for Surrey, and 61% for Burnaby.

**Table 8: Respondents that Walk to Langara by City of Residence**

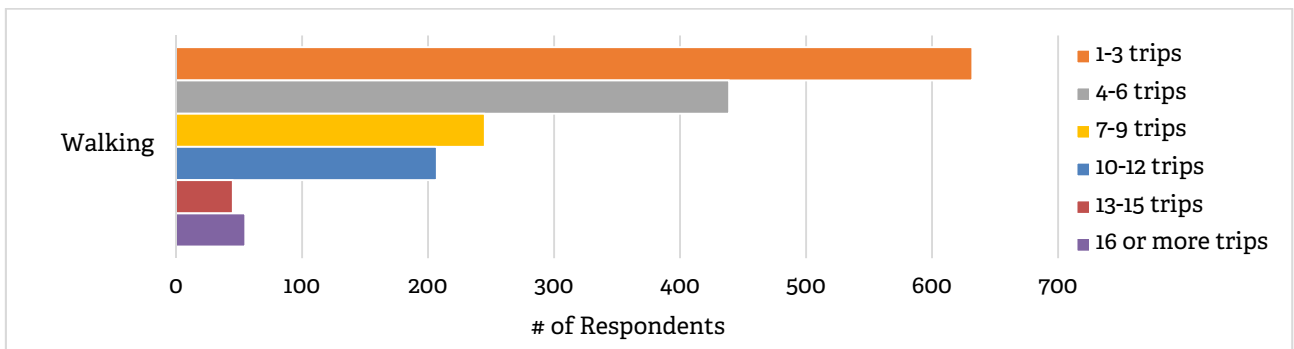
	Walk	Walk Part of the Way	Do Not Walk	% Walk	% Walk Part of the Way	% Do Not Walk	Total
Vancouver	416	627	410	29%	43%	28%	1,453
Surrey	58	165	232	13%	36%	51%	455
Richmond	17	156	86	7%	60%	33%	259
Burnaby	13	66	121	7%	33%	61%	200
Delta	9	64	47	8%	53%	39%	120
Coquitlam/PoCo/Pt.Moody	6	28	41	8%	37%	55%	75
New Westminister	2	26	36	3%	41%	56%	64
North Vancouver	–	32	20	0%	62%	38%	52
Mission/Abbotsford	1	8	8	6%	47%	47%	17
Langley/Aldergrove	1	5	10	6%	31%	63%	16
Maple Ridge/Pitt Meadows	–	4	5	0%	44%	56%	9
West Vancouver	1	3	6	10%	30%	60%	10
White Rock	1	1	1	33%	33%	33%	3
Other B.C.	2	4	6	17%	33%	50%	12
Unknown	13	26	17	23%	46%	30%	56
<b>Total</b>	<b>540</b>	<b>1,215</b>	<b>1,046</b>	<b>19%</b>	<b>43%</b>	<b>37%</b>	<b>2,801</b>

**Figure 39: Percentage of Respondents that Walk to Langara by City of Residence**



632 respondents, or 39% of the respondents who reported walking at least part of the way to Langara during a normal week, said they made 1-3 one-way walking trips per week. 439 respondents (27% of the respondents) reported making 4-6 one-way walking trips per week (See **Figure 40**).

**Figure 40: Number of One-Way Walking Trips to or from Langara during a Normal Week**

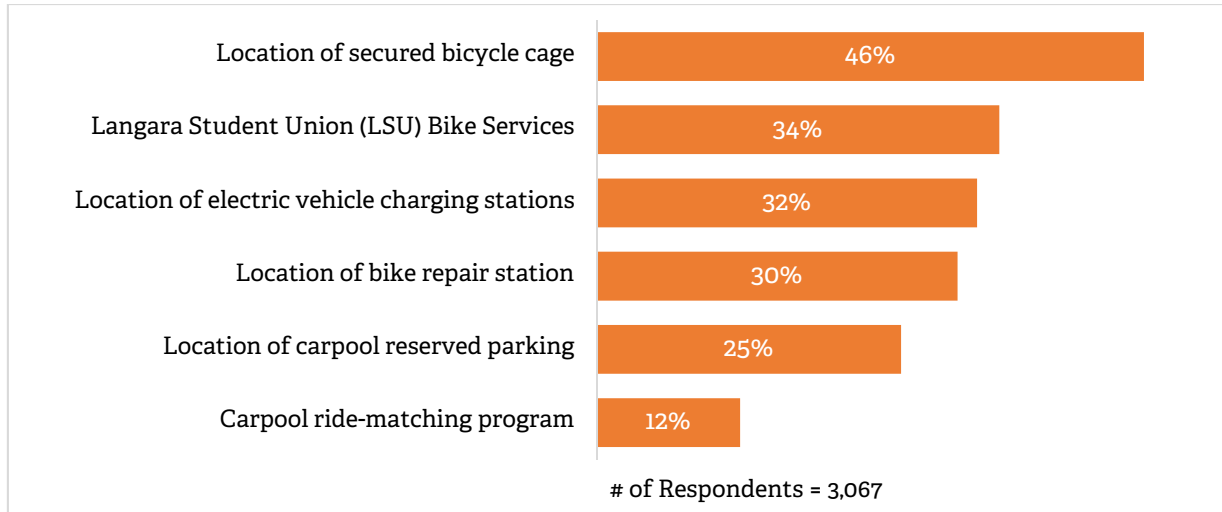




**Langara Services**

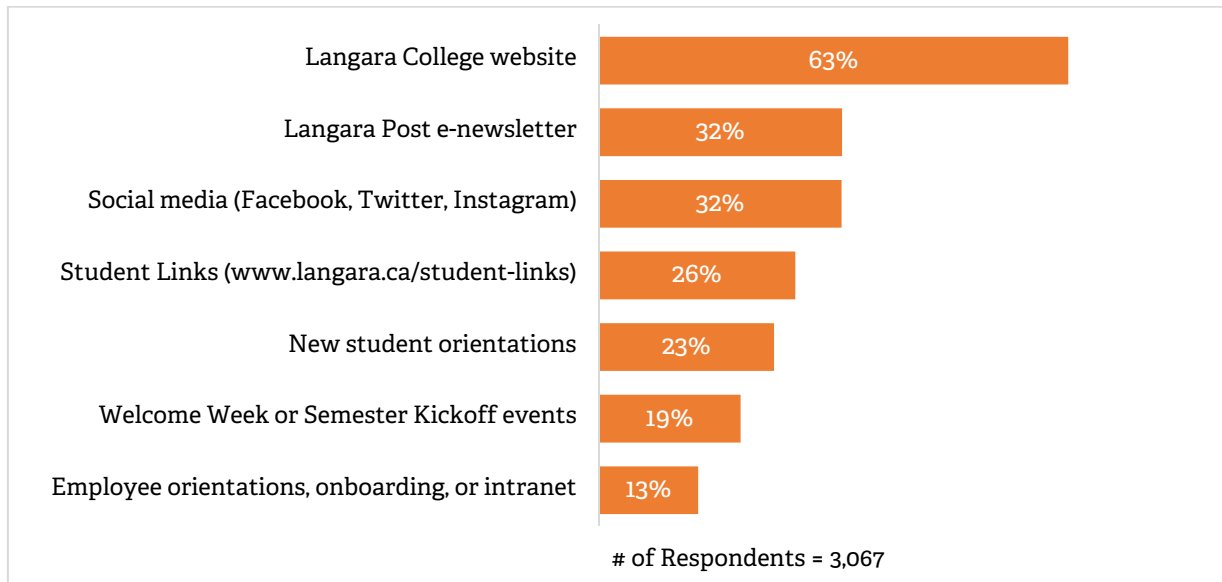
All respondents, regardless of commuting behaviour, were asked about Langara’s travel-related services. While 46% of the respondents said they were aware of the location of secured bicycle cage, only 12% were aware of the carpool ride-matching program, and 25% were aware of the location of carpool reserved parking (See **Figure 41**).

**Figure 41: Percentage of Respondents that are Aware of Langara’s Travel-related Services**



Most of the respondents (63%) prefer to receive information on Langara’s travel-related services through the Langara College website (**Figure 42**).

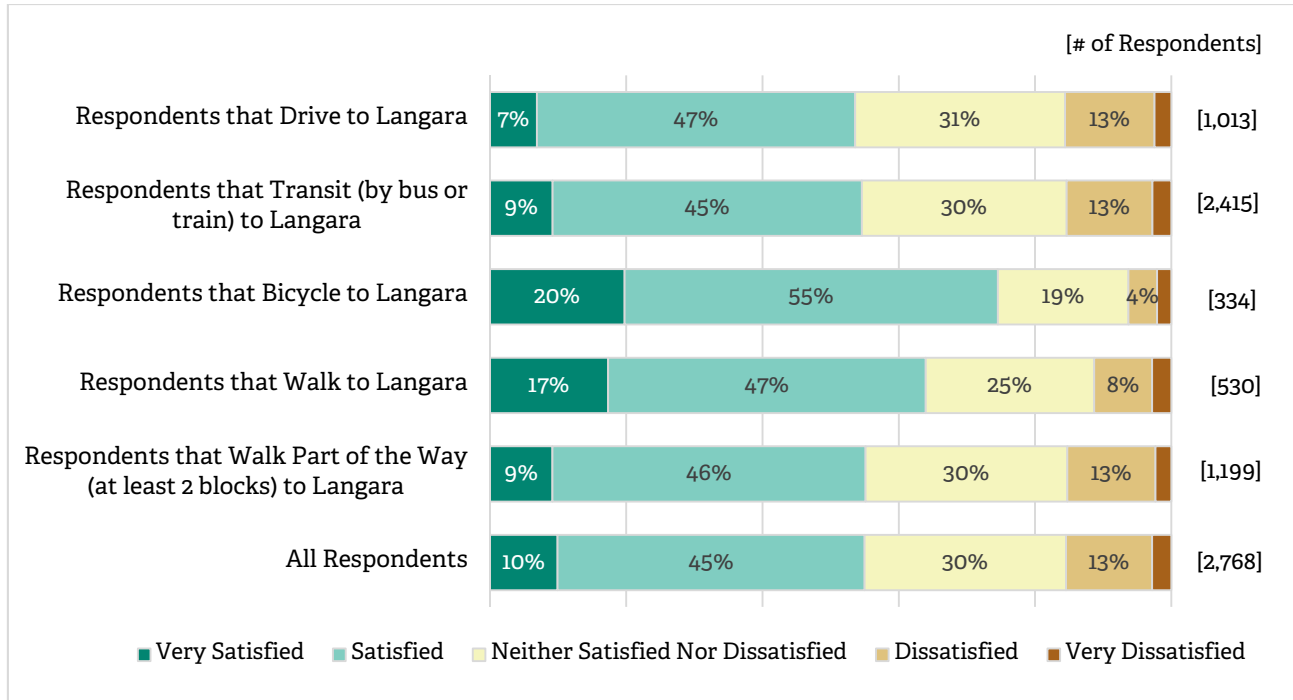
**Figure 42: Preferred Method of Communication Regarding Langara’s Travel-related Services**



**Overall Level of Satisfaction and Future Priorities**

Overall, a majority of the respondents are either very satisfied (10%) or satisfied (45%) with their commute to Langara. Respondents that biked to Langara reported the highest level of satisfaction with their commute - 20% are very satisfied and 55% are satisfied. There was no significant difference in the level of satisfaction between those that drive and those who take transit (See **Figure 43**).

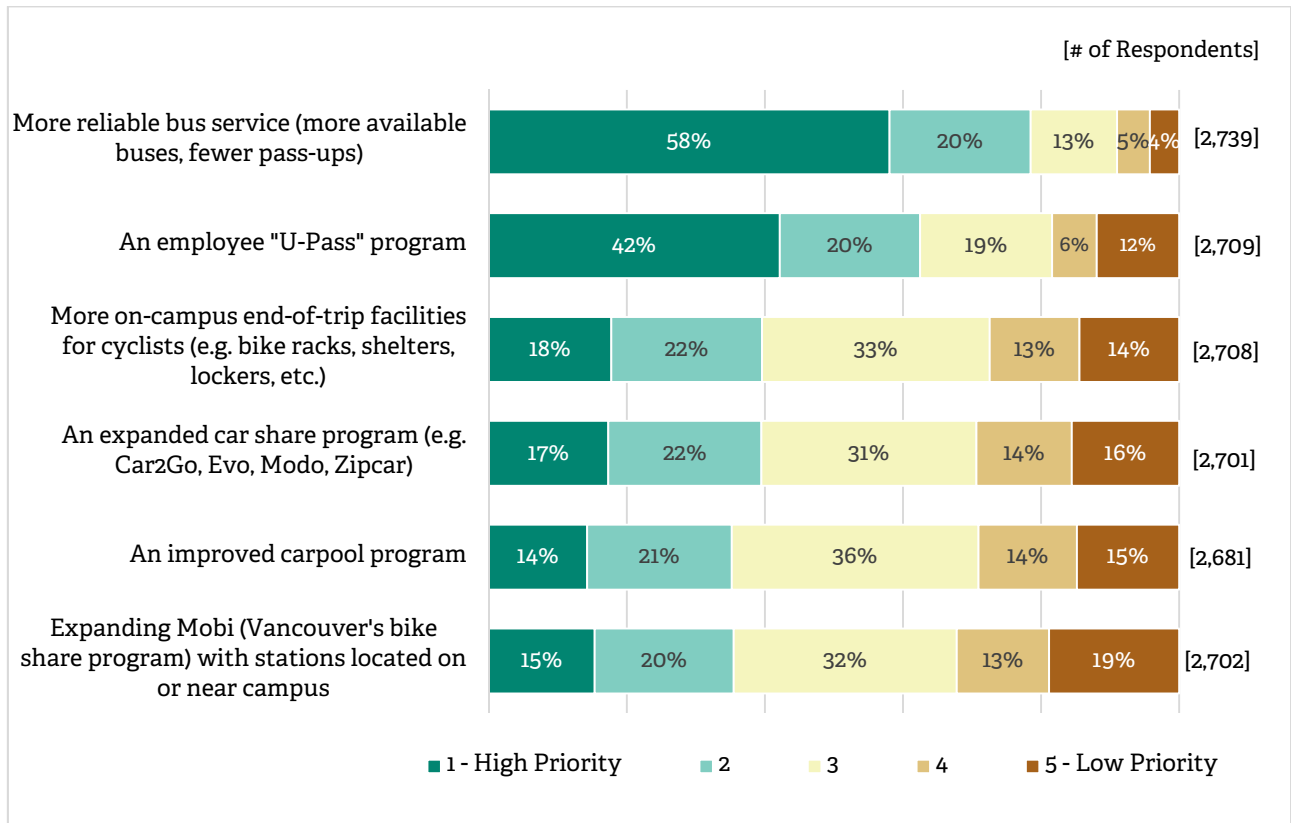
**Figure 43: Overall Satisfaction with Commute to and from Langara by Transit Mode**



The survey also asked respondents to help Langara prioritize initiatives as part of our campus travel planning efforts. **Figure 44** shows that, among the six initiatives listed in the survey, “more reliable bus service” received the highest priority rating from the respondents with 58% rating it as “1 – High Priority.” It was followed by an employee “U-Pass” program with 42% of the respondents selecting “1 – High Priority.”

The other initiatives, such as more on-campus end-of-trip facilities for cyclists, an expanded car share program, an improved carpool program, and expanding Mobi (the City of Vancouver’s public bike share system), also attracted interest from many commuters, with 30%-40% of the respondents selecting “1” or “2” in terms of priority.

**Figure 44: Priority Levels of Langara’s Travel-related Initiatives**



## CONCLUSIONS

Langara College conducted the 2017 Transportation Survey to better understand how transportation services may be improved at Langara and/or within the Metro Vancouver transportation network. Our data shows that the Langara student population has moved farther away from the campus over the last several years, and this may have an impact on their travel patterns and experiences.

The 2017 survey results showed that 38% of the respondents drove to Langara, including carpool/vanpool/dropped off, car share, and motorcycle/moped. Most of the respondents drive alone, while carpooling and car share are not as common. The level of awareness of the carpool reserved parking at Langara and the carpool ride-matching program is still low, and more promotional efforts are needed to increase awareness.

89% of the respondents have travelled to Langara without a car, including using transit, cycling and walking. 61% of the respondents said that better transit service/connections would encourage them to take transit more frequently.

Over 90% of the students take transit to Langara and the U-Pass BC program has significant influence on their decision to take transit. Most of them use the Canada Line or the TransLink Bus #49 to commute to Langara. Many respondents expressed dissatisfaction with crowding in transit, and 73% of those who take transit have been passed up by a bus or train while commuting to Langara.

Those who live in Vancouver are more likely to ride their bicycles to Langara than those living in other cities. Overall, 12% of the respondents have ridden their bicycles to Langara, and 65% of the bicycle commuters use the Ontario Street bikeway. Over 90% of the respondents said that covered bicycle parking had influence on their decision to ride their bicycles to Langara.

19% of the respondents said they walked to Langara while 43% walked part of the way (at least 2 blocks). 98% of the respondents who walk part-way also use transit (bus and/or train) to get to Langara.

Each of Langara's travel-related services had an awareness rate below half of respondents. Only 30%-35% of the respondents said they were aware of the Langara Student Union (LSU) Bike Services, the location of bike repair station, and the location of electric vehicle charging stations on campus.

Providing more reliable bus service is considered as a high priority initiative by the greatest number of respondents among the initiatives listed in the survey. The other initiatives included an employee "U-Pass" program and more on-campus end-of-trip facilities for cyclists.

Overall, the 2017 survey results showed that the bus services around Langara need to be improved, and that better communication is needed regarding Langara's travel-related services.

We will be conducting the Transportation Survey every two years starting in 2017. Changes in the survey results will be tracked over the coming years to understand changes in the commuting patterns of the Langara Community and the impacts of our campus travel planning efforts.