

# Langara.

**THE COLLEGE OF HIGHER LEARNING.**

## **Transportation Survey Report 2021**

**TABLE OF CONTENTS**

**EXECUTIVE SUMMARY** ..... 2

**BACKGROUND**..... 3

**SURVEY RESULTS**..... 5

    Respondent Profiles..... 5

    Primary Mode of Transportation to Langara ..... 10

    Driving to Langara.....12

    Travelling Without a Car.....18

    Taking Transit to Langara.....21

    Cycling to Langara.....28

    Walking to and around Langara ..... 32

    Langara Services.....35

    Overall Level of Satisfaction and Future Priorities.....36

**CONCLUSIONS** ..... 39

## EXECUTIVE SUMMARY

This report summarizes the results of Langara College's third biannual Transportation Survey conducted in 2021. Between September 27 and October 11, 2021, the online survey collected 3,759 responses from 1,751 domestic students, 1,313 international students, 334 staff and 361 faculty members.

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

- **The COVID-19 Pandemic Caused a Shift in Travel Patterns:** The global COVID-19 pandemic has had a significant impact on the travel patterns of Langara's students and employees, and many respondents reported a modal shift from transit to car commute. While the total number of students and employees commuting to Langara has decreased, the average number of driving trips they make to all destinations in a normal week increased over the last two years.
- **Langara Students Continue to Move 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 steadily over the last seven years and it declined more dramatically during the pandemic. In contrast, the proportion of our student population living in Surrey increased over the past seven years.
- **The Primary Mode of Transportation to Langara is Transit for Majority of Commuters:** A new question was introduced to the survey in 2021 to determine the respondents' primary mode of transportation to Langara. Among all respondents, 67% selected "transit" and 24% selected "car" as their primary mode of transportation.
- **Over 80% of Trips to or from Langara are made by Sustainable Modes:** The 2021 survey respondents together reported making 26,537 one-way trips to or from Langara in a normal week, and 81% of them were by sustainable modes (walking, cycling and transit). The share of cycling in the modal split was 4% with 286 respondents making 1,038 cycling trips in a normal week. Changes in the transportation mode share will be tracked in the future surveys.
- **Less Commuters Getting Passed Up by Over-Capacity Bus or Train:** Transit is very important to commuters with 92% of respondents having used it to travel to Langara. Although overcrowding continues to be a major issue, the percentage of respondents that said they had been passed up by a bus or a train when travelling to Langara declined significantly from 81% in the 2019 survey to 58% in the 2021 survey.
- **Satisfaction with Langara Services Continues to Improve among Cyclists:** Cycling to Langara is convenient with a number of bikeways nearby, and 11% of respondents have biked to Langara. Their level of satisfaction with various Langara services for cyclists including showers, exterior bicycle parking, and on-campus security of bicycles improved from 2019 to 2021.
- **Better Communication Needed about Travel-Related Services:** The percentage of respondents that were aware of the location of electric vehicle charging stations increased from 29% in 2019 to 33% in 2021. However, only 19% of respondents were aware of the location of showers or the location of bike repair station.
- **Majority of Langara Commuters are Satisfied:** Overall, 13% of the respondents are very satisfied and 45% are satisfied with their commute to Langara. The level of satisfaction is higher among those who bike or walk to Langara.

The Langara Transportation Survey is conducted every two years. We will continue to track changes in the survey results over the coming years to help us understand changes in travel characteristics of the Langara community. It is also important for us to measure the impacts of our transportation-related initiatives in order to create a shift towards more sustainable travel behaviours in our community.

## BACKGROUND

The 2021 Transportation Survey follows up on the same survey from 2017 and 2019. We are committed to conducting our Transportation Survey every two years in order to better understand how transportation services may be improved at Langara and/or within the Metro Vancouver transportation network.

It is important to note that the 2021 survey responses were collected during the global COVID-19 pandemic which has significantly disrupted the post-secondary sector. The pandemic has caused a shift in where Langara's students and employees live, study and work as well as their travel behaviour and patterns.

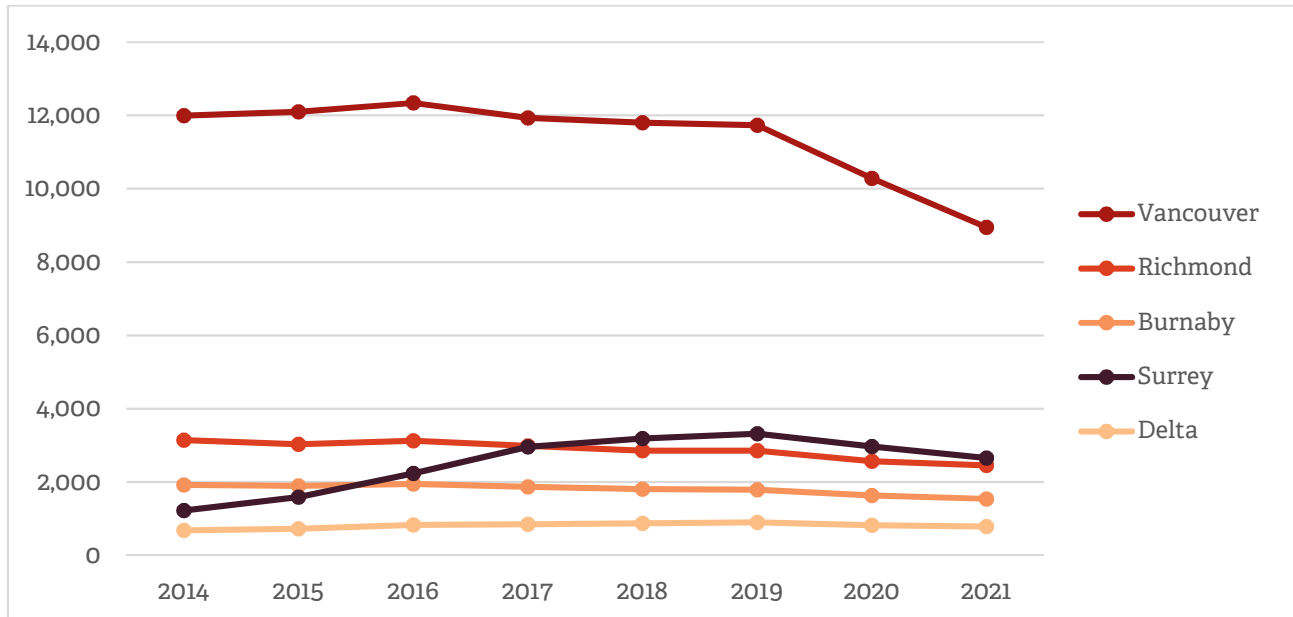
The number of students commuting to Langara College has decreased over the last two years. At the same time, our student population continues to move away from Vancouver into neighbouring cities. **Table 1** and **Figure 1** show which cities our students have lived in over the last seven years. The number of students living in Vancouver has decreased by 25% from 2014 to 2021. Over the same period, the number of students living in Richmond and Burnaby has also decreased by 22% and 20% respectively. In contrast, the number of students who commute to Langara from Surrey has increased by 118% from 2014 to 2021.

**Table 1: Number of Langara Students by City of Residence, 2014-2021**

	2014	2015	2016	2017	2018	2019	2020	2021	% Change 2014-2021
Vancouver	11,993	12,095	12,340	11,934	11,803	11,729	10,280	8,944	-25%
Richmond	3,138	3,025	3,122	2,980	2,852	2,851	2,564	2,448	-22%
Surrey	1,220	1,583	2,229	2,955	3,183	3,315	2,966	2,655	118%
Burnaby	1,919	1,894	1,944	1,866	1,807	1,786	1,633	1,538	-20%
Delta	678	722	824	845	874	895	822	782	15%
Coquitlam/PoCo/Pt.Moody	594	637	630	579	580	598	556	539	-9%
North Vancouver	482	529	505	494	428	438	434	465	-4%
New Westminister	415	406	463	419	422	430	408	383	-8%
West Vancouver	152	145	156	135	133	140	125	118	-22%
Langley/Aldergrove	140	162	184	169	135	128	122	128	-9%
Mission/Abbotsford	86	97	141	134	143	139	145	144	67%
Maple Ridge/Pitt Meadows	102	119	122	95	102	104	96	98	-4%
White Rock	47	48	51	45	46	36	33	39	-17%
Other B.C.	559	622	685	573	517	467	478	509	-9%
Other Provinces	315	336	323	409	513	462	349	243	-23%
Other Countries	197	311	415	478	449	461	712	1,825	826%
Unknown	341	371	344	331	401	444	268	136	-60%
<b>Total</b>	<b>22,378</b>	<b>23,102</b>	<b>24,478</b>	<b>24,441</b>	<b>24,388</b>	<b>24,423</b>	<b>21,991</b>	<b>20,994</b>	<b>-6%</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, 2014-2021



As Langara College is located in a residential neighbourhood with limited parking, commuters are encouraged 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

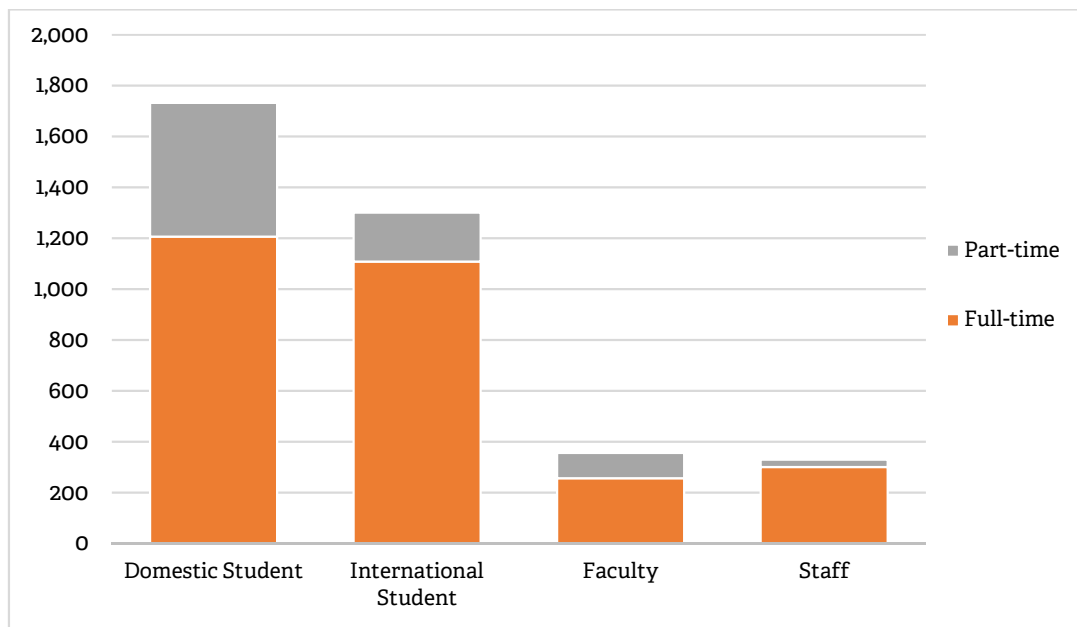
The 2021 Langara College Transportation Survey was implemented from September 27 to October 11, 2021. The link to the survey was sent out to the College community via email and also posted on the College website. All respondents used the link to respond to the survey online. The response rate was 22% among students and 29% among faculty and staff.

In total, the survey received responses from 3,759 people (compared to 3,931 in the 2019 survey). As Table 2 shows, over 80% of the respondents were students. Faculty and staff 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	1,751	47%
International Students	1,313	35%
Faculty	361	10%
Staff	334	9%
<b>Total</b>	<b>3,759</b>	<b>100%</b>

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



Among the 2021 survey respondents, 49.2% said they lived in Vancouver. This is slightly higher than 48.4% in 2019. On the other hand, the proportion of respondents living in Surrey decreased from 20.0% in 2019 to 14.2% in 2021 (See Table 3).

**Table 3: Number of Survey Respondents by City of Residence (2021 vs. 2019)**

City	Number of Respondents (2021)	Percent (2021)	Number of Respondents (2019)	Percent (2019)	Change 2019-2021 (pp)
Vancouver	1,849	49.2%	1,904	48.4%	0.75
Surrey	534	14.2%	786	20.0%	-5.79
Richmond	406	10.8%	371	9.4%	1.36
Burnaby	323	8.6%	269	6.8%	1.75
Delta	148	3.9%	185	4.7%	-0.77
Coquitlam/PoCo/Pt.Moody	115	3.1%	104	2.6%	0.41
North Vancouver	110	2.9%	61	1.6%	1.37
New Westminster	90	2.4%	87	2.2%	0.18
Mission/Abbotsford	34	0.9%	30	0.8%	0.14
Langley/Aldergrove	38	1.0%	22	0.6%	0.45
Maple Ridge/Pitt Meadows	22	0.6%	21	0.5%	0.05
West Vancouver	20	0.5%	19	0.5%	0.05
White Rock	6	0.2%	14	0.4%	-0.20
Other B.C.	20	0.5%	18	0.5%	0.07
Unknown	44	1.2%	40	1.0%	0.15
<b>Total</b>	<b>3,759</b>	<b>100%</b>	<b>3,931</b>	<b>100%</b>	<b>-</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 V5X, Vancouver (SE Oakridge / East Marpole / South Sunset). For the actual number of respondents by FSA, see Table 4.





City	FSA	Area	# of resp.	%
Vancouver (cont.)	V5T	Vancouver (East Mount Pleasant)	66	1.8%
	V5M	Vancouver (South Hastings Sunrise)	59	1.6%
	V5Y	Vancouver (West Mount Pleasant)	54	1.4%
	V6J	Vancouver (NW Shaughnessy / East Kitsilano)	48	1.3%
	V6B	Vancouver (NE Downtown / Yaletown)	48	1.3%
	V5K	Vancouver (North Hastings Sunrise)	47	1.3%
	V6E	Vancouver (SE West End / Davie Village)	46	1.2%
	V6G	Vancouver (NW West End / Stanley Park)	45	1.2%
	V6K	Vancouver (Central Kitsilano / Greektown)	44	1.2%
	V6M	Vancouver (South Shaughnessy / SE Arbutus Ridge)	44	1.2%
	V6H	Vancouver (West Fairview / Granville Island)	42	1.1%
	V5L	Vancouver (North Grandview Woodland)	37	1.0%
	V6R	Vancouver (West Kitsilano / West Point Grey / Jericho)	31	0.8%
	V6Z	Vancouver (SW Downtown)	28	0.7%
	V6A	Vancouver (Strathcona / Downtown Eastside)	26	0.7%
	V6N	Vancouver (West Kerrisdale / Musqueam)	24	0.6%
	V6S	Vancouver (NW Dunbar Southlands / Chaldecutt)	19	0.5%
	V6T	Vancouver (UBC)	14	0.4%
	V6L	Vancouver (NW Arbutus Ridge / NE Dunbar Southlands)	10	0.3%
	V6C	Vancouver (Waterfront / Coal Harbour / Canada Place)	2	0.1%
V7X	Vancouver (Bentall Centre)	1	0.0%	
Surrey	V3W	Surrey Upper West	138	3.7%
	V3V	Surrey Outer Northwest	109	2.9%
	V3S	Surrey East	75	2.0%
	V3T	Surrey Inner Northwest	56	1.5%
	V3R	Surrey North	53	1.4%
	V4N	Surrey Northeast	35	0.9%
	V3X	Surrey Lower West	31	0.8%
	V4A	Surrey Southwest	15	0.4%
	V3Z	Surrey Lower East	15	0.4%
	V4P	Surrey South	7	0.2%
Richmond	V7E	Richmond Southwest	88	2.3%
	V6X	Richmond North	81	2.2%
	V6Y	Richmond Central	80	2.1%
	V7C	Richmond Northwest	69	1.8%
	V7A	Richmond South	50	1.3%
	V6V	Richmond Northeast	30	0.8%
	V6W	Richmond Southeast	7	0.2%
	V7B	Richmond (Sea Island / YVR)	1	0.0%
Burnaby	V5H	Burnaby (Maywood / Windsor)	67	1.8%
	V3N	Burnaby (East Big Bend / Edmonds)	61	1.6%
	V5C	Burnaby (Burnaby Heights / Willingdon Heights)	50	1.3%
	V5J	Burnaby (Suncrest / West Big Bend)	45	1.2%

City	FSA	Area	# of resp.	%
Burnaby (cont.)	V5E	Burnaby (Kingsway Beresford)	34	0.9%
	V5G	Burnaby (Cascade Schou / Douglas Gilpin)	27	0.7%
	V5B	Burnaby (Parkcrest Aubrey / Ardingley Sprott)	21	0.6%
	V5A	Burnaby (Lake City / Burnaby Mountain)	18	0.5%
Delta	V4C	Delta Northeast	75	2.0%
	V4K	Delta Northwest	32	0.9%
	V4M	Delta Southwest	16	0.4%
	V4E	Delta East	15	0.4%
	V4L	Delta Southeast	10	0.3%
Coquitlam/PoCo/Pt.Moody	V3K	Coquitlam South	21	0.6%
	V3H	Port Moody	21	0.6%
	V3B	Port Coquitlam Central	21	0.6%
	V3J	Coquitlam North	19	0.5%
	V3E	Coquitlam North	18	0.5%
	V3C	Port Coquitlam South	15	0.4%
North Vancouver	V7L	North Vancouver South Central	31	0.8%
	V7M	North Vancouver Southwest Central	20	0.5%
	V7N	North Vancouver Northwest Central	12	0.3%
	V7P	North Vancouver Southwest	12	0.3%
	V7K	North Vancouver North Central	11	0.3%
	V7J	North Vancouver East Central	9	0.2%
	V7R	North Vancouver Northwest	6	0.2%
	V7H	North Vancouver Inner East	5	0.1%
New Westminister	V3M	New Westminister Southwest	63	1.7%
	V3L	New Westminister Northeast	27	0.7%
Mission/Abbotsford	V2T	Abbotsford Southwest	14	0.4%
	V2V	Mission East	10	0.3%
	V2S	Abbotsford Southeast	4	0.1%
	V3G	Abbotsford East	3	0.1%
	V4X	Abbotsford West	2	0.1%
	V4S	Mission West	1	0.0%
Langley/Aldergrove	V2Y	Langley Township Northwest	23	0.6%
	V3A	Langley City	8	0.2%
	V4W	Langley Township East	5	0.1%
	V1M	Langley Township North	2	0.1%
Maple Ridge/Pitt Meadows	V2X	Maple Ridge West	11	0.3%
	V4R	Maple Ridge Northwest	4	0.1%
	V3Y	Pitt Meadows	4	0.1%
	V2W	Maple Ridge East	3	0.1%
West Vancouver	V7V	West Vancouver South	10	0.3%
	V7W	West Vancouver West	6	0.2%
	V7T	West Vancouver Southeast	4	0.1%

City	FSA	Area	# of resp.	%
White Rock	V4B	White Rock	6	0.2%
Other B.C.			20	0.5%
Unknown			44	1.2%
<b>Total</b>			<b>3,759</b>	<b>100%</b>

The Main Campus of Langara College is located at 100 West 49<sup>th</sup> Avenue, and 98% of respondents said they primarily traveled to this location (See Table 5). The other location is the Broadway Campus at 601 West Broadway. In this survey report, the analysis of transportation-related questions focuses mostly on the 3,685 respondents that commute to the Main Campus.

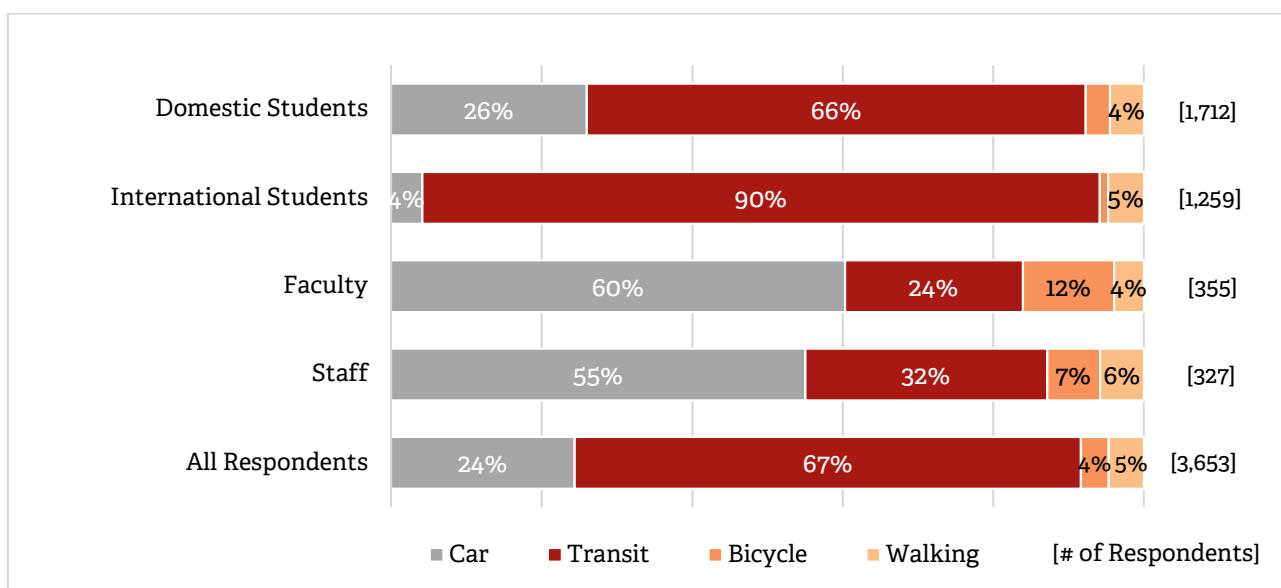
Table 5: Number of Respondents by Campus

Campus	Number of Respondents	Percent
Main Campus (100 West 49th Avenue)	3,685	98%
Broadway Campus (601 West Broadway)	74	2%
<b>Total</b>	<b>3,759</b>	<b>100%</b>

### Primary Mode of Transportation to Langara

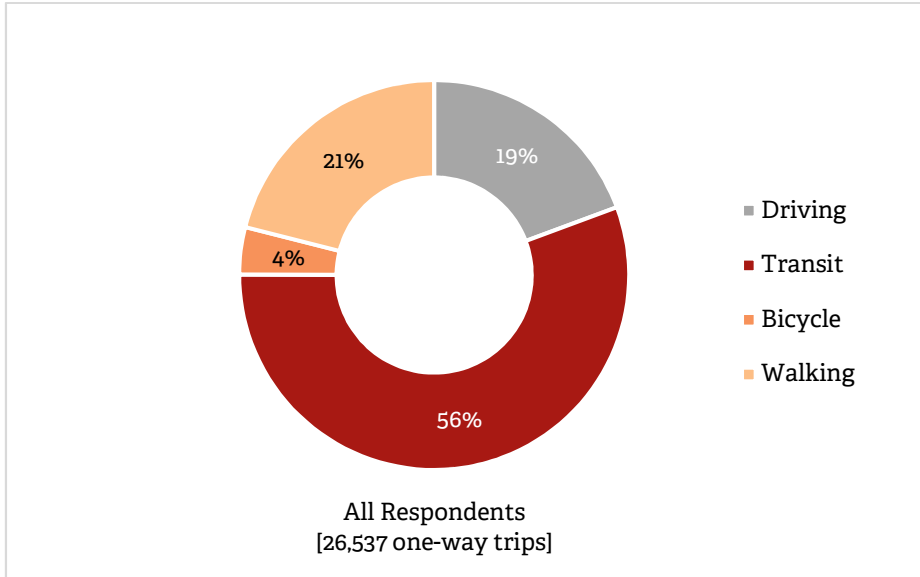
The 2021 survey introduced a new question regarding the primary mode of transportation to Langara. Among all respondents, 24% selected “car” and 67% selected “transit” as their primary mode of transportation. The majority of students (66% of domestic students and 90% of international students) said they mainly used transit to travel to Langara, but the majority of employees (60% of faculty and 55% of staff) used a car as their primary mode of transportation. The percentage of respondents that said that cycling was their primary mode of transportation to Langara was 4% among all respondents, and 12% among the faculty members (See Figure 4).

Figure 4: Primary Mode of Transportation to Langara



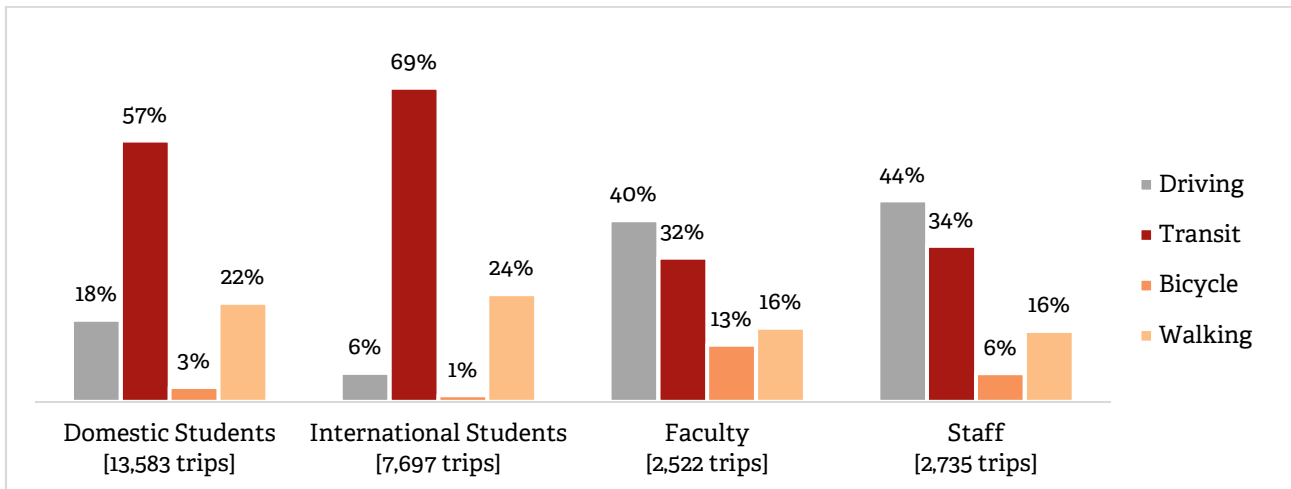
Also, the 2021 survey asked respondents to indicate the number of one-way trips to or from Langara during a normal week for each mode of transportation. All of the respondents together reported making 26,537 one-way trips in a normal week, and 56% of them were by transit (See Figure 5). Cycling accounted for 4% of all one-way trips to or from Langara with 286 respondents making 1,038 cycling trips in a normal week.

**Figure 5: Percentage of One-Way Trips to or from Langara by Travel Mode**



Domestic students reported 13,583 one-way trips to and from Langara during a normal week, and 57% of them were by transit. International students reported 7,697 one-way trips and 69% of them were by transit. On the other hand, transit accounted for only 32%-34% of all one-way trips made by faculty and staff, and over 40% of their trips to and from Langara were driving trips (See Figure 6).

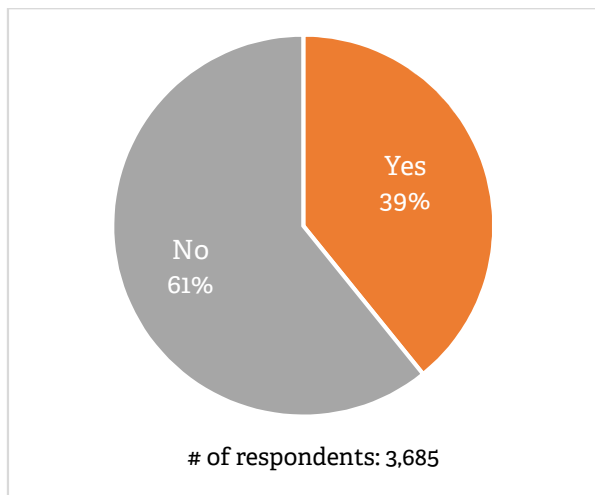
**Figure 6: Percentage of One-Way Trips to or from Langara by Travel Mode & Primary Role**



**Driving to Langara**

Of the 3,685 respondents who responded to the survey question, 39% said they have driven to Langara, including driving alone, carpool/vanpool/dropped off, car share, and motorcycle/moped (See Figure 7). The proportion increased from 34% in the 2019 survey.

**Figure 7: Percentage of Respondents that Drive to Langara**



Among the four respondent groups, 47% of domestic students, 10% of international students, 76% of faculty, and 70% of staff said they drove to Langara (See Figure 8). For the faculty group, the proportion that drove to Langara increased significantly from 66% in the 2019 survey to 76% in the 2021 survey.

**Figure 8: Percentage of Respondents that Drive to Langara by Primary Role**

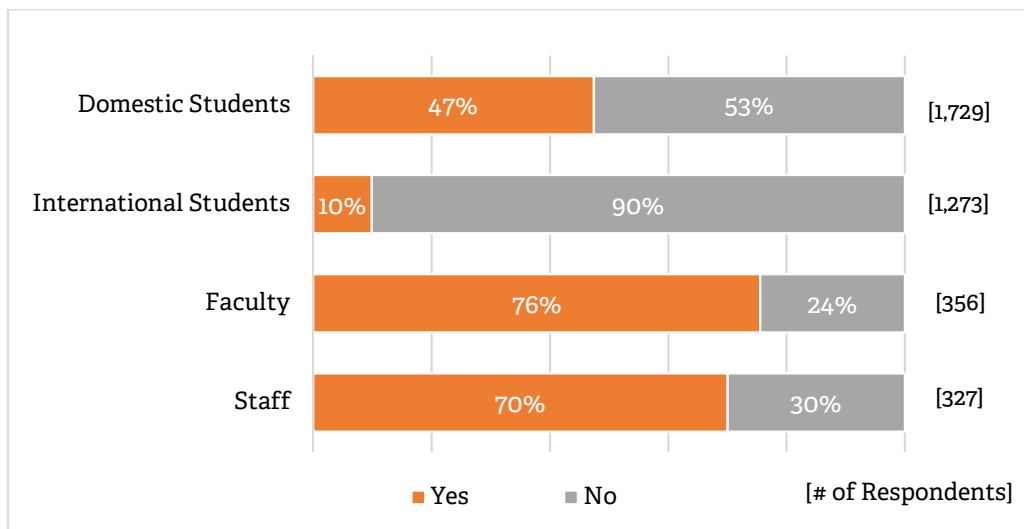
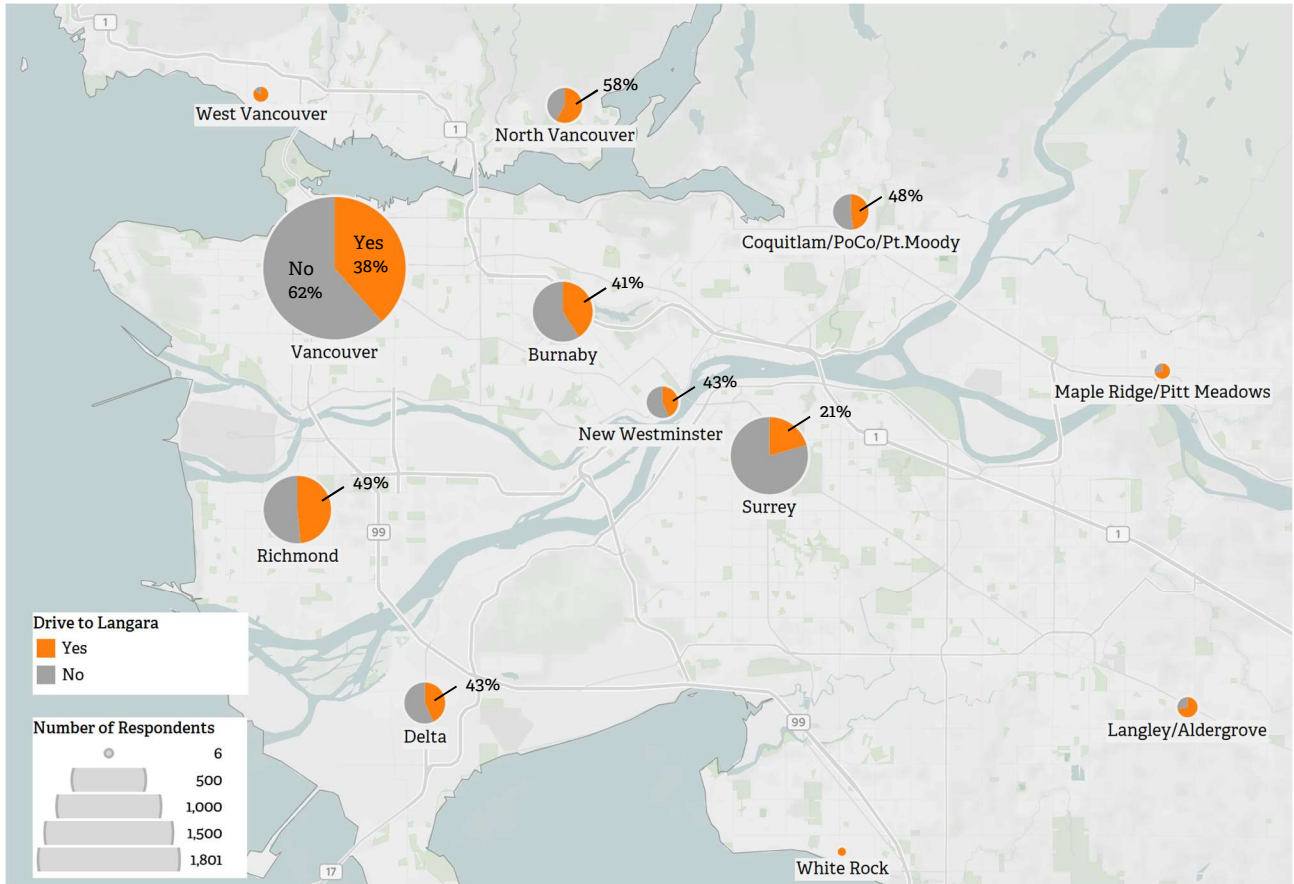


Table 6 and Figure 9 show the percentage of respondents that drive to Langara by their city of residence. 38% of respondents living in Vancouver, 49% of respondents living in Richmond, and 41% of respondents living in Burnaby said they drove to Langara.

Table 6: Respondents that Drive to Langara by City of Residence

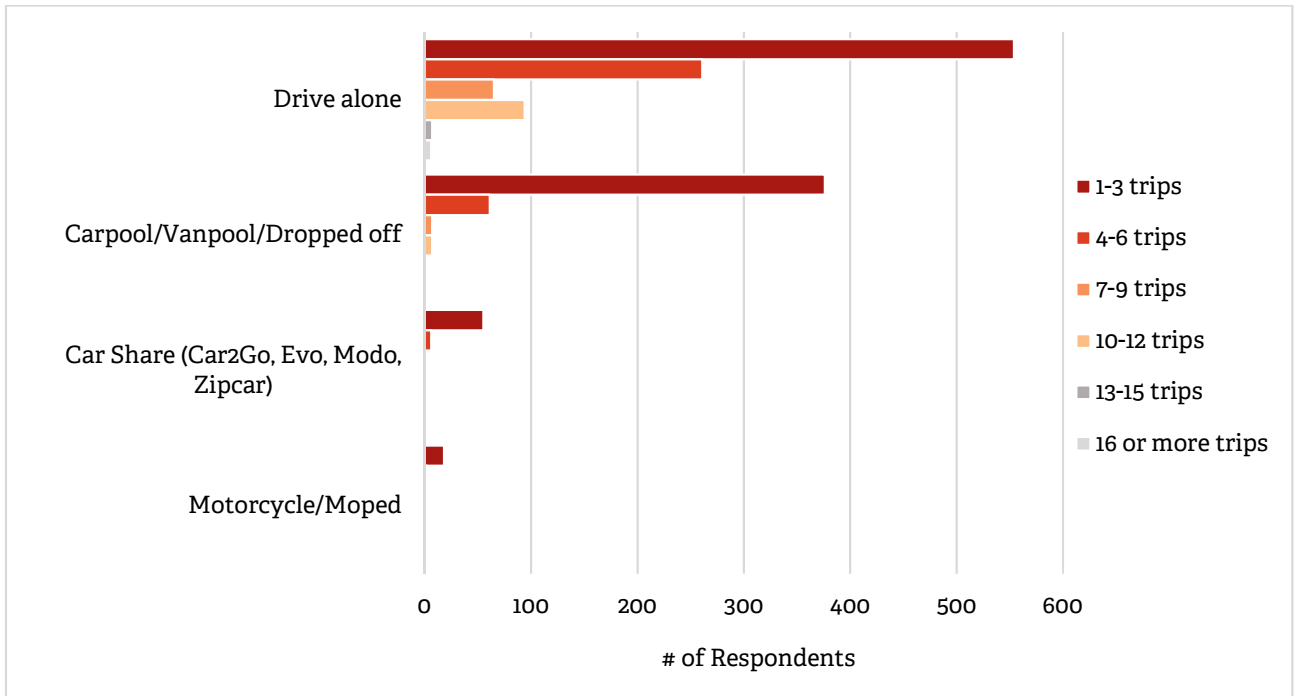
	Drive	Do not Drive	% Drive	% Do not Drive	Total
Vancouver	692	1,109	38%	62%	1,801
Surrey	109	420	21%	79%	529
Burnaby	130	188	41%	59%	318
Richmond	196	208	49%	51%	404
Delta	64	84	43%	57%	148
Coquitlam/PoCo/Pt.Moody	53	58	48%	52%	111
North Vancouver	63	45	58%	42%	108
New Westminister	38	50	43%	57%	88
Langley/Aldergrove	26	10	72%	28%	36
Mission/Abbotsford	9	24	27%	73%	33
Maple Ridge/Pitt Meadows	15	6	71%	29%	21
West Vancouver	17	3	85%	15%	20
White Rock	6		100%	0%	6
Other B.C.	12	8	60%	40%	20
Unknown	14	28	33%	67%	42
<b>Total</b>	<b>1,444</b>	<b>2,241</b>	<b>39%</b>	<b>61%</b>	<b>3,685</b>

**Figure 9: Percentage of Respondents that Drive to Langara by City of Residence**



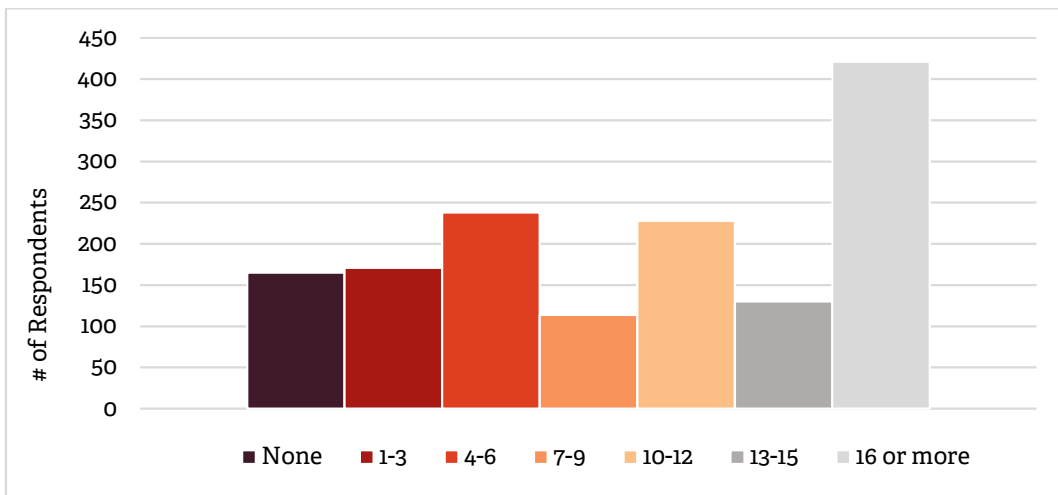
A total of 987 respondents said they drove alone to Langara as opposed to carpool/vanpool/dropped off (452 respondents), car share (61 respondents), and motorcycle/moped (21 respondents). Over half of those that drive alone to Langara make only 1-3 one-way trips to and from Langara in a normal week (See Figure 10).

Figure 10: Number of One-Way Driving Trips to or from Langara during a Normal Week by Mode



The COVID-19 pandemic has caused a shift from public to private transport mode. In the previous survey conducted in 2019, more than half of the respondents said they made less than 7 driving trips to all destinations in a normal week. In contrast, in the 2021 survey, a majority of respondents said they made 10 or more driving trips in a normal week. Among the 1,467 people who responded to this question, 228 (16% of the respondents) selected 10-12 trips, 130 (9%) selected 13-15 trips, and 421 (29%) selected 16 or more trips (See Figure 11).

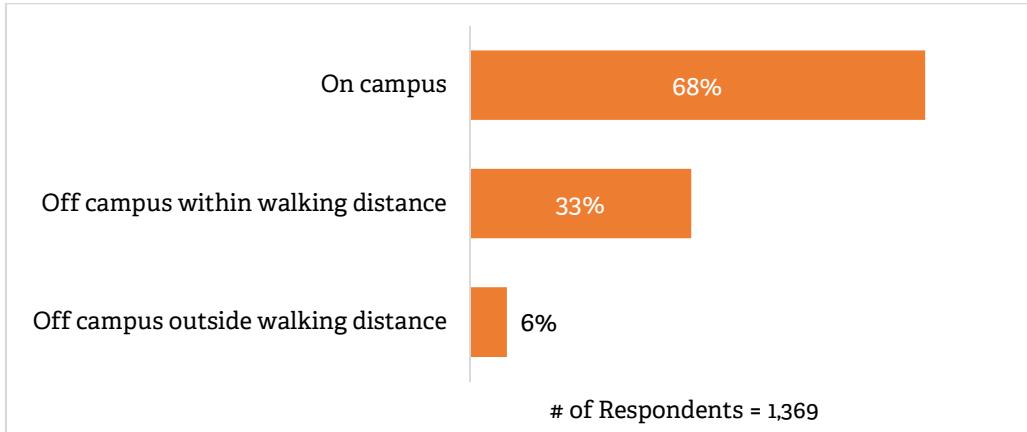
Figure 11: Number of One-Way Driving Trips to All Destinations during a Normal Week





Daily pay parking is available at the Main Campus in general surface lots as well as underground parkade beneath the library building, and 68% of respondents said they parked on campus after driving to Langara. On the other hand, 33% said they parked off campus within walking distance, and 6% said they parked off campus outside walking distance (See Figure 12).

**Figure 12: Parking Used after Driving to Langara**



The top reasons for driving alone to Langara are: time (67% of the respondents), convenience (65%), and need for car for errands/appointments (39%) (See Figure 13).

**Figure 13: Reasons for Driving Alone to Langara**

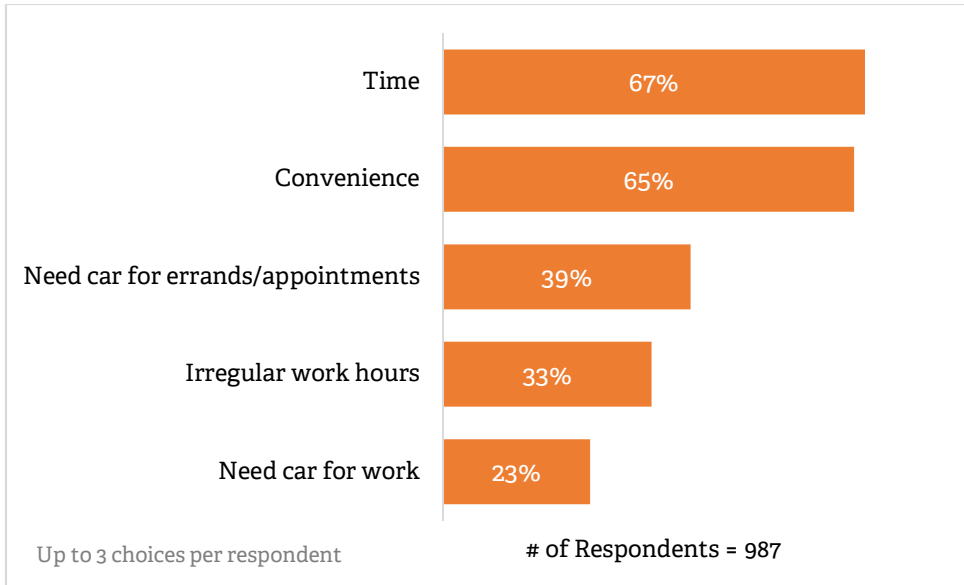
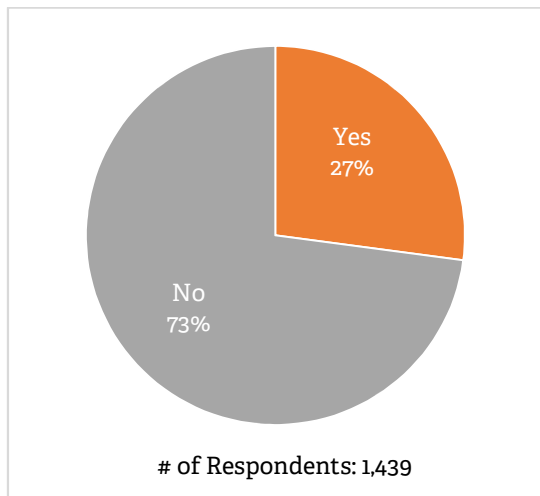


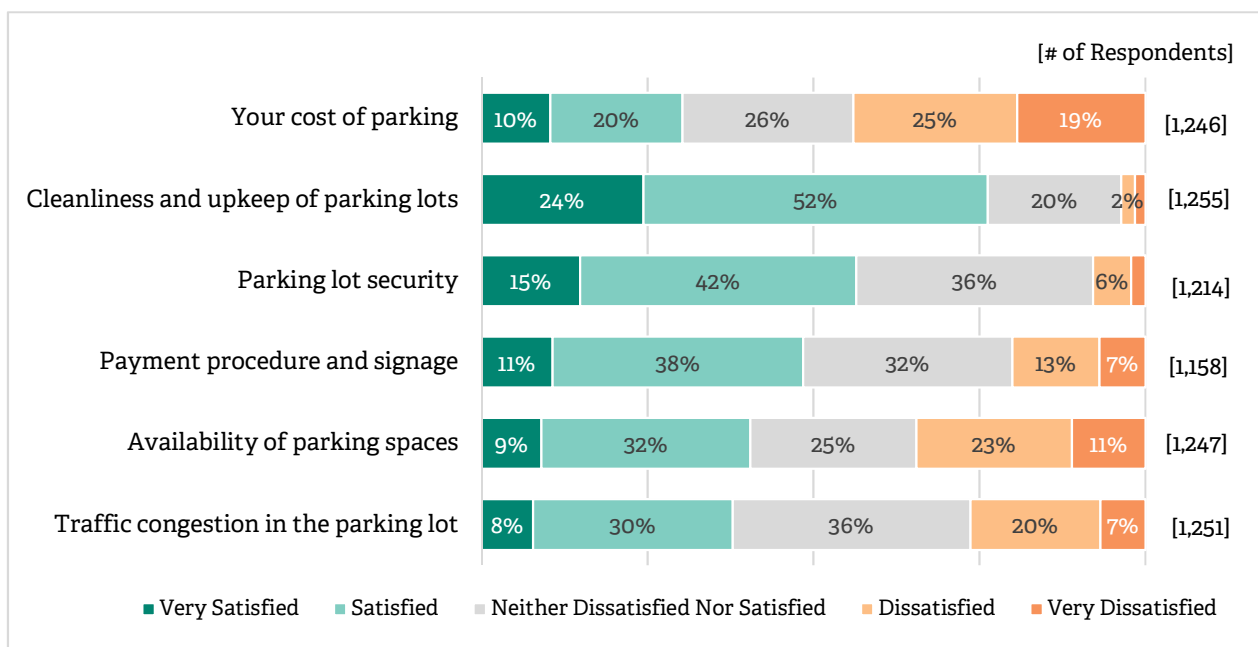
Figure 14 shows that 27% of the respondents said carpooling/vanpooling was a viable option for them. However, among these respondents, only 67% actually reported commuting to Langara by carpooling/vanpooling in a normal week.

Figure 14: Carpooling/Vanpooling Is a Viable Option to Commute to Langara



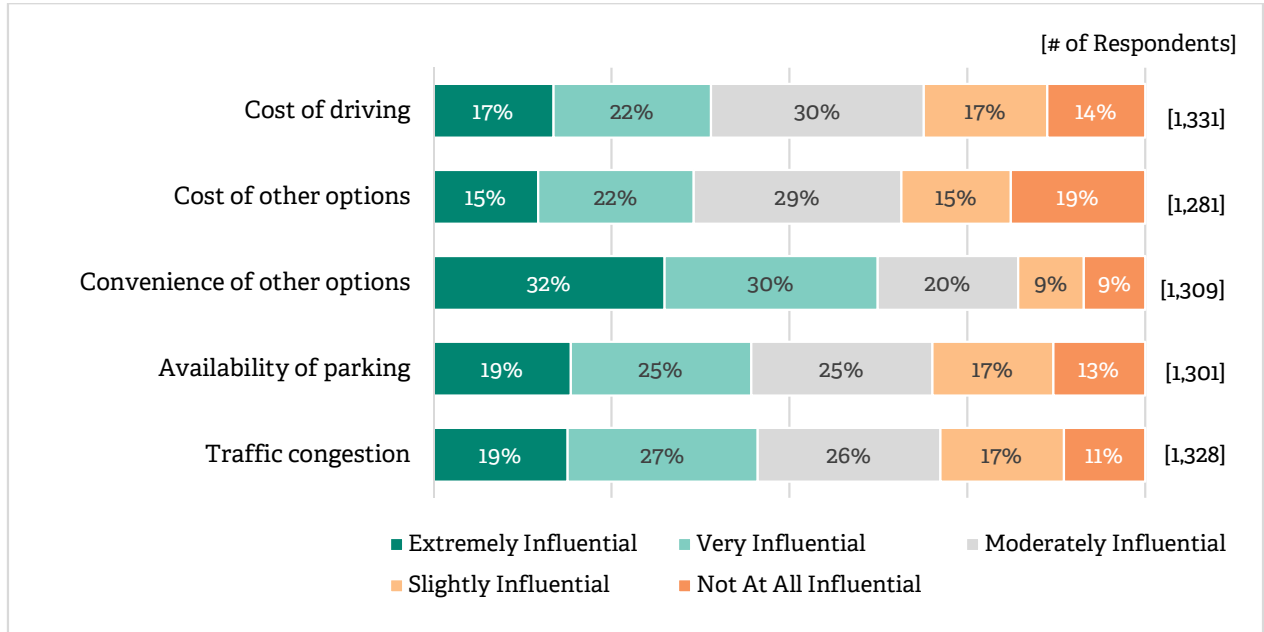
As many as 76% of the respondents are satisfied or very satisfied with the cleanliness and upkeep of the Langara parking lots. The level of satisfaction with parking lot security remained the same over the last two years with 56% of respondents selecting either satisfied or very satisfied. With regard to cost of parking at Langara, 30% are satisfied or very satisfied and 44% are dissatisfied or very dissatisfied (See Figure 15).

Figure 15: Satisfaction with Parking at Langara



The factor that has the most influence on the respondents’ decision to drive to Langara is “convenience of other options” with 62% of them reporting that this was extremely influential or very influential (See Figure 16). 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.

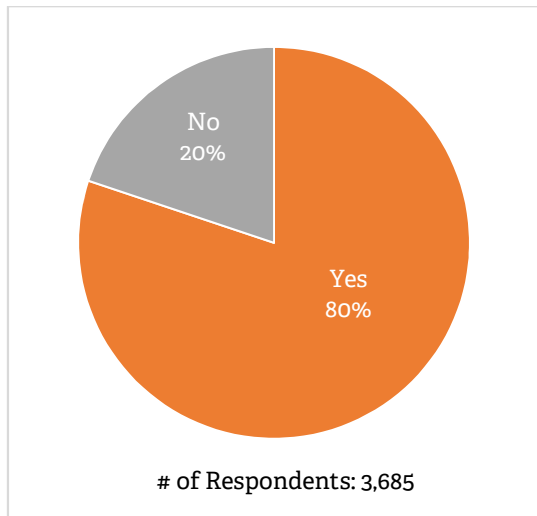
**Figure 16: Factors that Influence Driving Behaviour to Langara**



**Travelling Without a Car**

Figure 17 shows that 80% 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 17: Percentage of Respondents that Use Transit/Bike/Walk to Langara**



The most common reason for travelling to Langara without a car is not having one. In the 2021 survey, 58% of the respondents selected “I do not have a car” as their reason for travelling without a car, slightly up from 57% in the 2019 survey. The other reasons that motivate respondents to travel without a car are: “Saves money” (50%) and “More environmentally friendly” (38%) (See Figure 18).

**Figure 18: Reasons for Travelling without a Car to Langara**



Among those respondents who drive to Langara, 41% said better transit service/connections would encourage them to travel without a car in the 2021 survey (down from 50% in the 2019 survey). Also, 17% of the respondents (48% of faculty and staff) said that the addition of an “Employee U-Pass” would encourage them to travel without a car (See Figure 19 & Figure 20).

Figure 19: Programs/Incentives that would Encourage Carpool/Transit/Bike/Walk

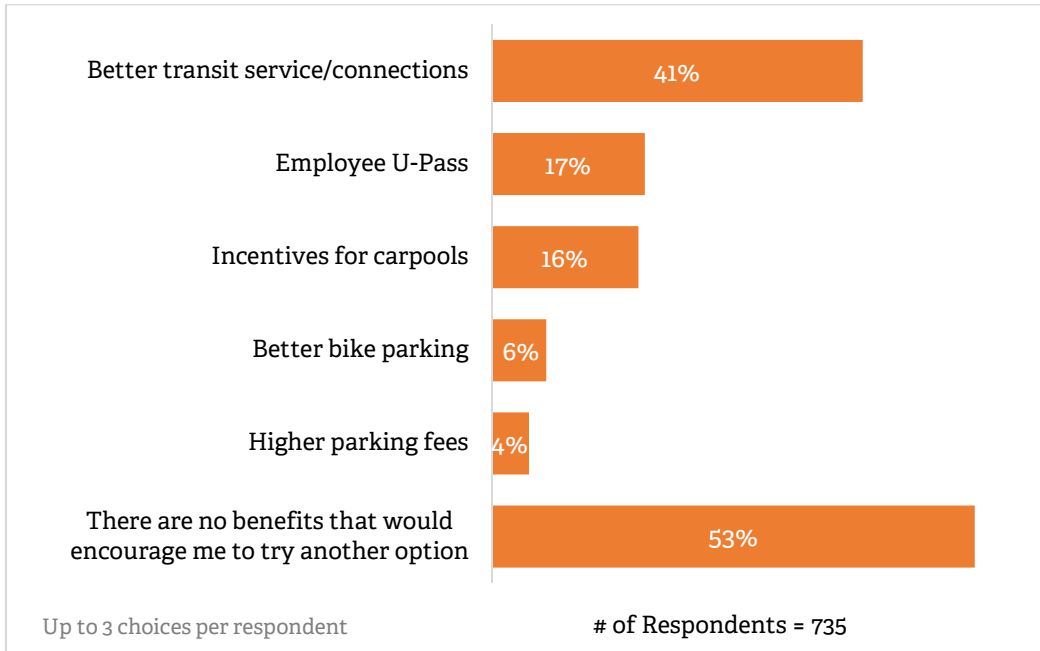
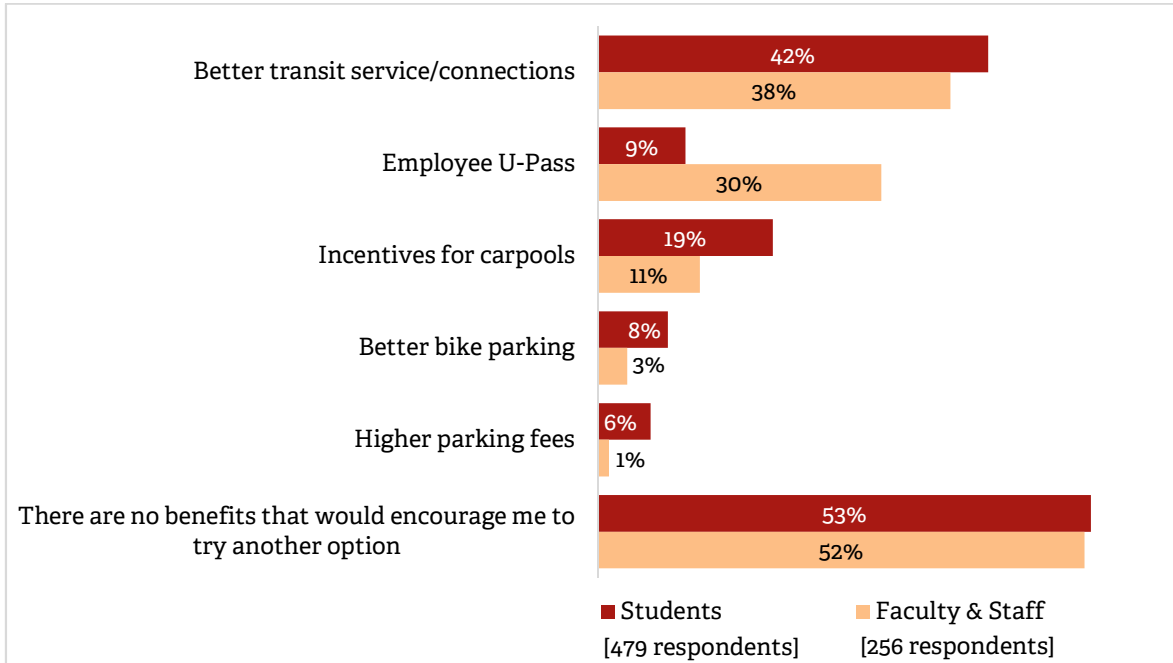


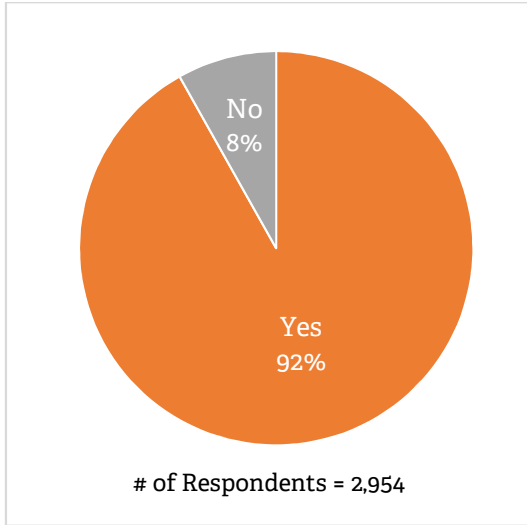
Figure 20: Programs/Incentives that would Encourage Carpool/Transit/Bike/Walk – Students vs. Faculty & Staff



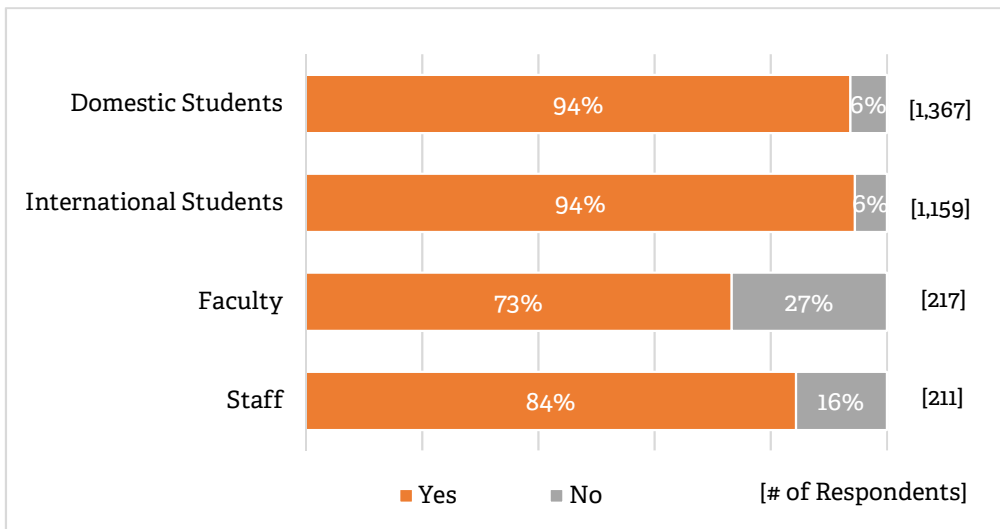
**Taking Transit to Langara**

Langara is easily accessible by transit, and 92% of the respondents have taken the bus and/or train to commute to our campus (Figure 21). The proportion of respondents that take transit is higher among domestic and international students (94%) than among faculty (73%) and staff (84%) (Figure 22).

**Figure 21: Percentage of Respondents that Transit (by Bus or Train) to Langara**



**Figure 22: Percentage of Respondents that Transit to Langara by Primary Role**

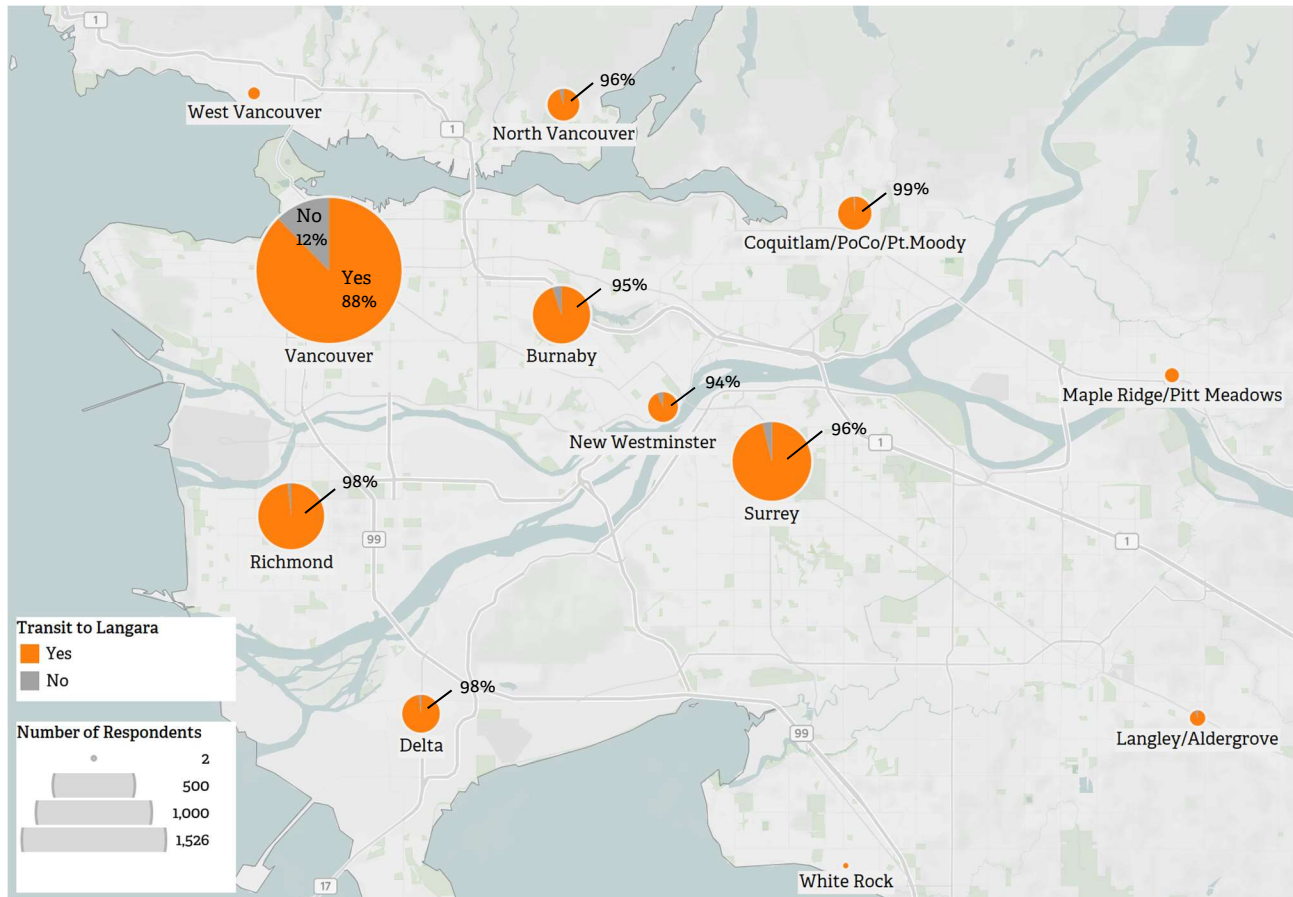


Among the respondents who live in Vancouver, 88% said they took transit to commute to Langara. Although Surrey is farther away, 96% of respondents who live in Surrey said they used transit to travel to Langara (See Table 7 and Figure 23).

Table 7: Respondents that Transit to Langara by City of Residence

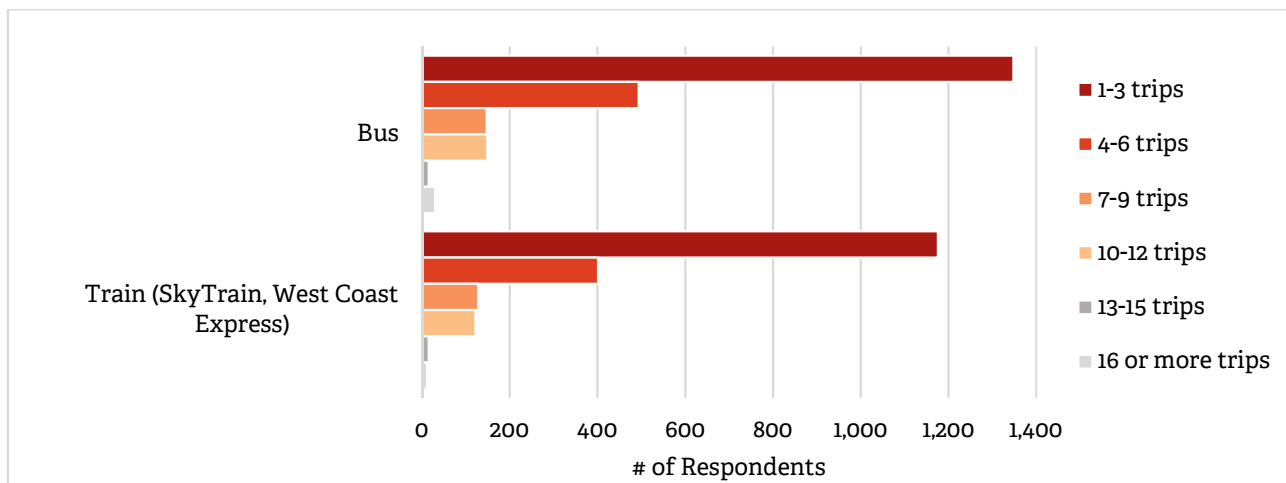
	Transit	Do not Transit	% Transit	% Do not Transit	Total
Vancouver	1,337	189	88%	12%	1,526
Surrey	432	17	96%	4%	449
Richmond	310	5	98%	2%	315
Burnaby	226	12	95%	5%	238
Delta	100	2	98%	2%	102
Coquitlam/PoCo/Pt.Moody	79	1	99%	1%	80
North Vancouver	70	3	96%	4%	73
New Westminister	60	4	94%	6%	64
Mission/Abbotsford	25	1	96%	4%	26
Langley/Aldergrove	16	1	94%	6%	17
Maple Ridge/Pitt Meadows	14	0	100%	0%	14
West Vancouver	10	0	100%	0%	10
White Rock	2	0	100%	0%	2
Other B.C.	7	0	100%	0%	7
Unknown	25	6	81%	19%	31
<b>Total</b>	<b>2,713</b>	<b>241</b>	<b>92%</b>	<b>8%</b>	<b>2,954</b>

Figure 23: Percentage of Respondents that Transit to Langara by City of Residence



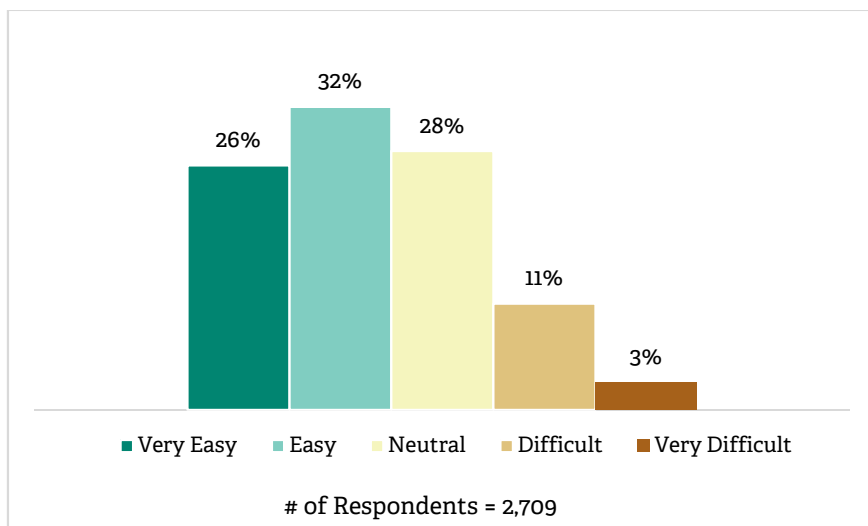
A total of 2,183 respondents reported taking a bus to commute to Langara in a normal week. A majority of these respondents (62%) make 1-3 one-way bus trips to or from Langara per week. On the other hand, 1,854 respondents said they took a train (SkyTrain/West Coast Express) to Langara, and 63% of them made 1-3 one-way train trips to or from Langara in normal week (See Figure 24).

**Figure 24: 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 (26%) or easy (32%) (See Figure 25).

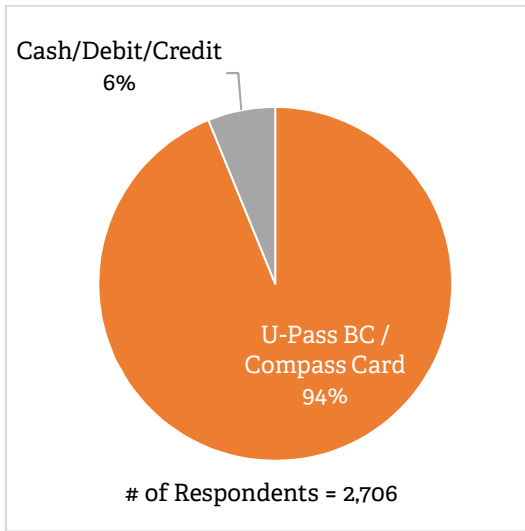
**Figure 25: How Easy Is Taking Transit to Langara**



Langara participates in the U-Pass BC Program which provides eligible students with unlimited all-zone access to TransLink bus, SkyTrain and SeaBus services and discounts on the West Coast Express. Among the survey respondents, 94% said they used either U-Pass BC or Compass Card to pay for transit (See Figure 26).

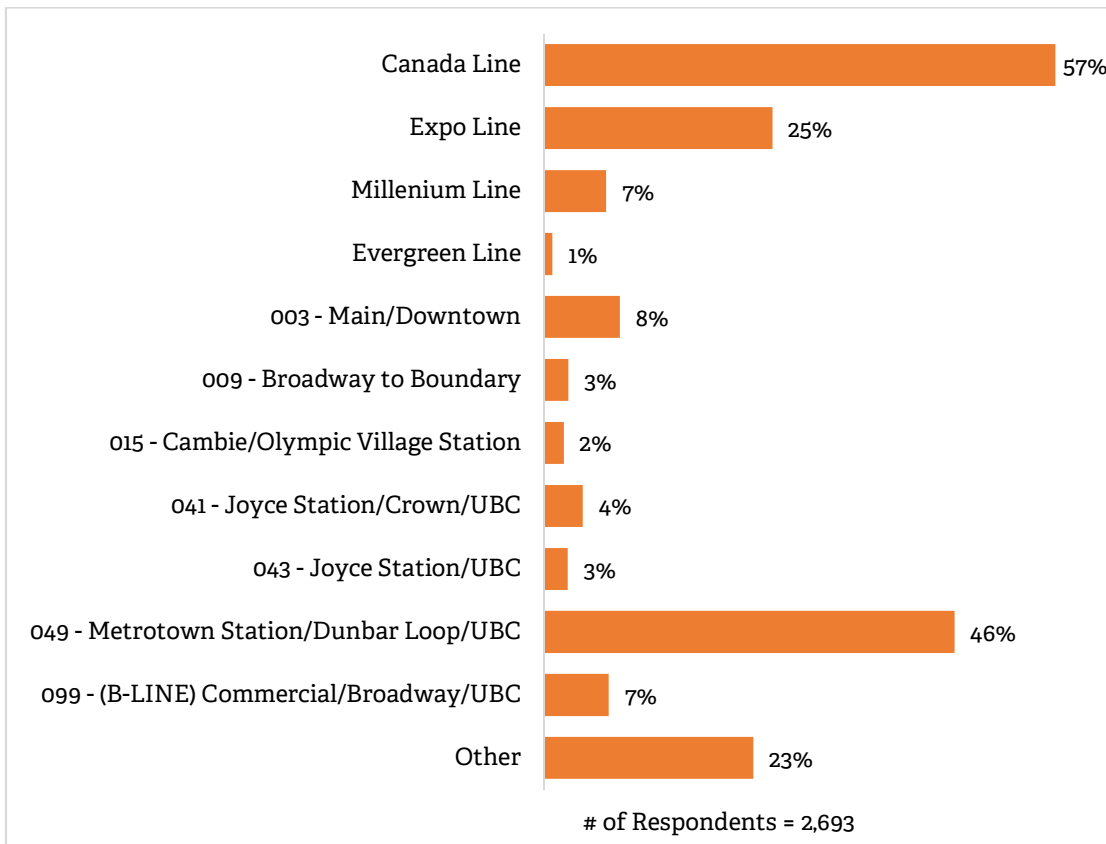


**Figure 26: Primary Payment Method for Transit**



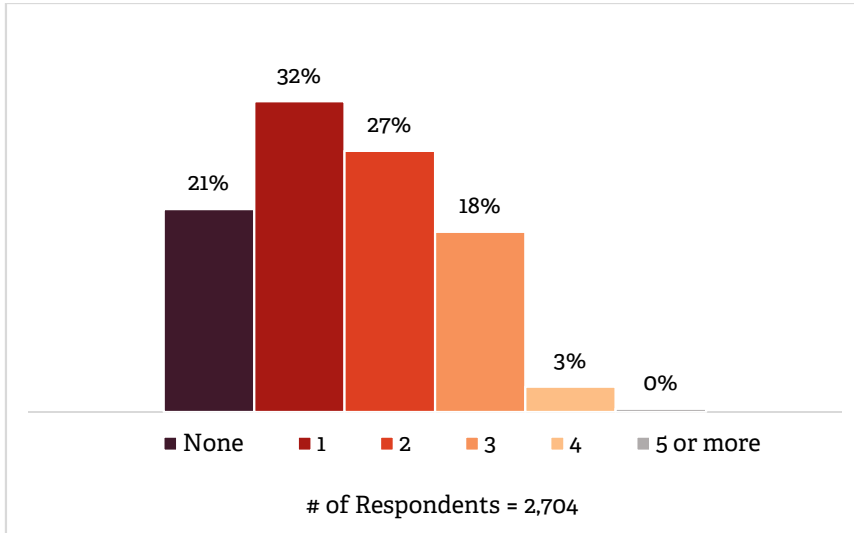
Langara is within walking distance of the Langara–49th Station of the Canada Line, and 57% of the respondents who transit to Langara use the Canada Line. Also, 46% use TransLink Bus #49 which runs on the 49th Avenue with two stops adjacent to the campus. In addition, 25% of the respondents take the Expo Line, and 8% take Bus #3 (See Figure 27).

**Figure 27: Transit Routes Used to Commute to Langara**



With regard to transfers, 21% of respondents who take transit to Langara do not need to transfer, and 32% need to transfer once (Figure 28).

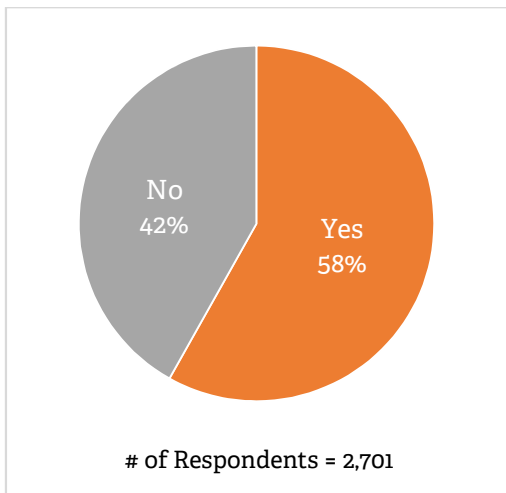
Figure 28: Number of Transfers Needed to Reach Langara



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

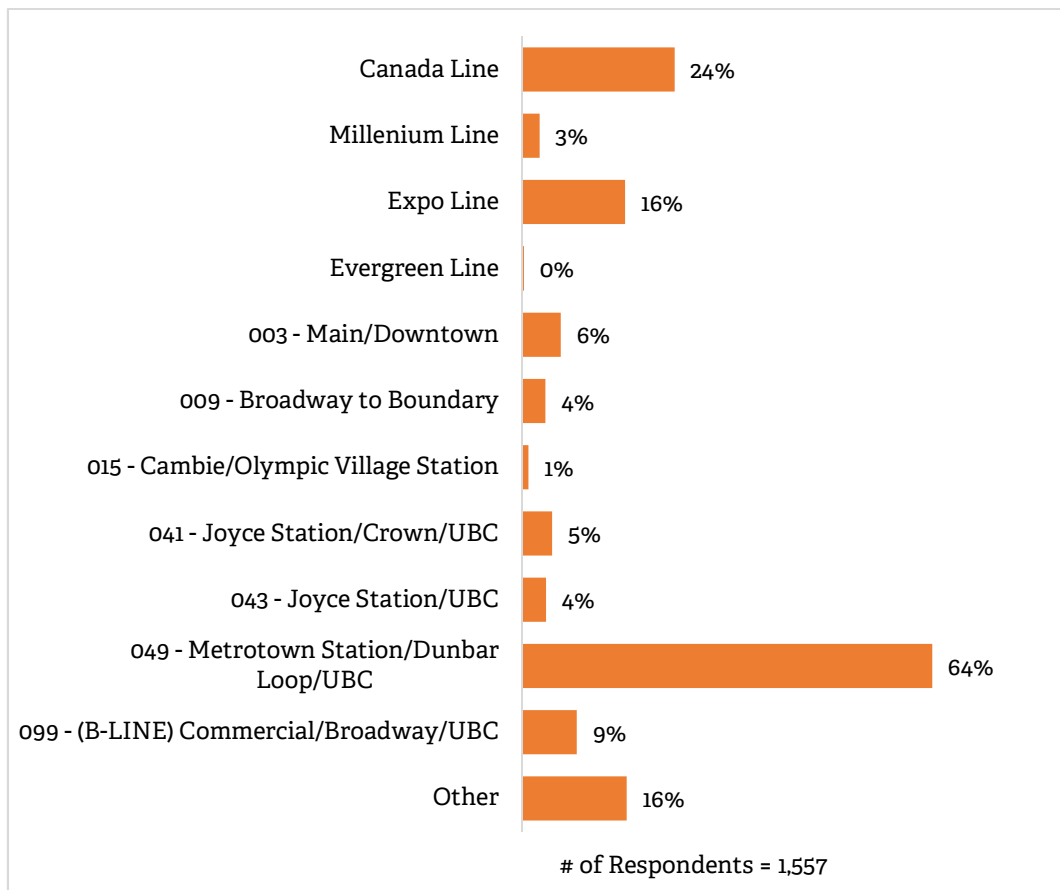
Overcrowding on public transportation has been a major issue, and many continue to report being “passed up” which refers to a situation where a bus or a train is full and does not accept passengers. However, the percentage of respondents that said they had been passed up by a bus or a train when travelling to Langara declined significantly from 81% in the 2019 survey to 58% in the 2021 survey (Figure 29).

Figure 29: Have Been Passed Up by Bus or Train while Commuting to Langara



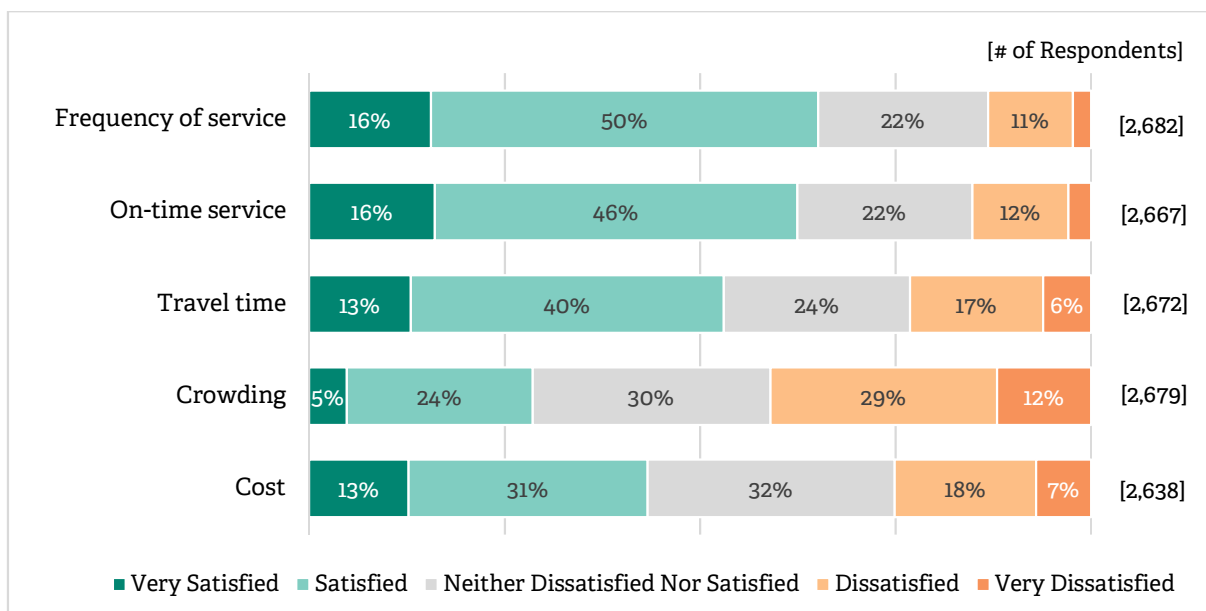
In total, 995 respondents, or 64% of the respondents who reported being passed up while commuting to Langara, were passed up by Bus #49 (See Figure 30). While this is still a concern, the number of respondents that provided negative comments about Bus #49 decreased significantly from 2019 to 2021. This may have been due to the decline in transit use and reduced crowding during the COVID-19 pandemic.

**Figure 30: Have Been Passed Up while Commuting to Langara by Route**



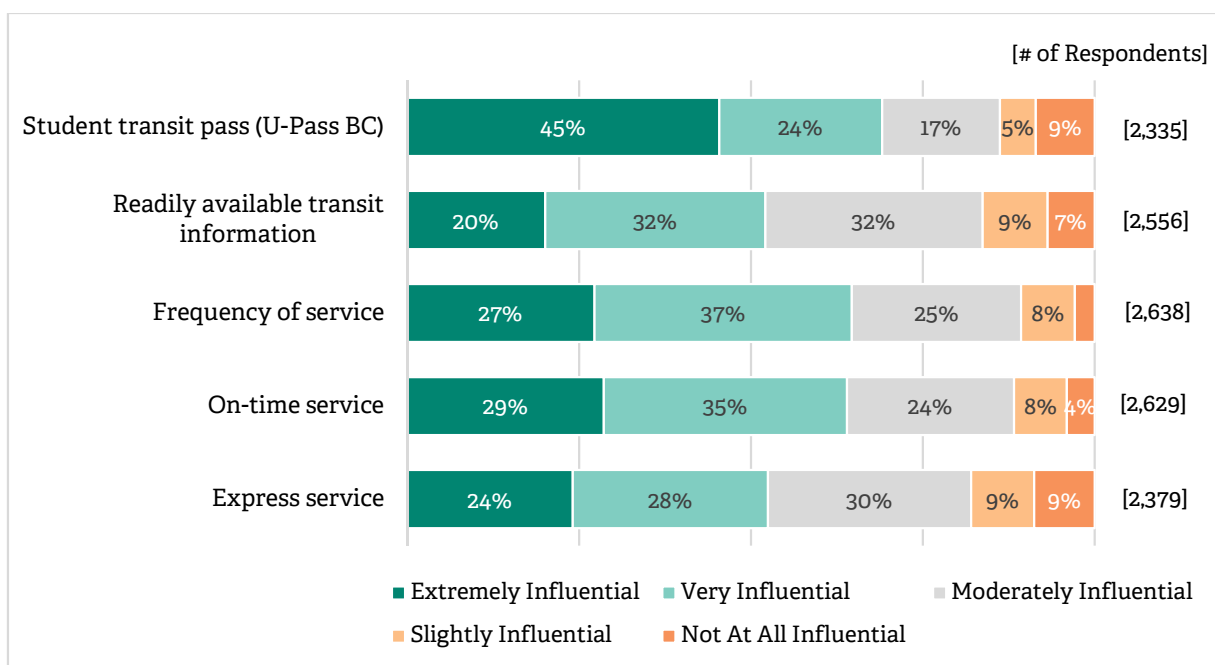
Overall, satisfaction among transit users improved in the last two years. The percentage of respondents that are either satisfied or very satisfied increased from 2019 to 2021 in all of the following areas: frequency of service (65% in 2021, up from 49% in 2019), on-time service (62% in 2021, up from 46% in 2019) and crowding (29% in 2021, up from 13% in 2019). Crowding continues to be a key area for improvement, but the percentage of respondents that are either dissatisfied or very dissatisfied with crowding decreased from 64% in 2019 to 41% in 2021 (See Figure 31).

Figure 31: Satisfaction with Transit Services



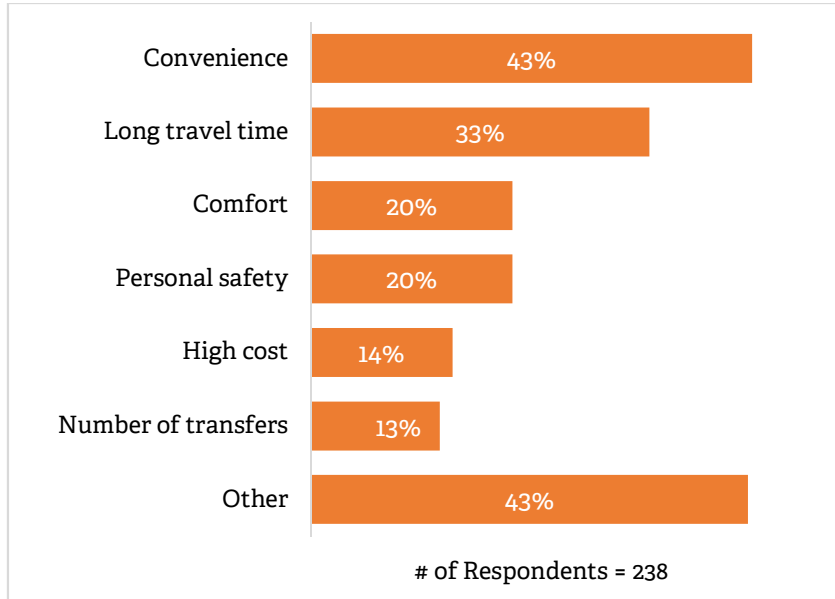
The service that has the most influence on the respondents’ transit use is the student transit pass (U-Pass BC) with 69% of them reporting that it was either extremely influential or very influential. Over 100 respondents provided comments related to the U-Pass BC program, and many of them said that the Continuing Studies students and online students should also be eligible for a U-Pass BC. Frequency of service and on-time service are also either very influential or extremely influential for over 60% of the respondents (Figure 32).

Figure 32: Factors that Influence Transit Use



Among the respondents who do not take transit to Langara, the most common reasons are: convenience (43% of the respondents) and long travel time (33%) (See Figure 33).

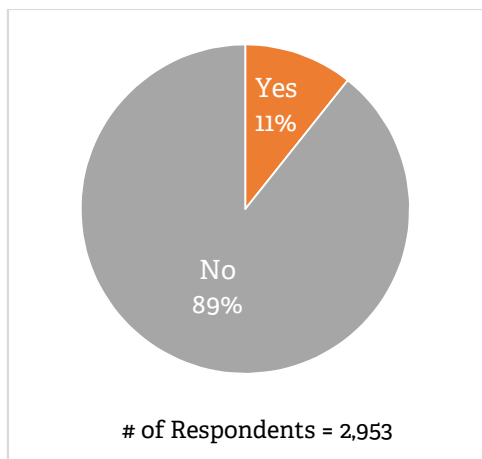
Figure 33: Reasons for Not Taking Transit to Langara



### Cycling to Langara

Cycling to the Main Campus of Langara College is convenient as there are bikeways nearby that are part of the extensive Vancouver cycling routes. It is a popular destination for bike commuters, and 11% of respondents have biked to Langara (Figure 34).

Figure 34: Percentage of Respondents that Bicycle to Langara

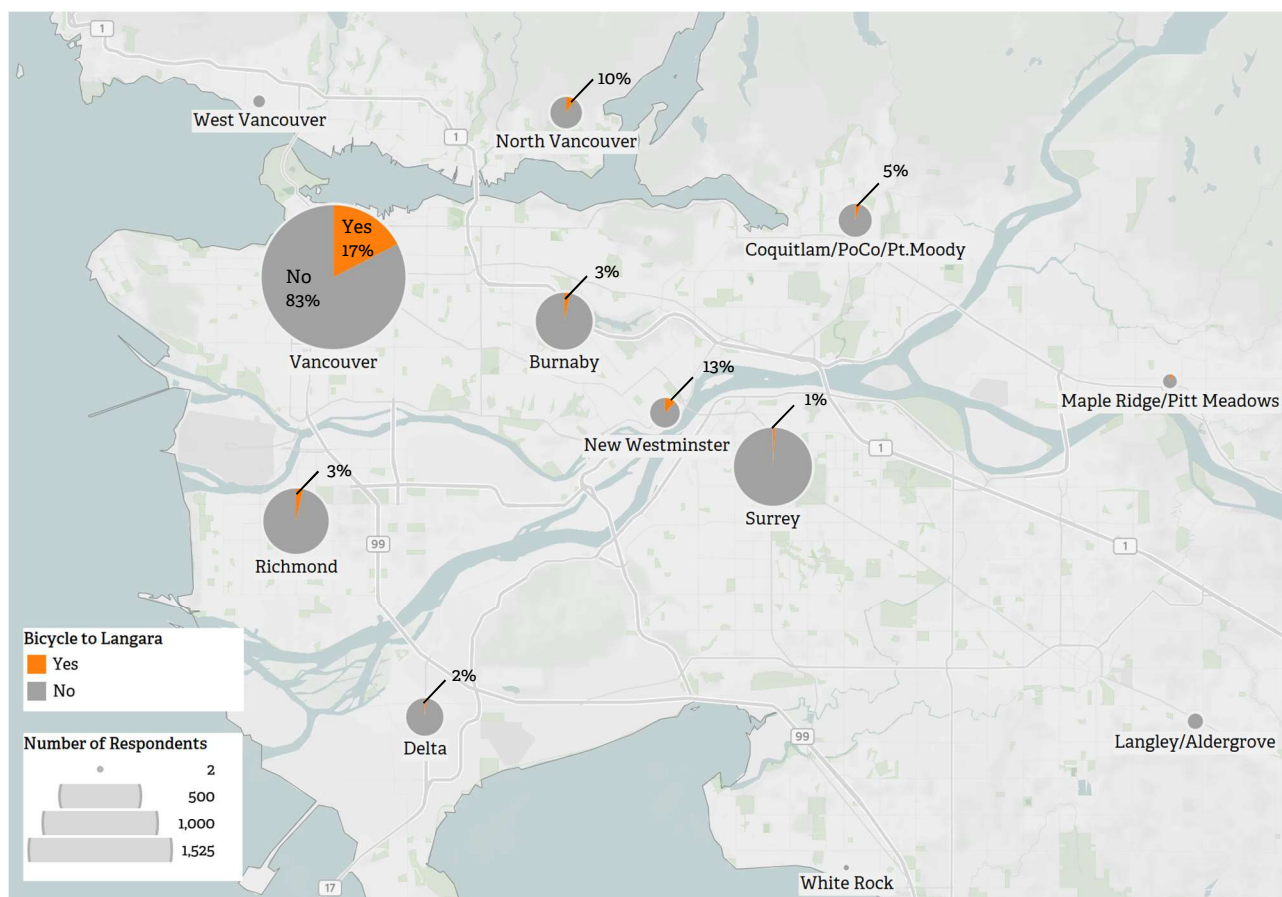


Among the respondents who live in Vancouver, 17% have biked to Langara. The percentage is lower for those who live in the other cities (See Table 8 and Figure 35).

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

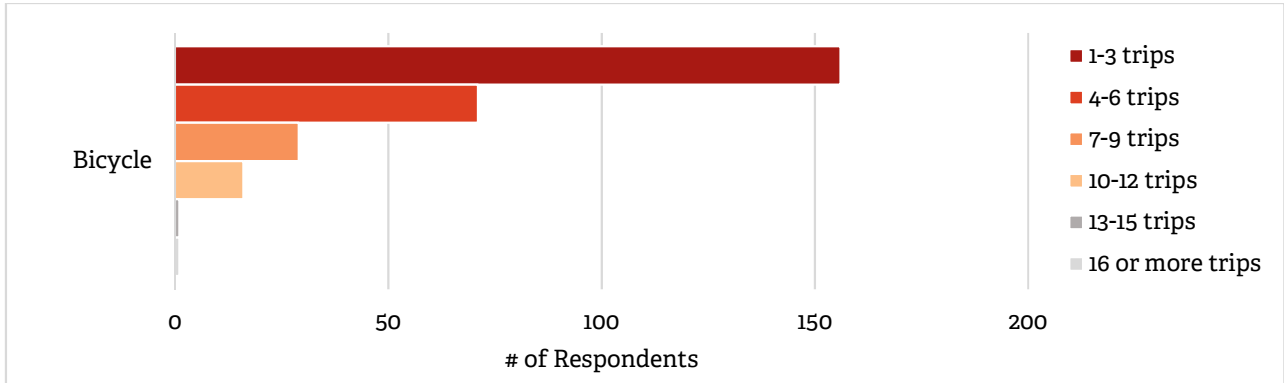
	Bicycle	Do not Bicycle	% Bicycle	% Do not Bicycle	Total
Vancouver	266	1,259	17%	83%	1,525
Surrey	4	445	1%	99%	449
Richmond	11	304	3%	97%	315
Burnaby	8	230	3%	97%	238
Delta	2	100	2%	98%	102
Coquitlam/PoCo/Pt.Moody	4	76	5%	95%	80
North Vancouver	7	66	10%	90%	73
New Westminster	8	56	13%	88%	64
Mission/Abbotsford	-	26	0%	100%	26
Langley/Aldergrove	-	17	0%	100%	17
Maple Ridge/Pitt Meadows	1	13	7%	93%	14
West Vancouver	-	10	0%	100%	10
White Rock	-	2	0%	100%	2
Other B.C.	-	7	0%	100%	7
Unknown	5	26	16%	84%	31
<b>Total</b>	<b>316</b>	<b>2,637</b>	<b>11%</b>	<b>89%</b>	<b>2,953</b>

**Figure 35: Percentage of Respondents that Bike to Langara by City of Residence**



Among the respondents who reported biking to Langara, 51% (156 respondents) said they made 1-3 one-way trips to or from Langara per week (Figure 36).

**Figure 36: 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 with 223 respondents (71% of those who bike to Langara) selecting it as their route. Another key route is the Cambie Street bike route which is used by 20% of the respondents. Other bike routes include 45th Avenue (8% of the respondents), Prince Edward Street (5%) and 37th Avenue (Midtown/Ridgeway) (5%) (See Figure 37).

**Figure 37: Bike Routes Used to Access Langara College**

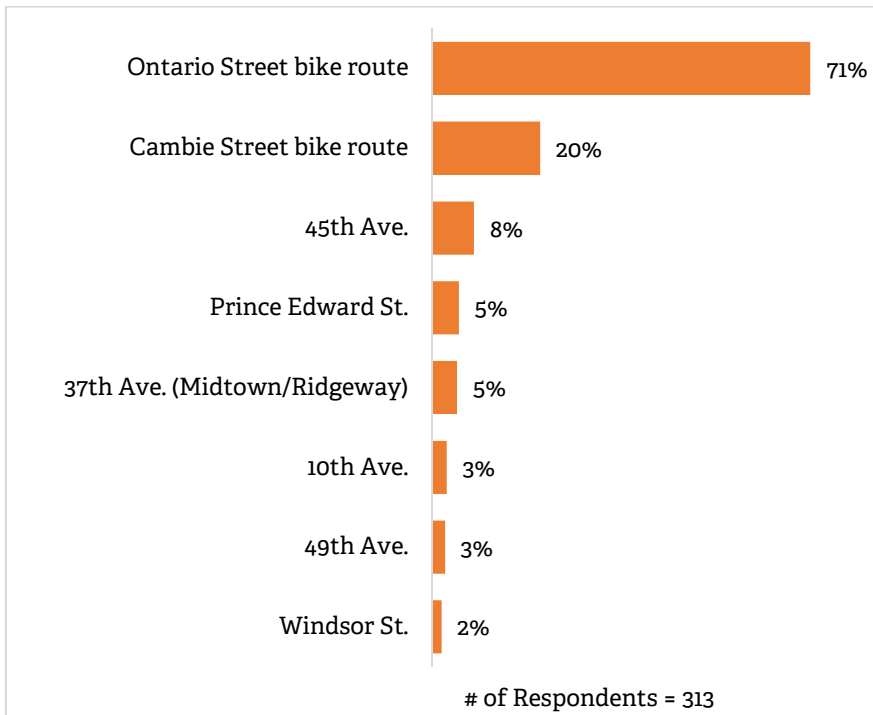
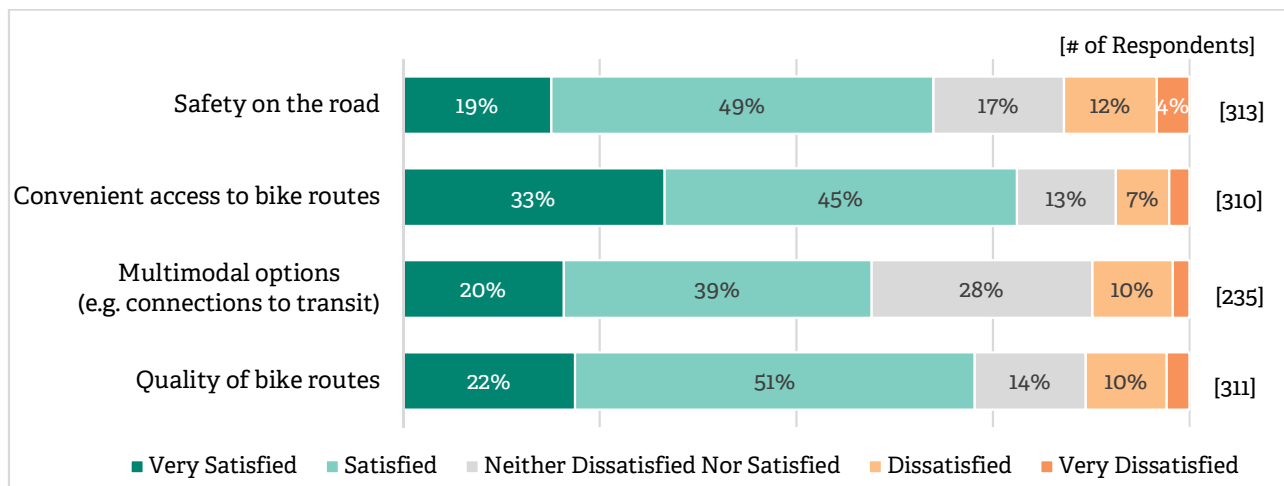


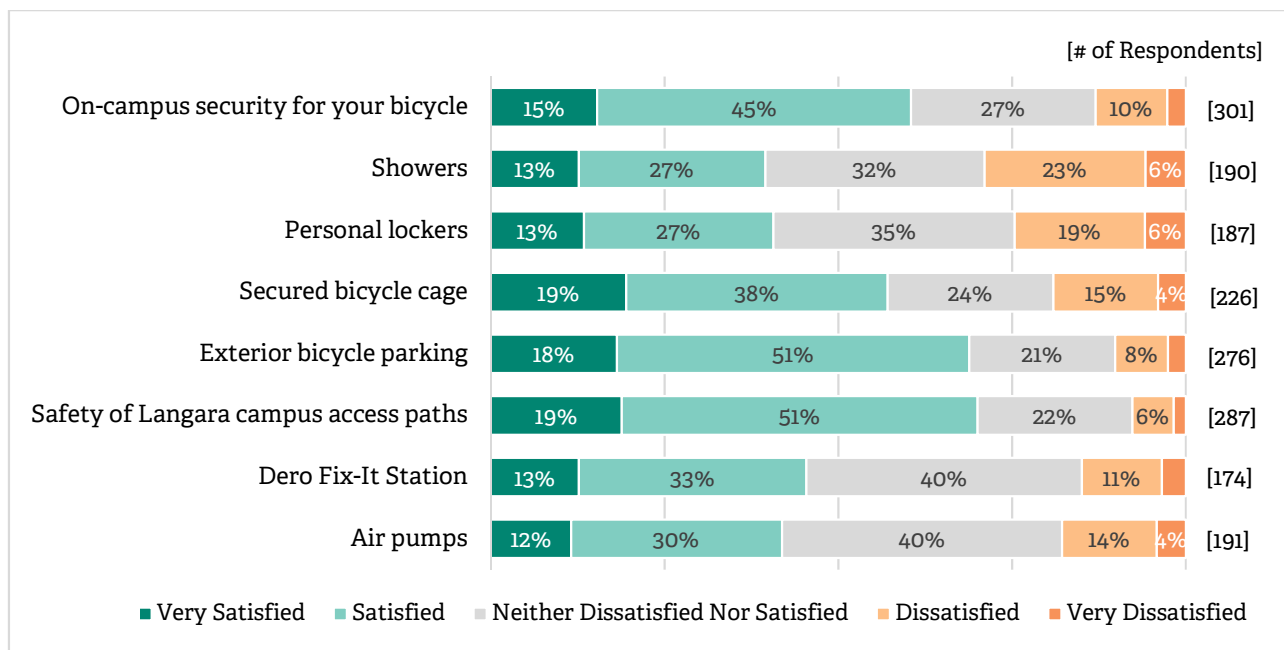
Figure 38 shows that most of the respondents are either very satisfied (33%) or satisfied (45%) with convenient access to bike routes. They also expressed a high level of satisfaction with the quality of bike routes.

Figure 38: Satisfaction with Bicycle Ride to Langara



The level of satisfaction with various Langara services for cyclists continues to improve. In the 2021 survey, 57% of respondents were either satisfied or very satisfied with secured bike cage (up from 44% in 2019, and 31% in 2017). The percentage of respondents that are satisfied or very satisfied with the safety of Langara campus access paths also increased from 64% in 2019 to 70% in 2021. Also, new questions were added this year to gauge cyclists' level of satisfaction with the Dero Fix-In Station and air pumps on campus. The results showed that over 40% of respondents were satisfied or very satisfied with them (See Figure 39).

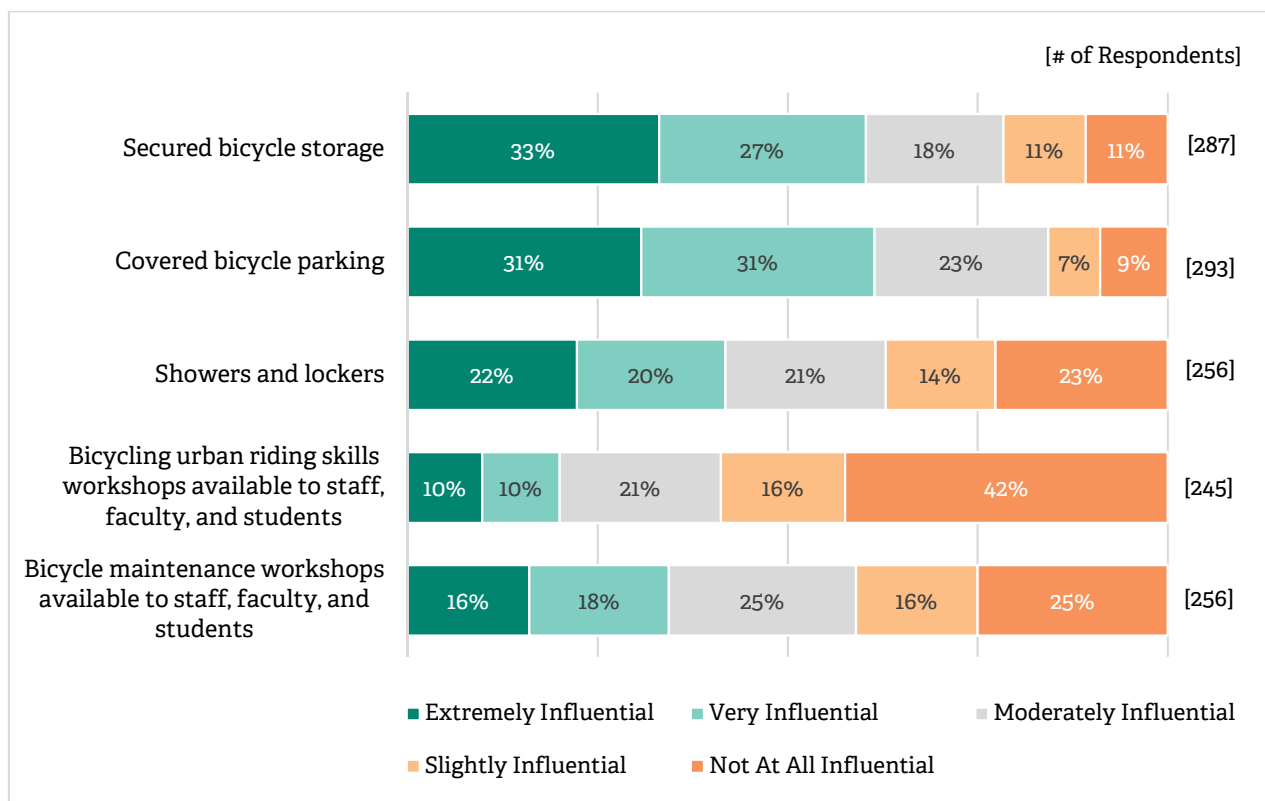
Figure 39: Satisfaction with Langara College Services for Cyclists





Over 90% of respondents said that covered bicycle parking had at least some influence on their decision to ride their bicycles with 31% selecting “extremely influential” and 31% selecting “very influential.” Bicycle-related workshops are not considered as influential as bicycle storage, showers and lockers on cyclists’ behaviour (See Figure 40).

**Figure 40: Factors that Influence Cycling Behaviour**



### Walking to and around Langara

In the 2021 survey, 19% of respondents said they walked to Langara while 45% said they walked part of the way (at least 2 blocks) (See Figure 41). Among those that walk part of the way, 98% also used transit. Note that commuters often walk 2-3 blocks between the Langara–49th Canada Line station and the Main Campus of Langara College.

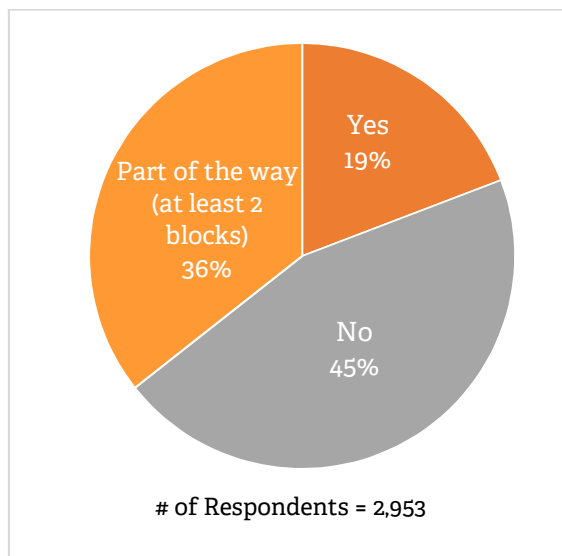
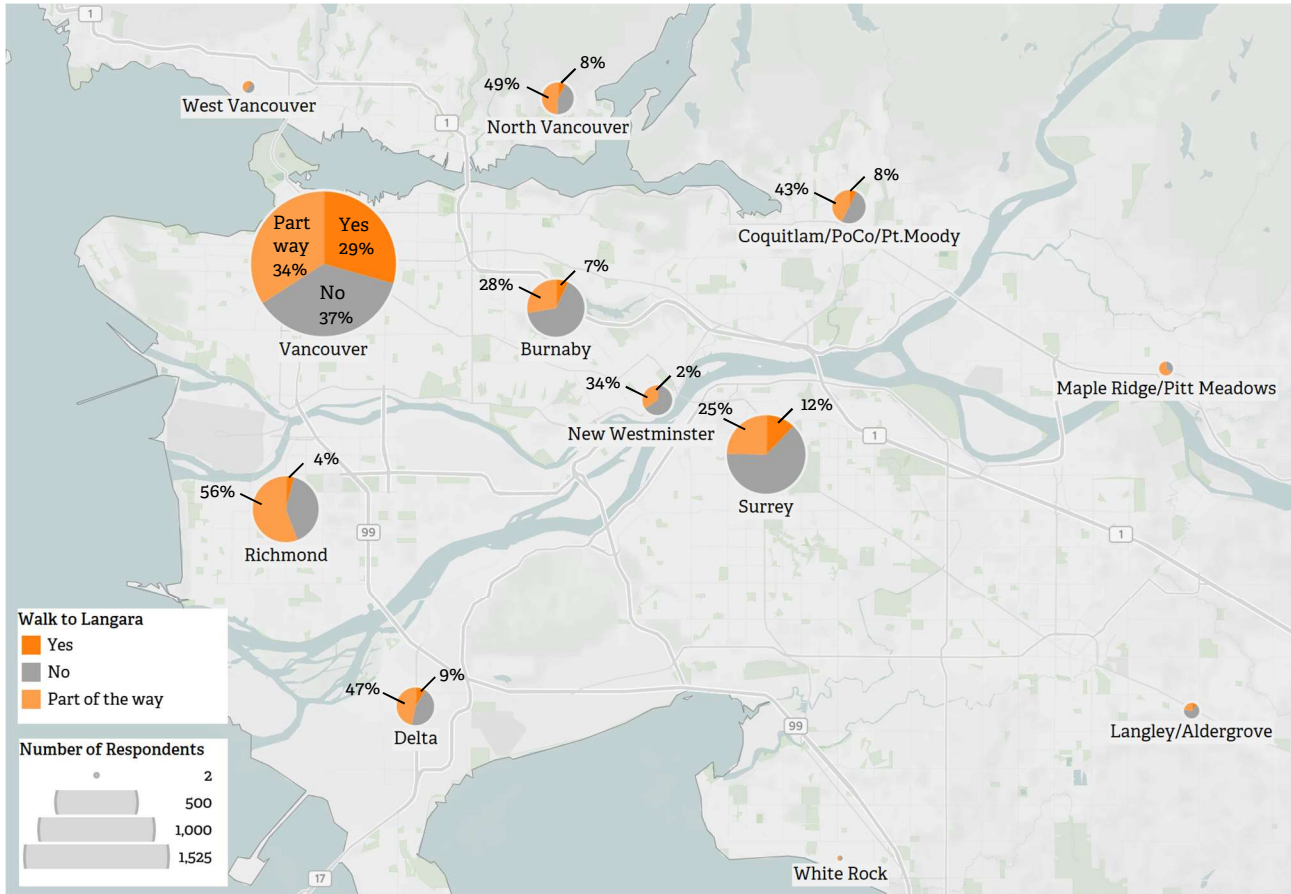
**Figure 41: Percentage of Respondents that Walk to Langara**


Table 9 and Figure 42 show that, among the respondents who live in Vancouver, 29% walk to Langara, 34% walk part of the way, and 37% 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 40% for Richmond, 65% for Burnaby, and 63% for Surrey.

**Table 9: Respondents that Walk to Langara by City of Residence**

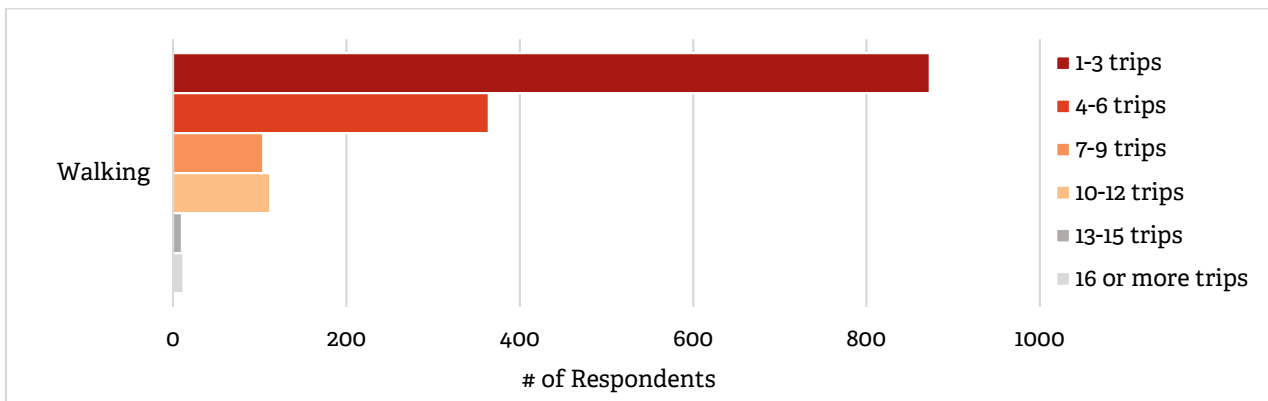
	Walk	Walk Part of the way	Do not Walk	% Walk	% Walk Part of the way	% Do not Walk	Total
Vancouver	448	520	557	29%	34%	37%	1,525
Surrey	55	111	283	12%	25%	63%	449
Richmond	13	176	126	4%	56%	40%	315
Burnaby	17	66	155	7%	28%	65%	238
Delta	9	48	45	9%	47%	44%	102
Coquitlam/PoCo/Pt.Moody	6	34	40	8%	43%	50%	80
North Vancouver	6	36	31	8%	49%	42%	73
New Westminster	1	22	41	2%	34%	64%	64
Mission/Abbotsford	3	5	18	12%	19%	69%	26
Langley/Aldergrove	2	4	11	12%	24%	65%	17
Maple Ridge/Pitt Meadows		9	5	0%	64%	36%	14
West Vancouver	1	4	5	10%	40%	50%	10
White Rock		1	1	0%	50%	50%	2
Other B.C.	1	3	3	14%	43%	43%	7
Unknown	5	13	13	16%	42%	42%	31
<b>Total</b>	<b>567</b>	<b>1,052</b>	<b>1,334</b>	<b>19%</b>	<b>36%</b>	<b>45%</b>	<b>2,953</b>

**Figure 42: Percentage of Respondents that Walk to Langara by City of Residence**



Among the respondents who reported walking at least part of the way to Langara, 54% (873 respondents) said they made 1-3 one-way walking trips, and 22% (364 respondents) said they made 4-6 one-way walking trips per week (See Figure 43).

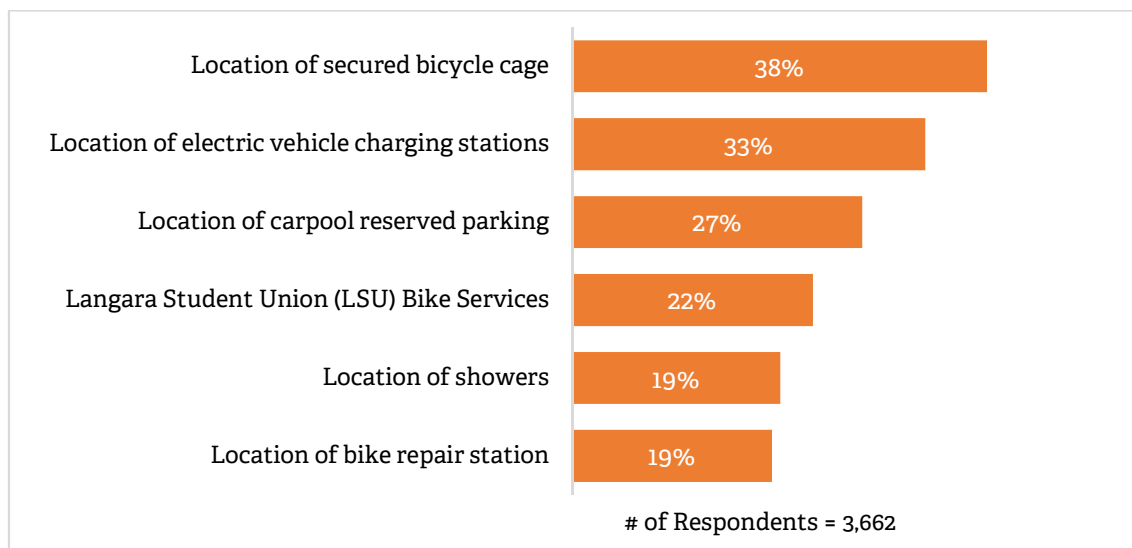
**Figure 43: Number of One-Way Walking Trips to or from Langara during a Normal Week**



**Langara Services**

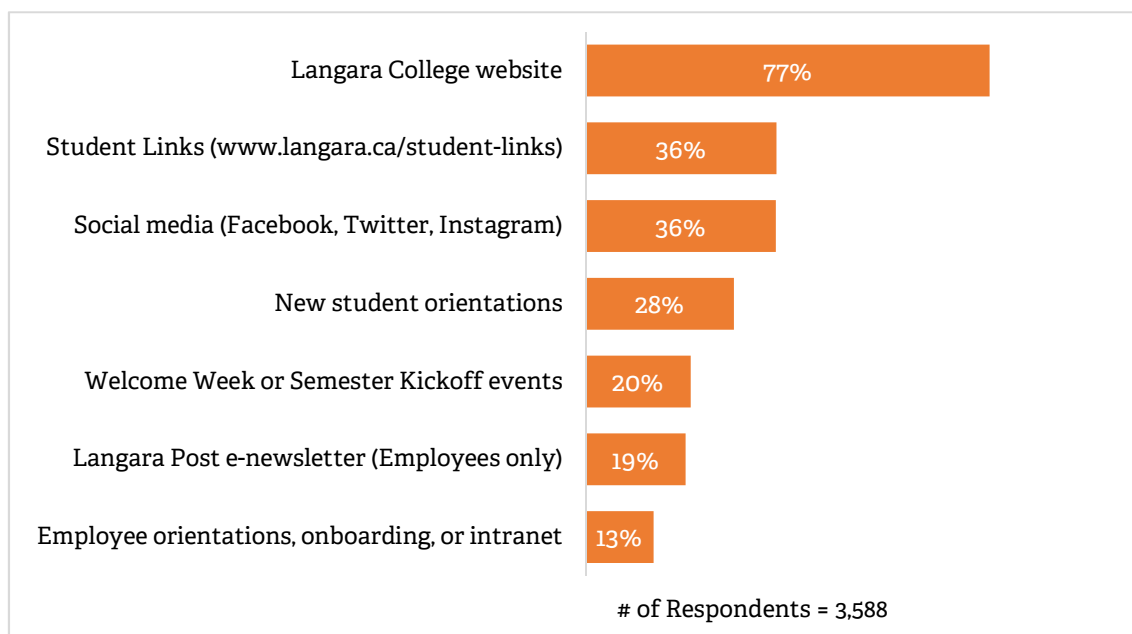
All respondents that commute to the Main Campus, regardless of their commuting behaviour, were asked about Langara’s travel-related services. While 38% of the respondents said they were aware of the location of secured bicycle cage, only 19% were aware of the location of bike repair station. The percentage of respondents that were aware of the location of electric vehicle charging stations increased from 29% in 2019 to 33% in 2021 (See Figure 44).

**Figure 44: Percentage of Respondents that are Aware of Langara’s Travel-related Services**



Most of the respondents (77%) prefer to receive information on Langara’s travel-related services through the Langara College website (Figure 45).

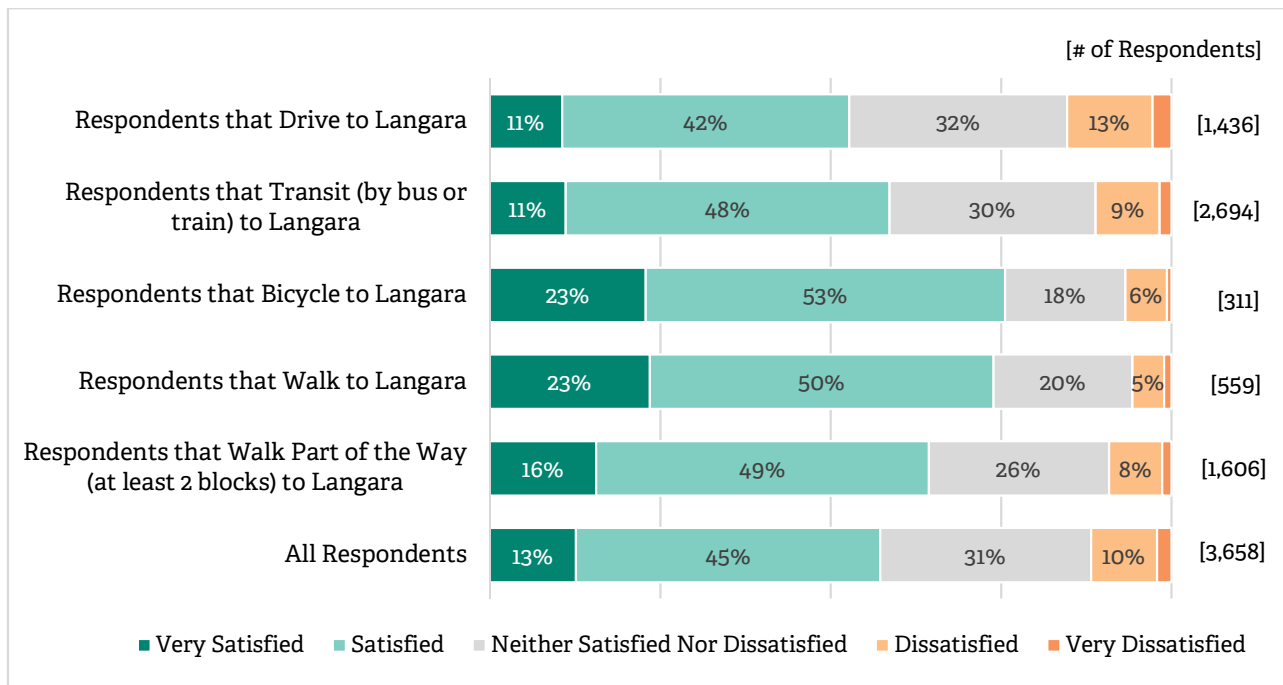
**Figure 45: Preferred Method of Communication Regarding Langara’s Travel-related Services**



**Overall Level of Satisfaction and Future Priorities**

Overall, a majority of the respondents are either very satisfied (13%) or satisfied (45%) with their commute to Langara. Respondents that bike to Langara reported the highest level of satisfaction with their commute – 23% are very satisfied and 53% are satisfied (See Figure 46).

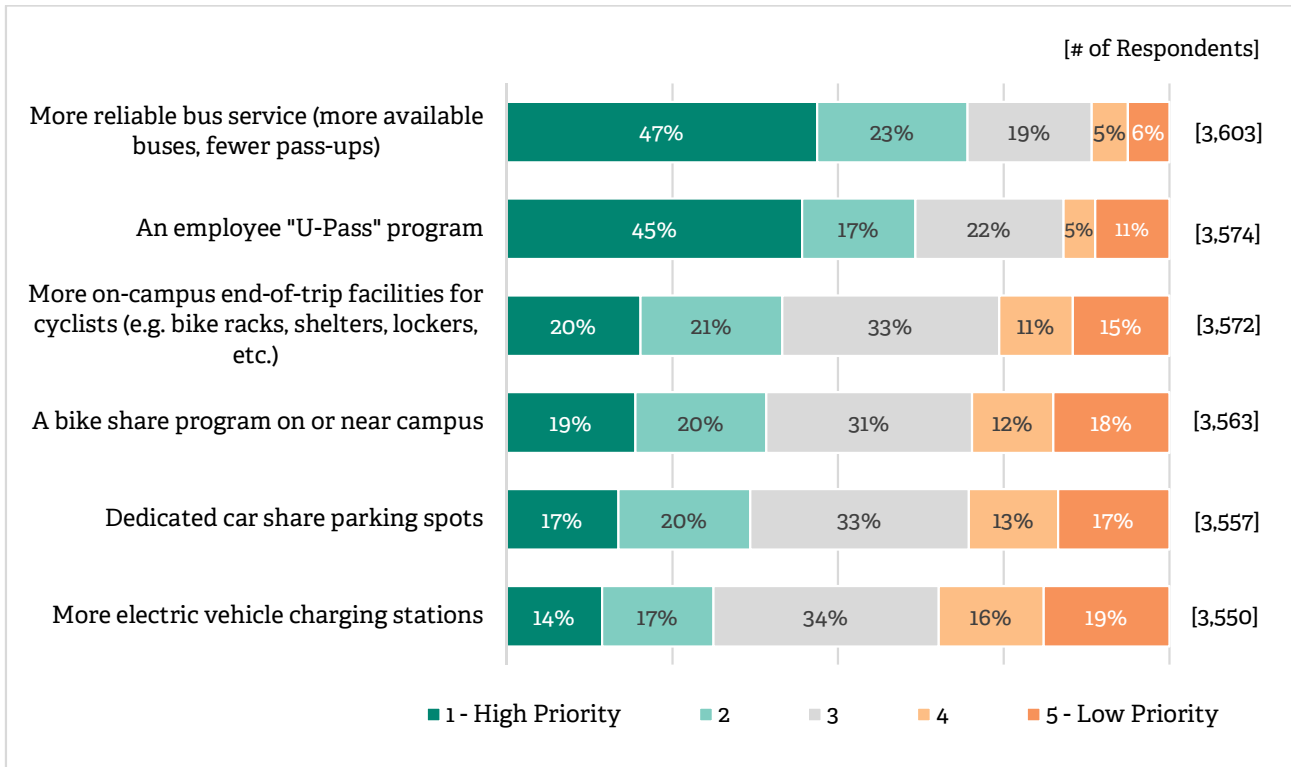
**Figure 46: Overall Satisfaction with Commute to and from Langara by Transit Mode**



The survey also asked respondents to help Langara prioritize initiatives as part of our campus travel planning efforts. Figure 47 shows that, among the six initiatives listed in the survey, “more reliable bus service” received the highest priority rating from the respondents with 47% rating it as “1 – High Priority.” It was followed by an employee “U-Pass” program with 45% of the respondents selecting “1 – High Priority.”

The other initiatives including more on-campus end-of-trip facilities for cyclists and a bike share program on or near campus also attracted interest from many commuters with approximately 40% of the respondents selecting “1” or “2” in terms of priority.

Figure 47: Priority Levels of Langara’s Travel-related Initiatives



At the end of the survey, respondents were asked to provide any additional information regarding their commute to or from Langara College. Their comments provided valuable insights into our commuters' experiences and priorities that the other survey questions did not capture.

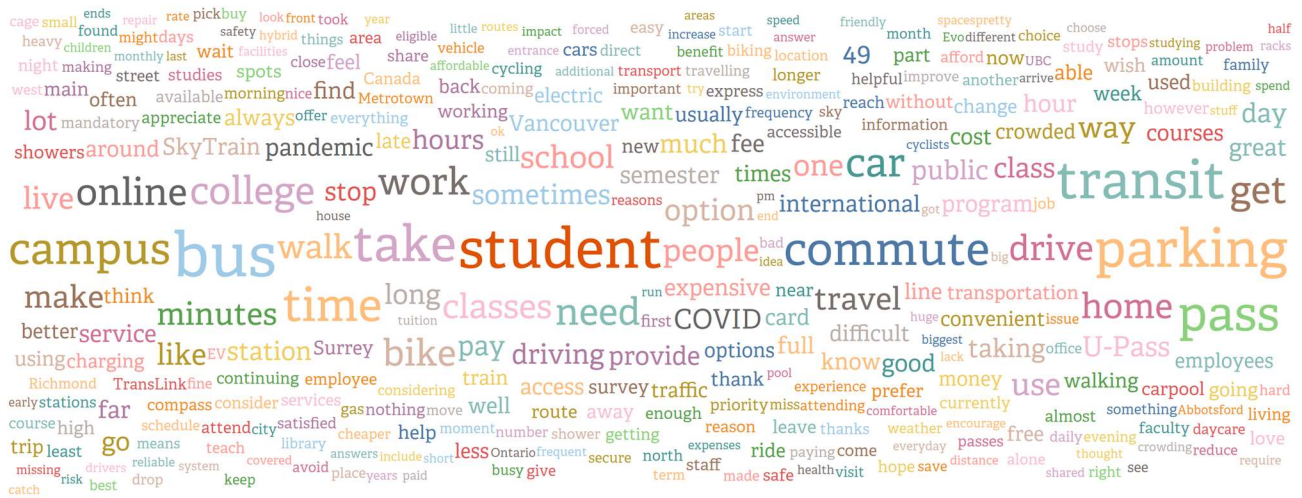
The U-Pass BC program was the most common theme among them with 112 responses. A majority of the respondents said that they wanted a U-Pass, but they were not eligible for it because they were taking online courses or Continuing Studies courses. On the other hand, 26 respondents said they did not want a U-Pass because they did not use transit, but they could not opt out of the program.

In addition, 89 respondents provided comments about parking, and most of them expressed concerns over high cost and lack of parking spaces on campus. There were 12 responses related to electric vehicle charging stations.

In total, 58 comments mentioned the COVID-19 pandemic. Many of them discussed increasing risks and fears of virus contagion in shared travel modes and the resulting switch from transit to car commute. At the same time, the number of comments related to infrequency and overcrowding of Bus #49 decreased dramatically from more than 100 in the 2019 survey to 23 in the 2021 survey. This may be due to reduction in transit ridership during the pandemic.

Figure 48 shows a word cloud generated from the responses. The more frequently a specific word appears in the comments, the bigger it appears in the word cloud. The most frequently used words were: bus (241 times), student (194 times), transit (175 times), and parking (173 times).

**Figure 48: Word Cloud of Survey Respondents' General Comments**



## CONCLUSIONS

Langara College's third biannual Transportation Survey was conducted from September 27 to October 11, 2021. Our analysis of the survey results builds up on the data collected from the previous Transportation Surveys conducted in 2017 and 2019. They enable us to better understand how transportation services may be improved at Langara and/or within the Metro Vancouver transportation network.

The global COVID-19 pandemic has had a significant impact on Langara's students and employees and caused a shift in their travel behaviour and mode choice preferences. With the switch to online learning and remote work, the total number of students and employees commuting to Langara decreased. At the same time, the average number of driving trips they make to all destinations in a normal week increased over the last two years.

The 2021 survey introduced a new question to determine the respondents' primary mode of transportation to Langara. While 67% of respondents selected transit as their primary mode of transportation, 24% of them said it was a car. The survey also asked respondents to indicate the number of one-way trips they make to or from Langara in a normal week. In total, 3,400 respondents reported making 26,537 one-way trips per week. In terms of modal split, 81% of them were by sustainable modes (56% transit, 21% walking, and 4% cycling), and 19% of them were by car. We will track changes in the modal split in the future.

As many as 92% of respondents have taken transit to Langara, and most of them use the Canada Line or Bus #49. Although overcrowding in public transport continues to be an issue, the percentage of respondents that said they had been passed up by a bus or a train when travelling to Langara declined significantly from 81% in the 2019 survey to 58% in the 2021 survey. Overall, the survey respondents' level of satisfaction with transit use improved from 2019 to 2021 in all of the following areas: frequency of service, on-time service and crowding.

Those who live in Vancouver are more likely to ride their bicycles to Langara than those living in other cities. Overall, 11% of the respondents have biked to Langara, and 71% of the bicycle commuters use the Ontario Street bikeway. Their level of satisfaction with various Langara services for cyclists improved from 2019 to 2021.

The 2021 survey results showed that the level of satisfaction with the bus service improved over the last two years. However, this could be due to the reduction in the number of transit users during the COVID-19 pandemic. Providing more reliable bus service is still considered as a high priority initiative by the greatest number of respondents among the initiatives listed in the survey.

Also, better communication is needed about Langara's travel-related services as each of the services listed in the survey had an awareness rate below half of respondents. The percentage of respondents that were aware of the location of secured bicycle cage decreased from 42% in 2019 to 38% in 2021.

Overall, 13% of the 2021 survey respondents were very satisfied and 45% were satisfied with their commute to Langara. We will continue to conduct the Transportation Survey every two years. 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.