



Our File: 2121-00227-00

## TECHNICAL MEMO

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City of Vancouver Reviewed by
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Re
2020 Vancouver Panel Summer Survey - DRAFT September 23rd, 2020

#### 1. Introduction

Since 2013, the City of Vancouver (the City) has embarked on an annual travel survey of residents to assess changes in travel patterns, behaviour, and preferences. In addition to monitoring changes in urban mobility, the travel survey is used to benchmark progress towards the City's mode share and VKT targets as set out in the Greenest City Action Plan, Transportation 2040, and the more recent Climate Emergency Response Plan. To maintain consistency with other travel surveys conducted in the Metro Vancouver region, the City's transportation survey is administered each fall amongst a panel of Vancouver residents.

In addition to the annual fall survey, the City has occasionally engaged panelists during the summer to collect information about current events that have an impact on transportation in the City. This summer, the panelists were surveyed to understand how travel choices and preferences of Vancouver residents are changing as a result of the COVID-19 pandemic.

This technical memorandum provides a summary of the responses collected from the 2020 Vancouver Panel Summer Survey and is presented in five sections following this introduction:

- Section 2 summarizes the demographic distribution of the survey participants.
- Section 3 summarizes participants' employment status during different phases of the pandemic.
- Section 4 provides a summary on participants' usual mode of transportation for trips taken during the pandemic.
- Section 5 presents the results of the questions related to working remotely from home.
- Section 6 assesses the impact of the pandemic on participants' transportation choices.

Note that the results presented in Sections 3 to 6 are weighted by age, gender, and transportation zone.

The complete summer survey instrument is included in *Appendix A* for reference.

## 2. Demographic Distribution of Panelists

The Summer Survey was conducted from July 15<sup>th</sup> to August 5<sup>th</sup>. Invitations were sent to all 2,653 current panel members who participated in the 2019 Fall Panel Survey. In total, 2,026 panelists completed the summer survey and of these, 34 respondents indicated that they will not be returning for the fall survey.

Similar to the gender ratio from the fall panelists, 56% of the summer panelists are female and 44% are male. *Figure 1* displays the distribution of participating panel members by the City's nine designated transportation zones, which was fairly consistent with the previous fall survey.

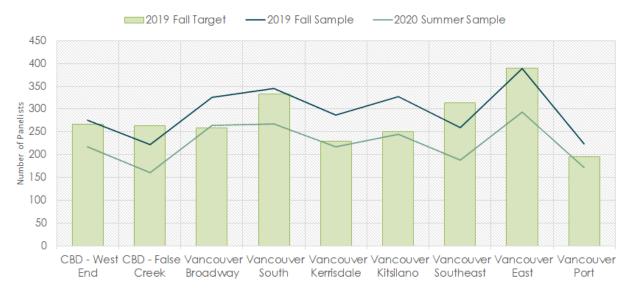


Figure 1: Distribution of Panelists by Sub-Region

Figure 2 illustrates the average weight of summer panelists by age cohorts. Weights are assigned to each panelist based on factors such as age, gender, and transportation zone to achieve a weighted sample that is reflective of the City's population. For example, a weight of 3.5 means that one panelist is representing the response for 3.5 Vancouver residents. A weight greater than 1 was assigned to all age groups under 55 years old due to the under-sampling of residents belonging to these age cohorts.

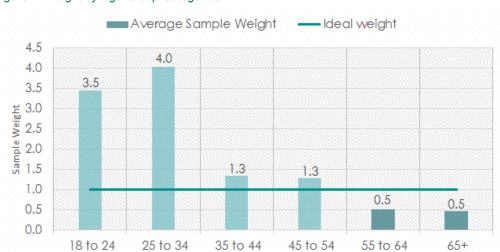


Figure 2: Weight by Age Group Categories

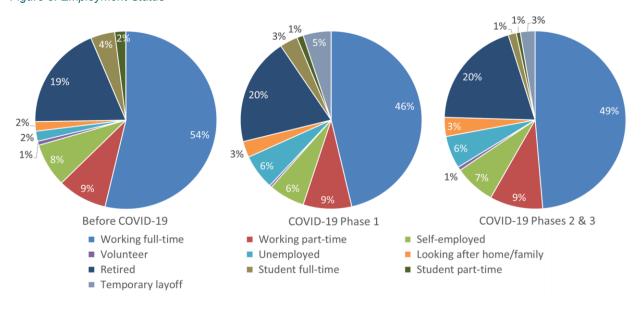


## 3. Employment Status

In response to the COVID-19 pandemic, the BC government implemented a multi-phase approach to mitigate the impacts of the pandemic. Phase 1 of the BC Restart Plan was introduced in mid-March and declared a public health emergency and a provincial state emergency. Some of the changes included travel restrictions, including the 14-day isolation plan, closing of many non-essential businesses and services, banning of mass gatherings of more than 50 people, physical distancing measures, and the reduction of inclassroom learning and childcare. On May 18<sup>th</sup>, Phase 2 of the BC Restart Plan was implemented and allowed for the easing of certain restrictions. While non-essential travel, especially between communities, continued to be limited, many businesses, including childcare, offices, and medical services, were able to reopen with new safety and physical distancing measures. Phase 3, implemented on June 24<sup>th</sup>, further reduced the restrictions with the opening of additional non-essential businesses and services including BC parks, schools, and vacation accommodations. Furthermore, restrictions against non-essential travel within BC was lifted.

With regard to employment status, the survey results indicate COVID-19 had a significant impact. As shown in *Figure 3*, 71% of the panelists reported as being employed full-time, part-time or self-employed before COVID-19. During Phase 1, this percentage drops to 61% before climbing back to 65% during Phases 2 and 3. Conversely, the percentage for unemployed and temporary layoff rose from 2% before the pandemic to 11% during the height of the restrictions and 9% during Phases 2 and 3 when some of the restrictions were eased. Furthermore, the survey indicated two thirds of the changes to employment status of workers was related to COVID-19. The results also indicated a reduction of full-time and part-time students, however, over half these changes were not related to COVID-19, and likely due to the end of the school semester.

Figure 3: Employment Status



#### As presented in

*Figure* 4, the distribution of full-time, part-time, and self-employed workers have remained consistent to pre-COVID-19 conditions. With the closure of non-essential businesses during Phase 1 of the BC Restart Plan, employment levels amongst Vancouver residents dropped by about 50,000 workers, from 385,000 workers to 335,000 workers. As the province lifted restrictions during Phases 2 and 3, employment levels increased by about 21,000 workers.



Figure 4: Employed Workforce

Given the distinction between essential and non-essential work in the BC Restart Plan, the panelists were asked whether they were employed as an essential worker during the different phases of the BC Restart Plan. As indicated in *Figure 5*, there are a greater share of those employed in essential services during the BC Restart Plan when compared to pre-COVID-19 conditions. This trend was expected as the closure of many non-essential businesses and services led to layoffs and shifts in employment.

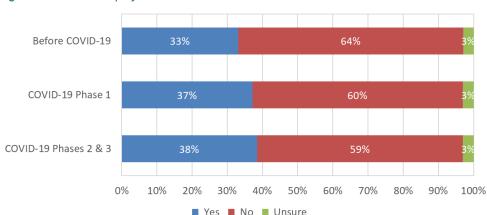


Figure 5: Workers Employed in Essential Services

## 4. Usual Mode of Transportation

As part of the survey questionnaire, all survey participants were asked to identify their usual mode of transportation for personal trips taken before the start of the COVID-19 pandemic and during the roll-out of Phase 1 and Phases 2 and 3. Prior to the COVID-19 pandemic, 29% of respondents identified transit as their usual mode of transport for personal trips. As indicated in *Figure 6*, the share of transit users has significantly declined during the pandemic, reaching a low of 3% during Phase 1. This sizeable decrease is counteracted by an increased uptake of active travel, specifically trips made by foot, and private vehicle use as a passenger. Furthermore, 10% of respondents stated that they did not travel during the height of the pandemic. With the easing of restrictions introduced during Phases 2 and 3 of the BC Restart Plan, the mode shares of vehicle use as an auto driver, public transit, and cycling increased as Vancouver residents reverted back to trip-making.

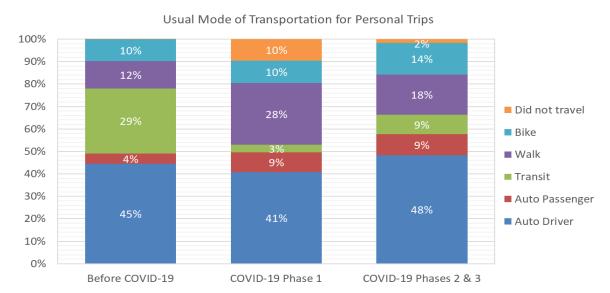


Figure 6: Usual Mode of Travel for Personal Trips

Before the onset of the COVID-19 pandemic, auto driver and public transit were indicated as the usual modes of travel to work with the highest share at approximately 34% each. With the COVID-19 pandemic, there was a significant shift in usual mode. During Phase 1, transit and auto driver declined to 3% and 27%, respectively, as a result of workers shifting to working remotely from home during Phase 1. As illustrated in *Figure* 7, a staggering 51% of those employed, worked from home during the height of the pandemic. With the roll-out of Phases 2 and 3 of the BC Restart Plan, this figure decreased to 41% as offices and non-essential businesses and services began to reopen. This high share of panelists who continued to work remotely from home indicates a pattern that is likely to continue until at least the end of the pandemic and potentially change working patterns beyond the pandemic.

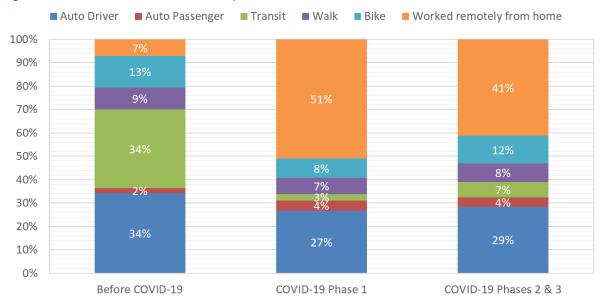


Figure 7: Usual Mode of Travel for Work Trips

Based on survey responses, the majority of students indicated public transit as their usual mode to travel to school before the pandemic while only 6% of students were enrolled in online learning. As indicated in *Figure 8*, the share of students enrolled in online learning grew from 6% to 90% when most schools closed during Phase 1. While restrictions were lifted during Phases 2 and 3, 80% of students continued attending school online. Of those who have returned to in-person learning, they either travelled to school by use of public transit or private vehicle. With the re-opening of schools for this fall, the share of students attending school online is likely to decrease significantly and would have to be monitored to determine the relative effect on other travel modes.

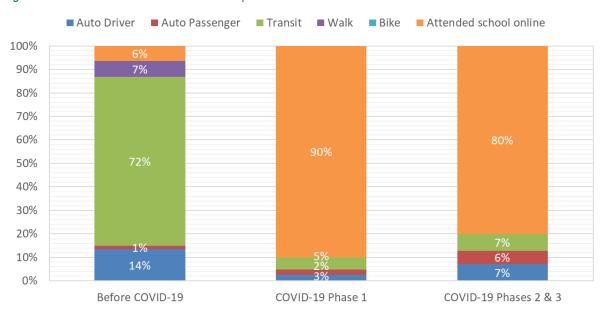


Figure 8: Usual Mode of Travel for School Trips

## 5. Working Remotely

As shown in *Figure 9*, only 35% of those employed indicated that they were working remotely from home before the pandemic. During Phase 1, this figure increased to 83% as on-site work was reduced significantly and employers and employees adapted to working remotely where possible. With the easing of restrictions and reopening of many businesses and services as part of Phases 2 and 3, the share of employees working from home decreased from 83% to 77%. Despite this decrease, the share of working remotely has more than doubled compared to the conditions before the pandemic, representing another potential shift in travel that may last beyond this pandemic. In fact, from the survey, it was seen that about one-third of employees had been asked by their employers if they would be willing to continue working remotely in the future.

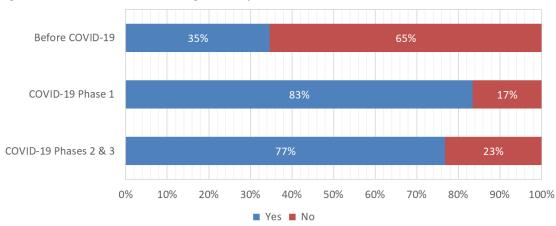


Figure 9: Percent of Workers Working Remotely

Of those who worked remotely before the pandemic, 38% worked away from the office less than once a week while only 23% worked full-time from home. As shown in *Figure 10*, the proportion of people working full-time grew substantially to 69% during Phase 1 of the BC Restart Plan. As the province entered Phases 2 and 3, survey responses show more than half of employees working full-time from home and another 36% working from home at least once a week. The pandemic has not only resulted in more employees working remotely from home, but it has also increased the frequency.

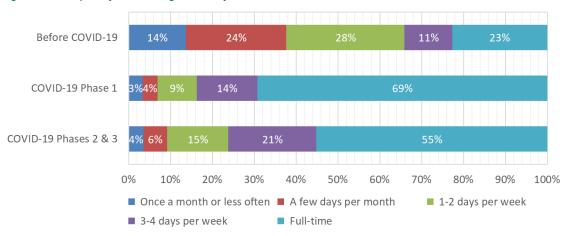


Figure 10: Frequency of Working Remotely

As presented earlier in *Figure 9*, 17% of workers did not work remotely from home at all during Phase 1 of the pandemic. As shown in the figure on the right, about three-quarters of the surveyed employees, who did not work remotely during any period, stated that they cannot perform their job remotely. Furthermore, approximately 12% indicated that their employer did not allow for remote working, while another 8% prefer to work from their place of work.

Figure 11: Reasons for Not Working Remotely

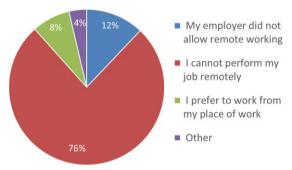
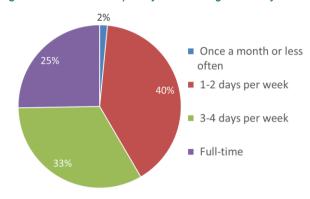


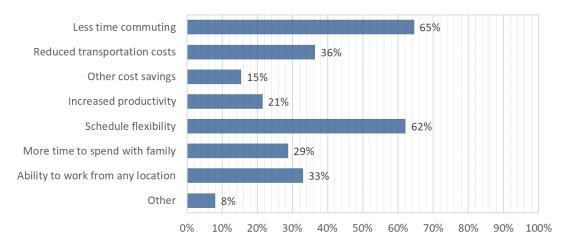
Figure 12: Desired Frequency for Working Remotely



About two-thirds of the employed panelists indicated they would be interested in working remotely from home in the future, either part-time or full-time, while 17% were unsure and 16% said they would not be interested. Those who expressed interest in working remotely were asked how regularly they would be interested working from home. As shown in *Figure 12* to the left, almost all indicated that they would be interested in the flexibility to work remotely from home at least once a week, with a quarter interested in working from home full-time.

As shown in *Figure 13*, the leading reasons for their interest in working remotely are shorter commute times (65% of responses) and schedule flexibility (62% of responses). This was followed by reduced transportation costs, ability to work from any location, and more time to spend with family.

Figure 13: Reasons for Interest in Working Remotely



## 6. Impact on Transportation Choices

As part of the survey questionnaire, participants were asked whether the COVID-19 pandemic influenced their transportation mode choices. As shown in *Figure 14*, respondents reported a significant decrease in the use of public transit and decreases in the use of private vehicle both as an auto driver and auto passenger. About two-thirds indicated that the pandemic did not affect their choice in riding their bicycle. As a result of the pandemic, 64% of respondents revealed that they travelled more by foot.

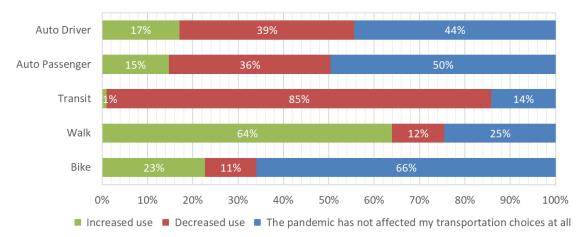


Figure 14: Impact of the Pandemic on Use of Transportation Modes

The last question included in the survey asked panelists whether the COVID-19 pandemic resulted in any of the changes listed in *Figure 15*. 70% of respondents indicated they did not make any of the listed changes with respect to their vehicle, bicycle, transit pass, bike share membership, or car share membership. For the remaining 30%, *Figure 15* presents the changes they made due to the pandemic. The cancellation of transit passes, and cancellation/reduction of vehicle insurance were the two biggest changes followed by the purchase of a bicycle. These choices align with the changes observed in the panelists' travel choices and behaviours, explicitly the reduction of transit and auto travel with shifts to active modes and working remotely.

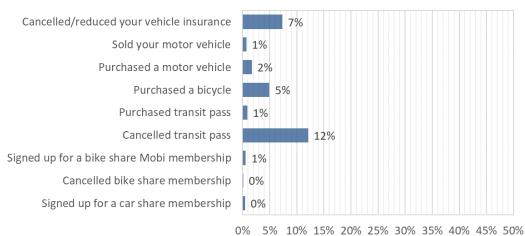


Figure 15: Impact of Pandemic on Transportation Choices

# **APPENDIX A**

2020 Summer Survey Instrument

#### Mini Panel Survey Summer 2020 - FINAL

Welcome to the City of Vancouver's 2020 Summer Survey!

As a transportation survey panelist, your opinions are important to us so please take the time to read the questions carefully before responding.

As a thank you for your participation, you will be eligible to win one of ten \$100 cash prizes. Prize draw details will be provided at the end of the survey.

	(ACCESS SURVEY)						
A1.	Are you planning to pa	Are you planning to participate in this year's City of Vancouver Transportation Survey?					
	(You will only have to December.)	provide responses fo	or <u>one day</u> between September and				
	$\square^1$ Yes $\square^2$ No ANYMORE	ot sure □³ No	□ <sup>4</sup> DO NOT LIVE IN VANCOUVER				
A2.	IF Not sure/ NO: Why i	is that?					
IF A1	L = No, SKIP TO Q1						
АЗ.	To make the process eas confirm or update the ho (INSERT ADDRESS FROM	ome address you pro	trip information in the fall survey, please ovided last year.				
	$\square^1$ Yes, this is my home						
	•		Dlogge enter your correct home address				
	■ No, Theed to update	my nome address 7	<ul> <li>Please enter your correct home address.</li> </ul>				

 $\square$ <sup>3</sup> DO NOT LIVE IN VANCOUVER  $\rightarrow$  THANKS AND TERMINATE.

1. Regarding **trips made for personal reasons**, what has been your usual mode of transportation during the following time periods? If you use more than one mode for your trip, please select the mode that covers the most distance.

Examples of personal trips: doctor appointments, visiting friends, moving, shopping, recreation, entertainment, etc. Do not include trips to or from work or school.

Mode of	a) Before	b) COVID-19 Phase	c) COVID-19 Phases 2 &
transportation	COVID-19:	1: height of the	3: easing of restrictions
ti alispoi tation	October 2019	pandemic	(May 19 <sup>th</sup> , 2020 to July
	to mid-March	(mid-March to May	2020)
	2020	18 <sup>th</sup> , 2020)	2020)
Private Vehicle as	2020	18 , 2020)	
a driver			
a unver			
Private Vehicle as			
a passenger			
Car Share as a			
driver			
Car Share as a			
passenger			
Ride Hailing (Taxi,			
Uber, Lyft, etc.)			
Transit (bus,			
SkyTrain, West			
Coast Express,			
SeaBus,			
HandyDart)			
Personal bicycle			
Bike Share (Mobi)			
Walk			
Other			
N/A; No travel at			
all during this			
period			

2. What has been your **employment status** during each of the following time periods? Check only one for each time period. If your status is combined of two or more options below, please select the one that you spend most time on.

	a) Before COVID-19: October 2019 to mid-March 2020	b) COVID-19 Phase 1: height of the pandemic (mid-March to May 18 <sup>th</sup> , 2020)	c) COVID-19 Phases 2 & 3: easing of restrictions (May 19 <sup>th</sup> , 2020 to July 2020)
Working full-time			
Working part-time			
Self-employed			
Volunteer			
Unemployed			
Looking after home/family			
Retired			
Student full-time			
Student part-time			
Temporary layoff			
Prefer not to answer			

[If retired, volunteer, looking after home/family, unemployed or temporary layoff in all periods, skip to Q15]

- 3. [If changed occupation status in Q2] Was the change to your occupation COVID-19 related?
  - 1. Yes
  - 2. No
  - 3. Unsure

[If working FT, PT, Self-employed in Q2]: Essential services are those daily services essential to preserving life, health, public safety and basic societal functioning. (<u>Essential Services Covid-19</u>) 4. Have you worked as an essential service worker during each of the following periods?

	a) Before COVID-19: October 2019 to mid-March 2020	b) COVID-19 Phase 1: height of the pandemic (mid-March to May 18 <sup>th</sup> , 2020)	c) COVID-19 Phases 2 & 3: easing of restrictions (May 19 <sup>th</sup> , 2020 to July 2020)
Yes			
No			
Unsure			

5. [If working F	T, PT, Self-employed in Q2c] In which industry do you currently work?
	1. Accommodation
	2. Architecture/Design
	3. Arts & Culture
	4. Creative Co-Working
	5. Digital Entertainment & Interactive
	6. Education
	7. Entertainment
	8. Film & TV
	9. Finance
	10. Government
	11. Health
	12. Information & Communication Technology
	13. Legal
	14. Manufacturing
	15. Non-profit
	16. Real Estate
	17. Restaurant
	18. Social Purpose Real Estate
	19. Transportation
	20. Non-sector specific stakeholder
	21. Other sector

6. [If working FT, PT, Self-employed in Q2] What is your **usual mode of transportation for trips to or from work**? If you use more than one mode, select the one used for most of the travel distance.

Check only one for each time period.

Mode of	a) Before	b) COVID-19 Phase	c) COVID-19 Phases 2 &
transportation	COVID-19:	1: height of the	3: easing of restrictions
- mile - 1 300	October 2019	pandemic	(May 19 <sup>th</sup> , 2020 to July
	to mid-March	(mid-March to May	2020)
	2020	18 <sup>th</sup> , 2020)	
Private Vehicle as		,,	
a driver			
Private Vehicle as			
a passenger			
a passeriger			
Car Share as a			
driver			
Car Share as a			
passenger			
passenger			
Ride Hailing (Taxi,			
Uber, Lyft, etc.)			
Transit (bus,			
SkyTrain, West			
Coast Express,			
SeaBus,			
HandyDart)			
Personal bicycle			
Dika Chara (Mahi)			
Bike Share (Mobi)			
Walk			
Other			
Worked remotely			
from home			

7. [If student FT, PT in Q2] What is your **usual mode of transportation for trips to or from school**? If you use more than one mode, select the one used for most of the travel distance. Check only one for each time period.

Mode of	a) Before	b) COVID-19 Phase	c) COVID-19 Phases 2 &
transportation	COVID-19: October 2019	1: height of the pandemic	3: easing of restrictions (May 19 <sup>th</sup> , 2020 to July
	to mid-March	(mid-March to May	2020)
	2020	18 <sup>th</sup> , 2020)	2020)
Private Vehicle as	2020	10 , 2020)	
a driver			
Private Vehicle as			
a passenger			
Car Share as a			
driver			
Car Share as a			
passenger			
Ride Hailing (Taxi,			
Uber, Lyft, etc.)			
Transit (bus,			
SkyTrain, West			
Coast Express,			
SeaBus,			
HandyDart)			
School bus/ other			
bus			
Personal bicycle			
Bike Share (Mobi)			
Walk			
Other			
Attended school			
online			
Not Applicable			
(graduated, not			
enrolled in school			
this semester,			
etc.)			
C.C.,	I .		1

8. [If working FT, PT, Self-employed in Q2] Have you worked remotely (either part-time or full-time) during each of the following time periods? [if answered "Worked remotely from home for Q6, skip Q8 and go to Q9]

	a) Before	b) COVID-19 Phase	c) COVID-19
	COVID-19:	1: height of the	Phases 2 & 3:
	October 2019	pandemic	easing of
	to mid-March	(mid-March to May	restrictions
	2020	18 <sup>th</sup> , 2020)	(May 19 <sup>th</sup> , 2020
			to July 2020)
.,			
Yes			
No			

9. [If yes to Q8] How often have you worked remotely during each of the following time periods?

Frequency	a) Before COVID-19: October 2019 to mid-March 2020	b) COVID-19 Phase 1: height of the pandemic (mid-March to May 18 <sup>th</sup> , 2020)	c) COVID-19 Phases 2 & 3: easing of restrictions (May 19 <sup>th</sup> , 2020 to July 2020)
Once a month or less often			
A few days per month			
1-2 days per week			
3-4 days per week			
Full time			

10. [If no to Q8] Why didn't you work remotely?

- 1. My employer did not allow remote working
- 2. I cannot perform my job remotely
- 3. I prefer to work from my place of work
- 4. Other specify\_\_\_\_\_

	1. Yes
	2. No
	3. Unsure
12. [If yes to Q11] Ho	ow regularly would you be interested in working remotely in the future?
	1. Once a month or less often
	2. 1-2 days per week
	3. 3-4 days per week
-	4. Full-time  hat are the main reasons you are interested in working remotely in the nree]
13. [If yes to Q11] W future? [Select top t	hat are the main reasons you are interested in working remotely in the
•	hat are the main reasons you are interested in working remotely in the nree]  1. Less time commuting
-	hat are the main reasons you are interested in working remotely in the nree]
•	hat are the main reasons you are interested in working remotely in the nree]  1. Less time commuting 2. Reduced transportation costs (e.g. gas, parking, transit passes,
•	hat are the main reasons you are interested in working remotely in the nree]  1. Less time commuting 2. Reduced transportation costs (e.g. gas, parking, transit passes, etc.)
•	hat are the main reasons you are interested in working remotely in the nree]  1. Less time commuting 2. Reduced transportation costs (e.g. gas, parking, transit passes, etc.) 3. Other cost savings (e.g. lunch, coffee, etc.)
•	hat are the main reasons you are interested in working remotely in the nree]  1. Less time commuting 2. Reduced transportation costs (e.g. gas, parking, transit passes, etc.) 3. Other cost savings (e.g. lunch, coffee, etc.) 4. Increased productivity
•	hat are the main reasons you are interested in working remotely in the nree]  1. Less time commuting 2. Reduced transportation costs (e.g. gas, parking, transit passes, etc.) 3. Other cost savings (e.g. lunch, coffee, etc.) 4. Increased productivity 5. Schedule flexibility

Yes
 No
 Unsure

11. Are you interested in working remotely (either part-time or full-time) in the future?

15. In general, how has the pandemic affected your transportation usage of the following modes? Choose any that apply to your situation.

	Increased use	Decreased use	The pandemic has not affected my transportation choices at all
Private Vehicle as a driver			
Private Vehicle as a passenger			
Car Share as a driver			
Car Share as a passenger			
Ride Hailing (Taxi, Uber, Lyft, etc.)			
Transit (bus, SkyTrain, West Coast Express, SeaBus, HandyDart)			
Personal bicycle			
Bike Share (Mobi)			
Walk			
Other, please specify			

- 16. Have you done any of the following because of the pandemic? Select any that apply.
  - 1. Cancelled/reduced your vehicle insurance
  - 2. Sold your motor vehicle
  - 3. Purchased a motor vehicle
  - 4. Purchased a bicycle
  - 5. Purchased transit pass
  - 6. Cancelled transit pass
  - 7. Signed up for a bike share Mobi membership
  - 8. Cancelled bike share membership
  - 9. Signed up for a car share membership
  - 10. Other change due to the pandemic
  - 11. Did not make any change due to the pandemic

#### **CLOSING:**

Thank you for completing this survey.

Once we have collected all surveys, a draw to win one of ten prizes of \$100 will be conducted and winners will be contacted within 4 to 6 weeks. Good Luck!

#### (IF A1 = Yes OR Not sure participating in this year's transportation survey)

We thank you for continuing to be a City of Vancouver Transportation Survey Panelist and look forward to your continued participation this year. We will contact you in September so look out for the email invitation then.

In the meantime, below is a link to results from the 2019 City of Vancouver Transportation Panel Survey: [INSERT 2019 REPORT LINK]

Enjoy the rest of the summer! The COV Transportation Survey Team You may now close your browser.