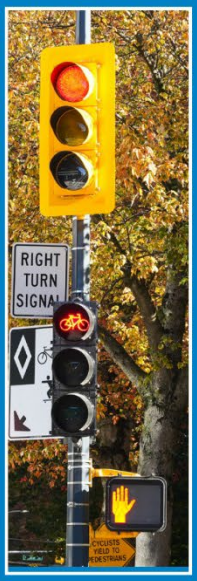
2024 Vancouver Transportation Fall Survey

FINAL REPORT

September 2025



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Executive Summary

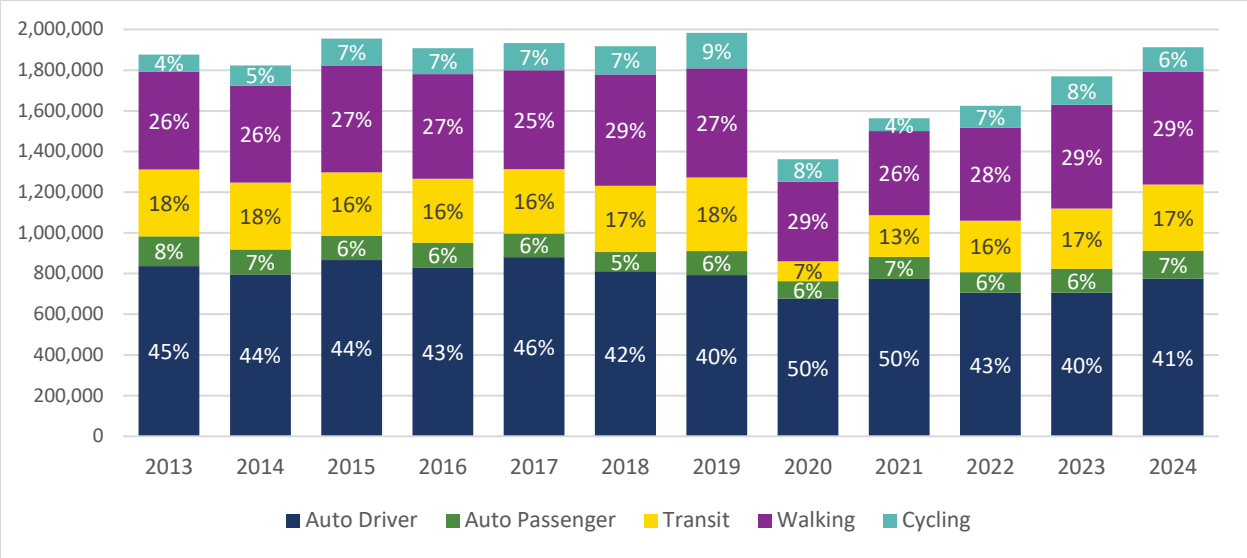
This report summarizes the findings and methodology of the City of Vancouver's (the City) twelfth panel survey conducted in 2024. The Vancouver Transportation Survey (VTS) is the annual data collection program that seeks real-world trip-generation and travel pattern data of residents throughout the city. This survey will help the City understand travel behaviour and preferences and will help guide and inform transportation investments. The survey is intended to track trip rates, mode shares, vehicle kilometres travelled and other key metrics that help policy makers, programmers, and researchers assess the impact of transportation initiatives and plan for future investments.

This executive summary highlights and summarizes some of the key takeaways of the 2024 survey report.

The overall daily trip rate increased slightly from 3.0 trips per person in 2023 to 3.2 trips per person in 2024. This is down from an average of 3.7 trips per person in 2019 before telecommuting became popular during the onset of the COVID-19 global pandemic. The expanded survey estimates suggest that adult residents of Vancouver made 1,913,000 daily trips in 2024, an increase of 144,000 trips compared to 2023, due in part to the increase in daily trips per person (a 4.5% increase) and in part to population growth (a 3.3% increase). The survey results suggest that 775,000 of these daily trips are vehicle trips (auto driver). Based on the steady trend in population growth, total daily person-trips may soon exceed pre-pandemic levels (estimated in the 2019 survey at 1,982,500 daily trips), as will vehicle trips (estimated in 2019 at 792,900 daily vehicle trips), even if trip rates never reach pre-pandemic levels.

Figure E1 shows the daily trips broken down by mode share made by the residents of the city between 2013 and 2024. Auto trips (driver and passenger combined) account for 48% of all daily trips, which is a slight increase from 2023 (46%). Daily trip volumes have increased in 2024 for each mode except for cycling, which had fewer trips than 2023 (nevertheless still higher than what was observed in 2022). Transit mode share stayed the same at 17%, walk stayed the same at 29%, and bicycle decreased to 6% in 2024. Note that the "bicycle" or "cycling" mode category is an aggregation of personal traditional non-motorized bicycle, personal e-bike, personal electric micromobility device (e.g., e-scooter, e-skateboard, etc.), bike share bicycle or e-bike, and e-scooter share.

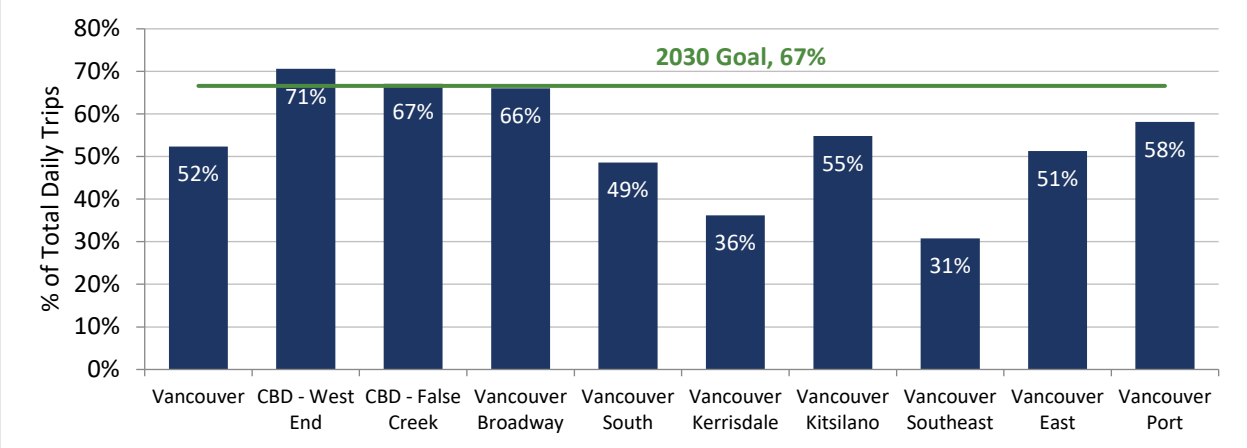
Figure E1. Trip Mode Share and Daily Volume by Year [1]



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Auto Driver	836,300	795,300	865,800	829,600	880,300	811,600	792,900	676,400	773,300	706,200	706,200	775,000
Auto Passenger	147,200	122,900	120,600	121,200	116,000	94,600	117,100	86,200	108,600	100,600	118,000	136,300
Transit	328,500	328,600	311,400	314,800	317,600	325,400	362,900	98,200	204,900	253,200	296,200	327,000
Walking	480,600	477,200	525,500	514,600	485,500	547,000	535,000	391,600	412,800	458,300	509,000	553,300
Cycling	83,300	99,100	131,000	128,100	133,300	139,300	174,600	109,400	63,000	106,400	139,400	121,400

Figure E2 provides a bar chart of sustainable transportation mode by zone to help measure the City's sustainable mode share target and to highlight the variation across zones. CBD - West End and CBD - False Creek are the only two zones meeting or exceeding the target. Other zones are not yet meeting the target.

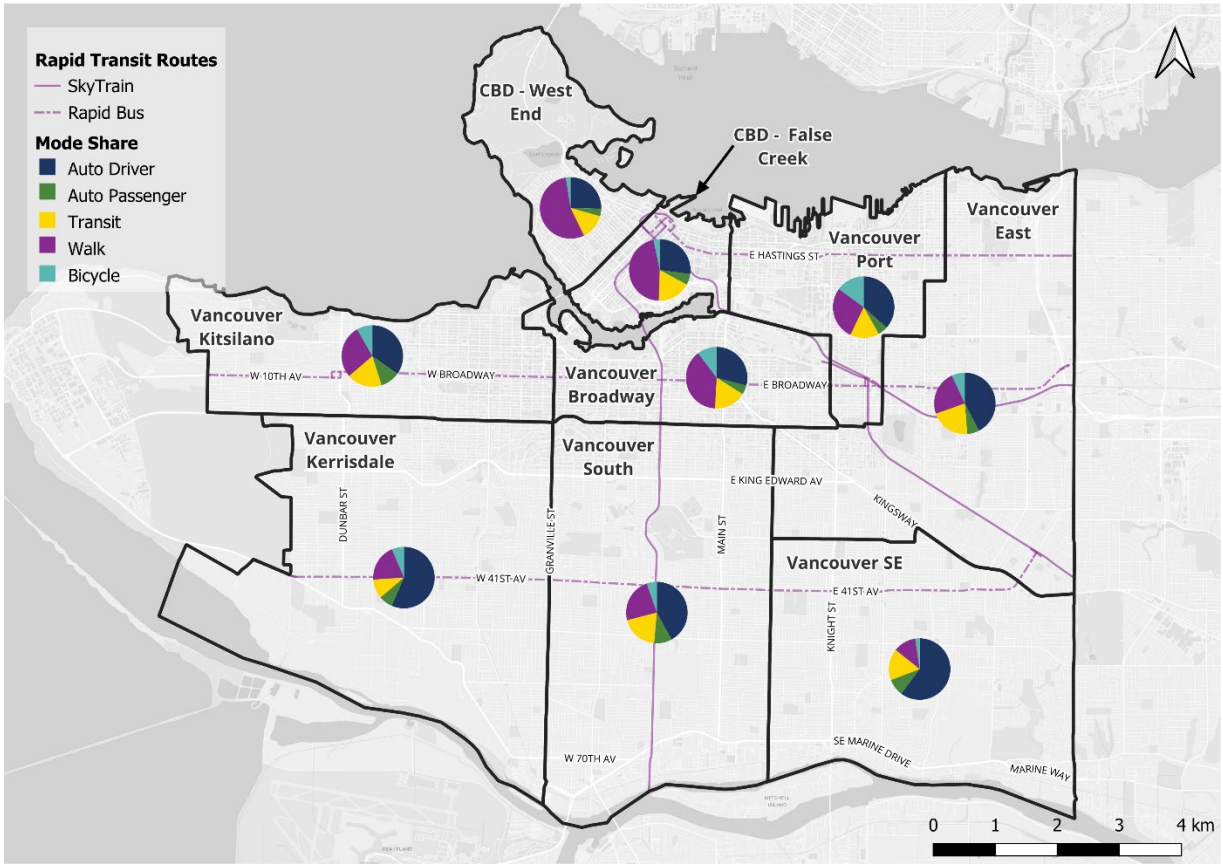
Figure E2. Sustainable Mode Share by Zone



[1] The figures for the 2022 and 2023 auto driver volumes coincidentally appear to be identical when rounded to the closest 100.

Figure E3 provides a map showing the significant variation in the mode share by zone. The most significant variation by zone is in the walk mode, which could be related to dwelling type, population density, and proximity to employment and amenities within walking distance. Variations in transit mode may be related to proximity to the fast and frequent transit network and accessibility to employment by transit and age demography. Cycling may also be related to dwelling type, demographics, topography, and proximity to employment and amenities within cycling distance.

Figure E3. Map of Mode Share by Zone



Estimates of annual vehicle kilometres travelled (VKT) per vehicle, derived from survey participants' odometer readings, suggest a modest 3% decrease from 2023 to 2024 at 8,900 km per vehicle, with the total annual VKT for the entire fleet of passenger vehicles estimated at 2.86 billion km, about 5% below the 3.01 billion km estimated for 2014, and 10% more than the 2.61 billion km estimated for pre-pandemic levels in 2019.

Transportation 2040 sets a goal of 20% reduction in average distance driven per person from 2007 levels. On a per capita basis, the average VKT per person in 2024 is about 3,710 km, which is about 20% below 2014 estimates. The latest survey estimate would suggest that the Transportation 2040 goal has been met.

The City of Vancouver's Climate Emergency Action Plan (CEAP) sets a goal of 90% of Vancouver residents living within an easy walk or roll of their daily needs by 2030. Related to this, in the 2024 survey, 74% of participants reported that they can reach many of the services and amenities they need by walking. Residents' perception of walkability was highest in CBD - West End (96%), CBD - False Creek (93%), Vancouver Port (88%) and Vancouver Kitsilano (87%), and lowest in Vancouver Southeast, at 53%, with other zones (Vancouver South, Vancouver Kerrisdale, and Vancouver East) ranging between 62% to 65%.

Other interesting results from the survey are as follows:

- Residents of Vancouver own an average of 1.30 adult bicycles per household. While 10% of bicycles are e-bikes, 25% of bicycle trips are made with e-bikes.
- 9% of Vancouver residents indicated they are a member of or have used micromobility share services (bikeshare, e-scooter share), up from 7% in 2023.
- 36% of Vancouver residents are a member of car share service or used a car share service, similar to 2023 (37%).
- Zero-emission vehicles (ZEVs), which include EVs and plug-in hybrids, account for 8% of all vehicles and non-plug-in hybrids account for 6%, for a total of 14% being electrified vehicles, up from 8% in 2021 when the fuel type question was introduced to the survey.
- 31% of residents surveyed reported having access to electric vehicle charging at home or close to home (although there may be limits to the availability of non-home charging resources depending on how busy the area).

Figure E4 illustrates changes in access to bicycles and micromobility share services over the past four years. Overall trends include a marked increase in e-bikes as a share of total adult bicycles, and a gradual increase in adults with access to an adult bicycle of any kind. While there has been some fluctuation in the proportion of adults with a micromobility share membership, the overall trend since 2021 is an increase. As the City continues to invest in active transportation initiatives and as the Lime shared e-scooter system expands, it will be of interest to track these indicators in future survey cycles.

Figure E4. Changes in Access to Bicycles and Micromobility Share Services, 2021-2024 [2]

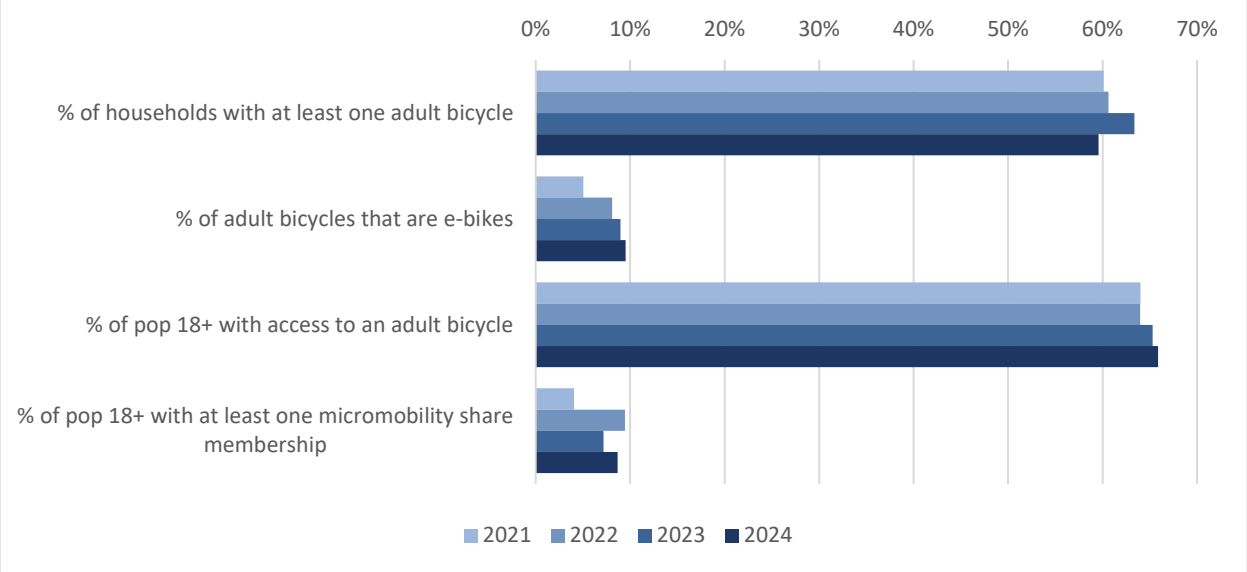
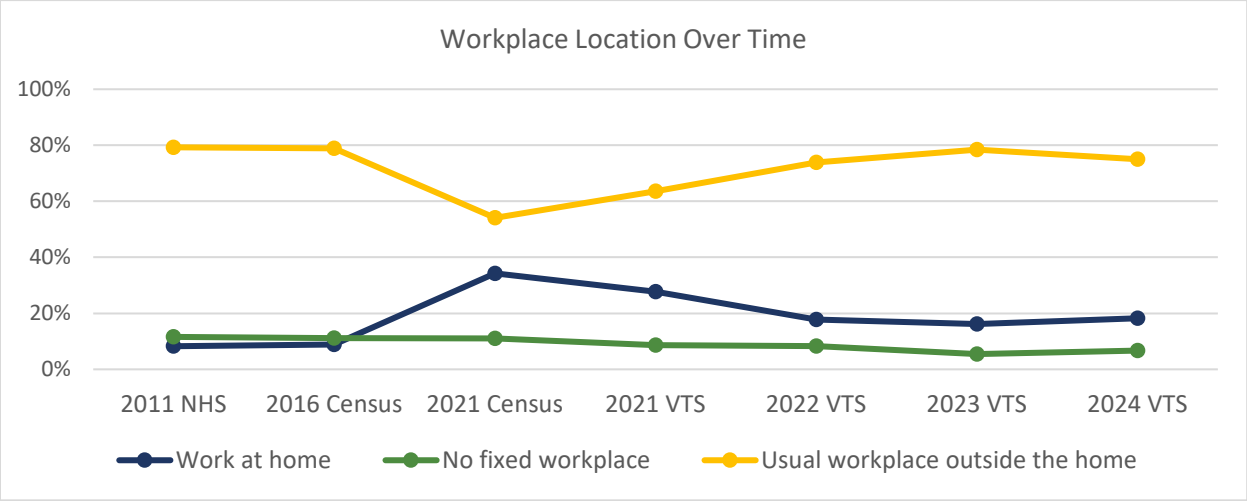


Figure E5 on the next page shows the evolution of workplace location over time since 2011, drawing from the Census and survey data. As illustrated, the incidence of workers reporting a usual workplace outside the home plummeted at the time of the May 2021 Census, at the height of the pandemic, started to show recovery by the fall (2021 VTS), and rose steadily between 2021 and 2023, but never reaching pre-pandemic levels, with 75% of workers reporting a usual workplace in 2024. Since 2022, the proportion of workers who work exclusively from home has been relatively stable. It is unclear whether the slight variations between 2022, 2023 and 2024 are indicative of a trend, or simply variations due to random sampling of new recruits in each survey cycle. Trends may become clearer in future survey cycles. Beyond the overall step up in workers who work exclusively from home since the pandemic, almost half of workers with a usual workplace (or 34% of all workers) reported hybrid work arrangements (i.e., telecommute some days and commute other days).[3]

[2] Note that fluctuations in the proportion of households with at least one adult bicycle may not be meaningful and may be related to the somewhat cruder household-level weighting (with the person-level weights being more sophisticated and person-level indicators being more reliable for year-over-year comparisons).

[3] Hybrid work arrangements are not presented separately in the graph, as the Census data do not distinguish between workers with a usual workplace who always commute vs. those who have hybrid arrangements.

Figure E5. Type of Workplace 2011 to 2024



Sources: 2011 National Household Survey (NHS), 2016 Census, 2021 Census, 2021-2024 Vancouver Transportation Survey. NHS and Census data are for population 15+ years of age; VTS data are for population 18+ years of age. Note that the measurement for the 2021 Census was in May, at the height of the pandemic, while the measurement for the 2021 VTS was in the Fall. NHS and Census figures for "worked outside of Canada" are not displayed in the chart (about 1% each year). There is no such category in the VTS (i.e. respondents who work outside of Canada would have chosen one of the three categories displayed).

Figure E6 highlights commuting and telecommuting patterns reported in the week previous to survey participation. These figures are for workers with a usual workplace outside the home that they sometimes or regularly commute to and exclude workers who work exclusively from home and those with no fixed workplace address. Averaged across all weekdays, 62% of total workers commute to work and 22% telecommute rather than travelling to work, with the other 16% not working on the given day. For part-time workers, the survey results suggest that just over half did not work on an average weekday (51%), with 39% travelling to work and only 10% telecommuting. Telecommuting is less of an option for part-time workers with a usual workplace outside the home, which may be, in part, due to the nature of some part-time jobs.

Figure E6. Commute and Telecommute Patterns by Work Type for Workers with Usual Workplace Outside the Home

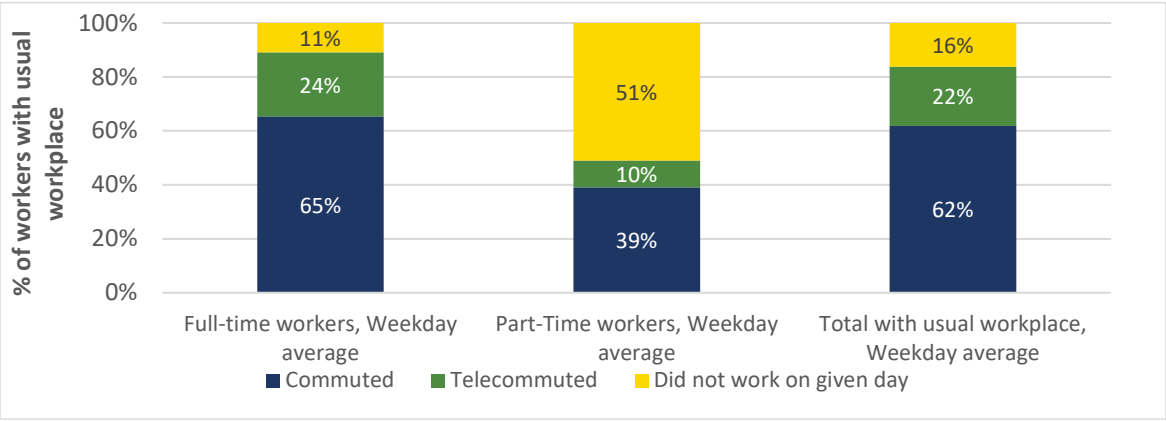


Table of Contents

Acknowledgements 1
Executive Summary 2
Table of Contents 8
List of Figures 11
List of Tables 14
1 Project Overview 15
1.1 Background and Objectives 15
1.2 2024 Transportation Context 16
1.3 Design and Administration of the 2024 Vancouver Transportation Survey 17
1.4 Comparison with Other Surveys with Travel Data for City of Vancouver Residents 18
2 Analysis of the Survey Results 22
2.1 Transportation Modes 22
2.2 Report Organization 24
2.3 Interpreting the Survey Results 24
3 Survey Geography 25
3.1 Survey Scope 25
3.2 Survey Geographies 26
4 Participant Characteristics 27
4.1 Age and Gender Distribution Using Census Data 27
4.2 Household Characteristics 29
4.2.1 Dwelling Type 29
4.2.2 Household Size 31
4.2.3 Household Income 31
4.3 Equity Demographics 33
4.4 Lifestyle/Level of Physical Activity 35
4.5 Occupational Characteristics 37
4.5.1 Occupational Status 37
4.5.2 Employer Support for Sustainable Transportation Programs 39
4.5.3 School Support for Transportation Programs 40
5 Access to Transportation 41

5.1 Bicycle and Micromobility Access 41

5.1.1 Bicycle Availability 41
5.1.2 Micromobility Share Utilization (Public Bikeshare and Shared E-Scooter System) 42
5.1.3 Electric Micromobility Device Access 44
5.1.4 Demographic Trends in Access to Bicycles, Micromobility Share, and Electric Micromobility Devices 44

5.2 Vehicle Access 46

5.2.1 Licensed Drivers 46
5.2.2 Private Vehicle Availability 46
5.2.3 Vehicle Fuel Type 51
5.2.4 Electric Vehicle Charging Availability at Home 53
5.2.5 Car Share Membership or Use 55

6 Daily Trip Characteristics 56

6.1 Trip Demand 56

6.1.1 Daily Trips 56
6.1.2 Trip Volumes by Time of Day 58
6.1.3 Vehicle Kilometres Travelled (VKT) 59

6.2 Trip Purpose 61

6.2.1 Daily Trip Purposes 61
6.2.2 Trip Purpose by Peak Period 62

6.3 Trip Mode Share 64

6.3.1 Mode Share 64
6.3.2 Trend in Sustainable Mode Share 65
6.3.3 Mode Details (Vehicle Occupancy, Car Share, Transit Access Mode, Bikeshare) 66
6.3.4 Mode Share by Zone 68
6.3.5 Mode Share by Trip Purpose 71
6.3.6 Mode Share by Personal Demographics 71
6.3.7 Mode Share by Household Characteristics 76
6.3.8 Mode Share by Zone and Dwelling Type 79

6.4 Trip Distributions 81

6.4.1 Origin-Destination Matrix 81
6.4.2 Internalization of Trips 83
6.4.3 Trip Locations by Mode 84
6.4.4 Proximity to Fast and Frequent Transit 86

6.5 Trip Distance and Duration 87
6.6 Walkability and Bikeability of Motorized Trips 90

7 Travel Patterns 93

7.1 Work Commute Patterns 93

7.1.1 Workplaces 93
7.1.2 Usual Commute Mode 95
7.1.3 Commuting and Telecommuting 96
7.1.3.1 Commuting and Telecommuting by Day of Week (for Workers with Usual Workplaces) 99
7.1.4 Daily Travel to Work 100

7.2 Usual School Commute Mode 102

7.2.1 Survey Participants 102
7.2.2 Children of Survey Participants 103

7.3 Usual Non-Commute Mode 104
7.4 Transit Use 105

7.4.1 Change in Frequency of Transit Use Since 2019 107
7.4.2 Frequency of Transit Use by Personal Demographics 107

7.5 Walking Habits 110

7.5.1 Frequency of Walking by Personal Demographics 110
7.5.2 Reasons for Not Walking More 112
7.5.3 Walking Route Choices 114
7.5.4 Walking Habits - Key Takeaways 117

7.6 Use of Delivery Services 118

8 Perceptions and Attitudes 119

8.1 Perceptions of Safety of Transportation Modes 119
8.2 Neighbourhood Walkability 121

9 Factors Contributing to Changes in Trip Demand Over Time 122

Appendix A: Survey Instrument 124
Appendix B: Survey Invitations 178
Letter Invitation & Brochure to New Recruits 178
Email Invitation to Returning Panelists 180
Appendix C: Unweighted and Weighted Counts for Selected Demographics 181

List of Figures

Figure 1. Average Weekday Travel Volumes January 2020 – December 2023 16
Figure 2. Classification of Survey Modes for Analysis 23
Figure 3. Map of Study Area with Population Density by Dissemination Area (Population per Hectare).. 25
Figure 4. City of Vancouver Age and Gender Distribution using Census Data..... 28
Figure 5. Dwelling Units by Dwelling Type 29
Figure 6. Survey Population by Dwelling Type 30
Figure 7. Map of Dwelling Type by Zone..... 30
Figure 8. Household Size 31
Figure 9. Annual Household Income Census Data vs. Survey Data 32
Figure 10. Immigration Status Census Data vs. Survey Data 34
Figure 11. Self-reported Racial Identity Census Data vs. Survey Data..... 34
Figure 12. Level of Physical Activity 35
Figure 13. Moderately or Very Active Physical Activity by Age Group 36
Figure 14. Moderately or Very Active Physical Activity by Workplace Location / Work Arrangement..... 36
Figure 15. Employment Status..... 37
Figure 16. Student Status..... 37
Figure 17. Map of Employment Status by Zone..... 38
Figure 18. Access to Employer Supported Sustainable Transportation Programs 39
Figure 19. Access to School Supported Sustainable Transportation Programs..... 40
Figure 20. Total Adult Bicycles Including E-Bikes, 2021 to 2024 (expanded survey estimate)..... 41
Figure 21 Changes in Access to Bicycles and Micromobility Share Services 43
Figure 22. Access to Bicycles, Micromobility Share Use, and Micromobility Devices by Dwelling Type.... 45
Figure 23. Access to Bicycles, Micromobility Share Use, and Micromobility Devices by Age 45
Figure 24. Map of Private Vehicle Availability by Zone (% of Residents 18+ with Access to a Vehicle)..... 47
Figure 25. Private Vehicle Availability by Age Range..... 48
Figure 26. Private Vehicle Availability by Gender..... 48
Figure 27. Private Vehicle Availability by Dwelling Type 49
Figure 28. Private Vehicle Availability by Household Income..... 49
Figure 29. Private Vehicle Availability by Immigration Status 50
Figure 30. Private Vehicle Availability by Visual Minority Population Groups 50
Figure 31. Vehicle Fuel Type 51
Figure 32. Vehicle Fuel Type, 2021 to 2024 52
Figure 33. Percentage of Households with Access to EV Charging at Home or Nearby, by Dwelling Type 54
Figure 34. Daily Trip Volumes and Average Daily Trips per Person, 2013-2024 (Persons 18+ Years)..... 57
Figure 35. Map of Average Daily Trips by Zone 57
Figure 36. Average Daily Trips per Person, by Age Range 58
Figure 37. Weekday Trips by Time of Day, 2019-2024 59
Figure 38. Daily Trips by Time of Day by Work Status 59
Figure 39. Trend in VKT per Capita and VKT per Vehicle, 2014-2024 60
Figure 40. Weekday Daily Trip Purpose 61

Figure 41. Trip Purpose Volumes, 2019-2024 62
Figure 42. AM Peak Trip Purposes 63
Figure 43. PM Pre-Peak Trip Purposes 63
Figure 44. PM Peak Trip Purposes 64
Figure 45. Trip Mode Share and Daily Volumes by Year 65
Figure 46. Sustainable Mode Share by Year with High and Low Ranges 66
Figure 47. Detailed Examination of Trip Mode Share 67
Figure 48. Map of Mode Share by Zone 69
Figure 49. Sustainable Mode Share by Zone 70
Figure 50. Weekday Mode Share by Trip Purpose 71
Figure 51. Trip Mode Share by Respondent Age Group 72
Figure 52. Trip Mode Share by Gender 73
Figure 53. Trip Mode Share by Respondent Visible Minority Population Group 73
Figure 54. Trip Mode Share for Specific Population Groups 74
Figure 55. Trip Mode Share by Respondent Year of Immigration 75
Figure 56. Trip Mode Share by Dwelling Type 76
Figure 57. Trip Mode Share by Dwelling Tenure 77
Figure 58. Weekday Mode Share by Private Vehicle Availability 77
Figure 59. Trip Mode Share by Household Income Range 78
Figure 60. Mode Share by Zone and Dwelling Type 80
Figure 61. Percentage of Internal Trips by Zone 83
Figure 62. Heat Map for Home-Based Locations of Auto Trips 85
Figure 63. Heat Map for Non-Home-Based Locations by Auto 85
Figure 64. Heat Map for Home-Based Locations of Transit Trips 85
Figure 65. Heat Map for Non-Home-Based Locations by Transit 85
Figure 66. Heat Map for Home-Based Locations of Cycling Trips 85
Figure 67. Heat Map for Non-Home-Based Locations by Cycling 85
Figure 68. Average Trip Distance for Home-based Work Trips and All Trips 87
Figure 69. Average Trip Duration for Home-based Work Trips and All Trips 88
Figure 70. Total Daily Person-KM on Weekdays 88
Figure 71. Distribution of Trip Distances by Mode 89
Figure 72. Distribution of Trip Durations by Mode 90
Figure 73. Walkable and Bikeable Trips from Current Mode Share Based on Trip Distance 91
Figure 74. Type of Workplace 94
Figure 75. Type of Workplace, 2011 to 2024 94
Figure 76. Usual Mode of Travel for Commute 95
Figure 77. Map of Usual Mode of Travel for Commute by Zone 96
Figure 78. Telecommuted Last Week (% of all workers) 97
Figure 79. Commuted to Work Last Week (% of all workers) 97
Figure 80. Commute and Telecommute Pattern by Day of the Week for Workers with Usual Workplace 99
Figure 81. Summary of Commute and Telecommute Patterns by Work Type for Workers with Usual Workplace 100

Figure 82. Daily Work Travel and Commute Pattern 101
Figure 83. Daily Work Commute Mode Shares (Mode of First Trip to Work on Travel Day) 102
Figure 84. Usual Mode of Travel for School Commute (Adult Students) 103
Figure 85. Usual Mode of Travel for School Commute (Children 17 and younger) 103
Figure 86. Usual Mode of Travel for Non-Commute Purposes 104
Figure 87. Map of Usual Mode of Travel for Non-Commute Trips by Zone 105
Figure 88. Frequency of Transit Use 105
Figure 89. Map of Frequency of Transit Use – by Zone 106
Figure 90. Change in Frequency of Transit Use, 2019 to 2024 107
Figure 91. Frequency of Transit Use – Workers and Non-workers 108
Figure 92. Frequency of Transit Use – by Gender 108
Figure 93. Frequency of Transit Use – by Age Group 109
Figure 94. Frequency of Transit Use - by Immigration Status 109
Figure 95. Walking Frequency Overall, by Occupation Status, and by Gender 111
Figure 96. Walking Frequency by Age Group 111
Figure 97. Walking Frequency by Zone of Residence 112
Figure 98. Why do you not walk / walk more often? (of those who walk one day per week or less) 113
Figure 99. What would encourage you to choose walking more? 114
Figure 100. How did you select your walking route? 115
Figure 101. What makes your longer route more enjoyable for walking? (of those choosing a longer route they enjoy) 116
Figure 102. What makes your longer route feel safer or more comfortable for walking? (of those choosing a longer route for safety or comfort) 116
Figure 103. Vancouver Residents' Use of Delivery Services by Zone of Residence 118
Figure 104. Survey Participants' Perceptions of Safety and Attitudes 119
Figure 105. Perceptions of Neighbourhood Walkability 121
Figure 106. Historical Trends of the Key Factors, 2010 to 2024 122

List of Tables

Table 1. Zones with Estimated 2024 Population Represented by the Survey 26
Table 2. Projected Population from 2021 Census 26
Table 3. City of Vancouver Age and Gender Distributions Using Census Data vs. Survey Data 27
Table 4. City of Vancouver Population Distribution by Age by Zone Using Projected Census Data 28
Table 5. Distribution of Households by Household Size, by Zone 31
Table 6. Distribution of Surveyed Households by Annual Household Income, by Zone 32
Table 7. Employment and Student Status, by Zone 38
Table 8. Access to Employer Supported Sustainable Transportation Programs by Zone of Workplace 40
Table 9. Bicycles and Bicycle Access by Zone 42
Table 10. Micromobility Share Use by Zone 43
Table 11. Electric Micromobility Device Access by Zone 44
Table 12. Licensed Drivers by Zone 46
Table 13. Private Vehicle Availability by Zone 46
Table 14. Vehicle Fuel Type by Zone 52
Table 15. Household Income by Vehicle Fuel Type 53
Table 16. Percentage of Households with Access to EV Charging at Home or Nearby, by Zone 54
Table 17. Car Share Membership or Use of at Least One Car Share Service 55
Table 18. Bicycle and Micromobility Trip Breakdown 68
Table 19. Mode Share by Zone 70
Table 20. Mode Volumes by Zone 70
Table 21. Origin-Destination Flows by Zone 82
Table 22. Internalization of Trips by Home-based Purpose- by Zone 84
Table 23. Origins and Destinations within 800m of FFTN 86
Table 24. Mode Shift Potential of Auto Driver Trips Based on Trip Distance, by Zone of Residence 92
Table 25. Frequency of Telecommuting by Zone (% of all workers) 98
Table 26. Frequency of Commuting to Work on Weekdays (% of all workers) – by Zone 98
Table 27. Daily Work Travel and Commute Pattern by Type of Workplace 101
Table 28. Frequency of Transit Use – by Zone 106
Table 29. Reasons for Not Walking Much, by Zone of Residence 113
Table 30. Type of Delivery Service – by Zone 118
Table 31. Perceptions of Safety by Zone (% Agree or Strongly Agree) 120
Table 32. Perceptions of Neighbourhood Walkability (% Agree or Strongly Agree) 121

1 Project Overview

1.1 Background and Objectives

The Vancouver Transportation Survey (VTS) is an annual survey of residents of the city of Vancouver that identifies and tracks trends in sustainable transportation. The City of Vancouver (the City) has a number of policies and long-term initiatives that work towards an overarching vision of a more sustainable and integrated transportation system that impacts and shapes the future of how people live and move around. The Greenest City 2020 Action Plan, Transportation 2040, and Climate Emergency Action Plan will help the City make progress toward their long-term goals, including that by 2030 the City aims to reduce overall carbon pollution by 50% and have two-thirds of all trips in Vancouver made via sustainable mode (i.e., walking, biking, transit).

The VTS is intended to track trip rates, mode shares, vehicle kilometres travelled, and other key metrics that will help the City assess the impact of transportation initiatives and plan for future investments. The 2024 VTS survey was the twelfth wave of this survey.

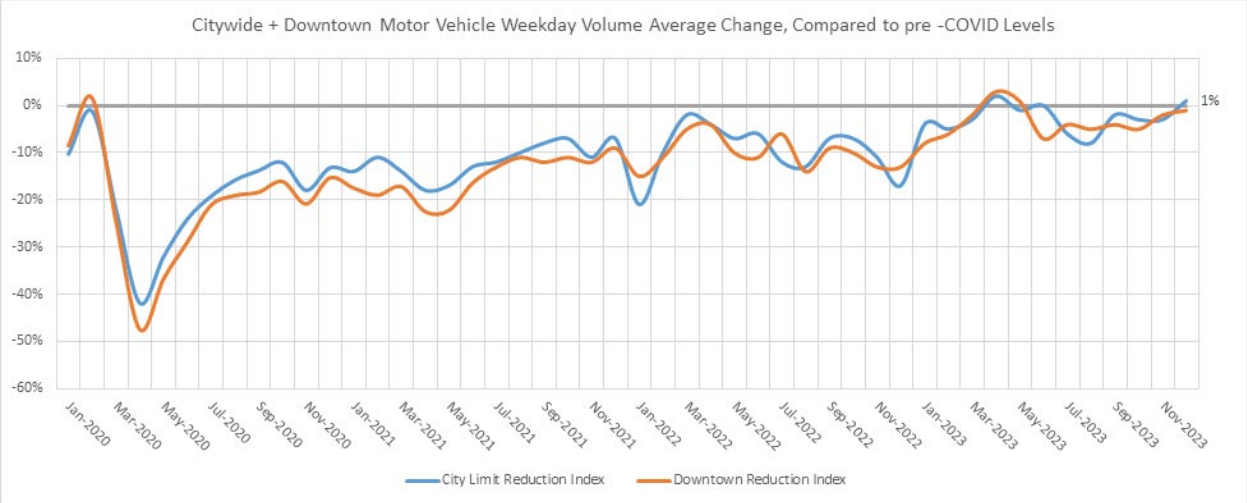
1.2 2024 Transportation Context

The year 2024 continued to be a time of continued change in the transportation sector not only because of shifts in telecommuting patterns that started at the onset of the COVID-19 global pandemic, but also because of increasing trends toward door-to-door deliveries and the use of electric vehicles, e-bikes, and electric micromobility devices. During this time there has been more concern over the climate impacts associated with single-occupancy vehicles, and a focus on encouraging higher density development near the fast and frequent transit system.

The City of Vancouver, Province of B.C., and Government of Canada have all established emission reduction targets. One of the most recent changes that has occurred as a result is the Government of Canada regulations establishing annual zero-emission vehicle (ZEV) regulated sales targets of 20%, beginning with the 2026 model year and increasing to 100% by 2035. These regulations help to reduce emissions from transportation and are a key component of the 2030 Emissions Reduction Plan, which puts Canada on a path to achieve at least a 40% reduction in emissions below 2005 levels by 2030.[4]

The early years of the COVID-19 global pandemic had significant impacts on people's travel habits and usual behaviour, as many people were limiting outings, working-from-home, and making different decisions regarding transportation modes, such as avoiding public transit. The City has been monitoring traffic count data as shown in **Figure 1** and found that traffic volumes had re-stabilized as of March 2023. Despite that, while the number of system-wide transit boardings has continued to increase, in 2024 they were at about 89% of pre-pandemic levels.[5]

Figure 1. Average Weekday Travel Volumes January 2020 – December 2023[6]



[4] Canada's Electric Vehicle Availability Standard (regulated targets for zero-emission vehicles) - Canada.ca

[5] TransLink ridership data (https://www.translink.ca/plans-and-projects/data-and-information/accountability-centre/ridership#boardings-and-journeys, last accessed May 5, 2024)

[6] Source: City of Vancouver traffic count program; City Limit = counters near the City boundaries. For example, Boundary Rd, Lions Gate, etc. And Downtown = downtown peninsula locations only

1.3 Design and Administration of the 2024 Vancouver Transportation Survey

The 2024 VTS was conducted between September 27, 2024, and December 20, 2024, with residents of the city of Vancouver. The survey was open to residents 18 years of age or older. The survey was a voluntary 24-hour recall travel survey that captured residents' household characteristics, demographics, and trips undertaken by the survey participant on the most recent weekday. The questionnaire also included some attitudinal questions and reporting of usual transportation-related habits. The core survey questions tracking key transportation indicators have remained largely unchanged compared to previous cycles of the VTS, with a few refinements in 2024. New questions were added on walking behaviour. These include how people choose their walking routes, what makes them feel safer or enjoy their walk more, how often they walk, and what barriers or improvements might influence them to walk more. The survey questionnaire can be found in **Appendix A: Survey Instrument**.

Survey participants could complete the survey online or over the telephone. Survey completion targets were set for each of the City's nine transportation planning zones to ensure a geographically representative sample and, in each region, sub-targets were set for existing survey panel members (participants from previous survey cycles) and new recruits. An address-based sampling approach was used to randomly select new participants from across the city, who were invited to participate via an invitation letter (included in **Appendix B: Survey Invitations)**. Those with a corresponding phone number were also contacted by phone. Existing survey panel members were invited to participate this year via email invitation and/or follow-up phone call. A small number of supplementary surveys (to obtain better representation of younger demographics) were also collected by way of asking participants to invite other members of their household under the age of 40 years old to participate, with 32 such surveys obtained.

Over 90% of the completed surveys had travel dates between September 26 and November 14, 2024. The survey was kept open until December 20, 2024, to target a few sampling zones with low response rates. The 2024 VTS gathered information from a total of 3,362 Vancouver residents after data validation, extensive trip logic checks, and rejection of surveys with data issues. A total of 1,980 surveys were completed with previous panel participants and 1,382 surveys were completed with new recruits to the survey (the recruitment efforts having a 12.8% response rate). The survey captured 10,309 trips made by survey participants on a prior weekday.

The survey dataset was weighted to compensate for non-response bias and expanded to represent the target population. Weighting controls for household-level information included dwelling counts,

dwelling type, and household size for nine geographic expansion zones. Weighting controls for person- and trip-level information included population counts by dwelling type and population counts by age and gender for the same data expansion zones. The expansion was based on Census 2021 population data adjusted to 2024 population. Sample sizes and expanded survey counts, along with the scaled Census counts for reference, are provided for selected characteristics in **Appendix C: Unweighted and Weighted Counts for Selected Demographics.**

When weighted and expanded, the survey data represent approximately 604,100 adult residents from 329,200 private households in the study area, for a sampling rate of 1.0% of households or 0.6% of the population 18+ years of age living in private residences. The trip data captured by the survey provides a snapshot of the 24-hour travel patterns of residents of the study area over the course of a typical fall weekday. The weighted and expanded trip records represent an estimated total of 1,913,000 trips made each day by residents 18+ years of age.

1.4 Comparison with Other Surveys with Travel Data for City of Vancouver Residents

There are two other major surveys that can provide insight into Vancouver residents' travel behaviour, complementing the VTS. These are TransLink's Metro Vancouver Regional Trip Diary and the Census Profile 2021 (Commuting). All three surveys aim to understand travel patterns and preferences and employ different methodologies, making them complementary sources of information.

The Census is conducted every five years and recent cycles of the TransLink Metro Vancouver Regional Trip Diary have been conducted every six years. The Census was last conducted in 2021 and provides a detailed snapshot of the country's population, including information on work commuting patterns and household demographics. TransLink's Metro Vancouver Trip Diary was last conducted in 2023, with new cross-sections of the population each survey cycle. The VTS is an annual panel survey with information on commuting and non-commuting patterns and with regular refreshment of the sample with new recruits. VTS data is typically available within six months of data collection, whereas the other two sources are typically available one to three years after data collection.

The Census commuting data only provides information on work commuting of the Canadian population aged 15 and older living in private households.[7] The Census long-form questions on the labour force, workplace location, and commuting are asked of a sample of 20% of the households. The TransLink

[7] Statistics Canada. Commuting Reference Guide, Census of Population. 2021.

Regional Trip Diary is conducted as a complete household travel survey, for which demographics and all trips are collected for all members of the household. The 2023 survey sampled 1.25% of households in Metro Vancouver, with survey targets set for municipal subareas, and had an overall response rate of 2.3%. Almost three-quarters (73%) of survey participants completed the survey online, while 27% completed via smart phone app, which logged trips throughout the day. The VTS was completed mostly online, with a small portion of participants completing via telephone interview. The VTS focuses on an individual member of the household over the age of 18 (sampled from within the household to obtain a representative sample [8]). The City of Vancouver may undertake further analysis of the VTS data, as the complete data files are made available to the City.

The Census commuting data is used in conjunction with age, gender, labour and income variables to provide additional context of those who commute. The Census commuting data is available at different scales, from dissemination areas to the municipal, regional, provincial, and national level, and data is suppressed when numbers are too small at any given scale. The VTS is intended to illuminate differences in travel patterns at a sub-municipal level and the data are weighted at a sub-municipal level. The TransLink data are also weighted at a sub-municipal level.

It should be noted that the 2021 Census data on labour, workplace location, and commuting was gathered during a peak wave of the COVID-19 pandemic (May 2021) and thus provides a view of work arrangements and commuting patterns that was unique to that time and may not be applicable today. This should be kept in mind when comparing the VTS results against the 2021 Census for such topics.

The VTS and the TransLink Regional Trip Diary have similar questions about trips taken on a sampled travel day, although there may be differences in wording, definitions, and how the data are reported. The VTS includes additional questions on attitudes, usual travel habits, and potential barriers to using different modes, offering a more nuanced understanding of factors affecting travel decisions by Vancouver residents. The TransLink Regional Trip Diary is broader in scope, capturing a comprehensive dataset of travel behaviours across the Metro Vancouver Region. The TransLink Regional Trip Diary surveys all household members and reports trip behaviours for residents 5+ years of age, whereas the VTS provides results for residents 18+ years of age. This should be kept in mind when comparing published results on mode shares, trip volumes and other statistics from both surveys.

There are differences in the surveys in how the survey data are processed and weighted to represent the full population. Including the following:

- While both surveys are based on Census data scaled to population estimates in the survey year, the TransLink Regional Trip Diary may expand to different household and population estimates than the VTS. Differences in the size of the population expanded to can affect trip rate estimates and volumes of trips by mode as represented by the survey results.
- Both surveys use key Census Profile information as data weighting controls to compensate for non-response bias, including dwelling type, household size, age and gender. As the TransLink

[8] The survey requests the participation of the household member 18 years of age or older whose birthday is next in order to maintain a representative sample (in case there might be bias in terms of the characteristics of household members most likely to respond to the survey).

Survey captures information on the ages and genders of all household members, it is theoretically better able to adjust the household level weights than the VTS (which has separate weights for household-level information than for person- and trip-level information).

- The TransLink survey includes additional weighting controls beyond those used in the VTS, including transit ridership (with the adjustment applied across the entire region), and Statistics Canada Labour Force Survey (LFS) estimates on the proportion of workers who work from home and the proportions who reported different modes of travel to work (again applied across the entire region, and requiring imputation of unknown usual work commutes for participants who did not report a work trip), as well as household income (which relies on imputing missing income for respondents who did not answer the question).
- The VTS cannot take into account transit ridership amongst City of Vancouver residents, as the ridership figures apply to the whole region. The VTS also cannot take into account LFS estimates, as the LFS is conducted with only a small sample of population (around 0.3% of population 15+ years of age) and therefore does not release results at the municipal level. Equivalent Census journey-to-work measures cannot be used for weighting the VTS data, as the 2021 Census was conducted at a time of considerable disruption to workplace arrangements and commuter mode choice. The VTS also does not incorporate adjustments such as household income that do not have complete responses from survey participants (as those who refuse to answer may not always have the same distribution as those who answer).
- The TransLink survey reduces the weights of participants who did not report any trips. The TransLink survey also includes a significant adjustment to boost the weights of certain kinds of trips reported by online survey respondents based on the observation that the portion of survey respondents using the smart phone app report more trips than online respondents. These adjustments significantly increase overall trip volumes and average daily trip rates. These adjustments are undertaken in the TransLink data to account for under-reporting of non-home-based trips for household members other than the primary respondent (who may fill out trips for other household members without knowing about all of their trips). By contrast, since the VTS asks only about the travel of the person filling out the survey (and not other household members), that person is likely to accurately report all of their trips and not require adjustment for under-reported trips.
- The TransLink data weighting approach is such that it can generate a very wide range of weights to be applied to the survey data. The VTS allows weights in a constrained range of 0.2 to 5.75 relative to the base expansion weight for each zone, meaning that the highest weight can be 28.75 times larger than the lowest weight for the zone. The TransLink weights likely allow for a much larger range, although the range for the subsample of City of Vancouver residents is not reported publicly.[9]

Overall, the TransLink Regional Trip Diary undertakes more complex data processing and weighting adjustments, some of which are predicated on imputations, estimates from other sources, applied mathematics, and adjustments that are applied on the regional level (i.e., transit ridership, work from home, and mode of travel to work are applied without being able to calibrate at the municipal level).

[9] TransLink's methodological approach to the Trip Diary was presented at the 2024 Regional Travel Model User Group Meeting (https://github.com/TransLinkForecasting/rtm-workshops/tree/master/2024-April, last accessed September 9, 2025).

The TransLink survey is based on a cross-section sample and has a low response rate and a high abandonment rate (56% of recruits do not go on to complete the survey), and may be subject to more non-response bias than the VTS, in which case the additional adjustments to the weighting may be more warranted. The VTS has a higher response rate and lower abandonment rate (only 12% who answer initial screening questions do not finish) and takes a more conservative approach with fewer adjustments to the collected data, but there is a small risk that the panel sample may have some bias. The adjustments made to the TransLink data may produce more representative results overall, particularly for household-level results (as the weighting of the household can take into account the ages of all household members), although the broader range of weights may also mean that analysis for smaller geographies and subpopulations may have more variance (and there may be a small risk of unintended biases being introduced by the adjustments themselves). Further exploration of the TransLink methodology and results may be warranted to better understand the differences between the two surveys.

Of note, the average daily trip rates between the TransLink and VTS surveys appear to align closely. The overall average daily trip rate for the weighted and adjusted 2023 TransLink survey results for all household members in city of Vancouver households is 3.11 daily trips per person 5+ years of age. Recent VTS results have been very close to this, at 3.03 daily trips per person 18+ years of age in the 2023 VTS, and 3.17 in the 2024 VTS.[10] Readers are reminded that mode shares and total trip volumes by mode can be expected to be very different between the two surveys given that they represent different populations: the VTS reports only on the travel of adults 18+ years of age, while the TransLink survey also reports on the travel of children 5+ years of age, who have higher active mode shares, public transit mode shares (particularly for school commutes), and auto passenger mode shares.

Disparities in findings between the VTS and TransLink Regional Trip Diary surveys may arise due to differences in sampling, survey design, geographic context, data weighting methodologies, and the age range of the population sampling frame. Disparities in findings between the two surveys do not necessarily indicate conflicting data but rather additional perspectives on travel behaviours within the region.

[10] 2023 Trip Diary Survey Data Visualization Tool for the Metro Vancouver Region, TransLink (https://public.tableau.com/app/profile/translink/viz/Trip_Diary_2023/TripDiary, last accessed July 30, 2025)

2 Analysis of the Survey Results

The survey results are analyzed for the city of Vancouver as a whole, and for nine transportation planning zones. Overall, the survey results are subject to a margin of sampling error[11] of ±2.2% at a 95% confidence level for household-level results and ±2.6% for person- and trip-level results, taking into account the effects of data weighting. The margins of sampling error may be considered reasonable for reporting survey results for the city and by zone, although one should keep in mind that the margin of error will be larger for smaller sample sizes at the zone level or when examining other demographic subpopulations. That is, the weighted survey data should be an approximate reflection of the population from which the survey sample was drawn and that the survey results will provide a good understanding of the population's characteristics and travel habits that will allow us to identify differences in travel patterns between zones. It should be noted that the expanded survey counts are estimates and not exact counts, and the weighted survey results may differ somewhat from the true results for the total population (if it could be known). The survey results could also differ from the results of another random sample of the population or if travel was captured on a different day of the week for the same survey participants. In addition, sampling error is not the only possible source of error. There may be errors or biases in the data that could not be corrected in the data processing or data weighting, although every attempt has been made to reduce other sources of error (e.g., sample frame under-coverage, participant reporting error, data handling).

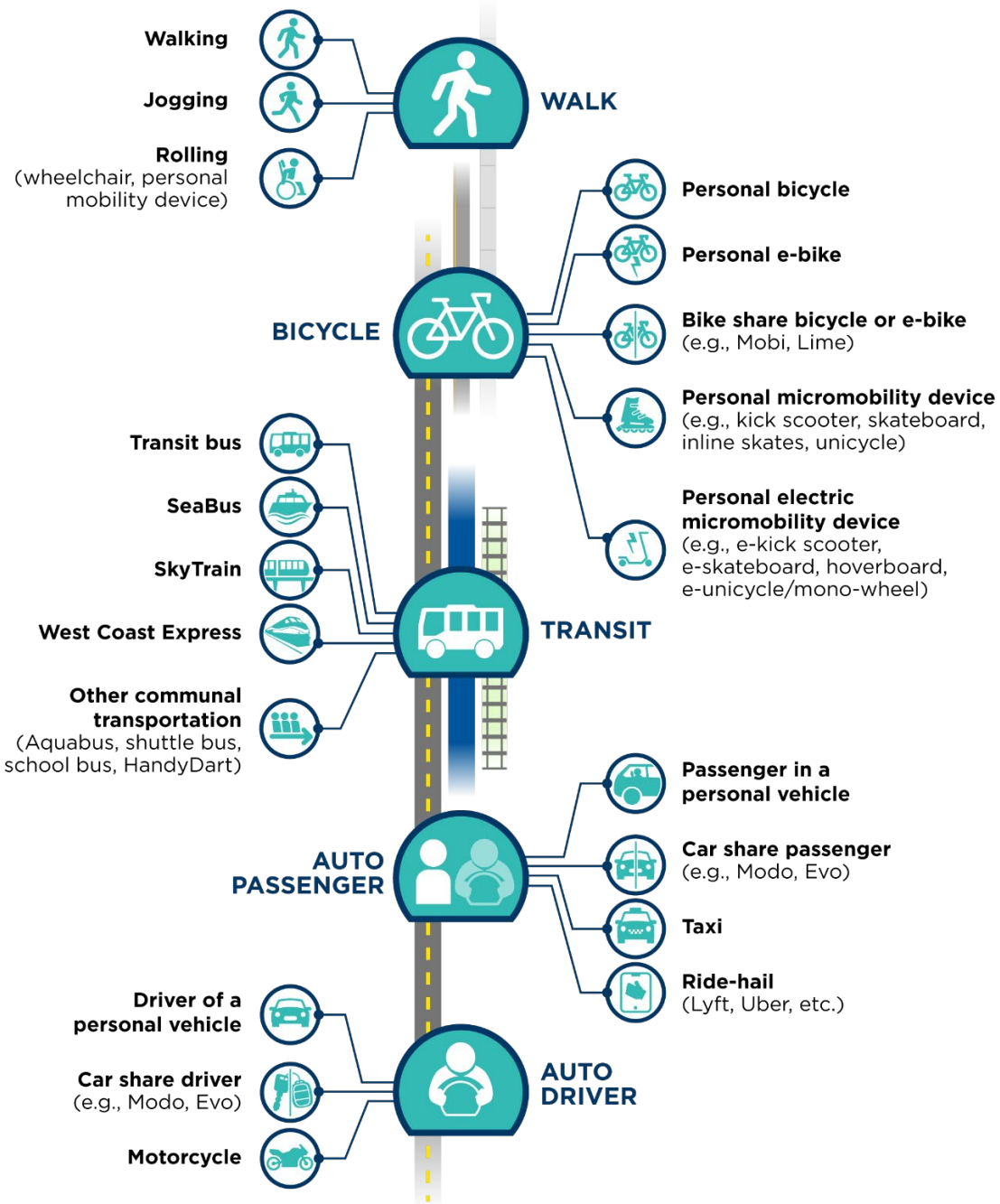
True trends should become apparent in the survey measurements over time despite the 'noise' from cycle-to-cycle variations due to sampling errors, minor methodological differences, or other sources of error. Given that this is the twelfth cycle of VTS, we can expect that the meaningful differences in the results from year-to-year signal actual changes in the population and/or their travel patterns.

2.1 Transportation Modes

To provide an overview of trends in transportation mode shares, this report usually breaks out modes by five broad groups: Auto Driver, Auto Passenger, Transit, Walk, and Bicycle. Within these mode groups, a number of specific modes are often used. They are organized as outlined below. Micromobility and e-micromobility devices are grouped with bicycles because of commonalities in terms of range, usage, portability, and technology. Other modes not classifiable in the groups below, such as intercity bus, airplane, VIA rail, etc., are excluded from the analysis (with very few such modes reported). See **Figure 2** for a detailed breakdown of the classification of modes.

[11] 19 times out of 20, for a given survey question, the survey response percentage should be somewhere within the margin of error of the survey results. The margin of error has been corrected to take into account the increase in error associated with data weighting to correct for over-/under-sampling and/or non-response bias. The formula for margin of error is $E = \pm z\sqrt{\frac{\bar{p}(1-\bar{p})}{n}} \times \sqrt{\frac{N-n}{N-1}} \times \sqrt{deff}$, where *N* is the size of the sample universe, *n* is the size of the survey sample, *p* is the proportion being assessed (in this case *p=0.50* to obtain the maximum sample error), *z*=1.96, the z-score associated with a 95% confidence level, and *deff* is the design effect associated with the weighting of the sample (with *deff* computed as the sample size times the sum of the squares of the weights divided by the square of the sum of the weights). The margins of sampling error are different at the household level and at the person level given the different universes. For response proportions of greater than or less than 50% (the proportion associated with maximum sample error), the margin of error is less than the maximum margin of error cited as the sampling error.

Figure 2. Classification of Survey Modes for Analysis [12]



[12] The grouping of modes is generally consistent with treatments in previous cycles (e.g., motorcycle grouped with Auto Driver; taxi and ride hail grouped with Auto Passenger; micromobility grouped with Bicycle), with one exception: as of the 2021 survey, communal transportation modes such as Aquabus, school bus, and Handy Dart are now grouped with Transit, but in previous surveys these modes were excluded from analysis. As the number of trips reported by such modes was very few, this in itself should not affect the comparability of results. However, it may also be noted that in 2021 onwards, 'other, specify' responses that corresponded to codes already on the list of modes were recoded to the list of modes as appropriate, whereas treatment of 'others, specify' responses may not have been the same in 2020 or earlier surveys.

2.2 Report Organization

This report is organized into the following sections:

Section 1: Project Overview (preceding section)
Section 2: Analysis of the Survey Results (current section)
Section 3: Survey Geography
Section 4: Participant Characteristics
Section 5: Access to Transportation
Section 6: Daily Trip Characteristics
Section 7: Travel Patterns
Section 8: Perceptions
Section 9: Factors Contributing to Changes in Trip Demand

2.3 Interpreting the Survey Results

Readers should keep the following in mind when interpreting the survey results presented in this report:

- The survey results are based on a 0.6% sample of the population of the city of Vancouver and 1.0% of households. **All figures should be understood to be estimates.**
- **Expanded household, person, and trip counts presented in this report have been rounded to the closest 10** but the actual margin of error is usually considerably greater than units of 10. In some cases, more than two significant figures have been presented to improve readability.
- **Figures presented for individual categories may not always sum to exactly the reported total across those categories due to rounding**.
- Survey response proportions have either been rounded to the nearest percent or one-tenth of a percent.

When making longitudinal comparisons with previous survey cycles, readers should understand that some of the differences between cycles may be the result of variance due to the random sampling of new recruits to the survey, attrition amongst existing panel members, and/or randomness associated with sampling a single weekday for reporting travel (i.e., there will be day-to-day variations in all survey participants' travel). For overall survey results for the total sample, long-term trends should usually reveal themselves above the noise of year-over-year variance due to random sampling. Readers should recognize that not all apparent differences between two survey years may necessarily be meaningful and should consider whether a meaningful trend asserts itself across multiple survey years. When examining longitudinal trends for sub-municipal zones or sub-populations, more caution should be exercised, as smaller sample sizes will contribute to greater noise in year-over-year variance that may make true shifts difficult to discern. While the results by zone or for demographic characteristics may be very useful in illuminating overall patterns, smaller sample sizes will affect the precision with which longitudinal comparisons may be relied on. When looking at subpopulations, comparison across longer intervals and/or multiple survey cycles may be needed to discern whether true shifts are happening.

3 Survey Geography

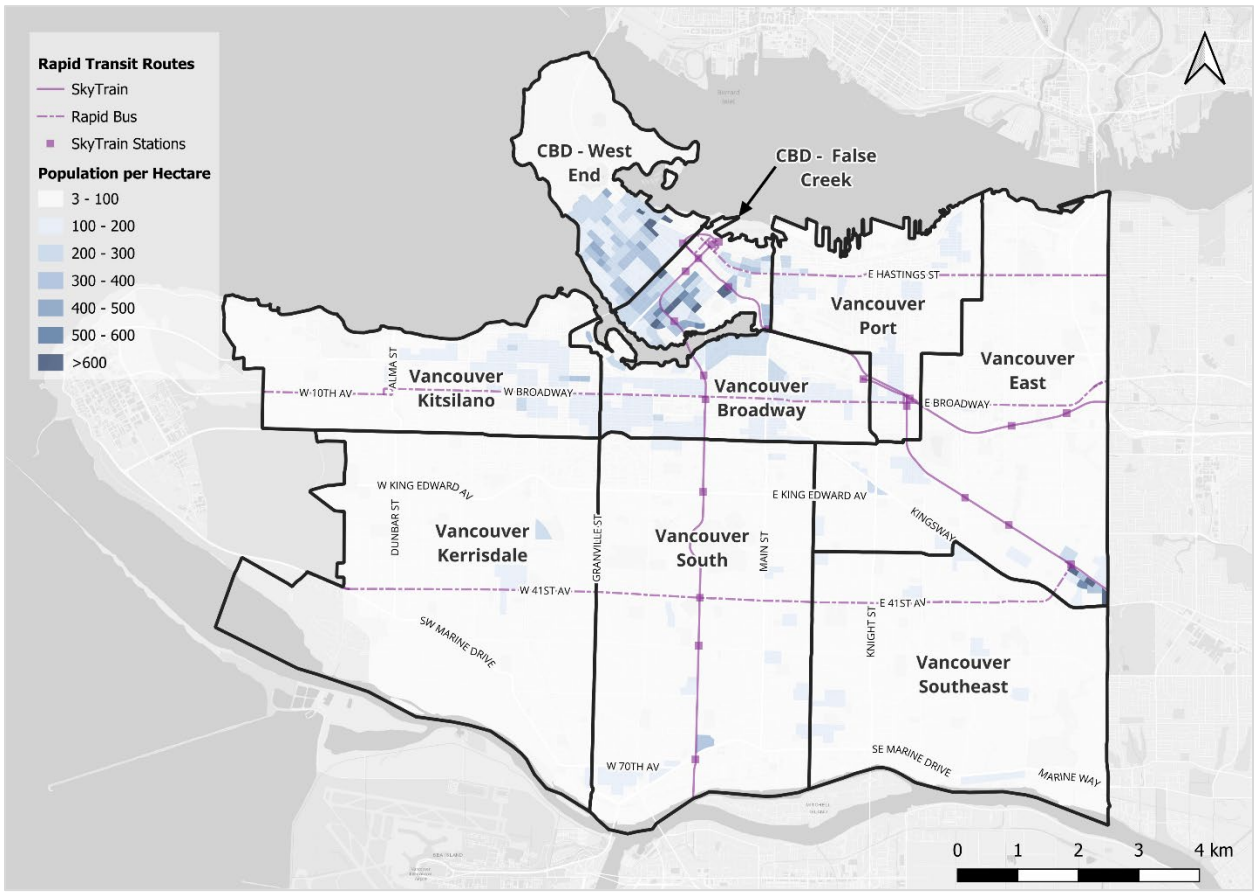
3.1 Survey Scope

The 2024 Vancouver Transportation Survey study area is the city of Vancouver, situated on the unceded traditional territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilwətaɬ (Tsleil-Waututh) Nations.

The study area is presented in **Figure 3** below, shown with the nine transportation planning zones used for analysis. The map shows population density, SkyTrain routes and stations, and major roads. This map has been included because of the influence population density has on mode share as well as other factors such as location of employment, infrastructure provided, as well as participant characteristics. The higher density areas are in the Central Business District (CBD) and surrounding areas, which, as discussed later in the report, is where the highest sustainable transportation mode shares occur.

For the purposes of defining trips external to the study area, a wider geographical 'travel area' was developed that includes the rest of the Lower Mainland. Locations captured by the survey within the city of Vancouver were geocoded to the nine zones within the city, while locations external to the city were geocoded to TransLink's transportation model subregions, aggregated as appropriate for analysis of external work locations and trip destinations.

Figure 3. Map of Study Area with Population Density by Dissemination Area (Population per Hectare)



3.2 Survey Geographies

Table 1 provides information on the population represented by the survey results in each of the transportation planning zones.

Table 1. Zones with Estimated 2024 Population Represented by the Survey [13]

District	Land area (sq km)	Total private dwellings	Total Population	Private Households Occupied by Usual Residents	Population 18+ Years of Age in Private Dwellings	2024 VTS Survey Completions	Person Level Sampling Error
CBD - West End	6.50	42,300	61,600	38,400	56,700	327	±8.1%
CBD - False Creek	3.34	40,700	64,600	37,000	57,200	334	±8.1%
Vancouver Broadway	7.16	41,560	70,000	39,100	60,600	339	±8.5%
Vancouver South	21.32	44,520	102,000	41,600	83,900	517	±6.4%
Vancouver Kerrisdale	22.19	27,370	65,100	25,600	52,900	316	±8.6%
Vancouver Kitsilano	10.85	38,240	69,700	35,800	59,900	324	±9.4%
Vancouver Southeast	17.58	42,000	108,900	39,300	89,400	459	±6.8%
Vancouver East	20.10	51,480	124,500	48,200	103,000	526	±6.3%
Vancouver Port	8.08	25,800	48,000	24,200	40,400	220	±9.6%
Vancouver Total	**117.12**	**353,960**	**714,500**	**329,200**	**604,100**	**3,362**	**±2.6%**

Table 2 shows the population growth in the survey area since 2021, as estimated based on a combination of Census data by zone and population growth data by zone from health registrations.[14] The growth of the surveyed population, which is adults 18+, was 3.3%. These figures are consistent with the methodology used in previous survey cycles but may differ from population estimates from other sources.

Table 2. Projected Population from 2021 Census

Year	Total population	% Annual Growth	Population 18+	% Annual Growth
2021	663,900	-	558,600	-
2022	674,100	1.5%	569,200	2.0%
2023	687,700	2.0%	584,700	2.7%
2024	714,500	3.9%	604,100	3.3%

[13] 2021 Census data scaled up using BC Stats 2024 population forecast growth factors by Local Health Area within Vancouver. Note: All expanded population estimates are rounded to the closest 100 to avoid implying a higher level of precision than is actually present in the expanded survey sample. Individual cells may not always add to the row or column totals due to rounding.

[14] The six Local Health Areas (LHAs) within the city of Vancouver include Vancouver City Centre, Vancouver Centre North, Vancouver Midtown, Vancouver Northeast, Vancouver South, and Vancouver Westside. As the LHAs do not match the survey zone boundaries, the growth rate for each health area was applied to the Census Profile data for DA matched to each health area, with the DAs then aggregated to survey zone.

4 Participant Characteristics

This section describes the characteristics of residents of the city of Vancouver and their households, as captured by the survey, including age, gender, household income, lifestyle/level of physical activity, occupation, bike access, and vehicle access characteristics. The purpose of capturing these characteristics is to better understand travellers' needs, challenges, and patterns. The results are based on the survey sample with selected information from the 2021 census.

4.1 Age and Gender Distribution Using Census Data

Table 3 provides a comparison of the Census distributions against the weighted and expanded survey data, using total population of all ages as the base for percentages for comparability. The survey data closely represents all the age categories but slightly under-represents residents 18-24 years of age, particularly men. Also, women are in a slightly higher proportion of the total population and, consequently, of this survey as well. Overall, the weighted survey frame is a good match in terms of the actual population of the studied region. A picture of the age distribution for the complete population is presented in **Figure 4**. Of particular interest is the large proportion of the Vancouver population between the ages of 25 and 34 (totalling 20.7%, compared to 15.5% for 35-44 and 13.3% for 45-54), reflecting the city's status as a locus of employment and attractor of younger people.

Table 3. City of Vancouver Age and Gender Distributions Using Census Data vs. Survey Data [15]

	Census		Survey	
Age Range	Men+	Women+	Men+	Women+
0-17	6.8%	6.3%	not surveyed	not surveyed
18-24	4.0%	4.1%	3.4%	3.8%
25-34	10.2%	10.5%	10.2%	10.6%
35-44	7.8%	7.7%	7.9%	7.9%
45-54	6.4%	6.9%	6.4%	7.0%
55-64	6.2%	6.5%	6.3%	6.6%
65-74	4.6%	5.2%	4.7%	5.3%
75+	3.0%	3.9%	2.9%	3.7%
Total of 18+	42.2%	44.8%	41.8%	44.9%

[15] Given that the sample of the non-binary population surveyed is small, for the purpose of this report, analysis is undertaken using aggregate categories of "men+" and "women+" that group random portions of non-binary persons with men and women. This follows the approach used by Statistics Canada in aggregating to a two-category gender variable to protect the confidentiality of the responses provided. More information can be found here: *2021 Census gender note* (https://www12.statcan.gc.ca/census-recensement/2021/ref/gender-genre-eng.cfm) and *Filling the gaps: Information on gender in the 2021 Census* (https://www12.statcan.gc.ca/census-recensement/2021/ref/98-20-0001/982000012021001-eng.cfm).

Figure 4. City of Vancouver Age and Gender Distribution using Census Data

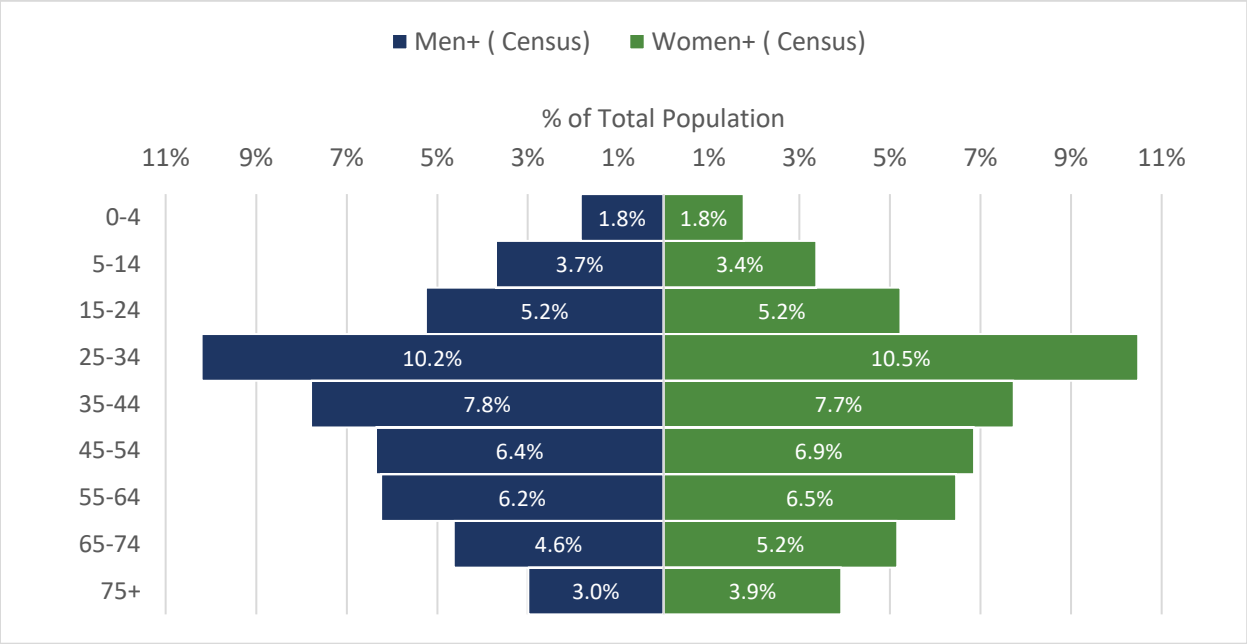


Table 4 illustrates the age distributions of the Vancouver population by zone based on the Census data projected to 2024. Most notable are the higher concentrations (indicated with darker blue shading) of residents ages between 25 and 34 years in the CBD - West End, CBD - False Creek and Vancouver Broadway zones (between 28% and 30%). Similarly, Vancouver Kitsilano and Vancouver Port have slightly higher than average proportions of residents in this age group (21%-22%). The high proportion of young people in the zones could be a contributing factor to the high active and sustainable mode choices observed in these zones, as discussed in **Section 3** of this report.

Table 4. City of Vancouver Population Distribution by Age by Zone Using Projected Census Data

	Van-couver	CBD - West End	CBD - False Creek	Van. Broadway	Van. South	Van. Kerrisdale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
0-17	13%	6%	8%	10%	15%	17%	12%	16%	15%	12%
18-24	8%	5%	7%	5%	9%	11%	8%	9%	9%	6%
25-34	21%	28%	30%	28%	18%	12%	22%	16%	19%	21%
35-44	16%	19%	20%	20%	14%	9%	15%	13%	14%	19%
45-54	13%	12%	13%	13%	13%	15%	13%	13%	13%	14%
55-64	13%	12%	11%	10%	13%	14%	12%	14%	14%	13%
65-74	10%	10%	8%	8%	10%	12%	10%	11%	10%	10%
75+	7%	6%	4%	5%	7%	10%	7%	8%	7%	6%

Source: 2021 Census projected to 2024 based on overall population growth by sub-municipal local health area

4.2 Household Characteristics

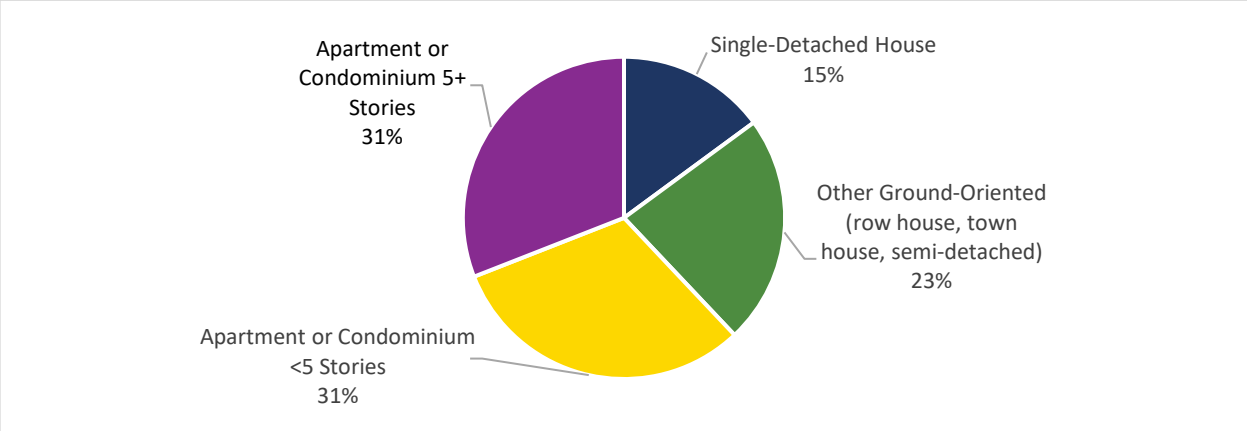
Household characteristics, such as dwelling type, household size and household income, are discussed in this chapter, with reference to Statistics Canada and survey data where relevant, except for dwelling type and household size (which already closely match the Census, as they were part of the weighting controls).

4.2.1 Dwelling Type

Figure 5 shows the distribution of dwelling units by type, while **Figure 6** provides the distribution of the survey population (adults 18+ years of age) by dwelling type. These two figures are indicative of the higher number of persons per dwelling in single-detached and other ground-oriented housing than the apartment categories. Overall, 62% of dwellings are apartments or condominiums of five or more stories and apartments or condominiums in one to four-storey buildings, 31% each. These mid-rise to high-rise dwellings house about 51% of the survey participants. Single-detached houses account for only 15% of dwellings and 21% of survey participants.

Figure 7 presents this information by zone. The CBD primarily has apartments (99% for CBD - West End and 98% for CBD - False Creek), with the majority having 5 or more stories. Areas surrounding the CBD also have significant numbers of multi-family dwellings, with apartments accounting for 90% of dwellings in Vancouver Broadway, 71% in Vancouver Port and 69% in Vancouver Kitsilano. These numbers are significantly lower in the areas further out with significantly more single-detached and ground-oriented dwellings. The areas with the least number of apartments are Vancouver Southeast (27%), Vancouver Kerrisdale (30%), and Vancouver East (33%). The weighted survey data closely match the 2021 Census distributions.

Figure 5. Dwelling Units by Dwelling Type [16]



[16] As the Census count of households by dwelling type by zone was included as one of the weighting controls, the survey percentages align very closely with the Census. While the total Census counts have been scaled upwards using growth data by Local Health Area within Vancouver, the proportions by dwelling category are effectively the same as in the year of the Census.

Figure 6. Survey Population by Dwelling Type [17]

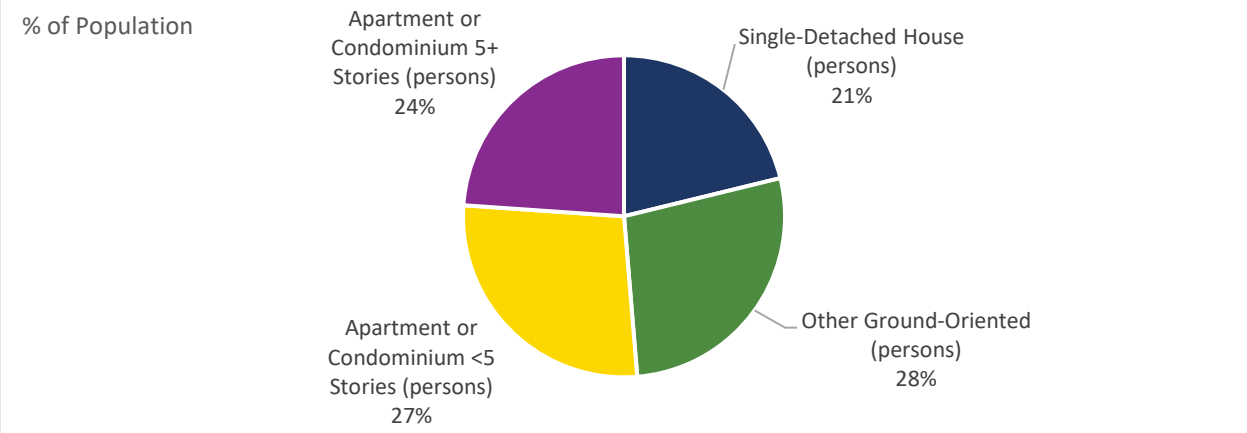
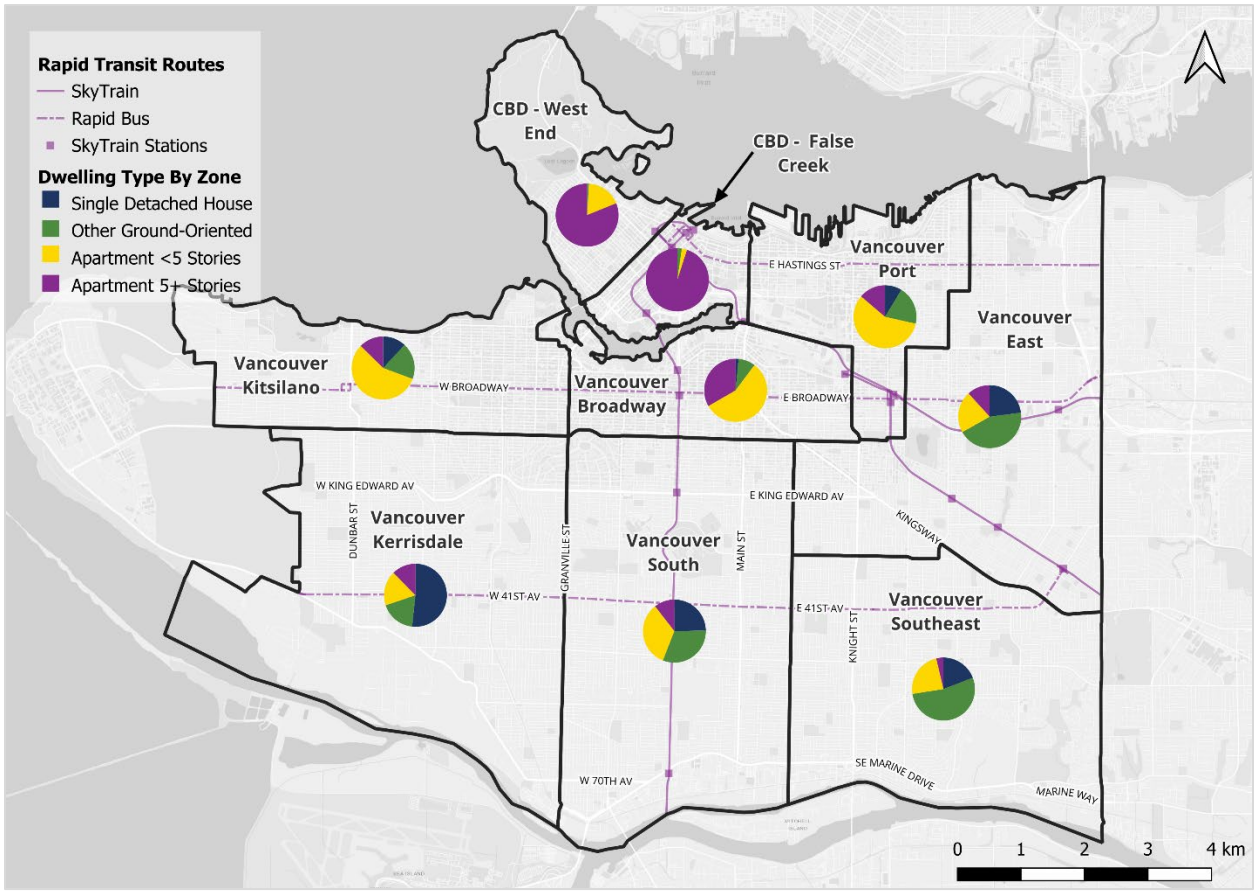


Figure 7. Map of Dwelling Type by Zone



[17] As the Census count of population by dwelling type by zone was included as one of the weighting controls, the survey percentages align very closely with the Census. While the total Census counts have been scaled upwards using growth data by Local Health Area within Vancouver, the proportions by dwelling category are effectively the same as in the year of the Census.

4.2.2 Household Size

Figure 8 and **Table 5** show the distribution of household size overall and by zone. About four in ten households in the city of Vancouver are single-person households. Areas with a higher proportion of single-person households—CBD - West End, CBD - False Creek, Vancouver Broadway, Vancouver Kitsilano, and Vancouver Port (ranging from 43% to 56%)—are also those that have above-average proportions of young people and lower automobile ownership. Vancouver South, Vancouver Kerrisdale, Vancouver Southeast, and Vancouver East have higher proportions of larger households (ranging between 37% to 46% of households having at least three people). The weighted survey data closely matched the 2021 Census distributions.

Figure 8. Household Size [18]

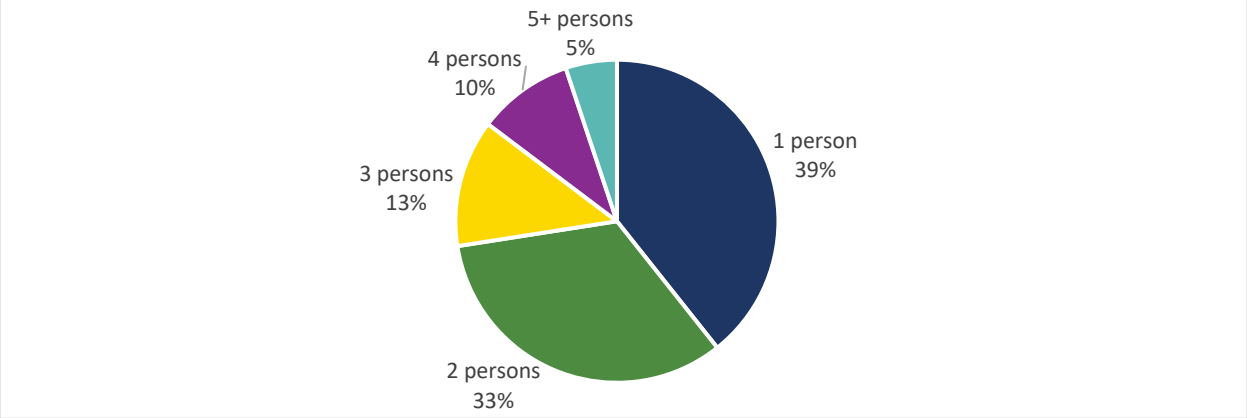


Table 5. Distribution of Households by Household Size, by Zone

	Vancouver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Dwellings	329,200	38,500	37,000	39,100	41,600	25,600	35,800	39,300	48,200	24,200
1 person	39%	56%	53%	49%	31%	27%	43%	24%	27%	48%
2 persons	33%	34%	35%	36%	32%	32%	36%	30%	32%	31%
3 persons	13%	7%	8%	9%	16%	17%	11%	19%	17%	10%
4 persons	10%	3%	3%	5%	13%	15%	8%	16%	15%	7%
5+ persons	5%	1%	1%	1%	8%	9%	2%	11%	9%	3%

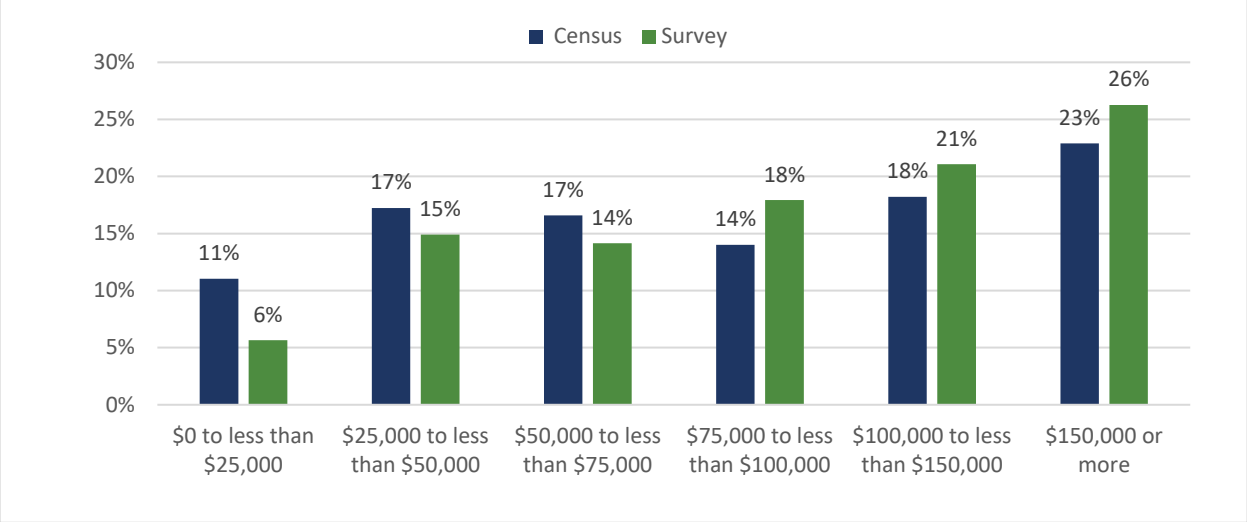
4.2.3 Household Income

Income is highly correlated to vehicle ownership, mode choice, and daily trip rates. Household characteristics discussed in this section indicate that high-income households tend to have larger household sizes and prefer living in areas with more single-family housing. In contrast, low-income households typically have smaller household sizes and are more likely to reside in areas with apartment or condominium-type dwellings. **Figure 9** and **Table 6** show the distribution of survey participants'

[18] As the Census count of households by household size by zone was included as one of the weighting controls, the survey percentages align very closely with the Census. While the total Census counts have been scaled upwards using growth data by Local Health Area within Vancouver, the proportions by household size are effectively the same as in the year of the Census.

households by income overall and by zone.[19] As is common with surveys of the general population, households with lower income levels are underrepresented in the survey data. 2021 Census data suggests that 11% of households had an annual income of less than $25,000 per year, compared to only 6% of survey respondents. Similarly, higher income households are somewhat overrepresented, accounting for 26% of survey respondent households compared to 23% of Vancouver residents based on 2021 Census data.

Figure 9. Annual Household Income Census Data vs. Survey Data



Amongst survey respondents, by zone, Vancouver Kerrisdale (41%) has the highest proportion of high-income households with household income of $150,000 or more, followed by Vancouver Kitsilano (34%) and CBD - False Creek (29%). Higher proportions of households with relatively lower income (less than $50,000) occur in Vancouver Port and Vancouver Southeast.

Table 6. Distribution of Surveyed Households by Annual Household Income, by Zone [20]

	Vancouver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
$0 to less than $25,000	6%	5%	6%	5%	4%	4%	3%	9%	5%	12%
$25,000 to less than $50,000	15%	21%	13%	13%	12%	12%	13%	18%	13%	20%
$50,000 to less than $75,000	14%	13%	12%	20%	18%	9%	17%	17%	9%	9%
$75,000 to less than $100,000	18%	19%	16%	20%	18%	11%	16%	15%	22%	20%
$100,000 to less than $150,000	21%	23%	23%	17%	23%	23%	17%	21%	25%	17%
$150,000 or more	26%	19%	29%	26%	25%	41%	34%	20%	25%	22%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

[19] The survey percentages presented here are based on valid responses only, excluding responses of "Decline / don't know" (about 10% of respondents). Participants who did not provide a valid income response may not have the same distribution as those who provided a valid response.

[20] The survey percentages presented here are based on valid responses only, excluding responses of "Decline / don't know". Note that the distributions of surveyed households may not match Census distributions or actual distributions, and from survey to survey cycle, the results may fluctuate due to variance associated with the random sampling of new recruits and attrition amongst panel members.

4.3 Equity Demographics

The City has been working towards better incorporating equity into its transportation system, including a citywide equity framework, a climate and equity working group and demographic equity analysis, with equity being set out as an important guiding consideration in the City's Climate Emergency Action Plan (CEAP). In 2021, the survey was revised to include new questions related to equity demographics to determine patterns that may help inform the City's initiatives.

It is important to note that race is a social construct with no biological or scientific basis and is often used to establish and justify systemic/societal systems of power, privilege, and oppression. Survey participants were asked how they would classify their own racial identity. For the analysis of the survey responses, based on Census population group categories, non-white respondents may be referred to as visible minorities.

The survey also included questions on when immigrants arrived in Canada, what their family situation is, and their highest level of education. This is in addition to other equity-related demographic questions, such as age, gender, household income, and mobility challenges. The analysis of the responses to these survey questions allows for equity-based analysis to be conducted that recognizes that people in different population groups may have different lived experiences, with those experiences extending to their interaction with available transportation options.

Figure 10 and **Figure 11** on the following pages provide an overview of the year of immigration and racial identity demographics of the 2024 survey participants relative to the 2021 Census statistics for the city of Vancouver. The following observations can be made about the representativeness of the weighted survey data:

- The overall profile of survey participants by year of immigration is similar to that described by the Census data, with some under-representation of non-permanent residents and immigrants, and over-representation of people born in Canada.
- The survey data appears to under-represent people who may be considered to be part of visible minority populations, who in 2021 made up 55% of Vancouver's population, but only represent 34% of survey participants. Similar to 2023, East Asians are most under-represented (29% of the population in 2021 and 21% of survey participants) but nevertheless provide a large sample for analysis.

Notwithstanding that the survey data may somewhat over- or under-represent some groups, with implications for possible bias in the survey results due to the non-response of certain groups, the data may still be used to explore whether there are differences in travel patterns for different groups.

Detailed analysis of these equity variables by geographic zone or in relation to other demographic variables, such as income, is not explored here; however, this report does provide a high-level analysis of mode shares for different demographics and household characteristics in **Section 6.3** of this report. It may be of interest for the City to explore these variables further in the context of a deeper analysis of transportation equity as it relates to access to transportation, mode choice, and other travel patterns.

Figure 10. Immigration Status[21] Census Data vs. Survey Data[22]

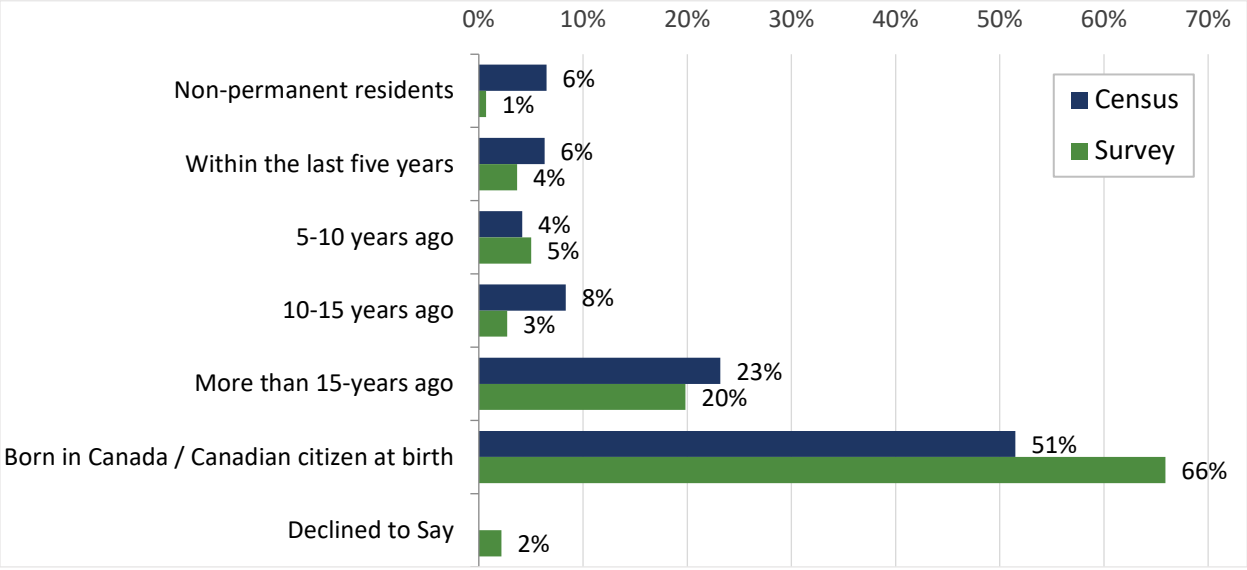
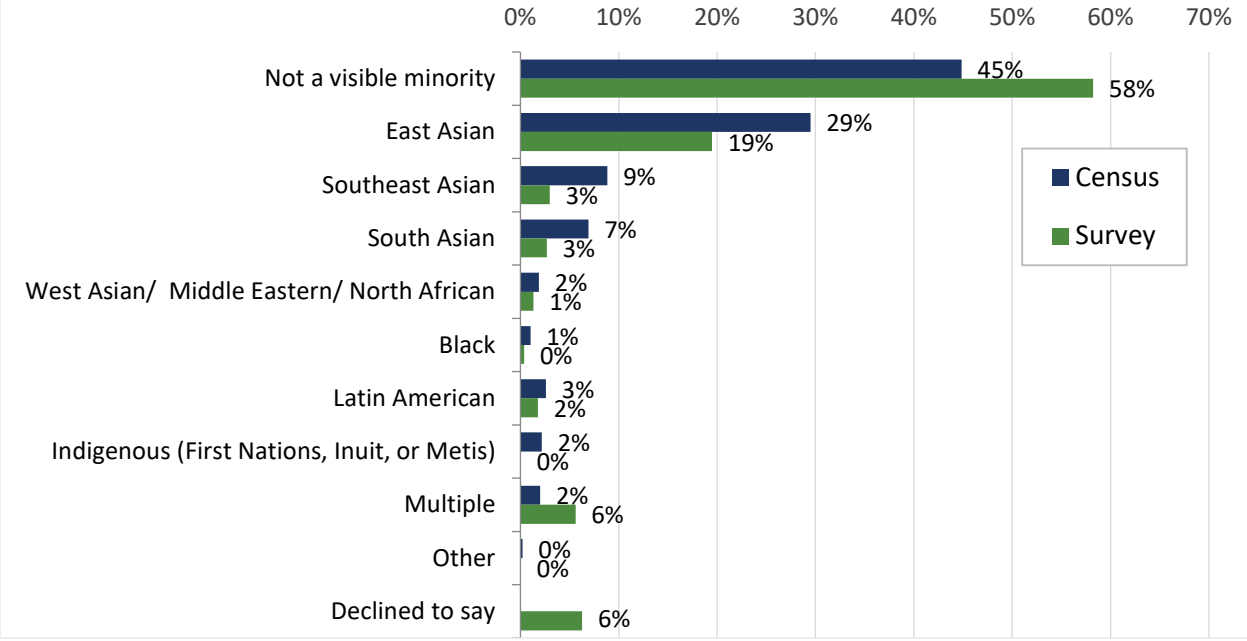


Figure 11. Self-reported Racial Identity Census Data vs. Survey Data[23]



[21] Caution should be exercised when making comparisons to the Census data, as the Census data include children 0 to 17 years of age, whereas the survey results include only adults 18+ years of age.

[22] The Census was conducted in 2021, and the survey was conducted in 2024. This may slightly affect comparability, but the categories used are generally equivalent, just offset in terms of both the year of measurement and the year-of-immigration ranges asked about on the survey.

[23] Caution should be exercised when making comparisons to the Census data, as the Census data include 0- to 17-year-olds, whereas the survey data only include participants 18+ years of age. Graph excludes the 4% of survey participants who declined to answer this question. Those who declined to answer may have a different distribution than those who did answer.

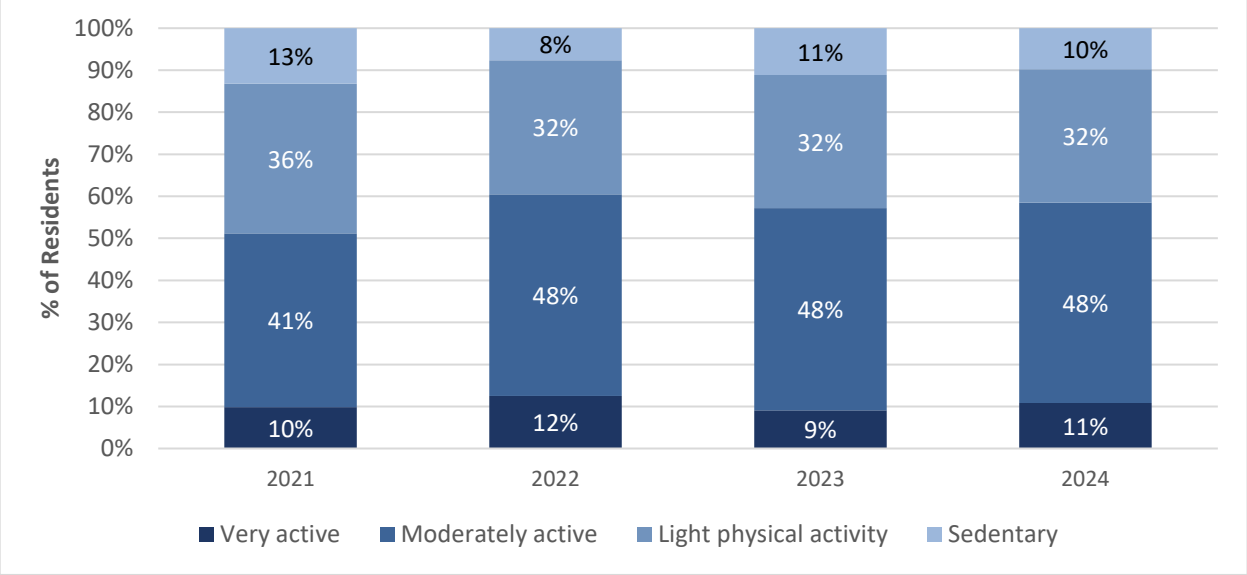
4.4 Lifestyle/Level of Physical Activity

Taking into account work, recreation, and activities around the home, survey participants were asked to provide a self-assessment of their level of physical activity, using the following response categories:

- Sedentary (desk job, little or no exercise),
- Light physical activity (on your feet some of the day, light exercise once or twice per week),
- Moderately active (on your feet most of the day, moderate exercise 3 to 7 times per week), and
- Very active (walking most of the day, hard exercise almost every day).

These results are reported in **Figure 12** and show that nearly one-half (48%) of participants indicated a moderately active lifestyle. About one in ten participants indicated a sedentary lifestyle (10%), about one-third reported light physical activity (32%), and a small percentage reported being very active (11%). While there was a higher incidence of those answering sedentary or light activity during the pandemic (49% combined in 2021), it has been lower since (ranging from 40% to 43% from 2022 to 2024).

Figure 12. Level of Physical Activity[24]



When looking at those who are moderately or very active by age, **Figure 13**, we see that survey participants between 18 and 24 are least likely to report being moderately or very active (54%) with this percentage increasing with age to 70% amongst those 65 to 74 years old. The activity level is lower for those aged 75 years or more, at 55%. It is difficult to know the extent to which people of different age groups may interpret the categories, but the results do seem to suggest a pattern of increasing activity up to age 74.

[24] This chart provides corrected numbers for 2023. The 2023 report erroneously listed unweighted survey percentages. In this version of the chart, the survey results for all years are appropriately weighted.

Figure 13. Moderately or Very Active Physical Activity by Age Group[25]

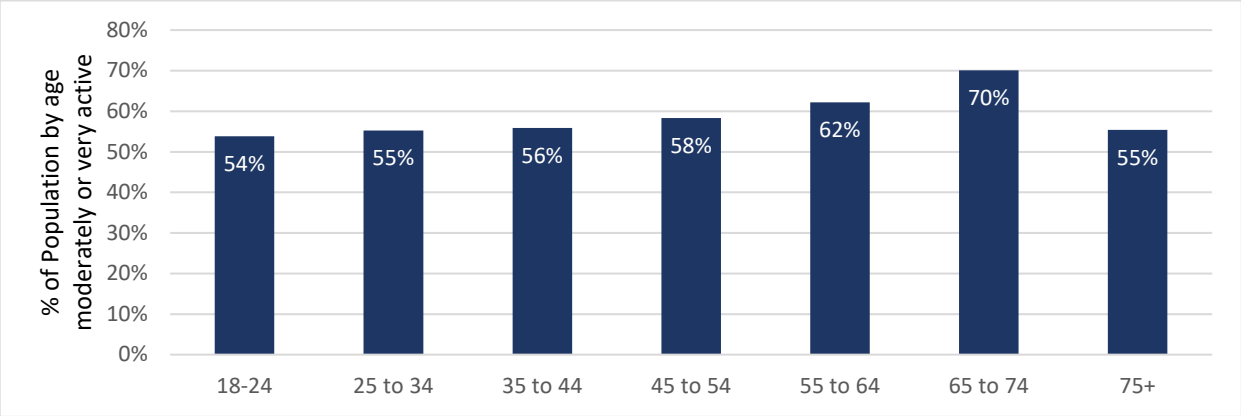
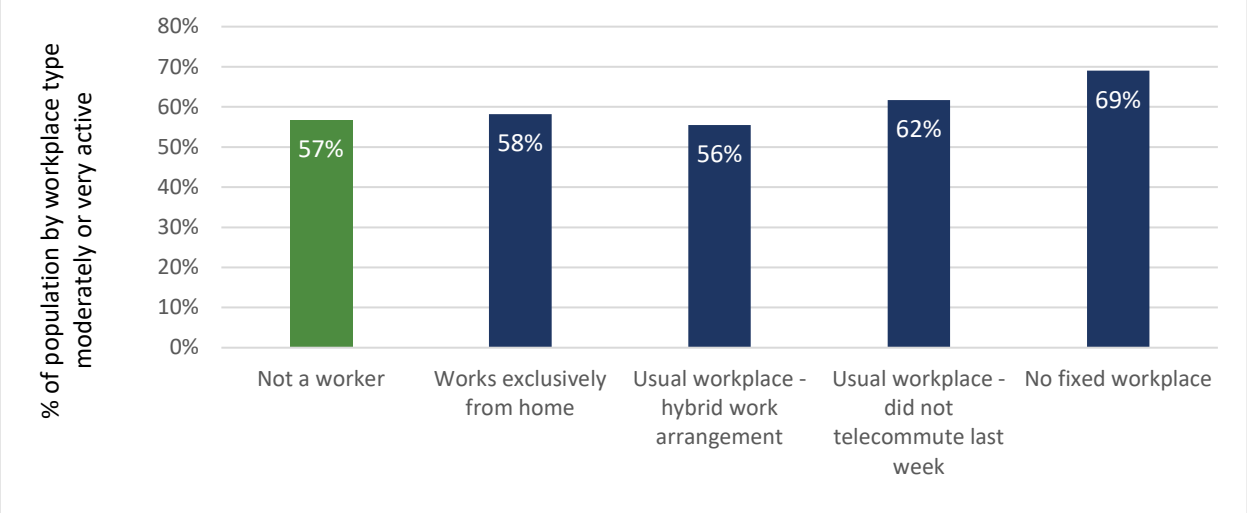


Figure 14 looks at moderately or very active scores by type of workplace and workplace arrangement (whether those with a usual workplace have hybrid work arrangements, i.e., telecommuted at least one day of the week in the past week). The results suggest that those who regularly go to a workplace or worksite outside the home have higher levels of physical activity (62% for those who always travel to work and do not telecommute, and 69% for those with no fixed workplace) than those who work at home exclusively (58%) or hybrid workers who work at home some of the time (56%), who are generally on par with non-workers. Note that those with hybrid work arrangements are more likely to have office jobs and work on computers, so their work may be more sedentary to begin with, regardless of whether they work from home or work at the office on a given day. Nevertheless, there may be a link between commuting or travelling for work purposes and level of physical activity that may be of interest to explore in other research.

Figure 14. Moderately or Very Active Physical Activity by Workplace Location / Work Arrangement



[25] Interpret results for 18- to 24-year-olds with caution due to small sample sizes.

4.5 Occupational Characteristics

This section describes the survey participants' occupational characteristics, which include employment and/or student status, employment type, and employer or school support for sustainable transportation programs (e.g., company carpool or car share, subsidized transit pass, etc.). The survey results are based on the population sample of age 18 years or older.

4.5.1 Occupational Status

Figure 15 illustrates the employment statuses of survey participants, while **Figure 16** illustrates student status, with both charts illustrating the overlap between employment and school. The survey results show that nearly two-thirds (66%) of the city's adult residents are employed, most of whom report working full-time (55%). Retired people account for the next-largest group, representing 20% of the adult population. Note that these results exclude the small proportion of the total population living in collective dwellings, such as long-term care facilities, which were not within scope to survey.

Overall, 9% of adults who participated in the survey are students, with 7% being full-time students and 2% part-time students. About one-half (46%) of all students are also employed.

Figure 15. Employment Status[26]

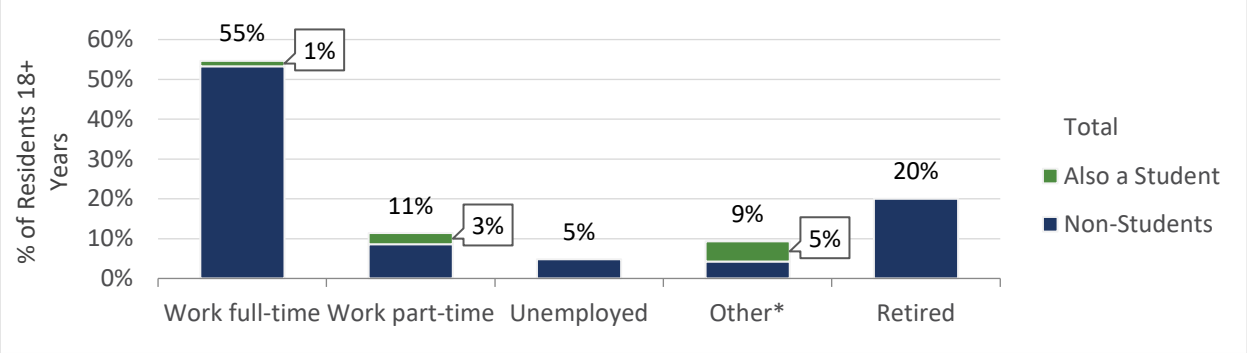
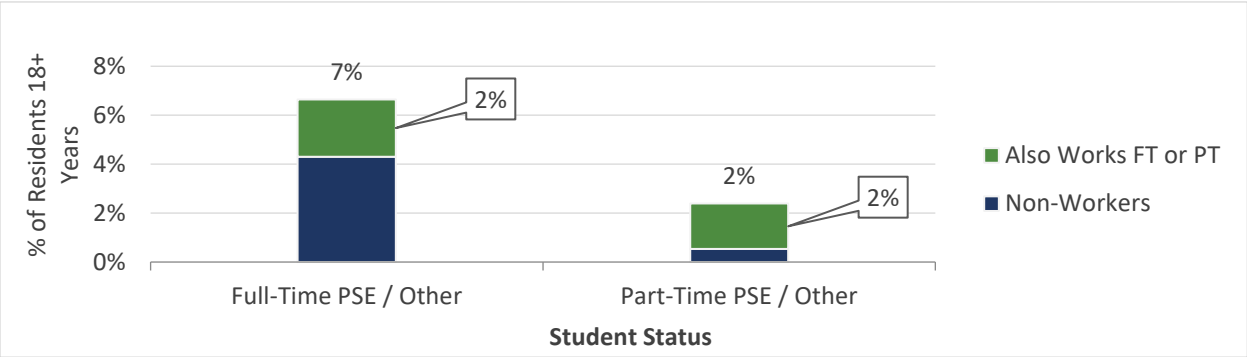


Figure 16. Student Status[27]



[26] Other statuses: on disability, on leave from work, homemaker, volunteer and not a worker, or student but not employed.

[27] PSE = Post-Secondary Education; Other may include Adult Basic Education, high school upgrading or equivalency, or other types of courses or programs.

Figure 17 and **Table 7** show employment status and student status by zone. Vancouver Kerrisdale has the lowest percentage of full-time workers (42%) and the most retired people (27%). The CBD - False Creek zone has the greatest number of full-time workers at 64%, followed by Vancouver East (59%) and Vancouver Kitsilano (58%). In comparison to 2023, the proportion of full-time workers in Vancouver East has increased, surpassing CBD - West End and Vancouver Broadway. Vancouver Kerrisdale has the highest proportions of adult students at 16% and Vancouver East has the lowest proportions at 5% of survey participants.

Figure 17. Map of Employment Status by Zone

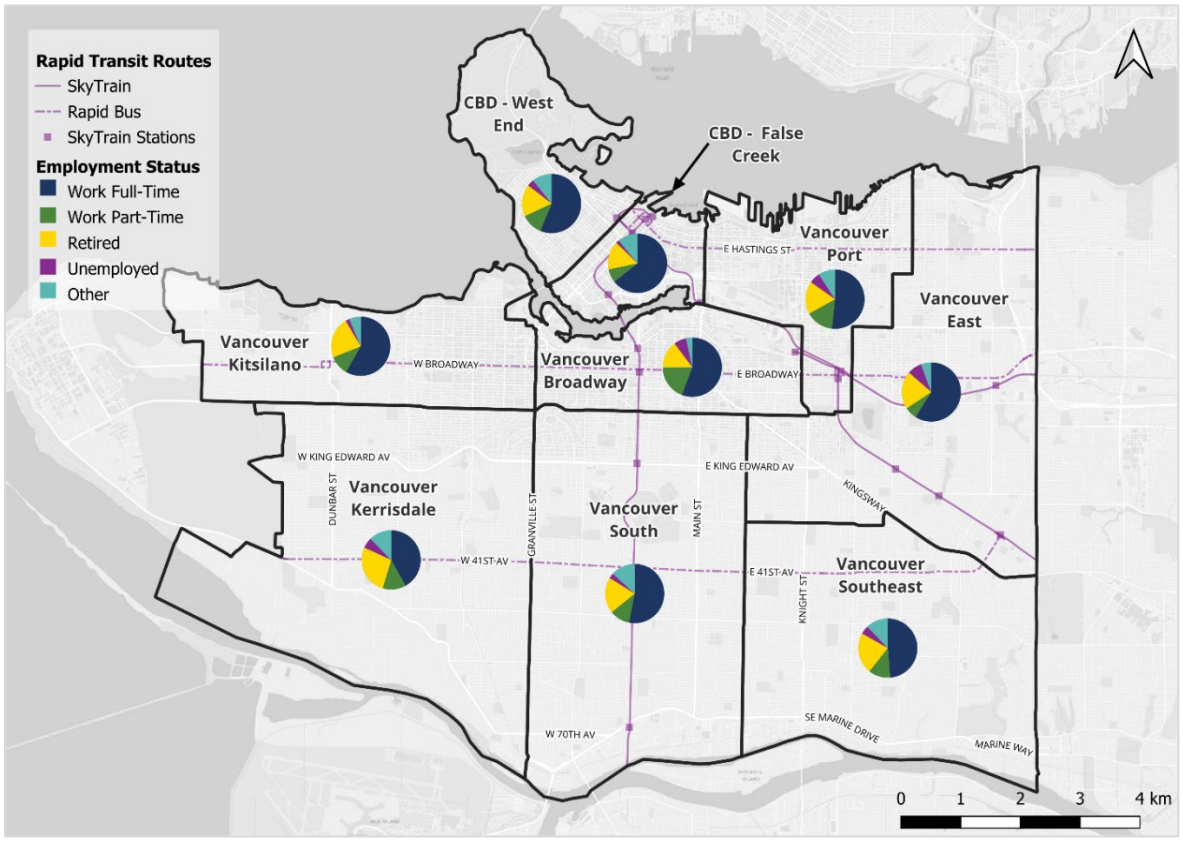


Table 7. Employment and Student Status, by Zone[28]

	Van-couver	CBD – West End	CBD – False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Employment Status										
Work Full-Time	55%	56%	64%	56%	53%	42%	58%	49%	59%	52%
Work Part-Time	11%	12%	7%	19%	11%	13%	11%	12%	7%	15%
Unemployed	5%	4%	2%	7%	3%	6%	2%	5%	8%	6%
Other	9%	11%	11%	3%	13%	12%	6%	12%	6%	9%
Retired	20%	17%	16%	15%	20%	27%	23%	22%	21%	18%
Student Status										
Full-Time	7%	8%	7%	2%	8%	12%	6%	7%	3%	9%
Part-Time	2%	1%	3%	4%	2%	4%	3%	2%	2%	1%
Total students	9%	9%	9%	6%	11%	16%	9%	10%	5%	10%

[28] Other statuses: on disability, on leave from work, homemaker, volunteer and not a worker, or student but not employed.

4.5.2 Employer Support for Sustainable Transportation Programs

Sustainable transportation programs range from providing electric vehicle charging infrastructure to having a company carpool/car share program to employer-subsidized transit passes. **Figure 18** below summarizes the proportion of workers living in Vancouver whose employers support various sustainable transportation programs. The results show that nearly half (49%) of workers have access to at least one program. Similar to 2023, secure lock-up for bicycles is the most common support offered, with one-third (35%) of workers having access to bicycle storage, followed by access to shower/locker facilities at work (32%). Only 5% of employers offer subsidized bikeshare membership.

Looking at programs that support modes other than biking (i.e., auto and transit), we see that just over one in ten (15%) workers have access to EV charging stations at their place of employment and 4% have access to a company carpool or car share program. Regarding transit, 14% of workers reported having access to transit subsidies and 2% having access to shuttles to transit hubs.

Figure 18. Access to Employer Supported Sustainable Transportation Programs[29]

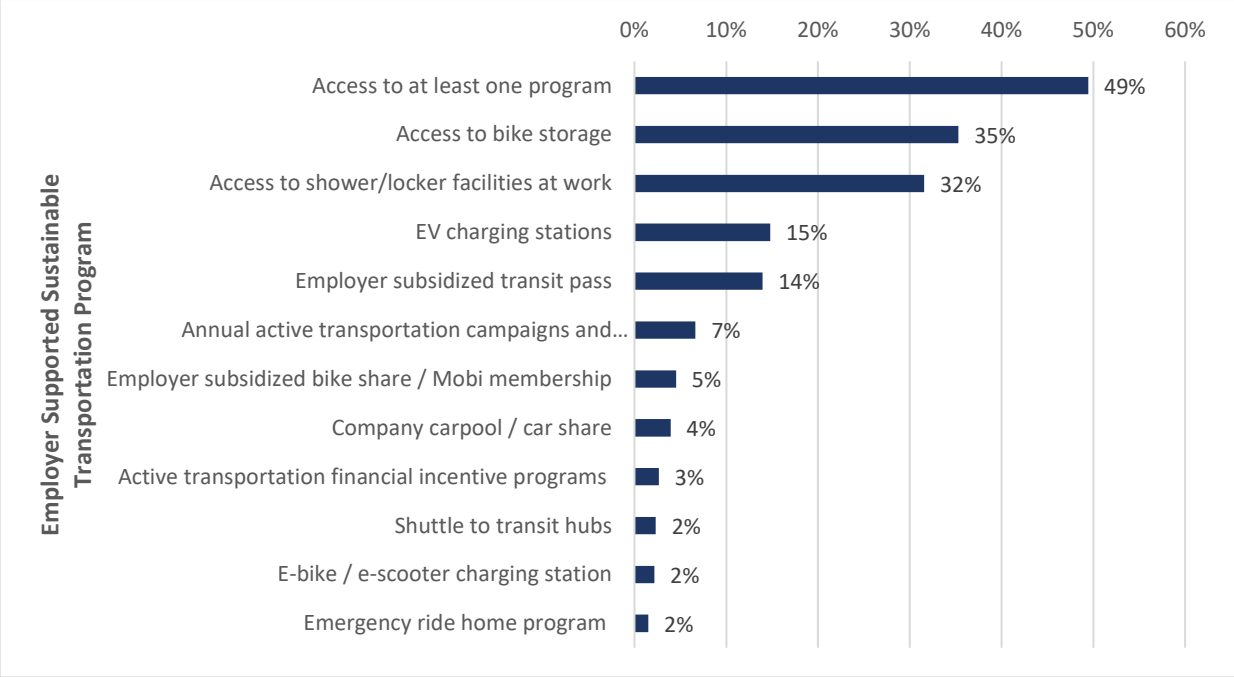


Table 8 highlights that access to such programs varies by zone, with employer support of programs being highest for jobs located in the CBD (high in both CBD zones, with CBD - False Creek having the highest support of all zones), Vancouver Broadway and Vancouver Port. These zones also have the highest sustainable mode shares (as presented later in this report, in **Section 6.3.4**).

[29] Percentages add to greater than 100% due to multiple responses.

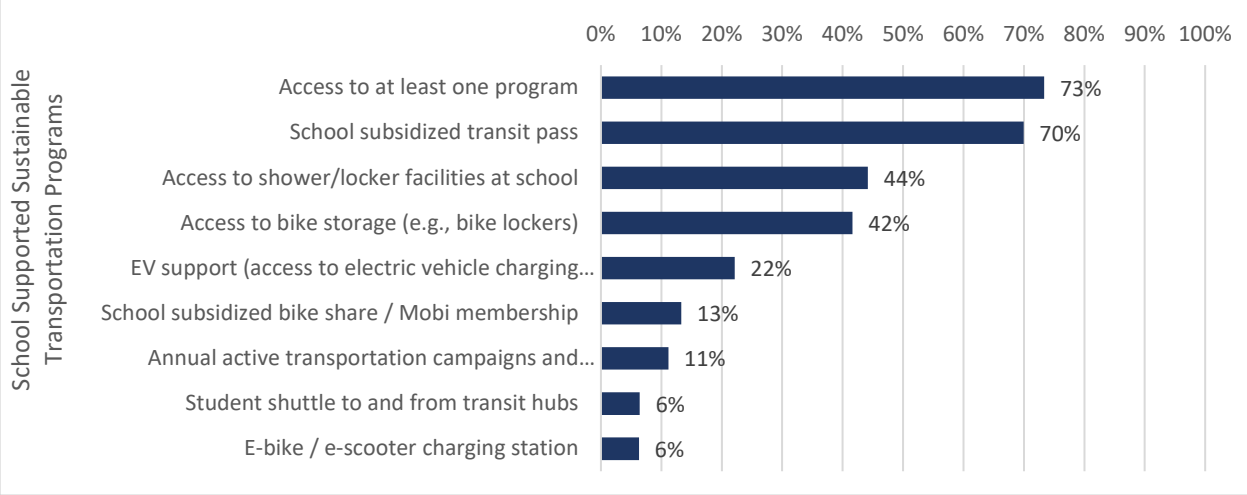
Table 8. Access to Employer Supported Sustainable Transportation Programs by Zone of Workplace[30]

	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Jobs Held by Vancouver Residents	34,200	80,800	57,600	34,300	16,800	26,200	14,900	20,700	20,600
Access to at least one program	44%	60%	56%	31%	30%	33%	14%	33%	55%
Access to bike storage	33%	47%	47%	19%	16%	25%	10%	27%	41%
Access to shower/locker facilities at work	26%	40%	39%	14%	18%	13%	8%	27%	27%
EV charging stations	10%	14%	12%	13%	9%	7%	5%	16%	6%
Employer subsidized transit pass	13%	15%	23%	14%	8%	2%	7%	4%	9%
Annual active transportation campaigns and promotions	3%	5%	13%	7%	10%	0%	5%	0%	6%
Employer subsidized bike share / Mobi membership	7%	4%	9%	3%	5%	0%	5%	0%	5%
Company carpool / car share	1%	1%	8%	3%	4%	1%	8%	0%	5%
Active transportation financial incentive programs	1%	2%	7%	3%	4%	0%	7%	0%	5%
Shuttle to transit hubs	0%	0%	2%	6%	3%	0%	1%	0%	0%
E-bike / e-scooter charging station	2%	2%	3%	2%	1%	0%	1%	0%	4%
Emergency ride home program	1%	1%	2%	1%	0%	0%	1%	0%	3%

4.5.3 School Support for Transportation Programs

Figure 19 shows the proportion of students in Vancouver who have access to school supported transportation programs. The results show that about three-quarters (73%) of students have access to at least one program. Access to a subsidized transit pass is the most common, with over two-thirds of students (70%) reporting access. About 44% reported having access to shower/locker facilities and 42% reported access to bike storage.

Figure 19. Access to School Supported Sustainable Transportation Programs[31]



[30] Percentages add to greater than 100% due to multiple responses. Workers with jobs located in municipalities outside Vancouver are not presented in the table. About 23% of workers who live in the City of Vancouver work outside the city.

[31] Percentages add to greater than 100% due to multiple responses. Interpret results with caution due to small sample size (n=108 students).

5 Access to Transportation

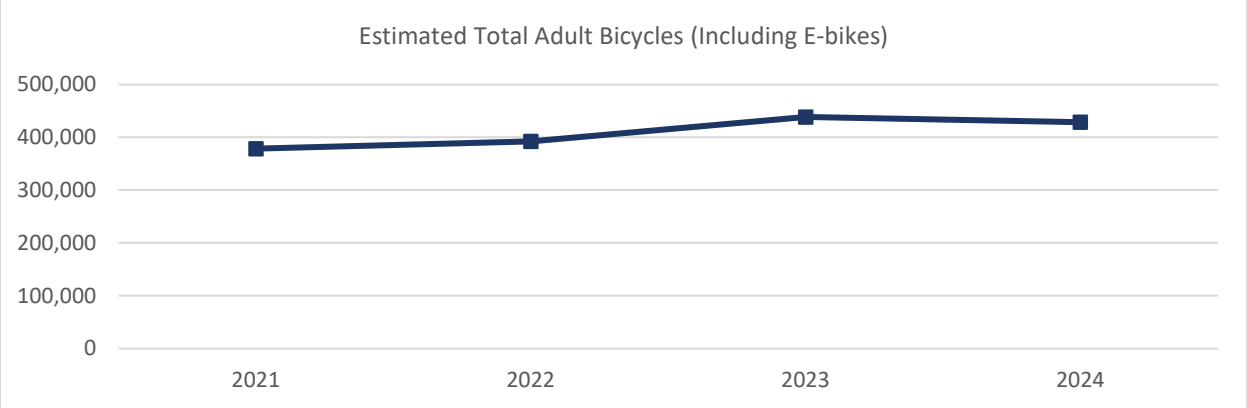
This section presents findings related to access to transportation, including bicycle and micromobility device access, vehicle access, and car share membership.

5.1 Bicycle and Micromobility Access

5.1.1 Bicycle Availability

The expanded survey results in **Figure 20** suggest that residents own over 428,800 bicycles, which is a substantial increase from the survey estimate of 392,000 in 2022 but a decrease from the estimate of 438,000 in 2023. When looking at the long-term trend, it appears there is a general trend of an increase in bicycle ownership, with some year-over-year variance that is likely attributable to random sampling. There are a number of factors that may contribute to bicycle ownership, including the population, rising gas prices, place of work, continued interest in e-bikes, access to cycling facilities, and differences between sample cycles.[32] **Table 9** on the following page shows that most Vancouver households have at least one adult bicycle, with 66% of the adult population having access to a bicycle.

Figure 20. Total Adult Bicycles Including E-Bikes, 2021 to 2024 (expanded survey estimate)



Compared to 2023 results, there has been a minor increase in e-bike ownership, from around 39,300 e-bikes accounting for 9% of all adult bikes in 2023 to 40,800 e-bikes accounting for 10% of all bikes in 2024. While only 10% of bicycles are e-bikes, 25% of bicycle trips on weekdays are made with e-bikes, which has increased from 18% in 2023. Some e-bike owners may have purchased their e-bike with a specific intent to facilitate more frequent cycling than was possible or comfortable for them with a pedal bike, while other e-bike owners may have started cycling more frequently after discovering the increase in range, cargo-carrying capacity, or comfort.

[32] The spike in 2023 was explored. New recruits to the 2023 survey reported proportionately more bicycles per household than returning panel members, and more so again than the 2022 participants who did not participate again in 2023. A portion of the difference between the survey cycles may be attributable to the margin of error in the random samples of new recruits. Responses to the 2022 and 2023 surveys of panel members who participated in both cycles were reviewed to verify the consistency of responses and did show growth in the number of bicycles, particularly in e-bicycles, albeit more modest growth than the total sample.

The number of e-bikes grew more rapidly in 2023 (from 31,700 to 39,300) than in 2024 from (39,300 to 40,800). One contributing factor may be the rebate program introduced by the Province. Beginning in June 2023, residents of British Columbia could apply for rebates after purchasing an e-bike. Based on their income, they could receive a maximum rebate of $1,400. It's likely that there was a latent demand that was met when the program initially came out.

Bicycle ownership is lowest in the areas with the most apartments (the two CBD zones), which is further talked about in **Section 5.1.4** on demographic trends in access to bicycles. Bicycle ownership is also lower in the Vancouver Southeast zone compared to other zones. For this zone, dwelling type may be less of a factor, since it has few apartments and more ground-oriented dwellings. Reasons for this lower bicycle ownership rate may be related to travel distance to employment and other non-residential destinations, topography, number of people per household, or lack of cycling facilities.

Table 9. Bicycles and Bicycle Access by Zone

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Estimated total adult bicycles (incl. e-bikes)	428,800	30,200	41,000	48,500	62,900	43,000	51,600	47,600	69,100	34,900
% of households with at least one adult bicycle	60%	49%	55%	64%	62%	62%	63%	56%	61%	67%
Avg. adult bicycles per household	1.30	0.79	1.11	1.24	1.51	1.68	1.44	1.21	1.43	1.44
Avg. adult bicycles per adult	0.71	0.53	0.72	0.80	0.75	0.81	0.86	0.53	0.67	0.86
Estimated no. of e-bikes	40,800	2,600	2,900	4,300	5,100	5,100	3,000	5,400	9,500	2,800
% of adult bicycles that are e-bikes	10%	9%	7%	9%	8%	12%	6%	11%	14%	8%
% of population 18+ with access to an adult bicycle	66%	53%	59%	76%	66%	72%	75%	61%	63%	75%

5.1.2 Micromobility Share Utilization (Public Bikeshare and Shared E-Scooter System)

Micromobility share services in the city of Vancouver include a public bikeshare service (Mobi) and a shared e-scooter system service (Lime). About 9% of respondents are a member of (or have used) micromobility share services, up from 7% in 2023. This includes 7.8% for Mobi and a very small percentage (0.5%) for the Lime e-scooter and other e-bikeshare services.

The City has provided residents with a cycling option by supporting the Mobi public bikeshare service, which has been available to Vancouver residents since 2016. The program offers a convenient cycling choice with a mix of traditional non-motorized bikes and e-bikes for residents and visitors to the city. Coverage of the Mobi public bikeshare services at the time of the survey roughly included downtown Vancouver and extends east to Commercial Drive, south to 16th Avenue, and west to Point Grey and UBC, as well as stations along the Arbutus Greenway to 41st Avenue, a portion of Mount Pleasant to 31st Avenue and to Nanaimo Street north of Hastings Street. Lime shared e-scooter system started service in Vancouver in September 2024. The service area in late 2024 included Hastings-Sunrise, Grandview-Woodland, and Strathcona.

Mobi coverage fully encompasses the CBD - West End, CBD - False Creek and Vancouver Broadway zones and partially encompasses the Vancouver Port, Vancouver Kitsilano, Vancouver Kerrisdale, and

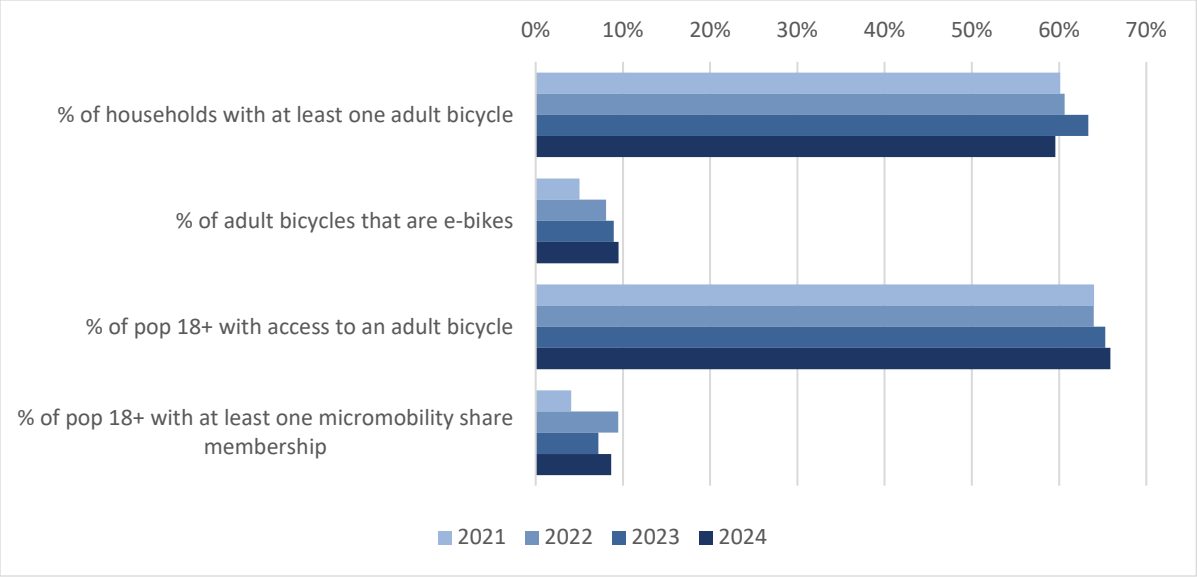
Vancouver South zones. Lime coverage in late 2024 encompassed Vancouver East, most of Vancouver Port, and part of Vancouver Broadway. **Table 10** details bikeshare (**M** for full coverage and M for partial coverage) / e-scooter share (**L** for full coverage and L for partial coverage) usage and availability at time of survey by zone. Membership is highest in the CBD - West End, CBD - False Creek, Vancouver Broadway, and Vancouver Port, which coincides with the zones that have the most bikeshare service available.

Table 10. Micromobility Share Use by Zone

	Vancouver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Use of at least one bikeshare / e-scooter share service	9%	15%	12%	12%	7%	3%	4%	5%	10%	13%
Bikeshare and e-scooter service availability	M/L	**M**	**M**	**M**/L	M	M	M	M	M/**L**	M/L

Figure 21 shows the longitudinal changes in access to bicycles and micromobility share services from 2021 to 2024. The households with access to bicycles appear to be about the same in 2024 as in 2021 after dropping from the 2023 levels; however, the population with access to bicycles has grown slightly in this period. Some of the fluctuations from year to year may be a result of variance associated with randomly sampling new recruits in each cycle and/or attrition of previous participants. E-bikes as the share of total bicycles has been increasing gradually and reached about 10% in 2024, double the proportion in 2021. With the rise in micromobility share services, people with at least one micromobility share membership appear to have also increased over this time without a clear year-to-year trend.

Figure 21 Changes in Access to Bicycles and Micromobility Share Services [33]



[33] Note that fluctuations in the proportion of households with at least one adult bicycle may not be meaningful and may be related to the somewhat cruder household-level weighting (with the person-level weights being more sophisticated and person-level indicators being more reliable for year-over-year comparisons).

5.1.3 Electric Micromobility Device Access

The City of Vancouver is one of six municipalities in B.C. that are participating in an electric kick scooter pilot program allowing them on local streets and protected cycle lanes. The Vancouver pilot began in July 2021 for an initial three-year term and was renewed in April 2024 for an additional four years. As shown in **Table 11**, the use of electric micromobility devices such as e-kick scooters, e-skateboards, or hoverboards is still relatively uncommon in Vancouver, with only 4% of households in the survey owning a micromobility device; this is a slight increase from 3% in 2023. Ownership appears to be highest amongst residents of CBD - False Creek (6%). The survey results suggest that residents of Vancouver own about 14,000 such devices. The survey results also suggest that, relative to total weekday bicycle and micromobility trips combined, e-micromobility devices account for approximately 2% of all such trips. All findings related to electric mobility devices should be interpreted with caution due to the small sample size of survey participants who use such devices.

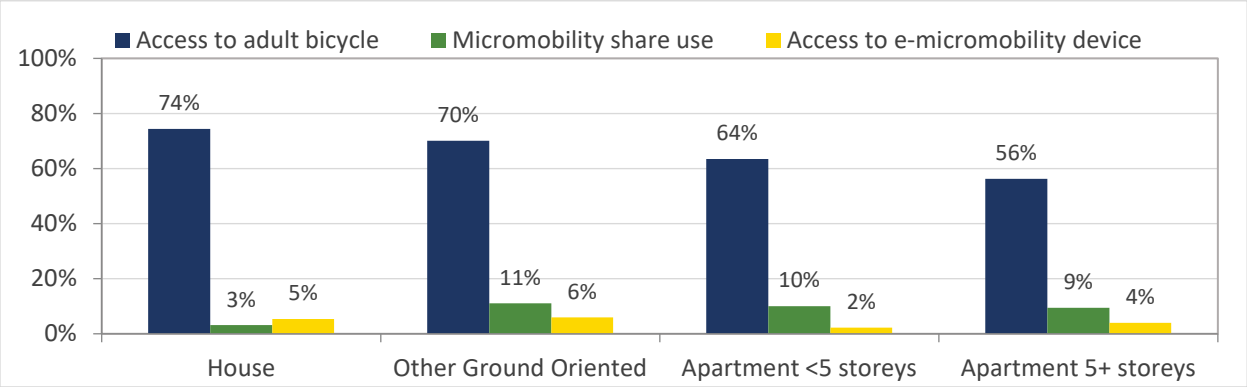
Table 11. Electric Micromobility Device Access by Zone

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Estimated total micromobility devices	14,000	1,100	2,600	1,500	2,500	1,100	400	1,600	2,400	700
% of households with at least one micromobility device	4%	2%	6%	3%	4%	4%	1%	4%	4%	3%

5.1.4 Demographic Trends in Access to Bicycles, Micromobility Share, and Electric Micromobility Devices

Figure 22 and **Figure 23** illustrate trends in access to bicycles and micromobility devices by dwelling type and by age. As shown in **Figure 22**, access to an adult bicycle is highest amongst those living in houses and other ground-oriented units, at 74% and 70% respectively. Fewer people living in apartment buildings report owning a bike (64% of those in apartments under 5 stories and 56% of those in higher-rise apartments), which may be due to lack of bicycle storage or that they are located in walkable areas where walking is preferred. Micromobility share use–including Mobi (e-bikes and traditional non-motorized bikes) and Lime (e-scooters available in Vancouver and e-bikes available in North Vancouver at the time of the survey)—is highest amongst those living in other ground-oriented units, at 11%, and lowest amongst those living in houses (3%). Micromobility device ownership is highest among those living in other ground-oriented units, at 6%, and lowest among those living in apartments under 5 stories (2%).

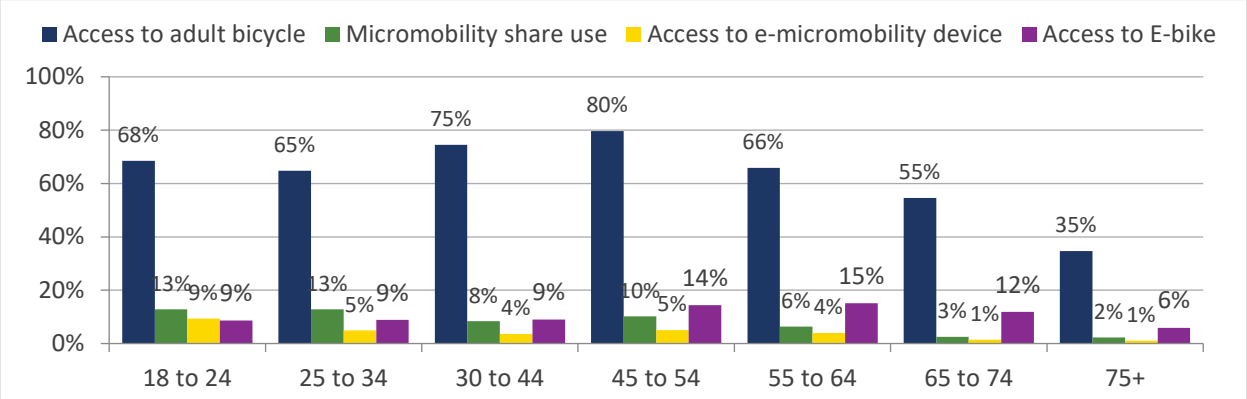
Figure 22. Access to Bicycles, Micromobility Share Use, and Micromobility Devices by Dwelling Type



By age group, access to an adult bicycle is highest among people ages 30 to 44 and 45 to 54 (75% and 80% respectively), with access declining as age increases. Access to e-bikes is highest amongst residents between 45 and 74 (ranging from 12% to 15% by 10-year age group), age groups that may be more likely to afford an e-bike and/or who may have an interest in assistance to the physical effort of bicycling. While fewer younger adults have access to a personal bicycle, at 68% for ages 18 to 24 and 65% for ages 25 to 34, it appears that many younger people make up for this by using micromobility share services. Younger respondents reported the highest level of micromobility share use (13% for 18–24-year-olds and 25-34-year-olds). Micromobility share use declines as age increases, but is relatively steady for those in the 30 to 44 (8%) and 45 to 54 (10%) age groups, indicating that micromobility shares are beneficial for a wide range of ages. About one in ten young adults ages 18 to 24 reported access to an e-micromobility device, which is at least double of all other age groups.

As bikeshare programs and e-micromobility become more mainstream, it will be interesting to observe if a generational change will occur. Specifically, it raises the question of whether younger people who now use these options will continue to do so as they move through the various stages of life with changes in lifestyle, housing, family status, income and mobility. A key difference compared with previous generations is that the number of choices and quality of sustainable transportation modes have improved considerably in recent years.

Figure 23. Access to Bicycles, Micromobility Share Use, and Micromobility Devices by Age[34]



[34] Results for 18- to 24-year-olds should be interpreted with caution due to small sample size (n=91).

5.2 Vehicle Access

This section describes survey participants' access to private vehicles, including the percentage of licensed drivers, private vehicle availability, and vehicle types.

5.2.1 Licensed Drivers

Table 12 highlights the prevalence of driver's licences by zone. Overall, nine in ten adults have a driver's licence (88%). The proportion of adults with a driver's licence varied only slightly by zone, being highest in Kerrisdale (93%) and Kitsilano (92%) and lowest in Vancouver Port (81%) and CBD - West End (83%). Examination of the data by age range revealed that 76% of survey participants 18 to 24 years old have a driver's licence.[35] This proportion increases for subsequent age groups, reaching over 90% for those aged 45 to 54 years, then dropping gradually to 85% for those 75+ years of age.

Table 12. Licensed Drivers by Zone

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
% of population 18+ with driver's licence	88%	83%	87%	89%	88%	93%	92%	90%	88%	81%

5.2.2 Private Vehicle Availability

Table 13 summarizes vehicle-related statistics, while **Figure 24** depicts the percentage of the adult population with access to a vehicle by zone. The survey results suggest that, overall, 76% of Vancouver residents currently have access to a household vehicle. This number had gradually dropped from 80% in 2021 and has remained at 76% since 2023. The relatively minor variability by year may be the product of a sampling error associated with random sampling, differences in the survey sample composition, and/or differences in how the datasets were weighted, processed, or reported.

By zone, private vehicle access is lowest downtown (CBD - West End, 58%, and CBD - False Creek, 66%) and in the Vancouver Broadway and Vancouver Port areas (70% each). Private vehicle availability in CBD - West End has reduced by 5% from 2023. Vehicle access is highest in the Kerrisdale and Southeast zones, with 91% and 89% of adults, respectively, having access to at least one vehicle.

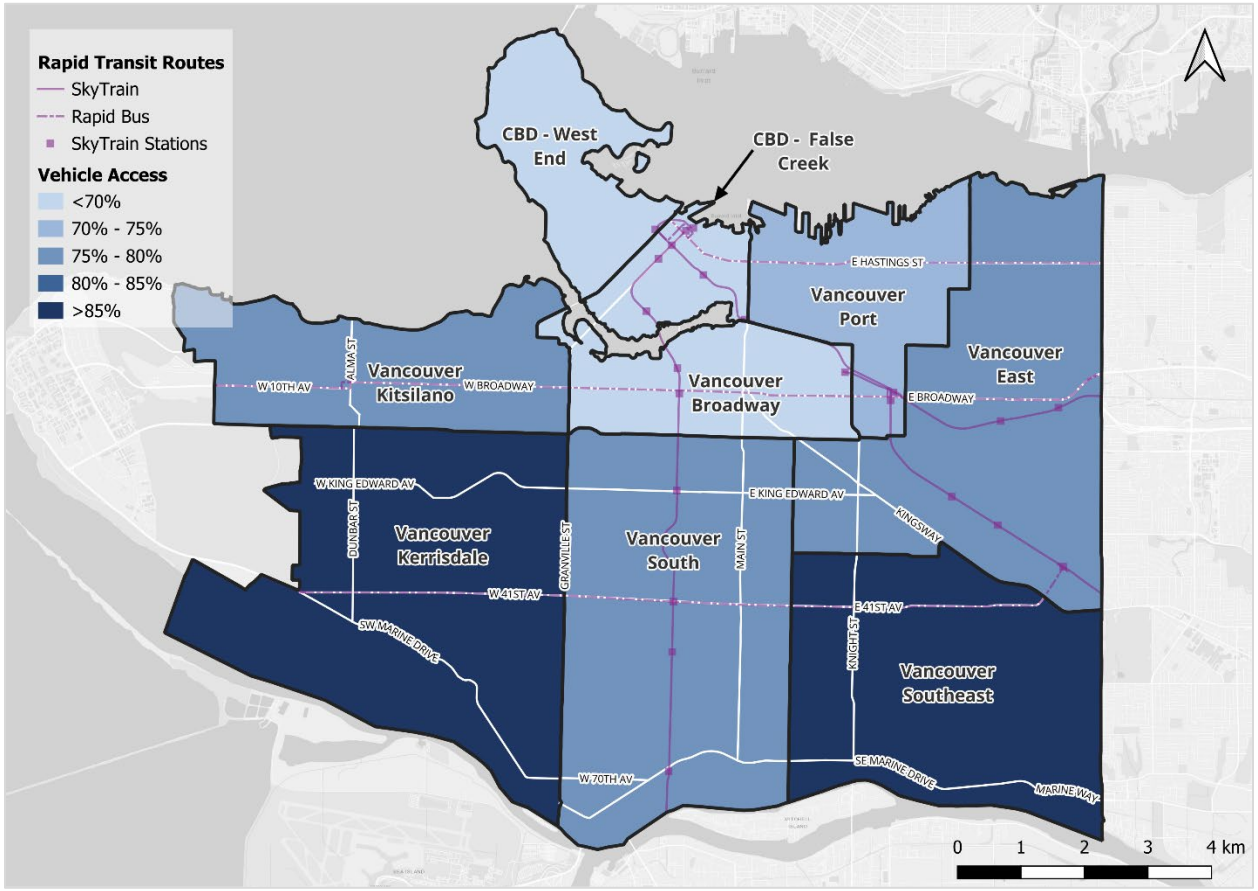
Table 13. Private Vehicle Availability by Zone[36]

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Average vehicles per household*	1.04	0.71	0.82	0.85	1.11	1.53	1.14	1.41	1.09	0.77
Average vehicles per adult	0.57	0.48	0.53	0.55	0.55	0.74	0.68	0.62	0.51	0.46
% population 18+ with access to at least one vehicle	76%	58%	66%	70%	77%	91%	76%	89%	80%	70%
% of households with vehicles	76%	61%	69%	73%	79%	90%	83%	87%	79%	64%

[35] Results for 18- to 24-year-olds should be interpreted with caution due to small sample size (n=91).

[36] The denominator includes all households, including those without vehicles.

Figure 24. Map of Private Vehicle Availability by Zone (% of Residents 18+ with Access to a Vehicle)



The following charts (**Figure 25** through **Figure 30**) highlight private vehicle availability for various demographic characteristics.

- Age shows a predictable profile, with the lowest access amongst the 25 to 34 age group (64%) and 85+ age group (66%), with all other age groups ranging between 78% and 84%.
- Vehicle availability is equal by gender, at 77% for each.
- By dwelling type, vehicle availability is highest amongst those living in houses and lowest amongst those living in apartments of greater than five storeys.
- By income, vehicle ownership starts from 61% amongst people with annual incomes of less than $25,000 per annum, drops a little to 59% for people earning $25,000 to $50,000 and then increases gradually to 86% amongst those above $150,000.
- By immigration status, there is also a clear trend as immigrants become more established. The survey results suggest that only 48% of Vancouver residents who immigrated to Canada within the last five years have access to a vehicle, rising to 84% for those established in Canada for more than 15 years, eclipsing the rate for Canadian-born citizens (77%).
- There appears to be some variance by visible minority population group, with East Asian and West Asian/Middle Eastern/North African having high vehicle availability (ranging from 83% to 87%). Southeast Asian, South Asian residents, White and Multiple/Mixed-race residents' vehicle availability ranges between 72% to 78%, while Hispanic/Latin American residents have the lowest, at 59% vehicle availability.

Figure 25. Private Vehicle Availability by Age Range[37]

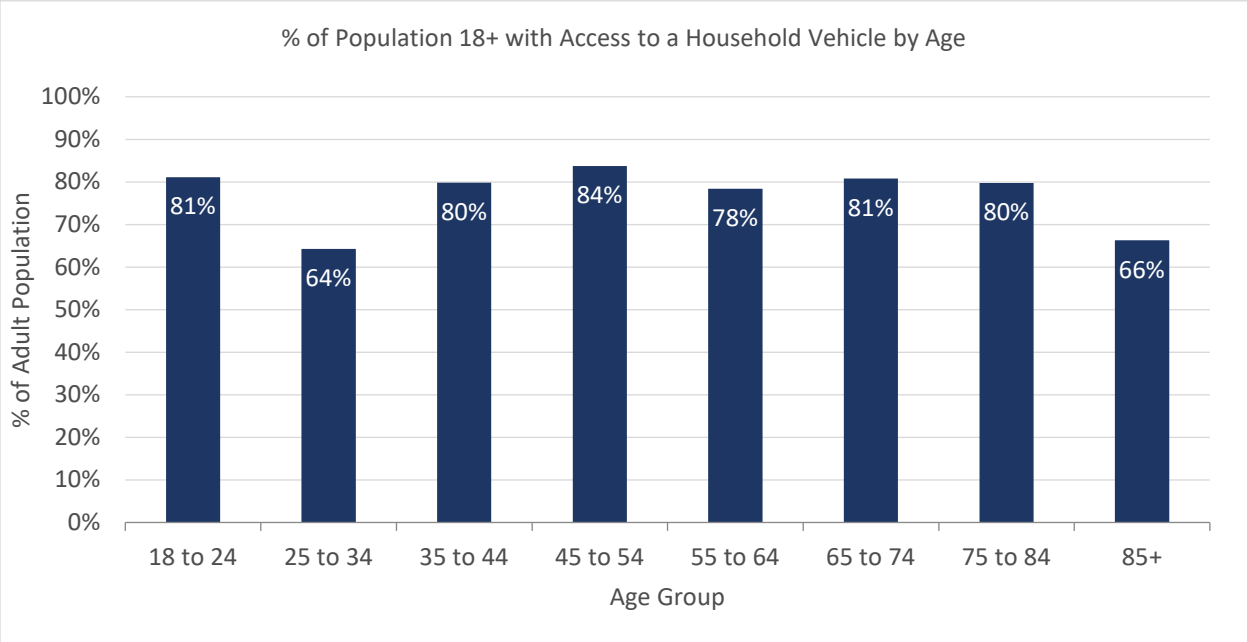
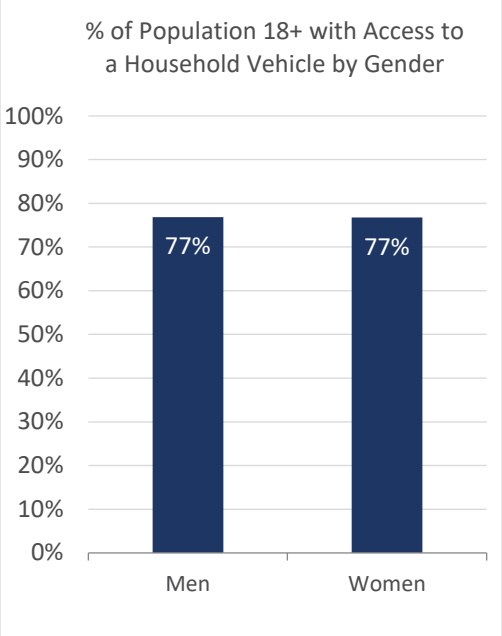


Figure 26. Private Vehicle Availability by Gender



[37] *small sample size for ages 18-24 and 85+, interpret with caution.

Figure 27. Private Vehicle Availability by Dwelling Type

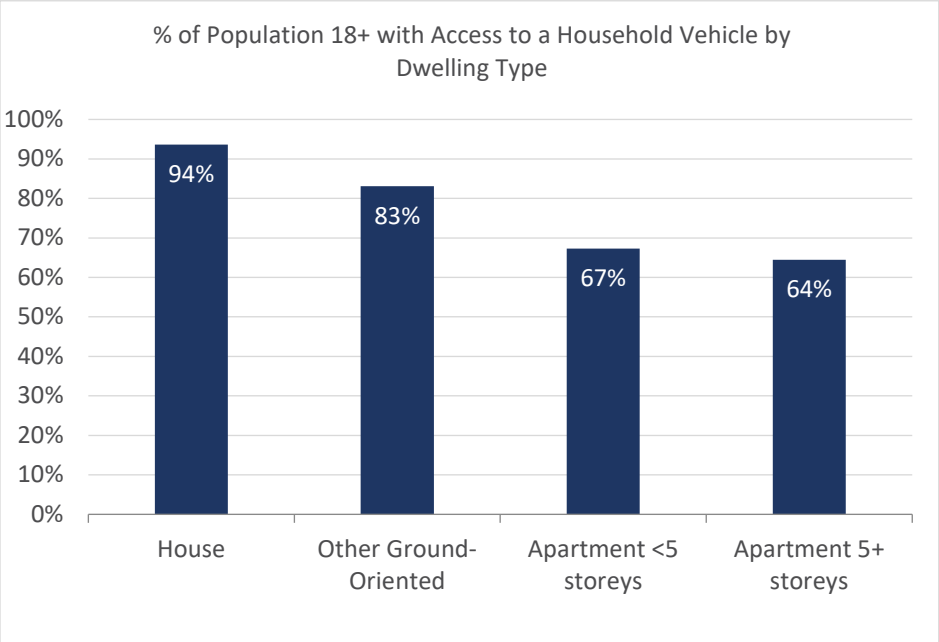


Figure 28. Private Vehicle Availability by Household Income

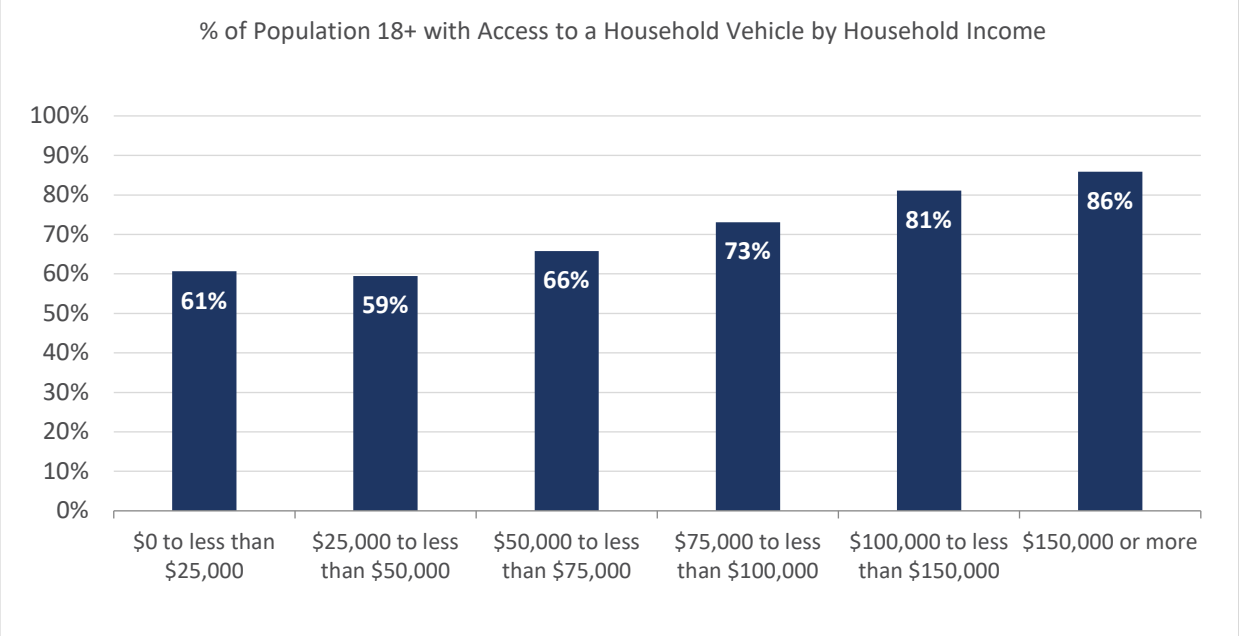


Figure 29. Private Vehicle Availability by Immigration Status[38]

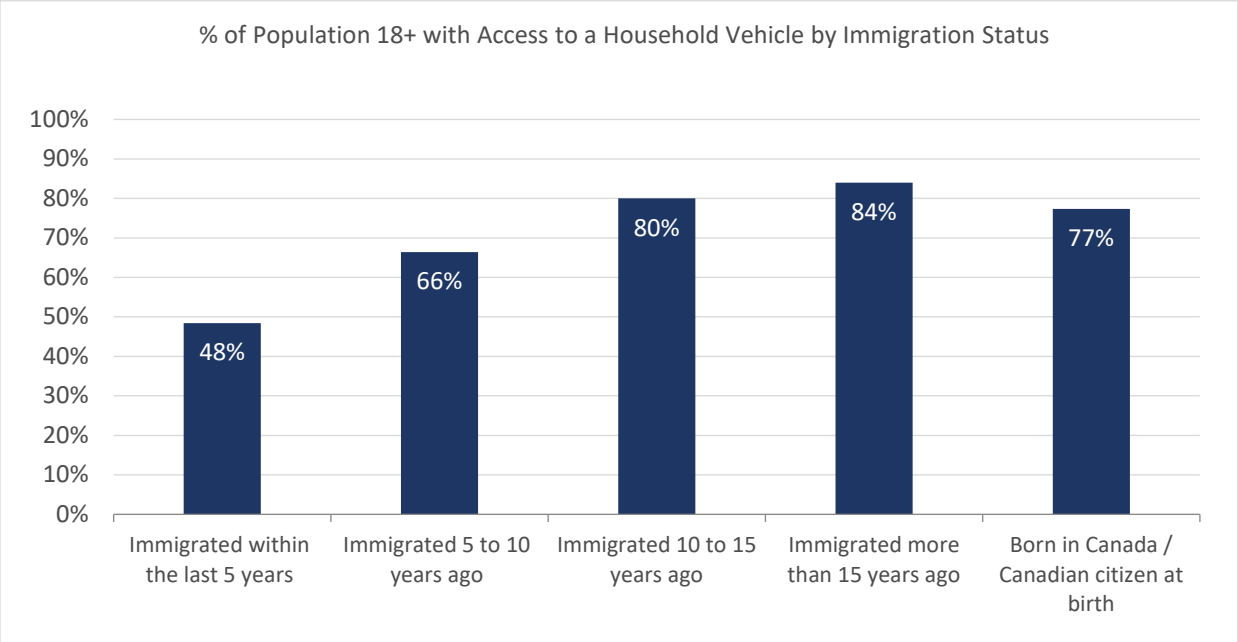
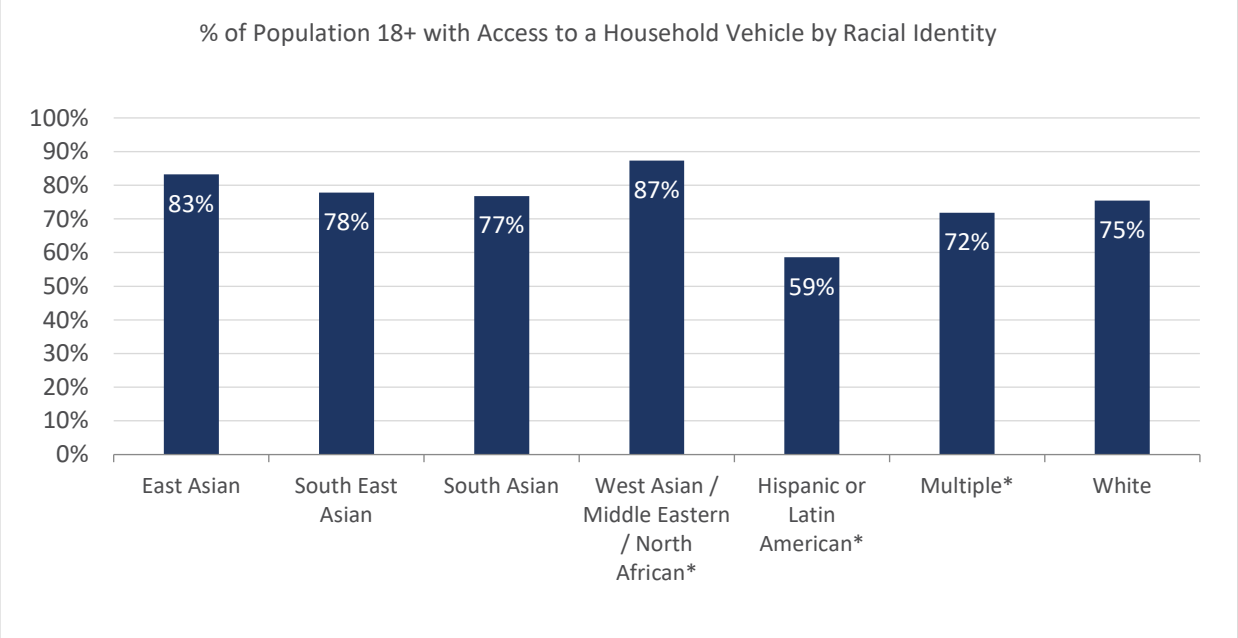


Figure 30. Private Vehicle Availability by Visual Minority Population Groups[39]



[38] *small sample sizes, interpret with caution.

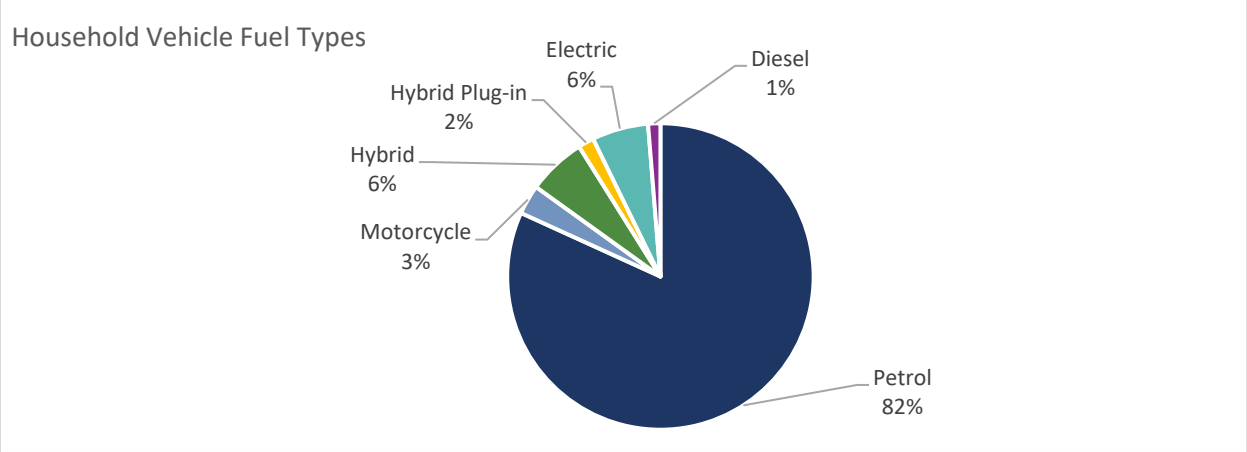
[39] *small sample sizes, interpret with caution. Excludes Indigenous, Black, and Other due to very small sample sizes.

5.2.3 Vehicle Fuel Type

One of the City's Climate Emergency goals is: by 2030, 50% of the kilometres driven on Vancouver's roads will be by zero-emission vehicles (ZEV), which consist of hybrid plug-in and electric in the survey.[40] The City is working towards this goal of shifting to renewably powered transportation by improving and expanding its public electric vehicle (EV) charging network, implementing policy to support home charging, increasing the number of EVs in its fleet, and working with businesses and other levels of government to make switching to an EV as easy as possible. More manufacturers are increasing their manufacturing capacity and bringing more models to the market, and we may expect to see the supply of EVs increase due to recent legislation for zero-emission vehicle targets starting for the 2026 model year.

The 2024 survey asked about vehicle fuel type to help measure EV ownership as an indicator for progress with these initiatives. **Figure 31** shows the fuel type for household vehicles and **Figure 32** shows the trend from 2021 to 2024[41]. In 2023, conventional gasoline (petrol) vehicles have shown a pattern of decline; however, the change in market share between 2023 and 2024 was more modest than in previous years. Conventional gasoline vehicles are the majority (at just under 82%). ZEVs account for 8% of all vehicles and non-plug-in hybrids account for 6%, for a total of 14% electrified vehicles, up from 8% in 2021, when the fuel type question was first introduced on the survey. As shown in **Table 14**, the zones with the highest EV ownership are Vancouver Kerrisdale and CBD - False Creek at 8% each, while that with the lowest EV ownership are Vancouver Port, Vancouver Broadway and Vancouver South at 4% each (although Vancouver Port survey participants reported among the highest average share of hybrids).

Figure 31. Vehicle Fuel Type[42]



[40] Transport Canada defines a ZEV is a vehicle that either produces no tailpipe emissions or has the potential to produce no emissions, for example, an electric vehicle. There are three types of ZEVs on the market: battery-electric, plug-in hybrid electric, and hydrogen fuel cell.

[41] From 2022 onwards, the survey asked about two categories of hybrids: hybrid and hybrid plug-in. In 2021, there was only one category on the survey: hybrid, which would have captured both kinds.

[42] Not displayed in the figure are small proportions (<1%) of biodiesel and other/unknown alternative fuel types.

Figure 32. Vehicle Fuel Type, 2021 to 2024 [43]

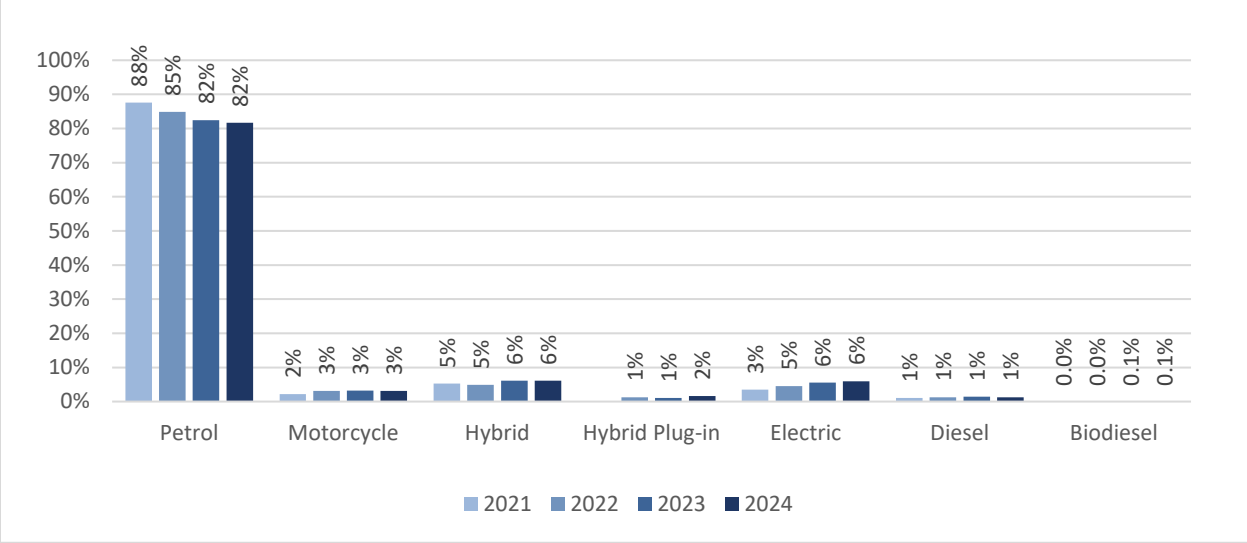


Table 14. Vehicle Fuel Type by Zone

	Vancouver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Petrol	82%	86%	82%	82%	82%	78%	82%	83%	82%	73%
Motorcycle	3%	3%	3%	2%	2%	3%	4%	4%	2%	7%
Hybrid	6%	4%	4%	10%	6%	6%	6%	5%	6%	10%
Hybrid Plug-in	2%	1%	1%	1%	3%	3%	1%	1%	1%	2%
Electric	6%	5%	8%	4%	4%	8%	6%	5%	7%	4%
Diesel	1%	1%	1%	1%	2%	1%	1%	2%	1%	3%
Biodiesel	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.9%
Other/Unknown Alternative Fuel Type	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.1%	0.0%	0.0%

The fuel type by zone seems to indicate that zones with higher income households tend to have higher ZEV (EV + PHEV) ownership or electrified (EV+ PHEV+ Hybrid) vehicle ownership. **Table 15** checks if there may be a correlation between income groups and the fuel type. Subtotals for ZEV and electrified vehicles are shown in bold numbers. It shows that, as income increases, a higher proportion of that income bracket owns a ZEV or an electrified vehicle, with 12.1% and 19.5%, respectively, for households with an income of $150,000 or more.

[43] Not displayed in the figure are small proportions (<1%) of other/unknown alternative fuel types.

Table 15. Household Income by Vehicle Fuel Type

Household Income	Petrol	Hybrid	PHEV	EV	Diesel or Bio-diesel	Gas motor - cycle	Other[44]	ZEV Subtotal (EV + PHEV)	Electrified Subtotal (EV + PHEV + Hybrid)
$0 to less than $25,000	92.2%	2.5%	1.1%	1.5%	0.7%	1.3%	n/a	**2.7%**	**5.2%**
$25,000 to less than $50,000	92.0%	3.2%	0.2%	0.4%	0.7%	2.9%	n/a	**0.6%**	**3.8%**
$50,000 to less than $75,000	87.6%	4.3%	1.1%	2.9%	1.5%	2.0%	n/a	**4.1%**	**8.4%**
$75,000 to less than $100,000	83.4%	7.0%	0.9%	4.5%	1.5%	2.6%	n/a	**5.4%**	**12.5%**
$100,000 to less than $150,000	80.7%	5.7%	2.2%	7.0%	0.7%	3.8%	n/a	**9.1%**	**14.8%**
$150,000 or more	76.1%	7.4%	2.6%	9.5%	1.5%	2.8%	n/a	**12.1%**	**19.5%**
Decline / don't know	80.7%	6.8%	1.2%	5.0%	2.0%	4.2%	n/a	**6.2%**	**13.0%**
Survey average	**81.7%**	**6.2%**	**1.7%**	**5.9%**	**1.3%**	**3.1%**	**0.1%**	**7.6%**	**13.8%**

5.2.4 Electric Vehicle Charging Availability at Home

Electric vehicle charging availability at home or close by is another data element being collected as an indicator of support for the Climate Emergency Action Plan. The overall average reported by survey participants is 31% availability (**Figure 33**). This may be much higher than electric vehicle availability at home, and the availability of charging close by does not take into account how busy non-home charging facilities may be. The results suggest that availability and/or awareness of local charging facilities is on the rise, compared to the 27% survey result in 2022 and 30% in 2023.

People living in apartments with 5+ storeys have the highest availability of electric vehicle charging at 49%, followed by single-family houses (31%), other ground oriented (25%) and apartments with <5 storeys (20%). Compared to 2023, availability increased by 2% for single-family houses, other ground oriented and apartments with 5+ storeys while it decreased by 2% for apartments with <5 storeys.

To help Vancouverites access home charging as easily as possible, the City has required increasing amounts of EV infrastructure as part of new residential construction since 2011. As of January 1, 2019, all new development permit applications require that 100% of residential parking stalls, except visitor stalls, must be EV-ready. The City estimates that these requirements create over 9,000 new residential charging circuits each year. In addition, it has adopted several initiatives to improve access to EV charging, including:

- Conducting a curbside electric vehicle pilot program for installing EV charging stations on the city boulevard in front of the applicant's home or business;
- Discounting business licence fees for gas stations and commercial parking lots that install EV chargers;
- Granting an electric vehicle cord cover licence to allow charging for vehicles parked on the street; and
- Providing grants for installing EV chargers in existing multi-unit rental buildings.

[44] n/a = other not broken down due to very small sample size

As shown in **Table 16**, access to EV charging at home varied significantly by zone. Of the two zones with the most apartments with 5+ storeys, one had a much higher availability than the other: CBD - False Creek had 54% of households reporting access to EV charging at home or close by while this proportion was lowest for Vancouver Port, Vancouver Southeast and Vancouver Kitsilano (ranging from 14% to 25%). The CBD - False Creek Zone has the Olympic Village area, which was constructed close to the same time as the change in regulations, so it is likely that was amongst the first new areas in the city to have EV charging when constructed. Vancouver Kerrisdale, Vancouver South, and CBD - West End also stand out as having a higher-than-average proportion of households reporting access to EV charging (45%, 31%, and 31%, respectively). Increases are noted in most areas since 2022, with the lower figures for Vancouver Southeast and Vancouver Port possibly related to variance associated with modest sample sizes and random sampling of households.

Figure 33. Percentage of Households with Access to EV Charging at Home or Nearby, by Dwelling Type

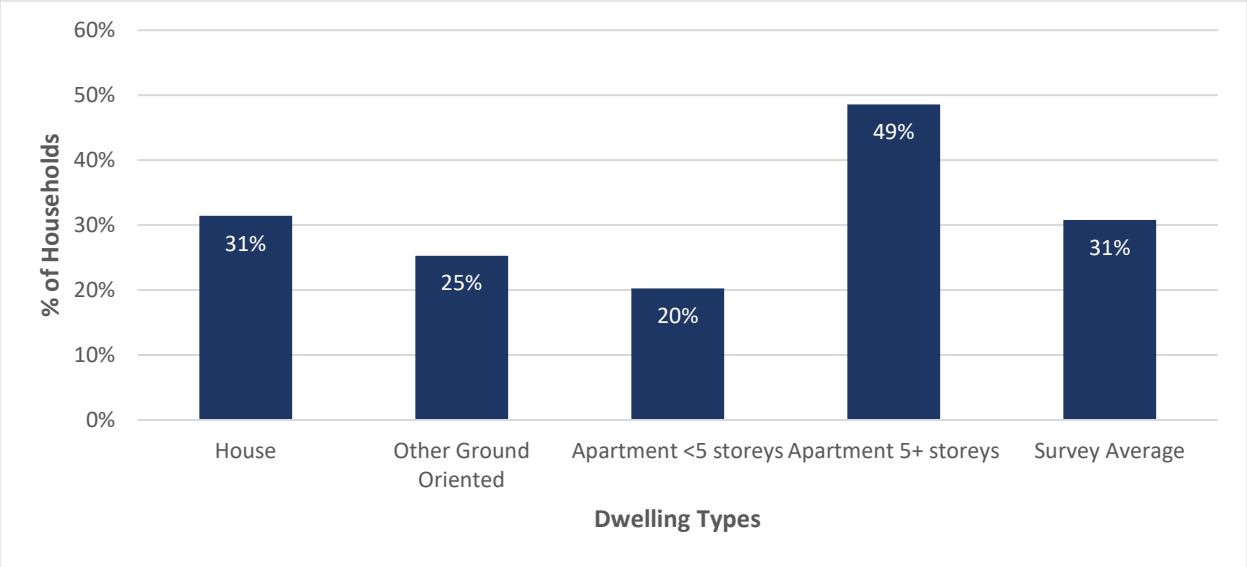


Table 16. Percentage of Households with Access to EV Charging at Home or Nearby, by Zone

% of households with access to EV charging at home or close by	Vancouver	CBD – West End	CBD – False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
2022	27%	21%	55%	26%	23%	33%	22%	25%	23%	17%
2023	30%	31%	55%	23%	27%	43%	21%	29%	25%	25%
2024	31%	31%	54%	30%	31%	45%	25%	20%	30%	14%

5.2.5 Car Share Membership or Use

Table 17 shows the percentage of survey participants, by zone, who had a membership to (or have used) at least one car share service at the time of the survey in Fall 2024. The percentage of residents (36%) was similar to 2023 (37%), following a pattern of decline observed from 2019 to 2021. Car share use fell from a high of 37% in 2019 to a low of 30% in 2021, likely due to the COVID-19 global pandemic. This data indicates car share membership has recovered to pre-pandemic levels. Of note, of the survey participants with no access to a household vehicle, 40% have car share memberships. This compares to 34% amongst survey participants with access to a household vehicle.

The zones with the highest number of respondents who indicated membership of at least one car share service are CBD - West End (49%, with an increase of 7% from 2023), Vancouver Broadway (48%) and Vancouver Port (43%). Vancouver Southeast (19%) continues to have the lowest car share membership. Note that car share membership does not necessarily translate to car share use: some residents may receive a low cost or free car share membership (e.g., BCAA Members receive a free Evo membership) but rarely or never use it.

Table 17. Car Share Membership or Use of at Least One Car Share Service

Year	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
2019	37%	47%	35%	46%	35%	30%	48%	17%	35%	52%
2020	32%	37%	22%	38%	36%	30%	39%	13%	37%	43%
2021	30%	31%	36%	46%	34%	18%	41%	11%	30%	38%
2022	34%	39%	39%	45%	32%	30%	41%	16%	35%	47%
2023	37%	42%	40%	44%	35%	25%	43%	21%	41%	49%
2024	36%	49%	28%	48%	34%	27%	41%	19%	40%	43%

6 Daily Trip Characteristics

This section provides a snapshot of daily (24-hour) travel patterns from the trips reported by survey participants by reporting on trip demand, purpose, mode share, and distribution.

6.1 Trip Demand

Trip demand characteristics, which include daily trips, trip volumes by time of day, and annual vehicle kilometres travelled (VKT), are reported in this section.

6.1.1 Daily Trips

The overall daily trip rate increased slightly from 3.03 trips per person in 2023 to 3.17 trips per person in 2024, which, along with population growth, resulted in an additional 144,000 daily trips in 2024 compared to 2023 (**Figure 34**). This growth is consistent with that observed in 2023. The trip rate is down from an average of 3.7 trips per person in 2019 prior to the onset of the COVID-19 global pandemic. The increase from 2023 to 2024 likely reflects the continued rebound in daily trips from the low number in 2020, at the onset of the pandemic. In 2024, some residents likely increased other, non-work trips compared to previous years when the pandemic was less stabilized. At this growth rate, one might expect that the number of trips will soon reach the 2019 levels due to overall population growth; however, it is likely that the trips per person may never return to the pre-pandemic levels due to the shift to work from home and hybrid work arrangements, primarily among office workers. The reduction in trips is the most effective way to improve sustainable transportation because a non-trip decreases traffic congestion, lowers emissions, enhances the efficiency of public transportation and promotes alternate modes. Employer requirements and employee preferences may still be evolving, and it will be interesting to track in future surveys whether there are further shifts in workplace arrangements and commuting patterns.

The average daily trip by zone is presented in **Figure 35**. Daily trip rates are highest for residents of the Vancouver Port (3.42 trips per person) and Vancouver Broadway (3.34 trips per person) zones. All other zones had trip rates between 2.92 and 3.27 trips per person. Vancouver Southeast had the lowest trip rate of 2.92.

Figure 34. Daily Trip Volumes and Average Daily Trips per Person, 2013-2024 (Persons 18+ Years)

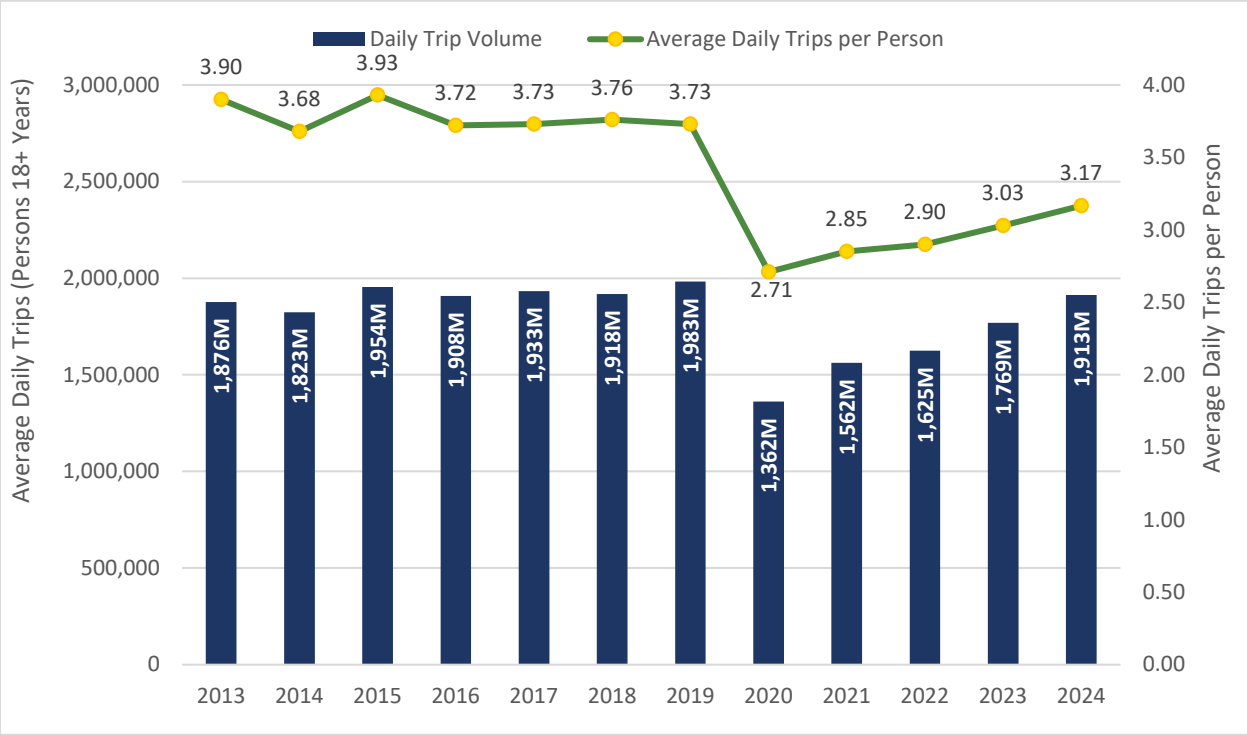
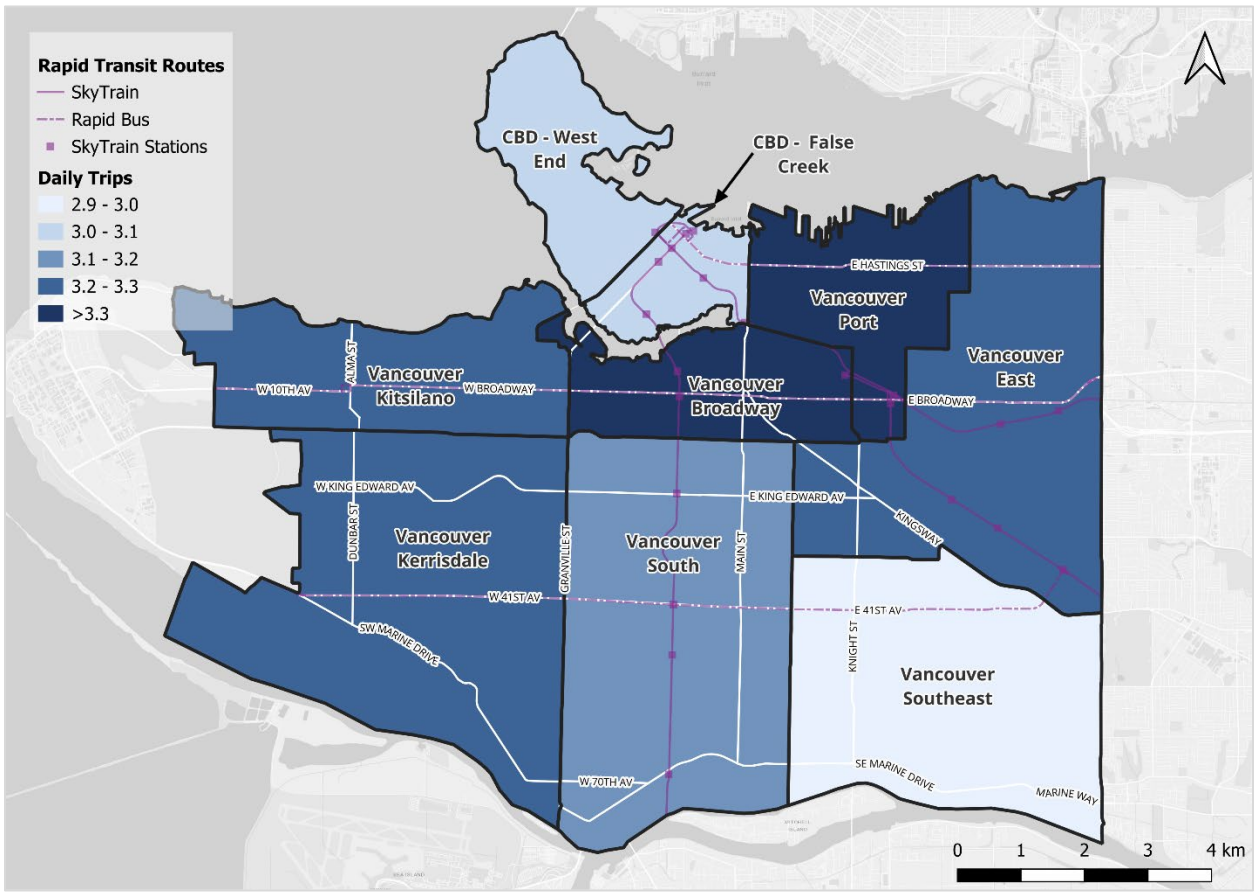
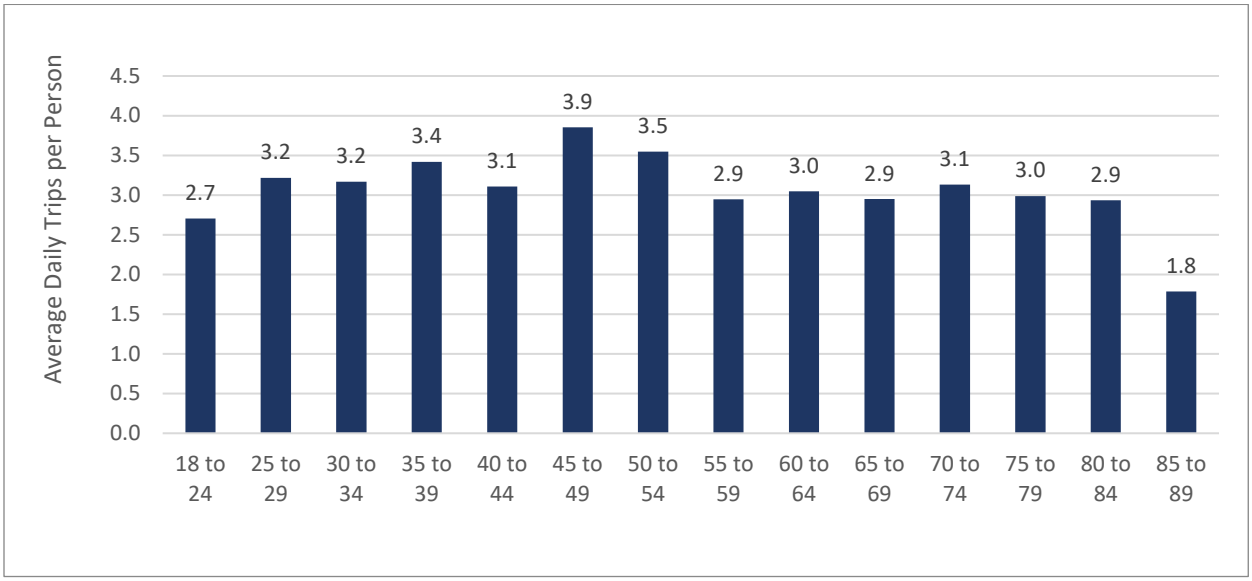


Figure 35. Map of Average Daily Trips by Zone



Average daily trip rates by age are shown in **Figure 36**. Residents between the ages of 45 to 49 years old have the highest average trip rates, at 3.9 trips per day. This is likely because it is the most common age that people have additional trips to accommodate their children's needs. The lowest average daily trip rate is for residents over the age of 84, with residents between the ages of 85 and 89 having an average trip rate of 1.6 trips per day. Note that the age ranges of 18 to 24 and 85 to 89 have low sample sizes and therefore a higher sampling error, and ages 90 and above are not displayed due to very small sample sizes.

Figure 36. Average Daily Trips per Person, by Age Range[45]



6.1.2 Trip Volumes by Time of Day

Figure 37 shows the weekday trip volumes by time of day of departure for six years: 2019 through 2024. As shown, trip volumes by time of day are higher in 2024 compared to 2023, with an increase of 15% at both the 8 a.m. and 5 p.m. peak hours. Trip rates have not returned to 2019 levels, but trip volumes have fully rebounded from the low in 2020 and are very similar to 2019 at peak hours (8 a.m. and 5 p.m.). Also, a distinct midday peak at 12 p.m. is beginning to appear again.

[45] Age range with smaller sample size (18-24, n=91; 85-89, n=84) should be interpreted with caution. Some of the variation between other age groups may be related to modest sample sizes when broken out into five-year groups.

Figure 37. Weekday Trips by Time of Day, 2019-2024

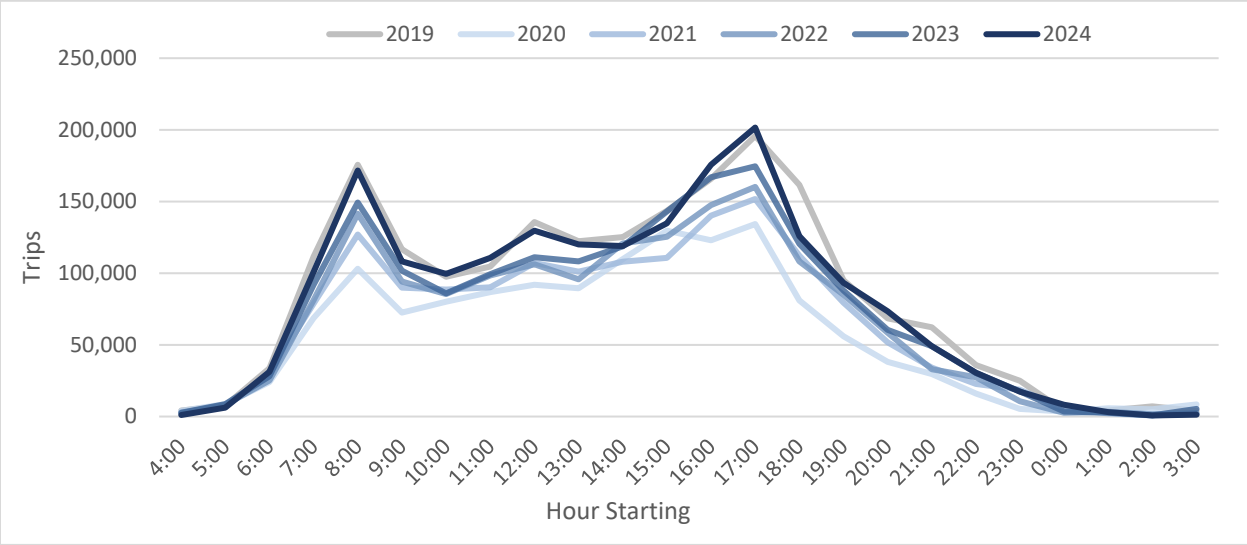
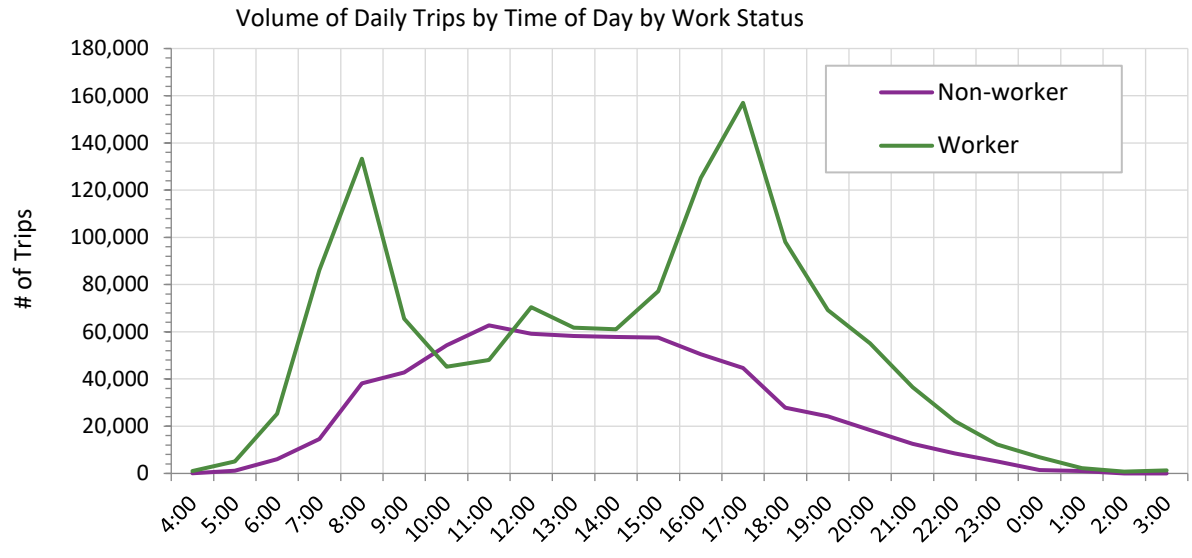


Figure 36 shows the weekday trip volumes by time of day of departure for work trips and non-work trips. This data is consistent with the known phenomenon that commuting traffic peaks are from 7:30 a.m. to 8:30 a.m. and from 4:00 to 5:00 p.m., whereas non-worker trips have a flatter peak from 10:00 a.m. to 4:00 p.m. Something to note is that the commute peak is short in duration compared with a more congested city that would show peak period spreading.

Figure 38. Daily Trips by Time of Day by Work Status



6.1.3 Vehicle Kilometres Travelled (VKT)

The Greenest City Action Plan and Transportation 2040 set a goal of reducing the average distance driven per resident by 20% compared to 2007 levels. **Figure 39** illustrates the annual vehicle kilometres travelled, or VKT, estimates for 2014 through 2024. The estimates are derived from odometer readings

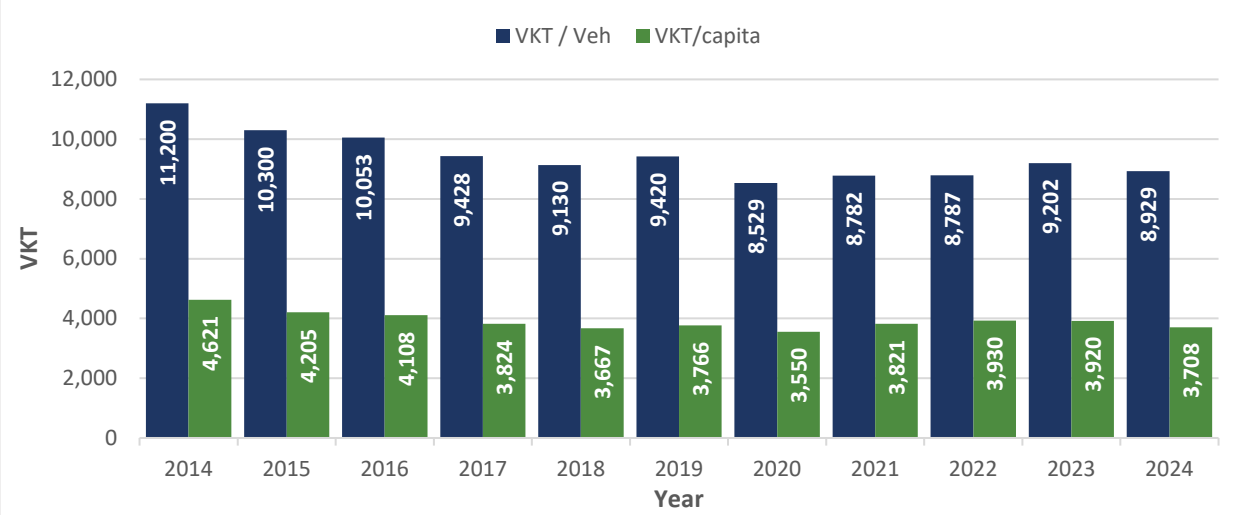
provided by survey participants in consecutive survey cycles, with alternate estimations used for the odometer readings of new vehicles not surveyed in the previous cycle.

The survey results show a pattern of declining VKT per vehicle from 2014 through 2018, declining from about 11,300 km travelled annually per vehicle to a low of 9,100 km, followed by a slight increase in 2019 to 9,400 km. The onset of the COVID-19 global pandemic in mid-March of 2020 brought about a 10% drop in annual VKT per vehicle to about 8,550 km per vehicle, followed by an increase in 2021 and 2022 to about 8,800 km per vehicle, with the 2023 survey estimate being 5% higher at about 9,200 km per vehicle. The most recent 2024 survey shows a decrease of 3% in VKT bringing it to 8,900 km per vehicle.

Based on Insurance Corporation of British Columbia (ICBC) statistics on insured vehicle policies in Vancouver, which suggest that there were about 320,500 passenger vehicles registered to Vancouver residents in December 2024, the total annual VKT for the entire fleet would be about 2.86 billion kilometres per year, if this estimate applied to the entire fleet. This is about 5% below the 3.01 billion kilometres estimated for 2014, and 10% more than the 2.61 billion kilometres estimated for pre-pandemic levels in 2019, given population growth and increases in vehicle ownership.

On a per capita basis, the average VKT per person is about 3,710 km, which is about 20% below 2014 estimates. The latest survey estimate would suggest that the Transportation 2040 goal has been met.

Figure 39. Trend in VKT per Capita and VKT per Vehicle, 2014-2024 [46]



[46] The 2014 estimates were based on estimates from a variety of sources, including AirCare, Insurance Corporation of British Columbia (ICBC), the regional transportation mode, and survey odometer readings. The AirCare program was discontinued in December 2014. Estimates from 2015 onwards are based on survey data (odometer readings provided by survey participants who participated in consecutive survey cycles) for estimates of VKT per vehicle, vehicle fleet estimates based on 2015 data for expansion of the 2015 to 2019 results to the total household vehicle population, ICBC vehicle insurance policy counts for passenger vehicles (excluding fleet vehicles) for expansion of the 2020 and 2021 survey data to the total vehicle population, and BC Statistics Agency (BC Stats) population estimates for computation of per capita VKT. It may be noted that passenger vehicle estimates may not fully capture all household vehicles (as some commercial vehicle types may be kept at home) and that BC Stats population estimates are higher than Census counts. For consistency, the analysis for 2021 and later surveys use the same methodology as in the 2020 survey cycle.

6.2 Trip Purpose

6.2.1 Daily Trip Purposes

For this survey, a trip was defined as a journey from one place (origin) to another (destination) with a single purpose that may involve more than one mode of travel. Travel to work with a stop at a coffee shop is two separate trips: one with a purpose of restaurant/dining, another with a purpose of work. Travel to work that involves driving to a Park & Ride location then taking transit the rest of the way is considered a single trip with a primary mode of transit and a transit access mode of driving. It may also be noted that the survey allowed survey participants to enter trips for exercise or leisure that return to the trip origin without stopping at a destination along the way. This includes trips for taking a dog for a walk around the block, going for a jog or bicycle ride for exercise only (not to get somewhere), or going for a scenic drive (without stopping at a destination).

Figure 40 shows the distribution of trip purposes for weekday trips in 2024. **Figure 41** presents trip volumes by trip purpose for weekday trips in six years: 2019 through 2024. This data shows which types of trips have changed the most significantly since 2019 and which ones are trending back to pre-pandemic levels. Trips to usual work increased by about 6% or 11,600 trips in 2024 compared to 2023 and are still well below 2019 trips. Trips to school by the adults surveyed appear to have increased significantly, but some caution should be exercised in interpreting this, given the very small sample of students in the sample (n=108). By volume, recreational/social trips increased the most by about 13%, or 30,400 trips. Trips related to all trip purposes have increased from 2023, except for personal business/other trips, which reduced by about 13% or 16,100 trips. Shopping trips, work-related and recreational trips are the three trip types that have exceeded 2019 levels.

Figure 40. Weekday Daily Trip Purpose

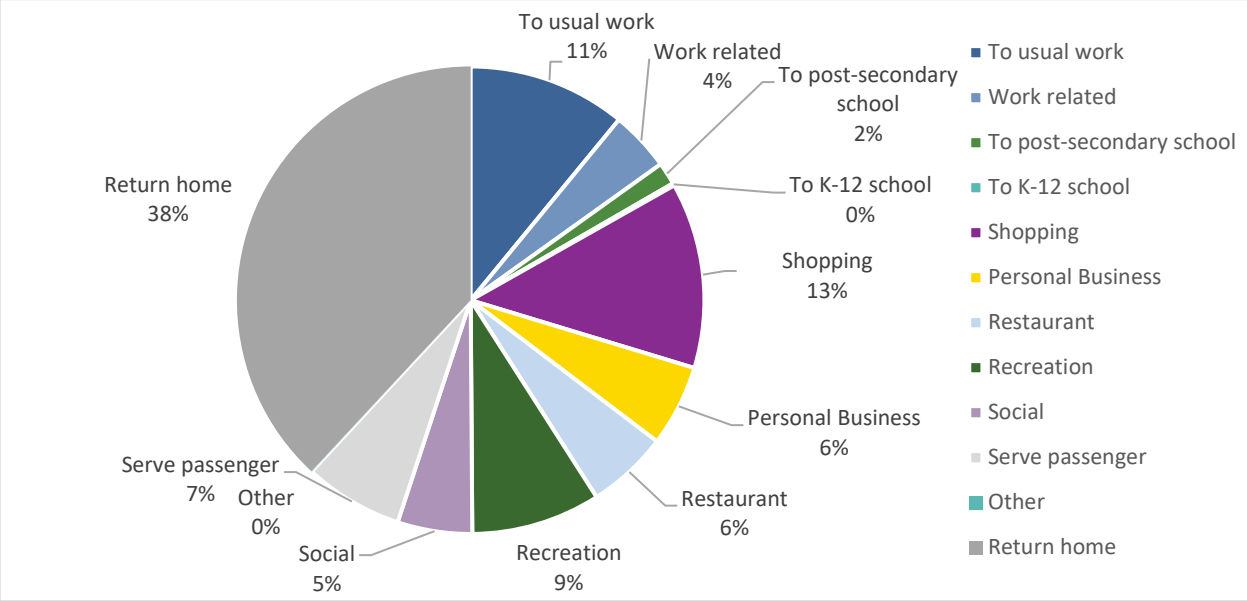
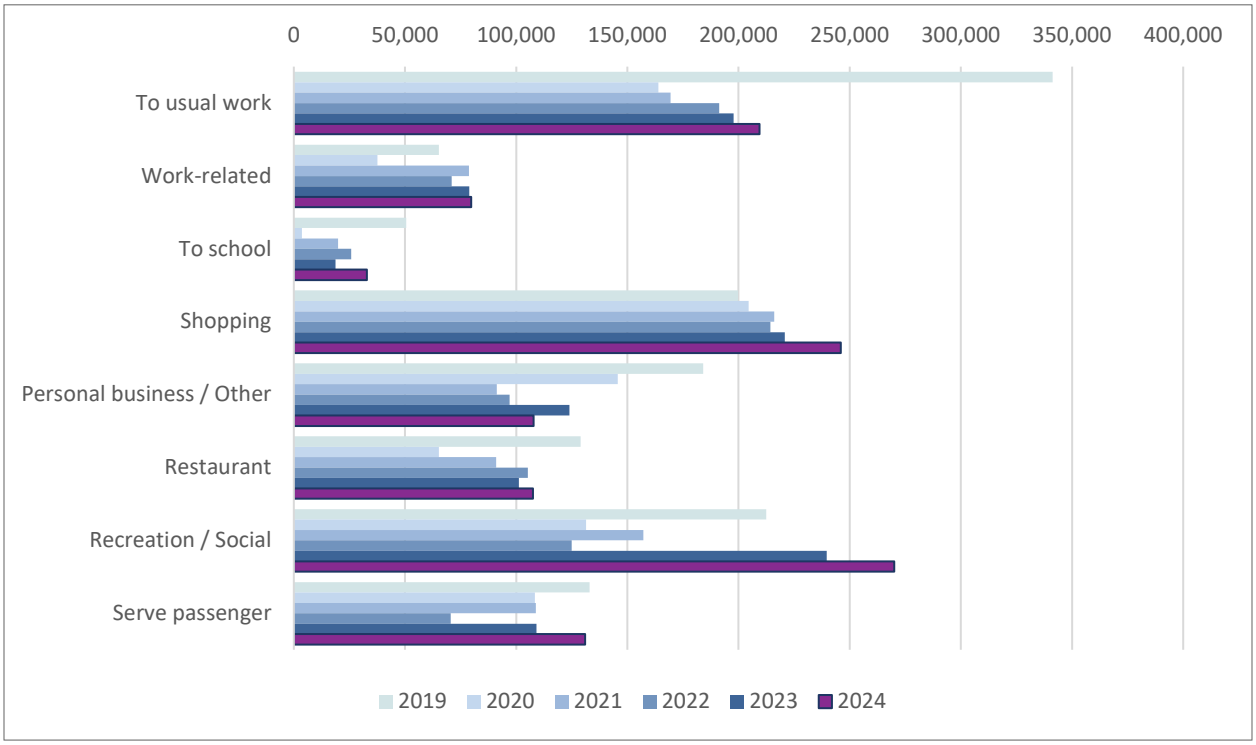


Figure 41. Trip Purpose Volumes, 2019-2024



6.2.2 Trip Purpose by Peak Period

Figure 42, **Figure 43** and **Figure 44** below provide the breakdowns of trip purpose for three different peak periods:

- the AM peak period (two hours from 7:00 a.m. to 8:59 p.m.), 272,300 expanded trips;
- the PM Pre-Peak Period (two hours from 2:00 p.m. to 3:59 p.m.), 253,600 expanded trips; and
- the PM Peak Period (two hours from 4:00 p.m. to 5:59 p.m.), 377,300 expanded trips.

The PM Pre-Peak Period has been included because the volume of trips during this two-hour period is quite high, particularly the serve passenger trips. The 'serve passenger' trips are dropping off or picking up passengers, a great many of which would be drop-offs or pick-ups of children at schools. The trip departure times are used to determine the periods used for analysis.

The following observations can be made:

- During the AM peak period, 45% of all trips are headed to the residents' usual workplaces. The proportion of serve passenger trips was second highest at 17%, with an estimated 45,800 serve passenger trips in this period. Examining the data more closely reveals that 96% of the serve-passenger trips in this period are drop-offs rather than pick-ups, which stands to reason at the start of the day. The survey was not set up to differentiate whether the drop-offs were at specific schools or other types of destination; however, these serve passenger trips correspond to the time of day when parents would typically drop children off at school, and likely also including a small proportion of trips of residents dropping other adults off at work or other destinations. It is

also likely that the school drop-offs are more likely to be for younger children, as older children are more likely to be able to travel unaccompanied.

- During the PM Pre-Peak period, shopping trips (17%) are highest after return home trips (42%). In third place, 10% of all trips were serve-passenger trips, with an estimated 24,900 such trips. Of these, four-fifths were pick-ups and one-fifth were drop-offs.
- During the PM Peak period, shopping trips (12%) remain highest after return home trips (55%). Recreational trips take the third place, at 9%. Of the 8% of all trips that were serve-passenger trips this period, three-quarters were pick-ups and one-quarter were drop-offs.

The large number of serve passenger trips in the PM Pre-Peak period (2:00 p.m. to 3:59 p.m.) may be associated in part with the fact that young children often get out of school prior to 4:00 p.m. Of course, not all of these trips will be associated with picking up children from school, and they will include other pick-up and drop-off trips for other people and other reasons, and some of those trips may include dropping children off at after-school activities.

Figure 42. AM Peak Trip Purposes

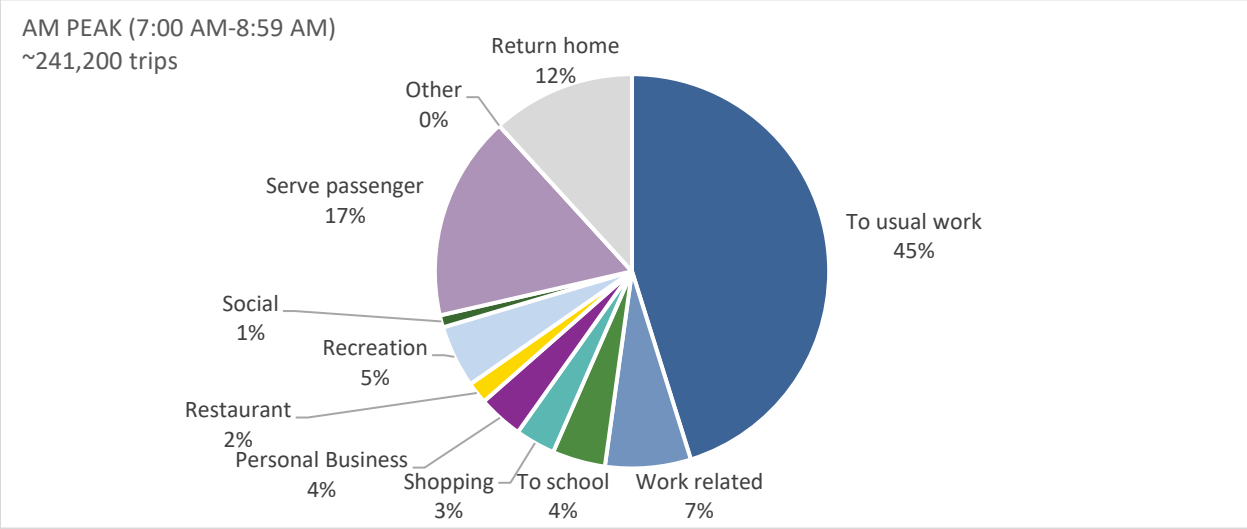


Figure 43. PM Pre-Peak Trip Purposes

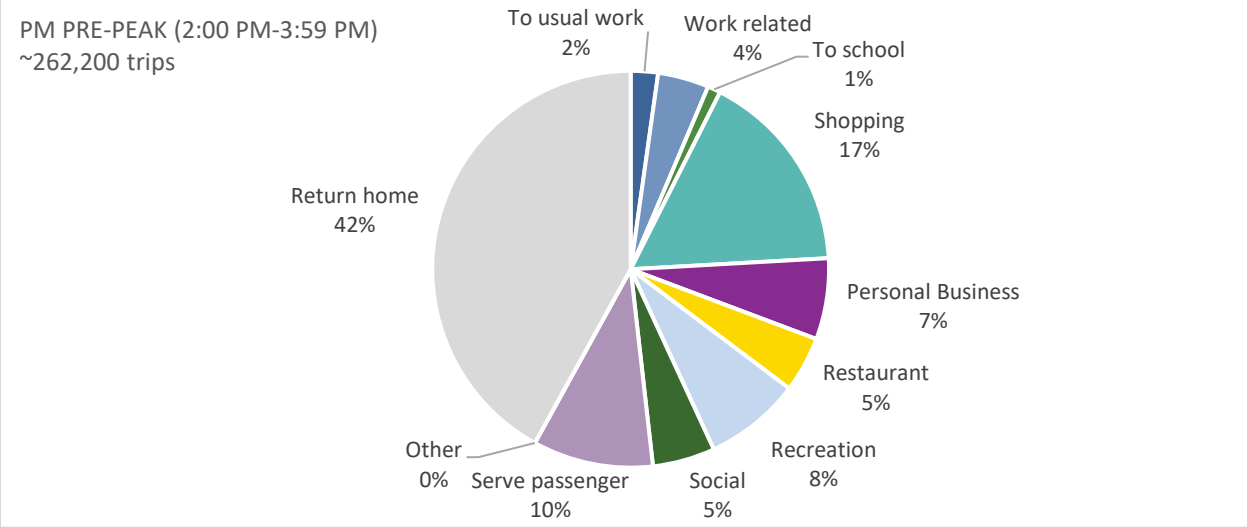
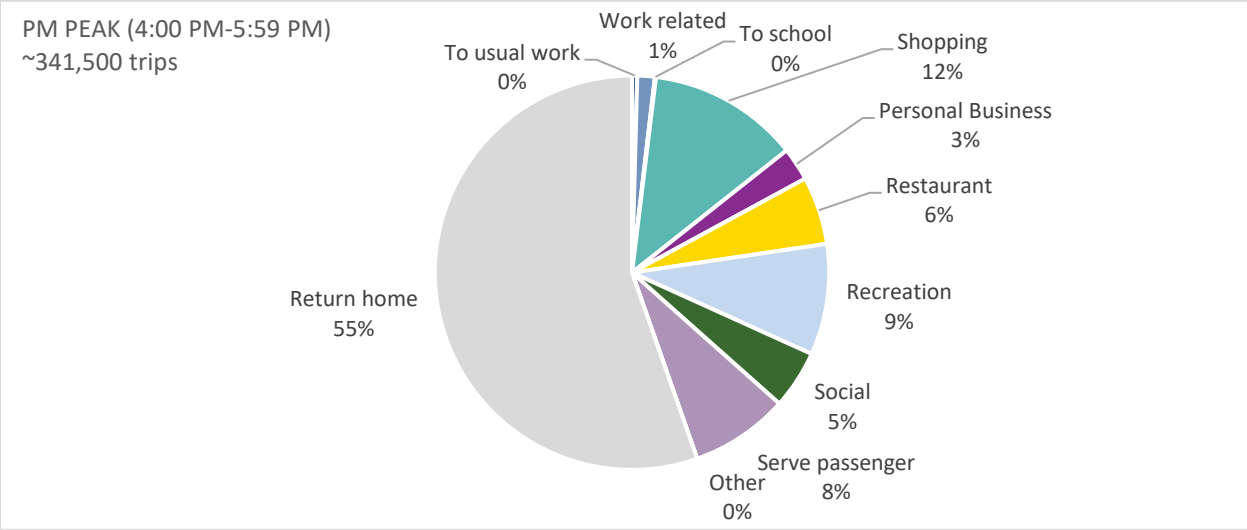


Figure 44. PM Peak Trip Purposes



6.3 Trip Mode Share

For this survey, a trip may have more than one mode of travel. In the case of multiple modes, a 'primary mode' is assigned to each trip. A trip is a journey with a single purpose (e.g., get to work) that may have multiple modes. Only one mode is counted as the primary mode. There is a hierarchy of how mode is assigned, as follows; it generally corresponds to which mode is used to travel the furthest distance.

1. Transit (and within this, SkyTrain is primary over Bus)
2. Auto driver
3. Auto passenger
4. Bicycle
5. Taxi
6. Ride hail (e.g., Lyft, Uber)
7. Motorcycle
8. Other Mode (e.g., other communal mode, school bus, etc.)
9. Walk (as the only mode, i.e., walked the entire way)

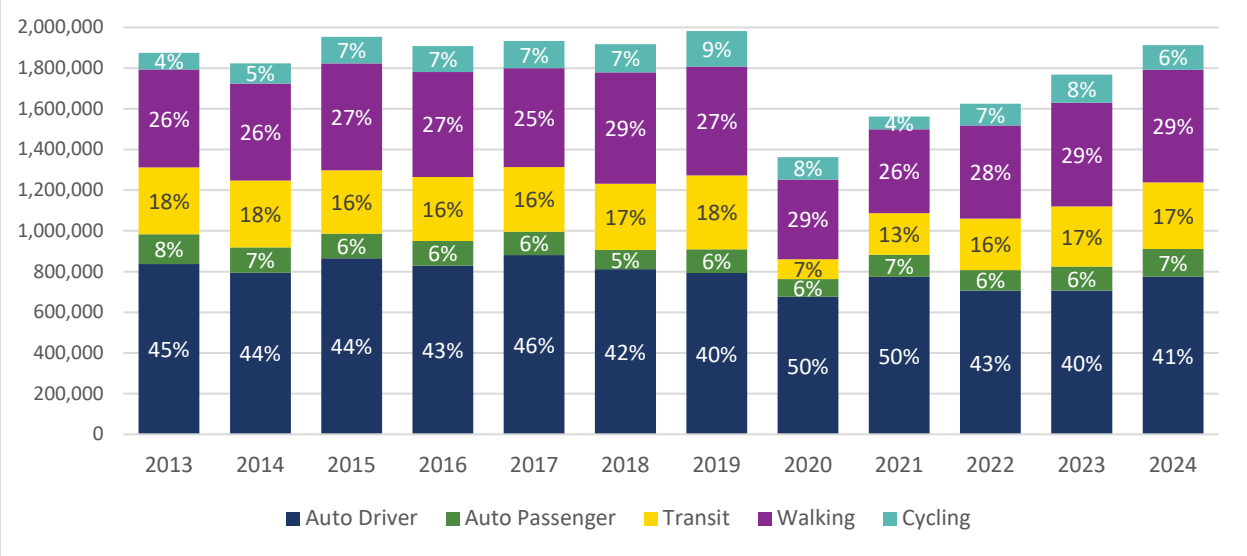
For example, if someone drove to transit then boarded transit then walked the rest of the way, transit would be the primary mode. In the analysis, the category referred to out of convenience as 'bicycle' is an aggregation of individual modes, including bicycles and e-bikes as well as other micromobility and e-micromobility devices. Other communal modes, such as shuttle bus and school bus, are grouped under transit; motorcycle is grouped under auto driver; and taxi and ride hail are grouped under auto passenger. See **Figure 2** in **Section 2.1** for detail on the mode aggregations used for analysis.

6.3.1 Mode Share

Figure 45 shows the mode shares and daily trips made in 2013 through 2024. In 2024, 1,913,000 daily trips were made by residents of Vancouver. Auto trips (driver and passenger combined) account for 48% of all daily trips, which is slightly higher than 2023 (46%). Compared to before the onset of the COVID-19 pandemic in 2019, the auto mode share is slightly higher than what was observed in 2019 (46%).

Vancouver residents still have reduced trips compared with pre-pandemic levels regardless of which mode they use for travel. Daily trip volumes have increased in 2024 for each mode except for cycling, which had fewer trips than 2023 (nevertheless still higher than what was observed in 2022). Transit mode shares stayed the same at 17%, walk stayed the same at 29%, and bicycle decreased to 6% in 2024.

Figure 45. Trip Mode Share and Daily Volumes by Year[47]



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Auto Driver	836,300	795,300	865,800	829,600	880,300	811,600	792,900	676,400	773,300	706,200	706,200	775,000
Auto Passenger	147,200	122,900	120,600	121,200	116,000	94,600	117,100	86,200	108,600	100,600	118,000	136,300
Transit	328,500	328,600	311,400	314,800	317,600	325,400	362,900	98,200	204,900	253,200	296,200	327,000
Walking	480,600	477,200	525,500	514,600	485,500	547,000	535,000	391,600	412,800	458,300	509,000	553,300
Cycling	83,300	99,100	131,000	128,100	133,300	139,300	174,600	109,400	63,000	106,400	139,400	121,400

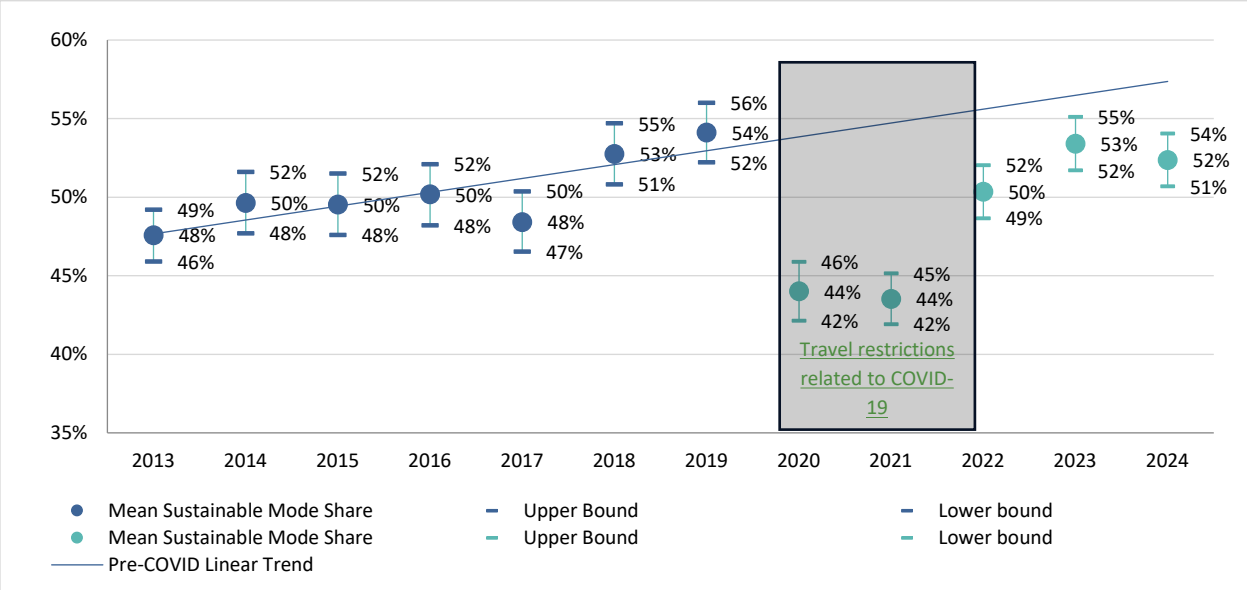
6.3.2 Trend in Sustainable Mode Share

Sustainable transportation refers to modes of travel that are sustainable in terms of environmental and social impacts. For the analysis of the Vancouver Transportation Survey data, transit, walking, and cycling are considered sustainable modes. Walking and cycling have the additional benefit of also being active transportation modes. The City of Vancouver has a sustainable mode share goal of two-thirds of trips in Vancouver to be by active transportation and transit by 2030. **Figure 46** shows the trend in sustainable mode share since the survey's inception in 2013 with the 95% confidence interval for each data point. The survey results show progressive increases in sustainable mode use between 2013 and 2019, when sustainable mode share reached a peak of 54% of all daily trips. With the onset of the COVID-19 pandemic in 2020 and extreme weather events during the 2021 survey, sustainable mode share dropped to about 44% in 2020 and 2021; it rebounded to 53% in 2023 and was similar in 2024, at 52%, a slight drop due to the 1% decrease in cycling mode share, but one that is not statistically

[47] Note: Percentages in the graph for the 2023 results have been rounded to whole percentages such that they sum to 100%. The actual 2023 percentages are: Auto driver (39.9%), Auto passenger (6.7%), Transit (16.7%), Walking (28.8%), and Cycling (7.9%). Auto trips sum to 46.6%, rounded down to 46% and sustainable mode shares sum to 53.4, rounded down to 53%.

significant (i.e., the apparent drop in sustainable mode share is within overlap of the confidence intervals for both years).

Figure 46. Sustainable Mode Share by Year with High and Low Ranges [48]



6.3.3 Mode Details (Vehicle Occupancy, Car Share, Transit Access Mode, Bikeshare)

Figure 47 provides further categorization for auto trips, transit trips, and cycling trips.

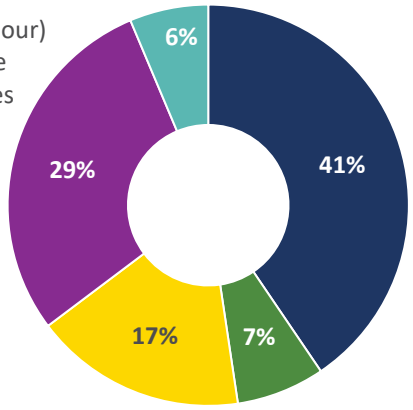
- High Occupancy Vehicle (HOV) auto driver trips represent 13% of all daily trips made by residents of the city (or 34% of all trips made by vehicle) and Single Occupant Vehicle (SOV) trips account for 26% of all trips. Most vehicle trips (96%) are made by personal vehicles.
- While transit trips account for 17% of all trips, many of them involve a mix of bus, SkyTrain, walking, Park & Ride, etc. Transit trips made by bus account for 9% of all trips and 55% of all transit trips. SkyTrain is used for 7.5% of all trips or 44% of all transit trips. Transit trips are most often accessed by walking (94%), followed by Park & Ride (3%).
- E-bikes account for 25% of all bicycle trips, or 1.6% of all trips. Seven in ten (69%) of bicycle trips are taken by traditional non-motorized personal bicycles.
- Sustainable mode shares account for 52% of all trips and active mode shares account for 35% of all trips.

[48] High and low are from the theoretical 95% confidence interval computed on the basis of the sustainable mode share and sample size (number of persons surveyed), without factoring in the effects of data weighting on effective sample size.

Figure 47. Detailed Examination of Trip Mode Share

Vancouver

Daily (24-hour) mode shares



Auto Driver Trips based	Mode Share	% of Auto Driver Trips
Single Occupant (SOV)	26.0%	65.8%
2-Occupant (HOV-2)	10.6%	26.9%
3-Occupant (HOV-3+)	2.3%	7.3%

Auto Trips (Driver + Passenger)	Mode Share	% of Auto Trips
Personal vehicle	45.6%	95.7%
Car share vehicle	1.0%	2.2%
Taxi or ride hail	1.0%	2.1%

Bicycle Trips*	Mode Share	% of Bicycle Trips
Personal bicycle	4.4%	69.3%
Personal e-bike	1.6%	24.6%
Micromobility Share	0.3%	4.5%
E-micromobility or micromobility	0.1%	1.6%

Sustainable Mode Share	
Transit + Walk + Bicycle	52.4%

Active Mode Share	
Walk + Bicycle	35.3%

Transit Service(s) Used	Mode Share	% of Transit Trips
Bus	9.5%	55.5%
SkyTrain	7.5%	43.7%
SeaBus	0.1%	0.4%
Other communal modes	0.1%	0.4%

Transit Access	Mode Share	% of Transit Trips
Walk Access	16.0%	93.7%
Park & Ride (drive access)	0.5%	3.0%
Kiss & Ride (passenger access)	0.3%	1.9%
Bicycle Access	0.2%	1.1%

* The Bicycle Trips mode group includes e-micromobility and micromobility devices due to the similarity of use, range, and technology.

Table 18 provides a breakdown of the 6.3% of bicycle and micromobility trips that were made in 2024. The majority of these trips were with a personal bicycle at 4.4% followed by 1.6% with a personal e-bike. Expressed as a percentage of bicycle/micromobility trips, personal bicycles account for 69% of such trips. Personal e-bikes, which account for one in ten bicycles, account for one-quarter of all bicycle/micromobility trips.

Table 18. Bicycle and Micromobility Trip Breakdown

Mode	Sample size (n trip records)	Expanded Trips	% of Trips	% of Bicycle / Micromobility Trips
Total trips	**10,309**	**1,913,000**	**100%**	
Modes other than bicycle/micromobility	**9,680**	**1,791,600**	**93.7%**	
Bicycle and micromobility	**629**	**121,400**	**6.3%**	**100%**
Personal bicycle	446	84,100	4.4%	69.3%
Personal e-bike	141	29,800	1.6%	24.6%
Micromobility share (bike share bicycle/e-bike such as Mobi, Lime e-scooter share, etc.)	33	5,500	0.3%	4.5%
Personal micromobility device (kick scooter, skateboard, inline skates, unicycle)	5	200	0.0%	0.2%
Personal electric micromobility device (e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)	4	1,800	0.1%	1.5%

6.3.4 Mode Share by Zone

Figure 48 presents mode share by zone of residence. **Table 19** (mode shares) and **Table 20** (volumes) present the same data along with a subtotal for sustainable transportation mode and population density to highlight the relationship between population density and sustainable mode share. Other factors that may also influence sustainable mode share not shown in the table include access to rapid transit, family situation, income, proximity to employment, and access to sustainable infrastructure. The most significant variation by zone is in the walk mode share, which could be related to dwelling type, population density, and proximity to employment and amenities within walking distance. Variations in transit mode may be related to proximity to the fast and frequent transit network (FFTN) and accessibility to employment by transit and age demography. Cycling may also be related to dwelling type, demographics, topography, and proximity to employment and amenities within cycling distance.

The CBD - West End zone has the highest sustainable mode share (i.e., transit, walk, and bike) and has exceeded the City's sustainable mode share target, with 71% of daily trips being made by active transportation or transit. CBD - False Creek zone has the next highest sustainable transportation mode share and matches the target, at 67%. Vancouver Broadway has the sustainable mode share nearly reaching the target, at 66%. These zones have high population density, high transit access, young age demography, and proximity to employment.

Despite below-average population density, Vancouver Port (58%) also has a high sustainable mode share. It is followed by Vancouver Kitsilano (55%), which also has a higher percentage of sustainable mode share and population density with high rates of employment, proximity to UBC, and the Commercial-Broadway/UBC B-Line rapid transit service (the highest ridership line in the region).

The lowest sustainable mode share is seen in Vancouver Southeast, with 31% of all trips being made by sustainable mode. This zone has an average population density and no SkyTrain service. It is also furthest from any employment or post-secondary institution and has significant changes in elevation. The second-lowest sustainable mode share is in Vancouver Kerrisdale, at 36%. Vancouver Kerrisdale has the lowest population density and no SkyTrain service, although it has the R4 Rapid Bus.

Vancouver East (51%) and Vancouver South (49%) have modest sustainable mode shares. These zones have lower population densities along with SkyTrain stations throughout the zone, except at the Marine Drive station in Vancouver South, which has some high-density development. The lack of active transportation mode share can be attributed to the scattered developments, low densities and land topography, making walking and cycling less viable options.

Figure 48. Map of Mode Share by Zone

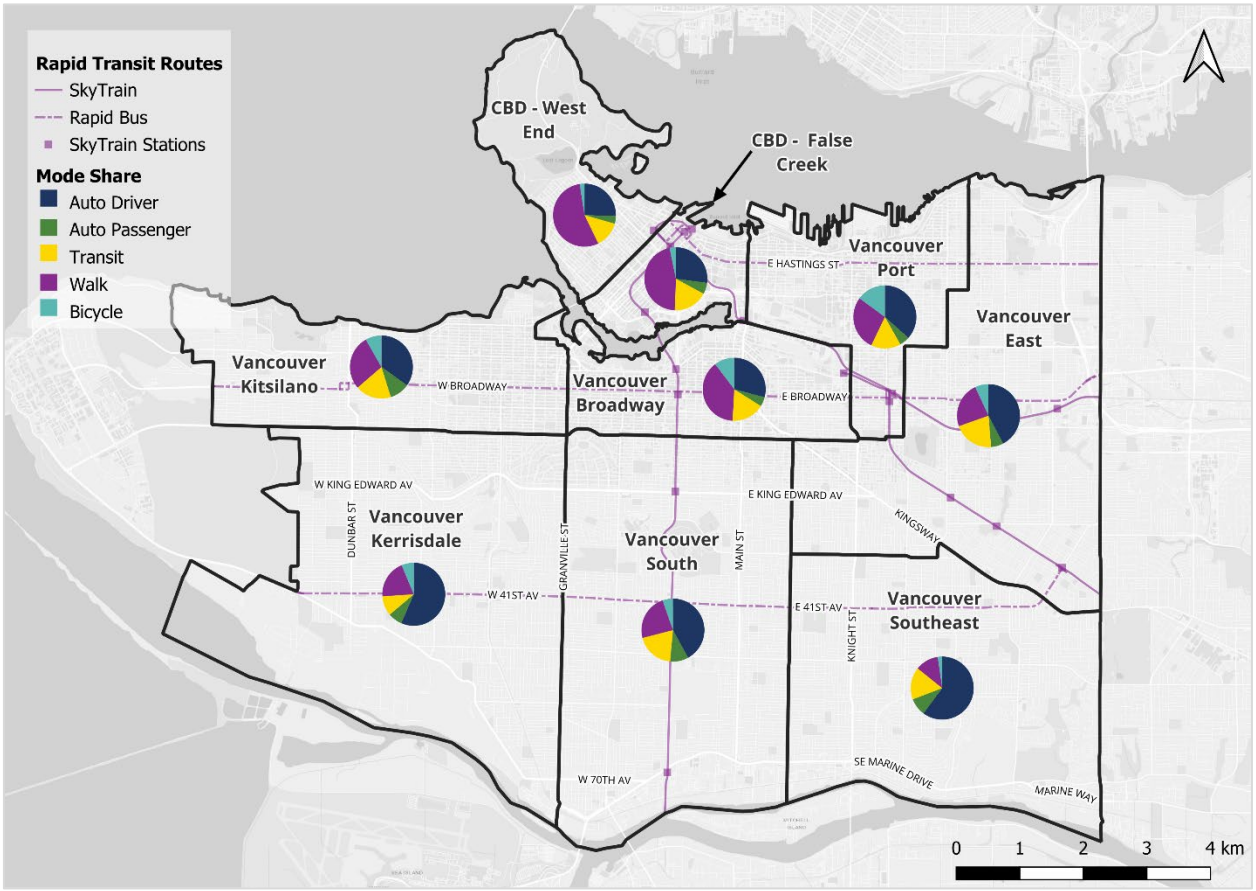


Table 19. Mode Share by Zone

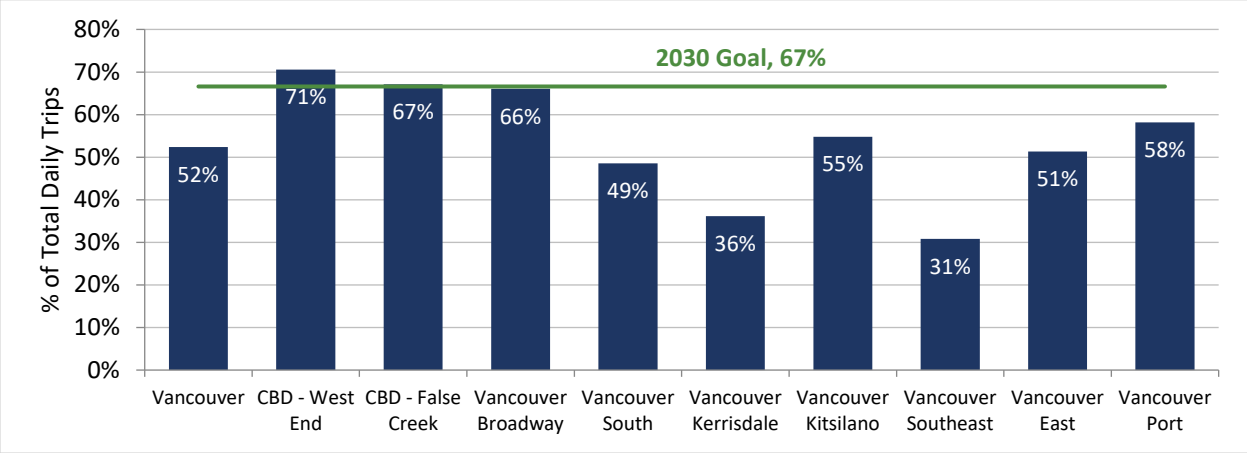
Mode Shares	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Population density (per ha)	61	95	193	98	48	29	64	62	62	59
Auto Driver	41%	25%	27%	29%	42%	57%	35%	60%	42%	37%
Auto Passenger	7%	4%	6%	5%	9%	7%	10%	9%	6%	5%
Transit	17%	13%	18%	17%	20%	10%	18%	17%	21%	15%
Walk	29%	55%	46%	39%	24%	20%	28%	12%	23%	28%
Bicycle	6%	2%	3%	10%	5%	6%	8%	2%	7%	15%
Sustainable Mode Share (Transit + Walk + Bike)	52%	71%	67%	66%	49%	36%	55%	31%	51%	58%
Active Mode Share (Walk + Bike)	35%	57%	49%	49%	29%	26%	36%	14%	30%	43%

Table 20. Mode Volumes by Zone

Mode Volumes	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Auto Driver	775,000	44,300	47,400	58,800	110,700	98,000	68,100	157,100	140,100	50,500
Auto Passenger	136,300	7,000	10,100	9,800	24,800	12,600	20,200	23,500	21,000	7,200
Transit	327,000	23,300	30,900	34,200	51,600	17,600	36,100	43,100	69,100	21,100
Walk	553,300	95,400	80,800	78,500	62,200	34,100	54,900	31,200	77,700	38,600
Bicycle	121,400	4,200	5,700	20,800	14,100	10,900	16,100	6,000	22,900	20,600
Sustainable Mode Share (Transit + Walk + Bike)	1,001,700	123,000	117,300	133,500	127,900	62,600	107,100	80,300	169,600	80,200
Active Mode Share (Walk + Bike)	674,700	99,700	86,400	99,400	76,300	45,100	71,000	37,200	100,500	59,200

Figure 49 provides a bar chart of sustainable transportation modes by zone to help measure the City's sustainable mode share goal and to highlight the variation across zones. CBD - West End and CBD - False Creek are the only two zones meeting this target. The sustainable mode share for these two zones has slid down, by 2% and 3% respectively, from 2023. Vancouver Broadway is nearly reaching the target and other zones are not yet meeting the target.

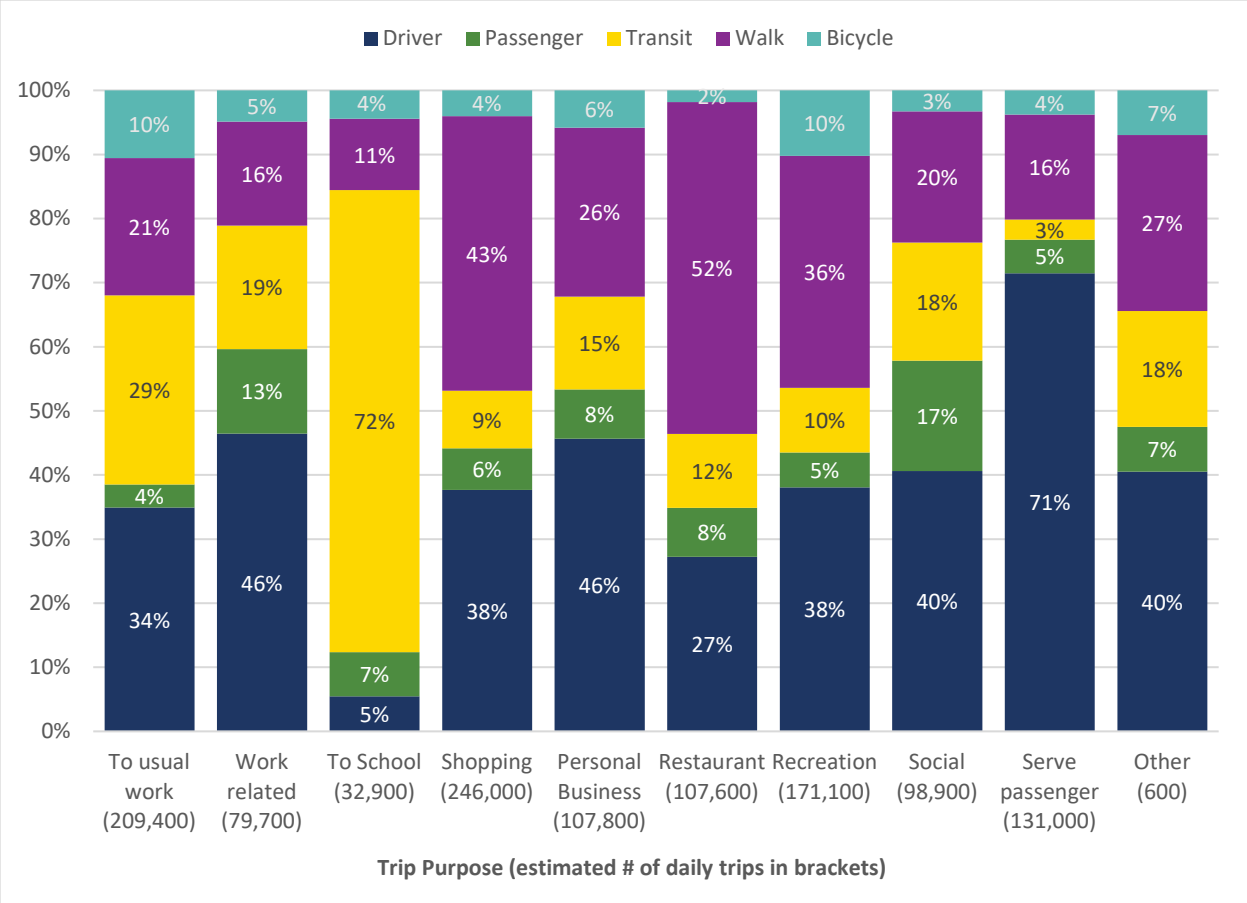
Figure 49. Sustainable Mode Share by Zone



6.3.5 Mode Share by Trip Purpose

Figure 50 shows weekday mode shares by trip purpose. The highest auto driver mode shares are for the purpose of serving passengers (71%), work-related trips (46%) or personal business trips (46%). Passenger auto trips are most often for social purposes (17%) or work related (13%). The largest percentage of transit trips is for trips to school (72%), followed by trips to work (29%). Similarly, walk mode shares are highest for trips to restaurants (52%) and trips for shopping (43%). Finally, cycling mode shares are highest for work commutes and recreational purposes (10%).

Figure 50. Weekday Mode Share by Trip Purpose [49]



6.3.6 Mode Share by Personal Demographics

This section discusses mode share by personal demographics, such as age group, gender, ethnicity, and year of immigration, to look for any patterns specific to these data elements. This helps to identify issues related to equity that may help develop policies and programs to improve equity of access to transportation for marginalized groups.

Figure 51 shows mode shares by age group.

[49] Mode shares 'to school' and 'other' purposes are based on a small sample size (n=60, n=6), interpret with caution.

- Auto driver mode shares are highest for survey participants over the age of 45, ranging from 45% to 50%, and lowest for participants under the age of 24 (17%).
- Participants under the age of 24 had the highest auto passenger mode share (12%), while participants aged 35 to 64 years old had the lowest passenger mode share (5% to 6%).
- Transit mode shares are highest for the 18- to 24-year-old age group, at 50%, decreases with age, with 24% for 25- to 34-year-olds, 14% for 35- to 44-year-olds and a more consistent range of 8% to 10% for ages 45 to 74. Transit mode share increases slightly to 14% for ages 75 and older.
- Walk mode shares are highest amongst those 25 and older, ranging from 29% to 32%, and lowest for those between the ages of 18 and 24.
- Cycling mode shares are relatively consistent amongst those between the ages of 25 and 74, ranging from 7% to 8%, lower for those 65 to 74 (5%), and lowest for those 18 to 24 (3%) and over the age of 75 (3%).

Figure 51. Trip Mode Share by Respondent Age Group[50]

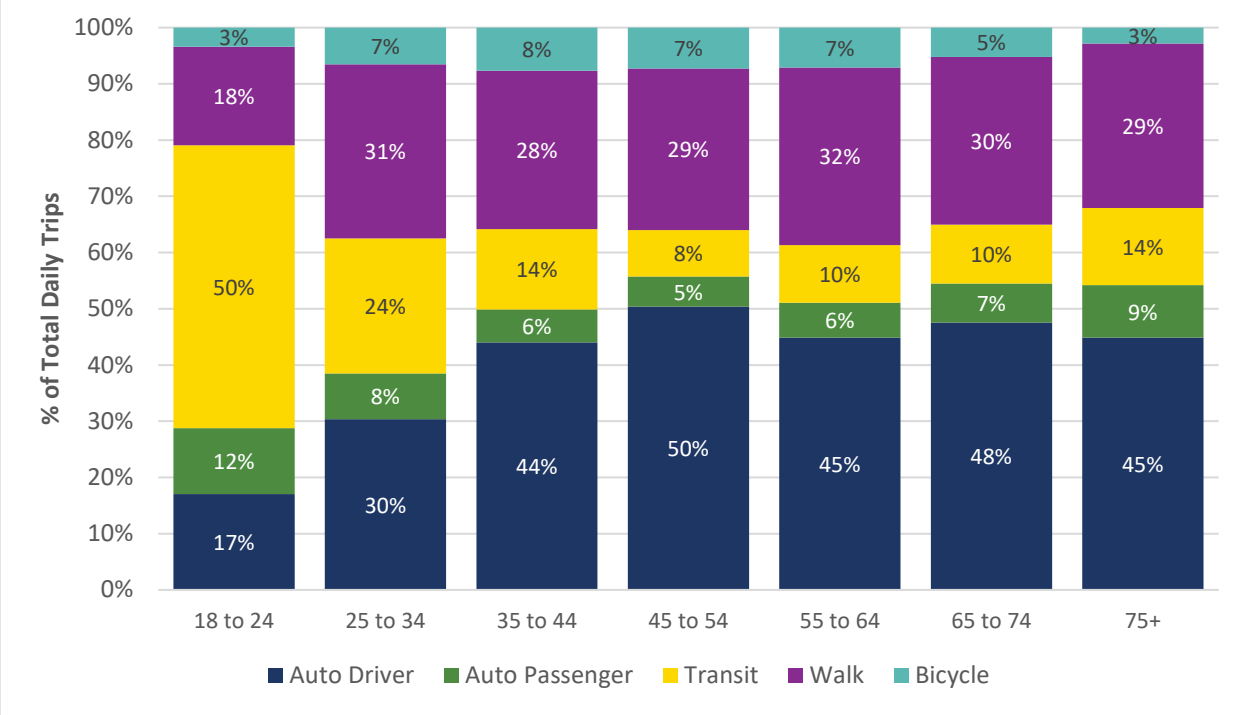
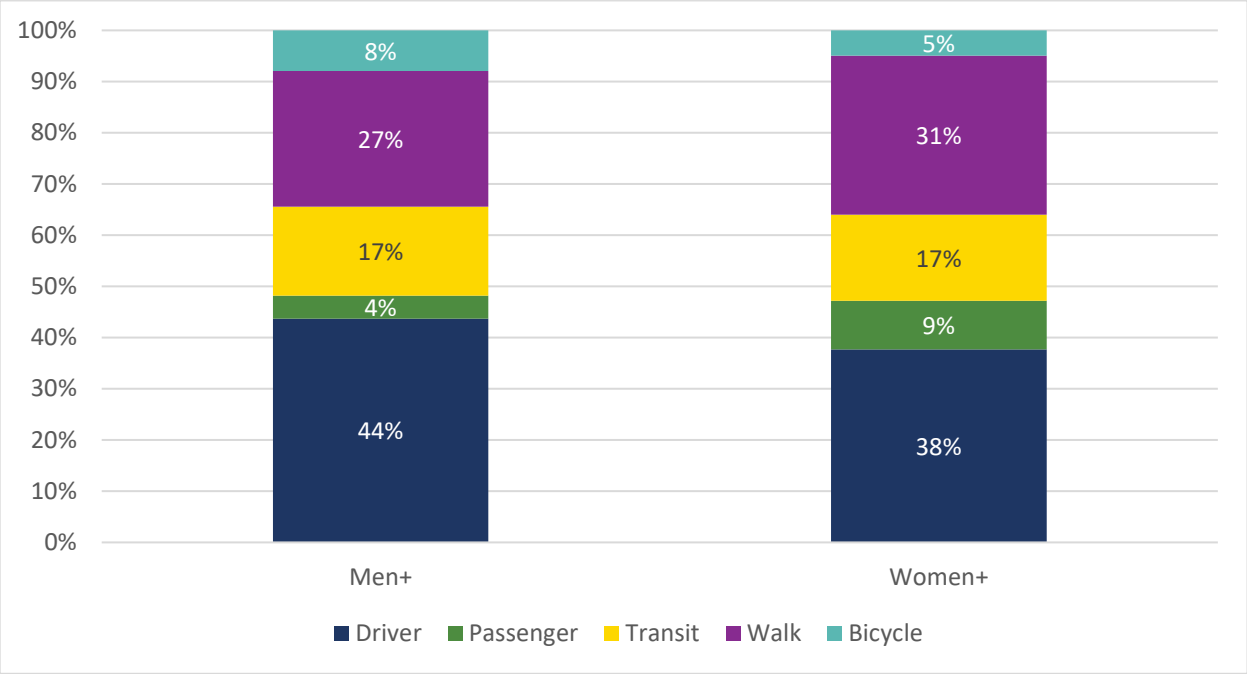


Figure 52 shows mode share by gender. Women are slightly less likely to be auto drivers (38%) or cyclists (5%) and more likely to be auto passengers (9%) or walk (31%) compared to men (44%, 8%, 4% and 27% respectively). Compared to the previous year, the sustainable mode shares of men have slightly decreased, while those of women have remained relatively unchanged. Both men and women are at a similar level of sustainable mode shares. This is consistent with the other results of the survey that suggest private vehicle availability (**Section 5.2.2**) and frequency of transit use (**Section 7.4.2**) are nearly equal by gender.

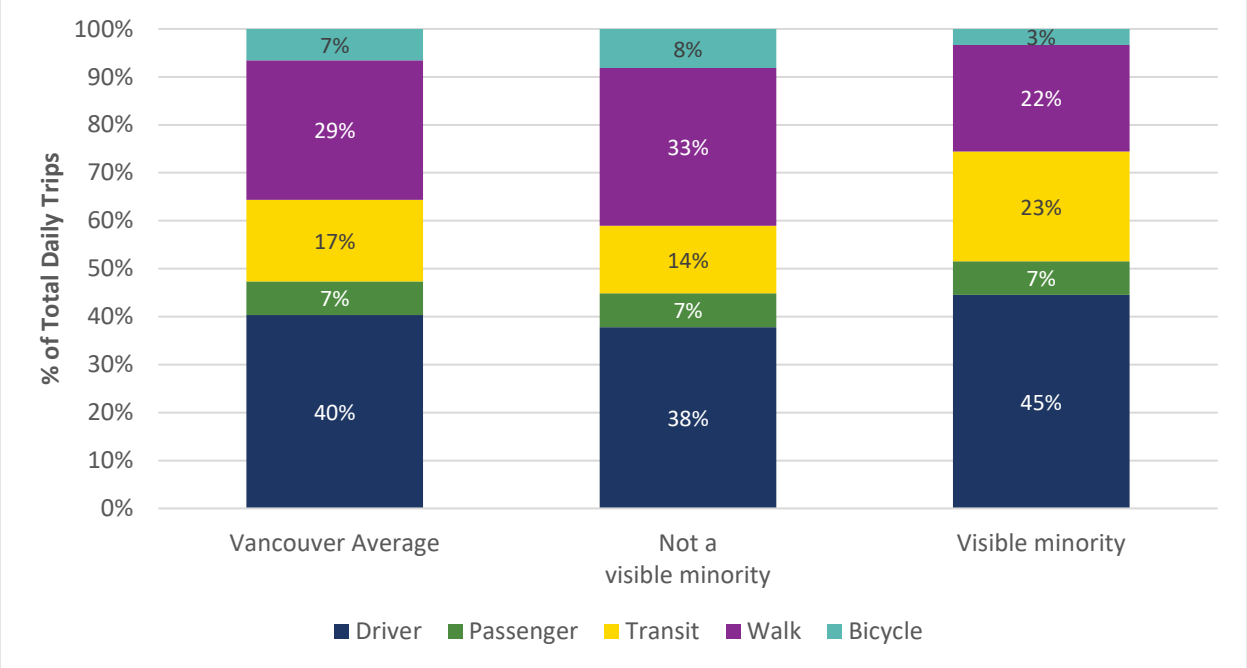
[50] Mode shares for 18-24-year-olds and 75+ are based on small sample sizes, interpret with caution.

Figure 52. Trip Mode Share by Gender[51]



As shown in **Figure 53**, survey participants who self-identified as a visible minority population group are more likely to rely on transit (23% mode share compared to 14% for non-visible minorities). They have a smaller walk and bicycle mode share (22% and 3%) than non-visible minorities (33% and 8%).

Figure 53. Trip Mode Share by Respondent Visible Minority Population Group

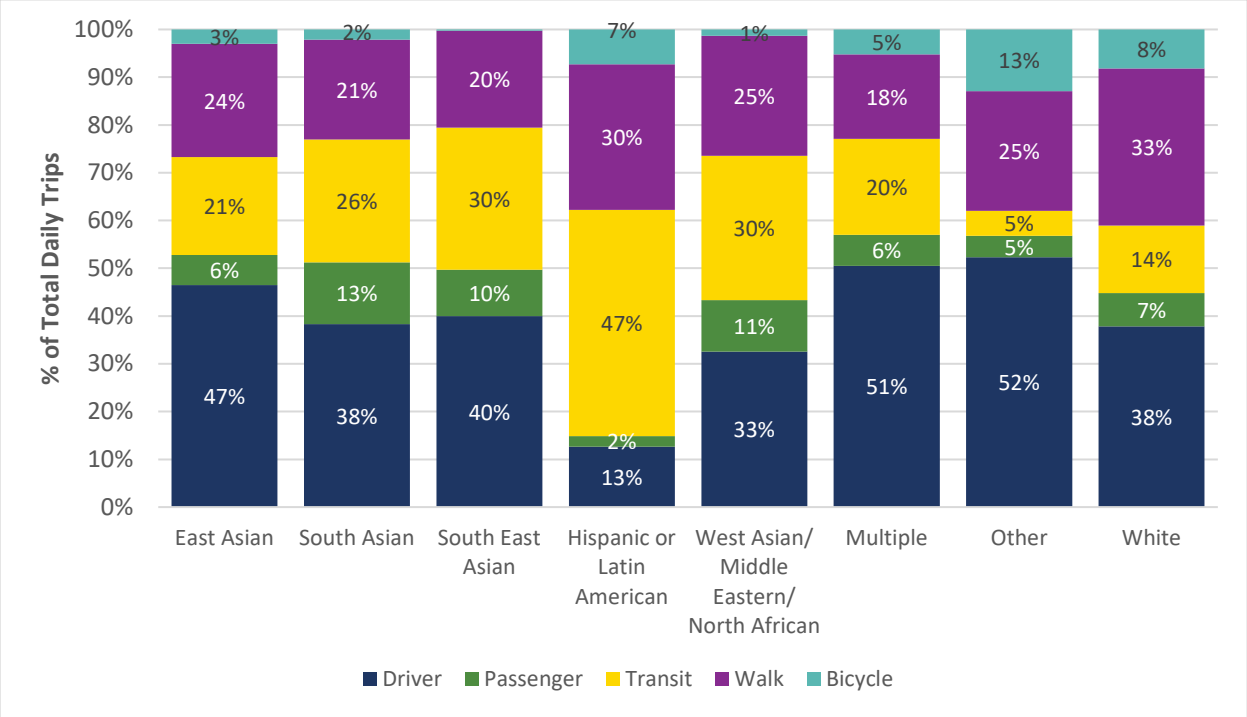


[51] Persons with non-binary gender, those who prefer to self-describe, and those who declined to say are not analyzed separately due to small sample sizes.

Figure 54 highlights mode shares for specific visible minority population groups. Some caution should be exercised in interpreting the results for South Asian, Southeast Asian, Hispanic/Latin American, and Other due to modest sample sizes (n=196, n=213, n=100, and n=157 trips respectively), while the results for East Asian and White can be viewed with more confidence (n=1,662 and n=6,810 trips, respectively).

The results suggest that mode shares vary within the range of visible minority population groups, with Multiple and Other survey participants more likely than other groups to report travelling via automobile, followed by East Asians. Hispanic or Latin American survey participants are most likely to take transit and least likely to report travelling by automobile. White survey participants are most likely to report walking. Readers are reminded that mode choices are correlated to a variety of factors including income, dwelling type, family situation, occupational status, and proximity to transit. Although the results below speak to the proportion of different population groups in travelling via different modes, a deeper analysis of the data would be required to explore the extent to which the observed patterns may be related to the variety of factors that influence mode choice.

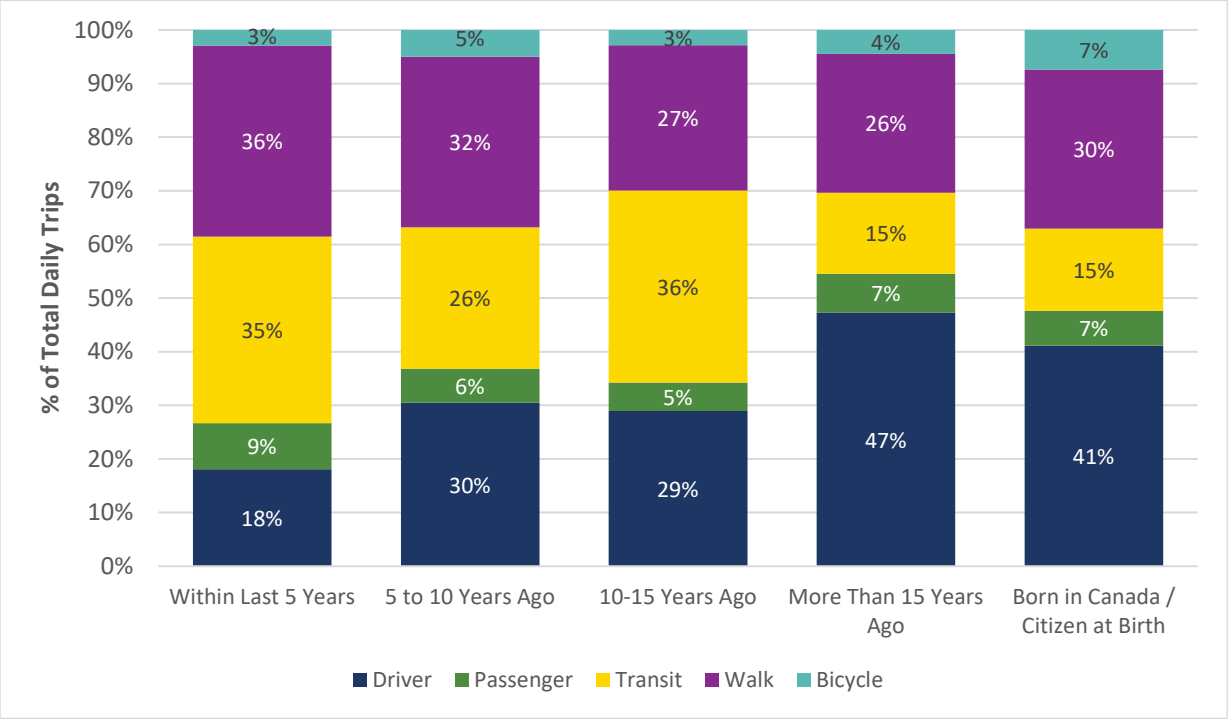
Figure 54. Trip Mode Share for Specific Population Groups[52]



[52] Chart excludes Black and Indigenous due to very small sample sizes, as well as Unknown / Prefer not to Say. Interpret results for South Asian, Southeast Asian, Hispanic/Latin American, and Other due to modest sample sizes (n=196, n=213, n=100, and n=157 trips, respectively) with caution due to small sample sizes.

Figure 55 shows that recent immigrants to Canada (within the last 5 years) are more likely to walk (44%) and take transit (35%). Auto driver and bicycle mode share was lowest amongst participants who have lived in Canada for less than five years (18% and 3%). The overall sustainable mode share was lower for participants who have lived in Canada for more than one year and lowest for those who have lived in Canada for more than 15 years. The participants who have lived in Canada for 15 years or more have the highest auto driver share (47%), while participants who were born in Canada or Canadian citizens at birth had the highest bicycle mode shares (8%).

Figure 55. Trip Mode Share by Respondent Year of Immigration[53]



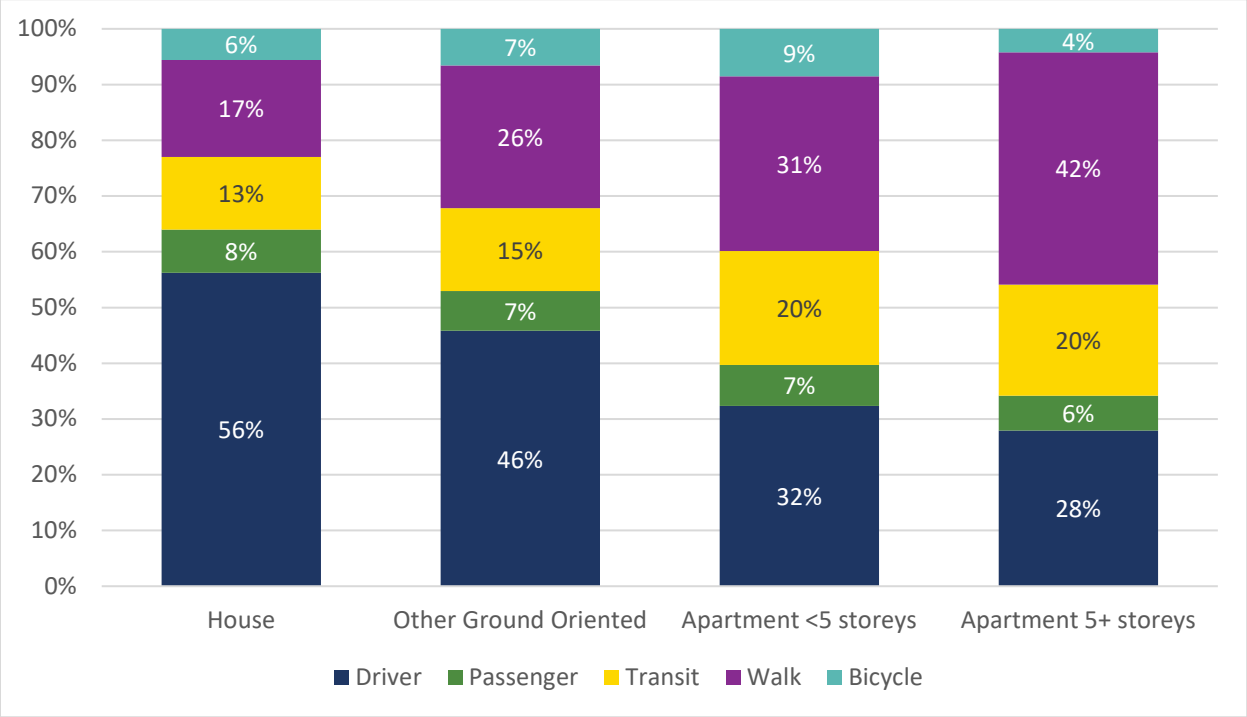
[53] Interpret results for immigrants within the last 5 years and immigrated 10 to 15 years ago with caution due to smaller sample sizes (n=142, n=113). Mode shares for those who are not permanent residents of Canada are not displayed in the chart due to small sample size (n=41).

6.3.7 Mode Share by Household Characteristics

This section includes a breakdown of mode shares by household characteristics, including dwelling type, dwelling tenure, private vehicle access, and annual household income.

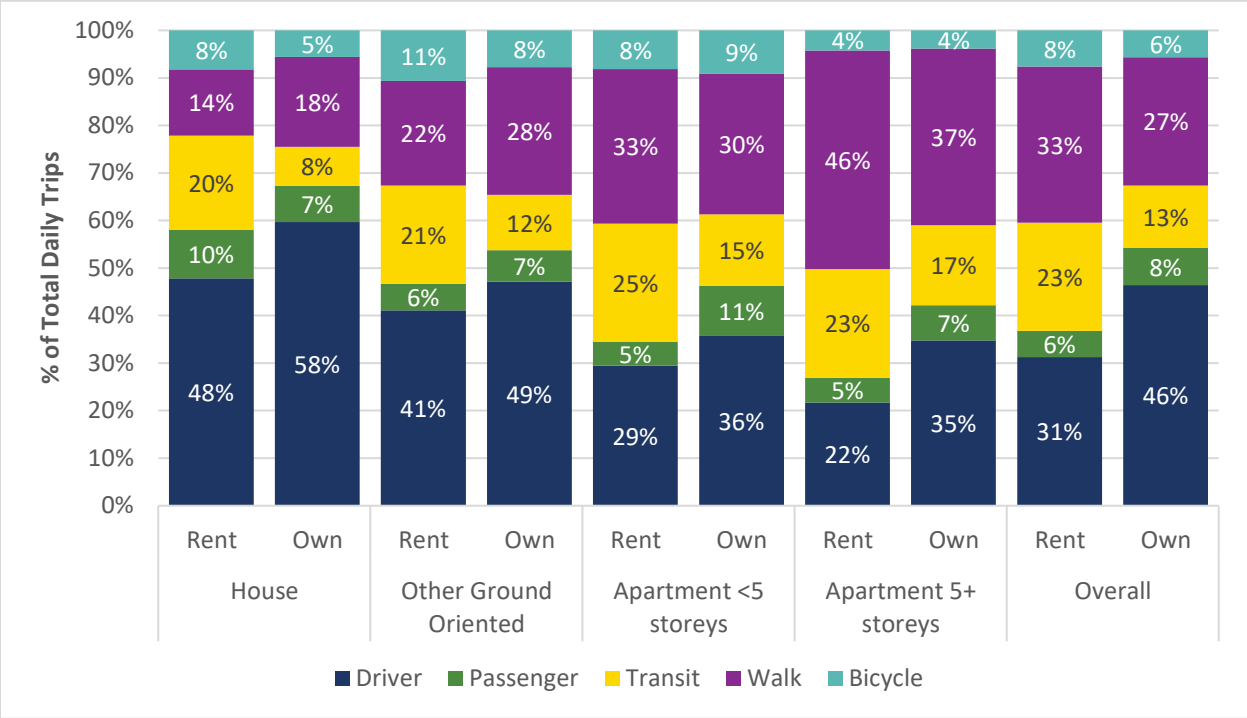
Figure 56 shows mode share by dwelling type, showing an interesting but not surprising pattern of higher transit and walk mode share associated with apartment buildings and higher auto driver mode shares associated with houses or other ground-oriented dwellings. This likely reflects a few things, including limited access to parking if living in an apartment building and the increased ease of accessing amenities and services that is usually associated with higher density living that comes with apartment buildings. Single-family dwellings are a common housing form for households with children, which, as indicated in **Section 6.3.6**, have a higher auto mode share. Mode share by dwelling type is explored by zone in **Section 6.3.8**.

Figure 56. Trip Mode Share by Dwelling Type



Mode share distribution shows interesting patterns by dwelling type for those who rent versus those who own. As shown in **Figure 57**, the difference for all dwelling types combined is that those who own have a higher auto driver mode share (46% versus 31%) and a lower transit mode share (13% versus 23%). Participants in houses and other ground-oriented dwellings were more likely to be auto drivers than participants in apartments, regardless of whether they rent or own. It is also notable that participants who rent generally have higher sustainable mode shares (walk, bicycle and transit), compared to those who own, regardless of dwelling type.

Figure 57. Trip Mode Share by Dwelling Tenure



As shown in **Figure 58**, auto driver mode share is substantially higher amongst survey participants who have at least one household vehicle, at 51% compared to only 3% amongst those with no household vehicles. Those with no household vehicles had higher transit (33%), walk (46%) and bicycle (9%) mode shares than those with at least one household vehicle (13%, 24% and 6%, respectively).

Figure 58. Weekday Mode Share by Private Vehicle Availability

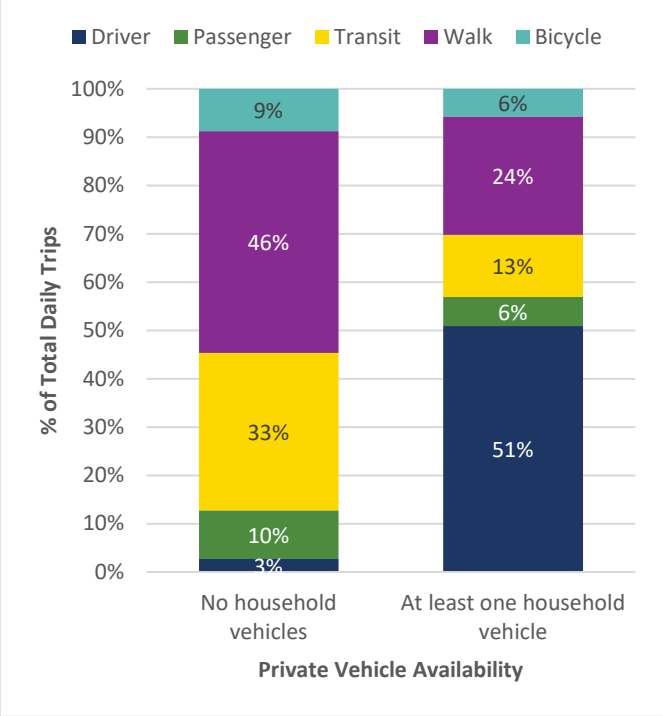
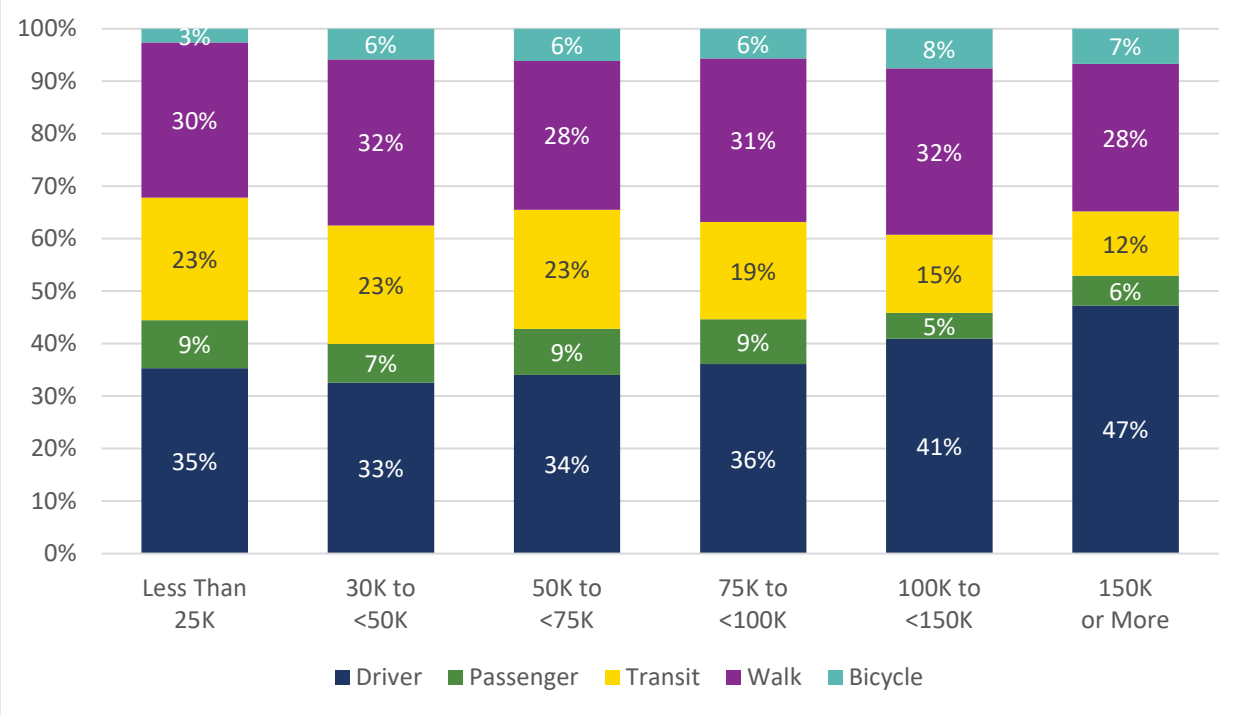


Figure 59 shows mode shares by household income.

- Auto driver mode shares range between 33% and 36% for household income groups under $100,000 per year, but increase amongst the higher income groups, reaching 47% for the highest income group ($150,000 or more).
- Transit use is higher amongst the lower-income households, representing a consistent 23% of all trips from residents with a household income below $75,000. Transit use decreases as household income range increases, reaching a low of12% amongst residents with household incomes of $150,000 or more.
- Walking mode varied slightly by income and ranged from 28% to 32% amongst all income groups but no clear pattern emerged.
- Cycling mode shares are lowest amongst the households with incomes of $25,000 or less (3%). Cycling mode increases as income increases and peaks for households with income $100,000 to $150,000 (8%) before dropping slightly to 7% for households with income $150,000 or more.

It may be noted that household income may be closely correlated with the other household characteristics of dwelling type, dwelling tenure, and private vehicle availability explored above, although it is beyond the scope of the current analysis to explore this in more depth.

Figure 59. Trip Mode Share by Household Income Range



6.3.8 Mode Share by Zone and Dwelling Type

Zone type and dwelling type are the two variables that seemed to have the greatest variation in mode share. The two were examined together in **Figure 60,** which shows the mode share by zone and dwelling type to further understand how they influence mode share. This figure can be used to see how mode share within a zone varies by dwelling type or to see how mode share for a specific dwelling type changes within each zone.

Some highlights of the results follow:

- Mode share does not have a consistent pattern for dwelling type across zones. For example, the auto mode share for single-family dwellings ranges from a low of 33% in Vancouver Kitsilano to a high of 66% in Vancouver Kerrisdale. For apartments with 5+ storeys, the auto mode varies from a low of 12% in Vancouver East to a high of 64% in Vancouver Southeast.
- The transit mode share is highest for apartments with fewer than five storeys in Vancouver East. Since this zone has two SkyTrain Stations, it's likely that this housing form has very good access to the FFTN. Conversely, houses in Kerrisdale have the lowest transit mode share at 8%. This zone has a newer bus rapid transit line and is further away from employment nodes and amenities.

These results suggest that dwelling type alone is not always the best indicator of mode share. The combination of zone and dwelling type may be a better indicator and could be used for developing policies such as parking supply and transit service. Other characteristics of a zone that could be further explored are proximity to employment and amenities; proximity to transit; and other local transportation infrastructure – e.g., how walkable a neighbourhood is, how well developed are the bicycle facilities.

Figure 60. Mode Share by Zone and Dwelling Type

Zone	House	Other Ground Oriented	Apartment <5 storeys	Apartment 5+ storeys	Total
CBD - West End	Low Sample Size	Low Sample Size			
CBD - False Creek	Low Sample Size	Low Sample Size	Low Sample Size		
Vancouver Broadway					
Vancouver South					
Vancouver Kerrisdale		Low Sample Size			
Vancouver Kitsilano					
Vancouver Southeast					
Vancouver East					
Vancouver Port				Low Sample Size	

6.4 Trip Distributions

This section describes the trip distributions for trips reported by survey participants, including the trip origins and destinations and internal capture of trips.

6.4.1 Origin-Destination Matrix

Table 21 on the following page shows the Origin-Destination flow by zone. The O-D matrix is generally balanced between the O-D zones.

Of the estimated 1,913,000 total daily trips made by residents of the city, 77% (1,477,100) are made within the city of Vancouver. In all cases, the most trips are made within the zone of origin. One in five daily trips (19%, or 364,200 trips) are between the city of Vancouver and places external to the city (9.5% each leaving and returning to the city). The most common destinations outside the city are the Burnaby/New Westminster, Richmond/South Delta, and the University Endowment Lands. Finally, about 4% of all daily trips made by city of Vancouver residents are made entirely outside of the city, with 71,600 trips with both the origin and destination being external to the city that are made in the course of the resident's travel outside of the city (locations within the black border in the figure).

Table 21. Origin-Destination Flows by Zone

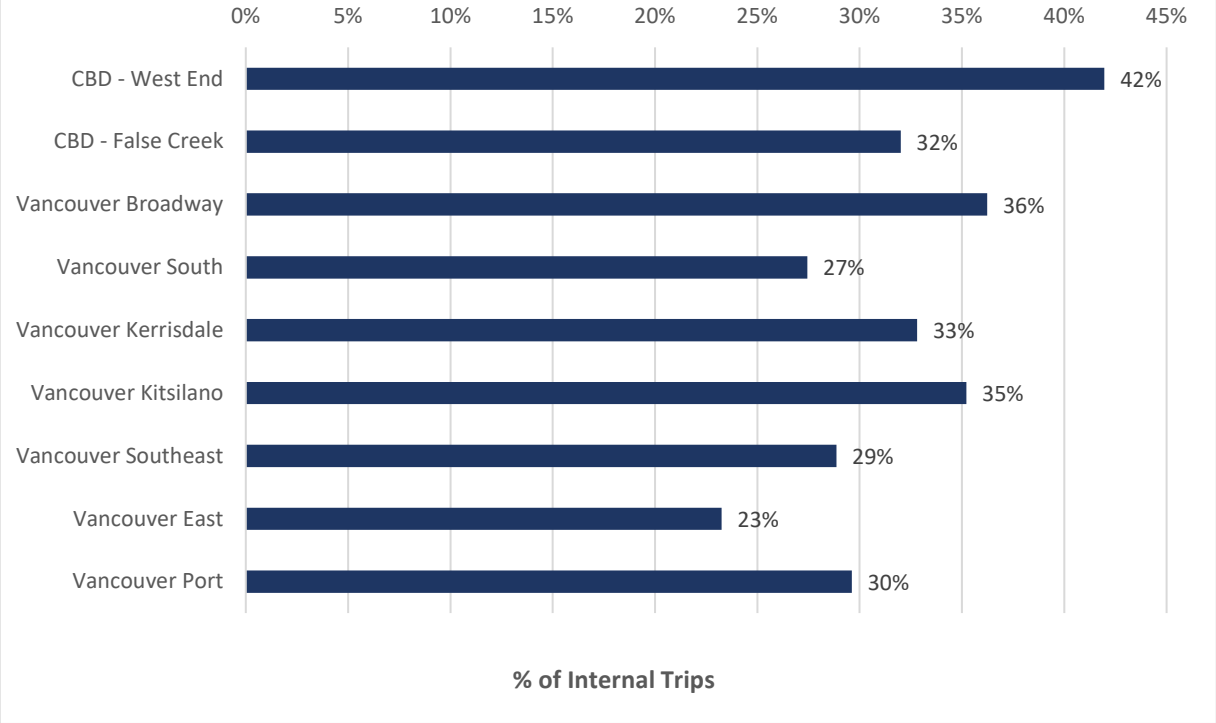
Destination																		
Origin/Destination	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port	North Shore	UEL	Burnaby / New West	NE Sector / Maple Ridge / Pitt Meadows	Richmond / South Delta	North Delta / Surrey / White Rock	Langley	External to Metro Vancouver	Total Daily Trips
CBD - West End	79,600	27,200	7,400	5,800	900	5,500	5,800	4,300	5,200	4,300	1,900	2,700	500	4,300	-	500	2,100	158,100
CBD - False Creek	28,200	87,400	24,200	14,200	6,400	21,600	7,100	11,300	13,400	1,600	1,800	7,300	500	3,100	400	100	400	229,000
Vancouver Broadway	6,900	24,200	94,400	28,400	10,200	19,200	8,500	13,400	15,200	3,800	1,400	5,100	300	3,200	1,000	-	400	235,600
Vancouver South	5,900	14,400	28,900	81,200	13,300	8,800	14,300	12,700	4,300	900	3,400	4,800	800	7,900	1,700	700	600	204,700
Vancouver Kerrisdale	2,900	5,600	8,900	14,700	59,400	15,000	2,800	3,800	1,100	900	4,200	2,100	-	6,000	400	100	500	128,300
Vancouver Kitsilano	6,000	21,600	19,900	7,000	15,700	79,400	3,800	3,300	3,800	600	8,200	1,800	1,100	1,600	300	-	2,700	176,700
Vancouver Southeast	4,700	6,500	7,300	15,100	2,800	3,600	83,900	16,800	5,500	1,400	3,300	24,200	800	5,200	2,200	100	-	183,500
Vancouver East	3,900	14,400	15,000	12,600	4,100	3,300	17,100	82,700	22,600	4,800	5,700	21,000	1,200	2,700	800	-	500	212,300
Vancouver Port	5,300	12,500	13,200	5,500	1,200	4,100	4,900	25,900	48,300	2,500	2,300	3,700	1,200	1,200	200	-	200	132,200
North Shore	3,800	1,900	3,400	1,300	800	300	1,400	3,100	3,400	6,600	-	1,300	-	-	-	-	100	27,300
UEL	2,300	1,100	2,100	2,700	4,300	9,200	2,600	4,500	2,600	-	8,600	1,300	-	100	-	-	-	41,300
Burnaby / New Westminster	1,700	7,800	5,700	3,900	1,600	1,000	21,900	24,100	4,100	700	100	19,000	1,200	500	400	300	-	94,000
Northeast Sector / Maple Ridge / Pitt Meadows	500	500	300	1,700	-	1,100	800	400	1,200	-	-	1,300	3,900	-	-	100	-	11,700
Richmond / South Delta	4,400	2,500	2,100	8,200	6,600	2,100	6,400	3,200	1,600	-	-	500	-	15,300	-	-	900	53,800
North Delta / Surrey / White Rock	400	400	-	2,200	1,300	200	2,000	800	-	300	-	300	300	100	1,500	-	800	10,600
Langley	100	-	-	-	100	-	-	300	-	-	-	-	600	100	700	1,000	-	2,900
External to Metro Vancouver	800	400	400	1,000	800	3,000	-	300	300	-	-	-	-	300	700	-	2,700	10,700
Total Daily Trips	157,400	228,400	233,200	205,500	129,700	177,300	183,200	210,800	132,500	28,400	40,900	96,400	12,400	51,700	10,400	2,900	12,000	1,913,000

Note: All expanded trip estimates are rounded to the closest 100 to avoid implying a higher level of precision than is actually present in the expanded survey sample. Individual cells may not always add to the row or column totals due to rounding.

6.4.2 Internalization of Trips

The internal trip capture, or the proportion of trips made by residents of the zone that are within the zone, provides an indication of the extent to which shopping, services, work, and other trip purposes are met locally. **Figure 61** highlights that CBD - West End zone has the highest percentage of internalized trips, at 42%. This zone has high population densities and high proportions of residents living in apartments along with employment areas and amenities, likely contributing to these results due to ease of accessing amenities. The Vancouver East and Vancouver South zones have the lowest percentage of internalized trips, at 23% and 27%. These zones would have the least amenities and employment, causing a greater need to travel outside the zone to access amenities. **Table 21** can be used to see the next most common destinations for any particular zone. For example, the next most common destinations for the Vancouver East zone are the Vancouver Port and Burnaby/New West zones, which are adjacent.

Figure 61. Percentage of Internal Trips by Zone



For internal trip capture, both the origin and destination need to be in a single zone. **Table 22** shows the internalization of trips for three types of trips. The term home-base work (HBW) refers to any trip that was either from home to work or from work to home. The term home-based other (HBO) refers to any trips that involved home as an origin or destination and any other purpose besides work as the

destination or origin. Non-home-based (NHB) trips involve an origin-destination pair that did not have home as a location at all. For CBD - West End, 22% of its HBW trips are within its own zone and 59% of its HBO trips are within the zone. In the case of NHB trips, only 27% of these trips are made within the zone. The NHB trips are typically part of a trip chain. This category generally has lower numbers for all zones. Once a person leaves a zone, they make a number of stops outside the zone for the sake of convenience and efficiency before heading home.

Table 22. Internalization of Trips by Home-based Purpose- by Zone[54]

	Average across all trip purposes	Home-based work (HBW)	Home-based other (HBO)	Non-home-based (NHB)
CBD - West End	42%	22%	59%	27%
CBD - False Creek	32%	28%	42%	18%
Vancouver Broadway	36%	27%	48%	16%
Vancouver South	27%	6%	45%	10%
Vancouver Kerrisdale	33%	12%	47%	14%
Vancouver Kitsilano	35%	3%	51%	25%
Vancouver Southeast	29%	3%	46%	17%
Vancouver East	23%	5%	38%	8%
Vancouver Port	30%	11%	42%	18%

6.4.3 Trip Locations by Mode

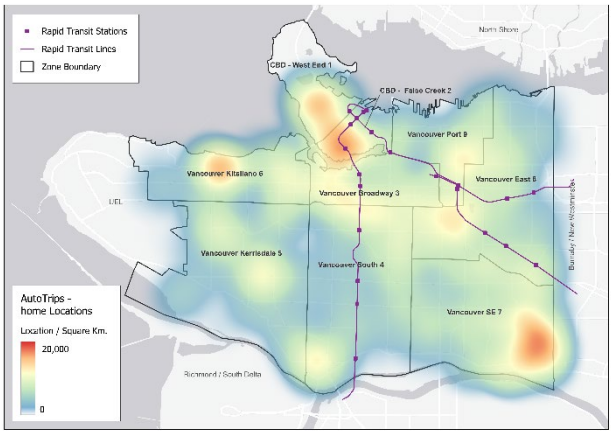
Figure 62, Figure 64, and **Figure 66** show heat maps of the home locations of home-based trips, including both work-related and other home-based trips by car, transit, and cycling, respectively. **Figure 63**, **Figure 65**, and **Figure 67** show similar heat maps but for non-home-based trip ends (whether origin or destination). The heat scales (based on density of trip origins/destinations per square kilometre) are different for each of the modes, but the same for the home-based and non-home-based variations of each map, which serves to show the dispersion of home-based trip ends and the concentration of non-home-based trip ends where people travel to and from.

Geographically, the downtown core generates the most auto trips in the city. This correlates closely with population density, as the downtown core has the highest population density in the city.

The hot spots on the transit heat map for home-based trips, shown in **Figure 64**, reflect locations with both access to the SkyTrain, as well as high-rise development. Outside of high population density areas, the heat map may indicate communities where public transit or other active modes are not competitive with the private vehicle and thus more auto trips are generated. The heat map in **Figure 65** illustrates the fact that the CBD is a generator of transit trips, and also highlights the importance of transit for travel to UBC.

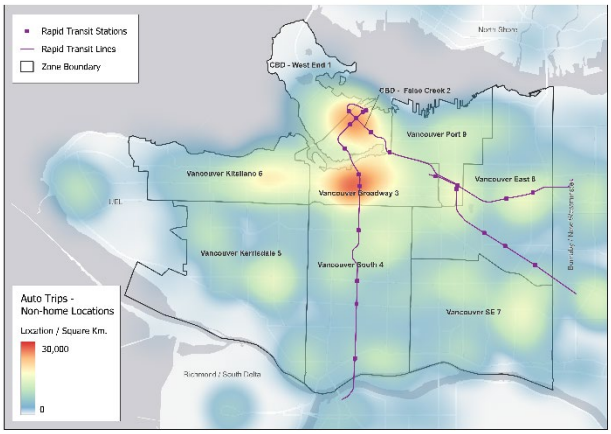
[54] Note: Excludes home-based school (HBS) due to small sample sizes.

Figure 62. Heat Map for Home-Based Locations of Auto Trips



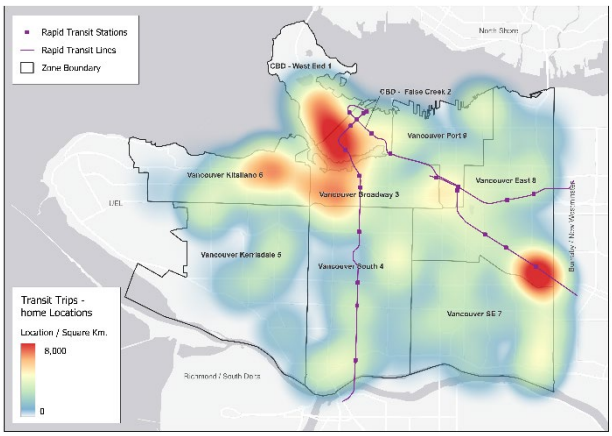
Home origins/destinations for home-based auto trips

Figure 63. Heat Map for Non-Home-Based Locations by Auto



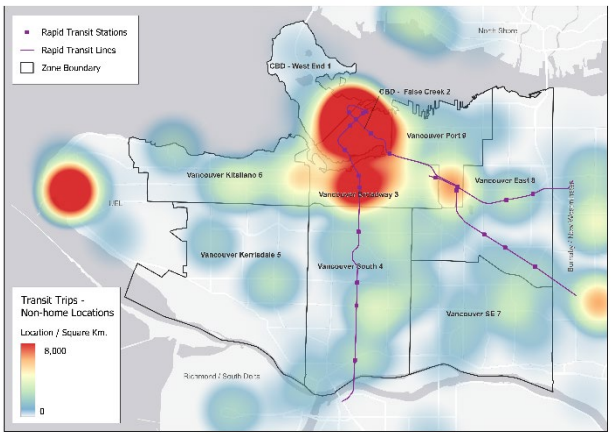
Trip origins/destinations other than home associated with car trips

Figure 64. Heat Map for Home-Based Locations of Transit Trips



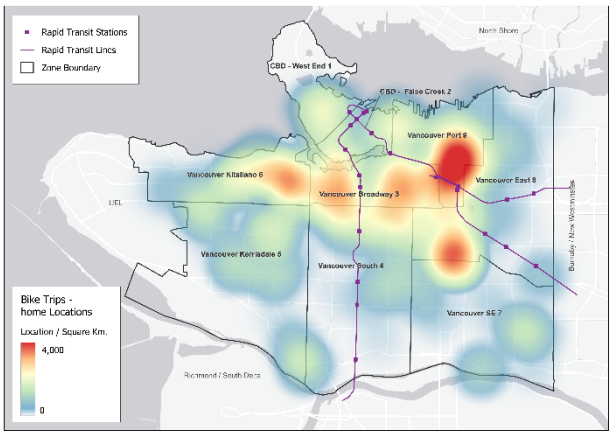
Home origins/destinations for home-based transit trips

Figure 65. Heat Map for Non-Home-Based Locations by Transit



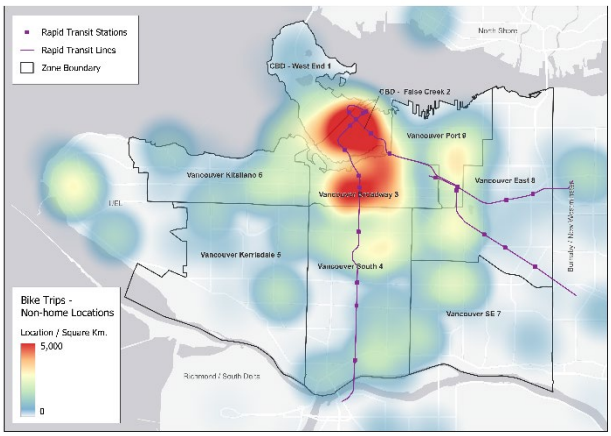
Trip origins/destinations other than home associated with transit trips

Figure 66. Heat Map for Home-Based Locations of Cycling Trips



Home origins/destinations for home-based cycling trips

Figure 67. Heat Map for Non-Home-Based Locations by Cycling



Trip origins/destinations for Non-Home-Based cycling trips

6.4.4 Proximity to Fast and Frequent Transit

The origin and destination data provide an opportunity to explore travel patterns for individual trips. This section looks at how mode share may vary based on whether the origin or destination is within reasonable walking distance of the fast and frequent transit network (FFTN). The threshold for reasonable walking distance to the FFTN was set at 800m based on straight-line travel distance. **Table 23** shows the number and proportion of trips by mode share for three sets of origin and destination pairs (O-D pairs). For non-transit trips other than walking, the accessibility of the FFTN means that transit may be a potential reasonable alternative to the mode of travel used (although more variables than just distance to the network factor into mode choice). Most walking trips are short enough that transit would not necessarily be advantageous to walking. The main objective of the analysis is to understand the extent to which origin-destination patterns for trips made by residents align with the FFTN.

Some highlights from the results are as follows:

- 50% of all trips have both their origin and destination within 800m of the FFTN. These trips have fairly even proportions of auto and walk trips, followed by transit trips (19%, 18%, and 10%, respectively).
- Approximately one third of trips only have one of the O-D pair within 800m of the FFTN. Auto trips dominate this category, with walk and transit trips significantly fewer (17%, 5% and 6% respectively).
- When neither the origin nor destination are within 800m of the FFTN, auto trips and walk trips are most common (7% and 6% respectively).
- Bicycle trips have less variation for all categories, ranging from 1% to 3% of all trips.

This data show that there is a higher probability of transit use when both the origin and destination are closer to the FFTN. While distance is not the only factor in choosing to use transit, this information could be useful for adding more detail to the mode share module in the regional transportation model, for planning transit service improvements, or setting mode share targets for different areas of the city.

Table 23. Origins and Destinations within 800m of FFTN

Within Walking Distance of FFTN*	Auto Driver Trips	Auto Passenger Trips	Transit Trips	Bicycle Trips	Walk Trips
# of daily trips					
Both O and D within 800m of FFTN	297,320	56,940	194,290	53,430	349,340
Only one of O or D within 800m of FFTN	334,540	54,880	118,660	50,550	96,100
Both O and D more than 800m from FFTN	143,120	24,460	14,070	17,400	107,900
% of total daily trips					
Both O and D within 800m of FFTN	16%	3%	10%	3%	18%
Only one of O or D within 800m of FFTN	17%	3%	6%	3%	5%
Both O and D more than 800m from FFTN	7%	1%	1%	1%	6%

6.5 Trip Distance and Duration

Trip distances and durations have been estimated for the most efficient route available based on the trip origin, destination, mode of travel, and time of day of travel.[55] **Figure 68** shows the average trip distance for home-based work trips and all trips. Auto users tend to have the longest average distance for the home-based work trips, at 10.5 km, while transit users have the longest average distance for all trips at 8.4 km. Looking at all trips, walking trips are the shortest, at 0.9 km on average; bike trips are longer, at 4.9 km; followed by auto trips, at 7.0 km. Home-based trips to work follow a slightly different pattern, with walking trips being shortest (1.5 km), followed by bike trips (7.0 km) and transit trips (9.1 km).

Figure 68. Average Trip Distance for Home-based Work Trips and All Trips

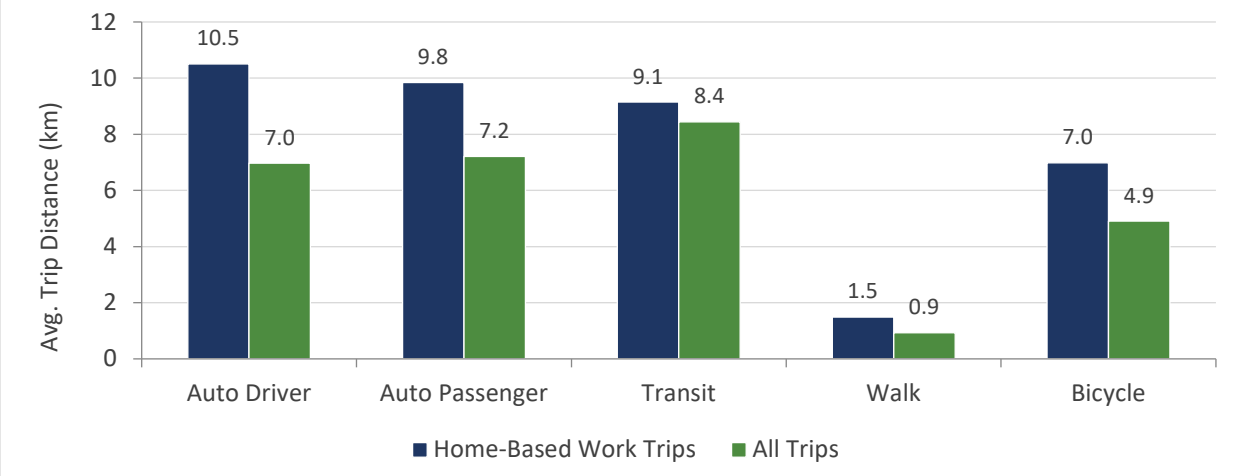


Figure 69 illustrates the average duration (in minutes) for home-based work trips and all trips. Transit users typically have the longest travel duration for home-based work trips (36.1 minutes) and all trips (34.0 minutes). Bicycle trips, while shorter in distance, have the second-longest duration for work trips (27.7 minutes) and all trips (19.5 minutes). Auto passenger trips are among the shortest travel durations for home-based work trips (18.5 minutes), while auto trips have the shortest travel duration for all trips (13.1 minutes).

[55] Trip information was processed via Google Map Directions to obtain estimates of the distance and duration of trips based on their mode and time of day for the suggested route on actual available transportation infrastructure known to Google, including walking paths and bicycle paths. Durations for cycling and walking trips are based on an average of approximately 4.7 kmph for walking trips and 15 kmph for cycling trips. The results exclude trips with multiple modes, such as auto/transit trips for which the algorithm does not take into account access to transit via automobile.

Figure 69. Average Trip Duration for Home-based Work Trips and All Trips

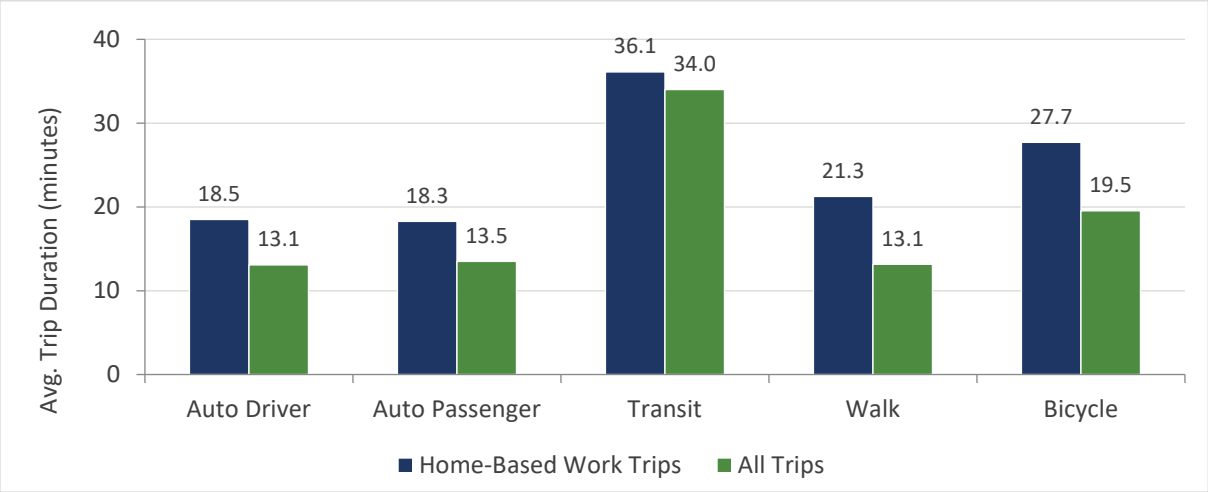


Figure 70 shows the daily person-km trips on weekdays across all modes. Even though the average distance of all trips travelled by auto drivers is less than transit, auto drivers account for the largest share of total daily person-km, more than two times the total for transit, due to the greater auto mode share of daily trips.

Figure 70. Total Daily Person-KM on Weekdays

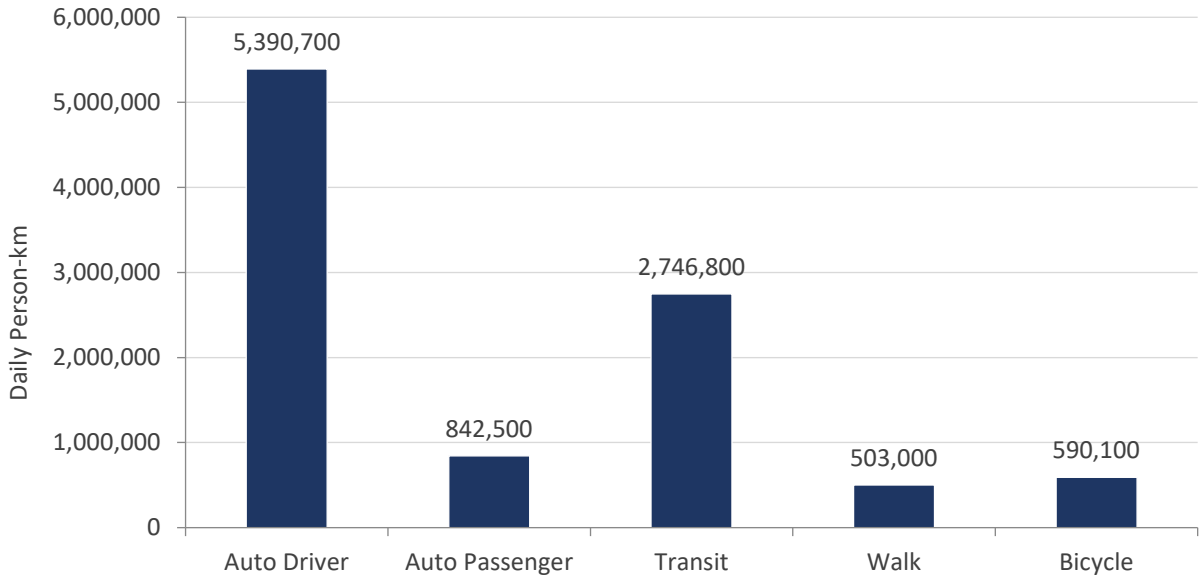


Figure 71 and **Figure 72** show the distributions of the estimated trip distances and durations by different modes of travel. This breakdown reveals some interesting findings:

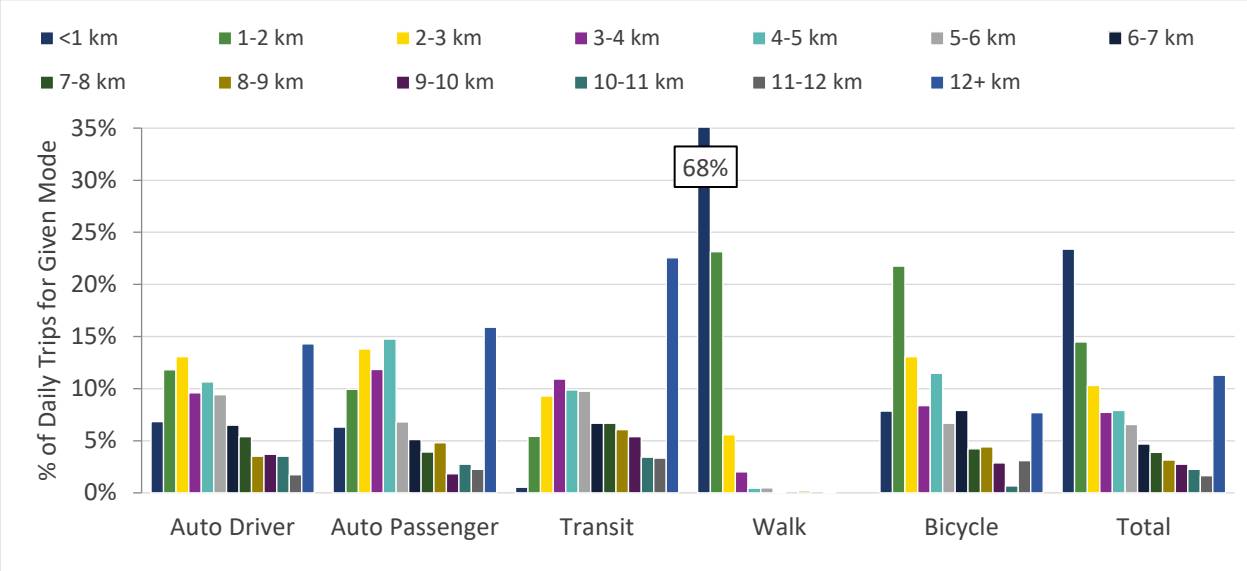
- About half (52%) of all auto driver trips are within a 5 km drive, 28% are a 5 to 10 km drive, while 20% are 10 km or more. Two-thirds (67%) would take less than 15 minutes to drive.
- 36% of transit trips are within 5 km (on available routes for the time of day of travel, including distance to walk to/from the transit stop), 35% are within 5 to 10 km, and 29% are 10 km or

more. Taking into account time to walk to transit stops and transfers between routes or bus and SkyTrain or SeaBus, transit trips take longer for the distance travelled compared to other modes. Only 12% of transit trips take less than 15 minutes, 38% are between 15 and 30 minutes, 25% between 30 and 45 minutes, and 25% are 45 minutes or more.

- Just under two-thirds (68%) of walking trips made on available sidewalks and walking paths are within a 1 km walk, 23% are between 1 and 2 km, and only 9% are greater than 2 km. In terms of duration, 22% are less than a 5-minute walk at average walking speed (of approximately 4.5 kmph), 29% are between 5 and 10 minutes, 20% are between 10 and 15 minutes, and 29% are more than 15 minutes.
- Just over one-quarter (30%) of cycling trips are within 2 km on available bicycle routes and roads, 33% are within 2 to 5 km, 26% are within 5 to 10 km, and only 11% are greater than 10 km. About half (48%) of these trips take less than 15 minutes, 33% take 15 to 30 minutes and the remaining 20% trips take longer than 30 minutes.

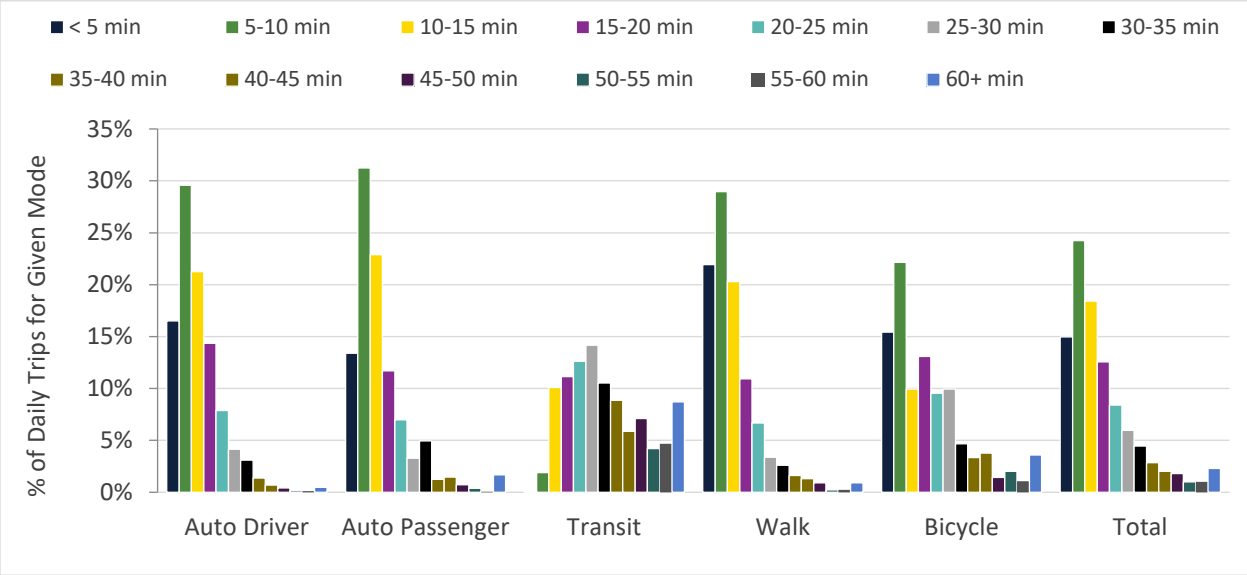
Of note, the trip lengths of daily trips by transit are more normally distributed, while the trip length distributions of all other modes are skewed towards shorter distances. Additionally, the percentage of short-distance trips (<5 km) by transit is similar to medium (5 – 10 km) or long-distance trips (>10 km). This may indicate the user's reliance on transit for medium and long-distance commutes. It is also likely that users prefer to take transit instead of using a vehicle for those long-distance daily trips which have reasonable transit connectivity to save fuel, save parking costs, and avoid driving fatigue. Further, even though the commuting times in transit are higher than auto for the same trip length, this time may not be perceived as wasted time. People may use plenty of ways to maximize their productivity by listening to audiobooks/music, reading news, making calls, catching up on their emails, and planning their day.

Figure 71. Distribution of Trip Distances by Mode [56]



[56] Excludes any walking trips that were identified by respondents as purely recreational (e.g., going for a jog, walking around the block, or walking the dog) that left and returned to the same place without an intervening destination. Excludes any trips that did not return a Google Map Directions distance.

Figure 72. Distribution of Trip Durations by Mode [57]



6.6 Walkability and Bikeability of Motorized Trips

The trips captured in the 2024 survey were examined to determine the extent to which trips that were made using a motorized mode could have feasibly utilized an active mode instead (i.e., walking or cycling) based on the distance of the trip. The distance threshold for a "bikeable" trip was set at 4.6 km (actual distance travelled on available bike routes; about an 18-minute bike ride at 15 kmph).[58] The distance threshold for a "walkable" trip was set at 1.6 km (actual distance travelled; about a 19-minute walk at 5 kmph, not accounting for stops at crosswalks or other reasons for slowdowns). For trips taken using motorized modes, the trip origin, destination, and time of day were processed to determine the estimated actual cycling and walking distances via the most efficient available cycling and walking routes. If the cycling or walking distance was found to be within the appropriate threshold, the trip was deemed bikeable or walkable for the purpose of this analysis.

[57] Excludes transit trips that employed any of the following non-walking modes to access transit: driver, passenger (including taxi and ride hail), and bicycle, as the duration algorithm does not take into account mode transfers. Excludes any walking trips that were identified by respondents as purely recreational (e.g., going for a jog, walking around the block, or walking the dog) that left and returned to the same place without an intervening destination. Excludes any trips that did not return a Google Map Directions duration.

[58] Note that the threshold for bikeability is for a relatively easily achievable trip length with a traditional non-motorized bicycle for many cyclists of different abilities. Many cyclists routinely make longer trips. About 60% of all cycling trips reported by survey respondents are within 4.6 km, while about 40% are longer than this.

Identification of walkable or bikeable distance was undertaken based solely on distance and does not take into consideration physical ability, access to a bicycle, or whether the trip was part of a longer trip chain requiring motorized modes.

Of the 41% of daily trips that are auto driver trips, about 13% are bikeable but not walkable and 6% are walkable or bikeable. As shown in **Figure 73**, this suggests that overall, 13% of all trips were auto driver trips within what is considered a reasonable cycling distance for potential mode-shifting from auto driver to cycling. An additional 6% of all trips were auto driver trips within a reasonable distance for potential mode-shifting to walking. It should be noted that it may not be possible to convert all potential bikeable or walkable trips to actual bike or walk mode due to several factors not considered in the estimation of these trips such as availability of active transportation infrastructure, safety conditions, terrain and weather elements.

Figure 73. Walkable and Bikeable Trips from Current Mode Share Based on Trip Distance

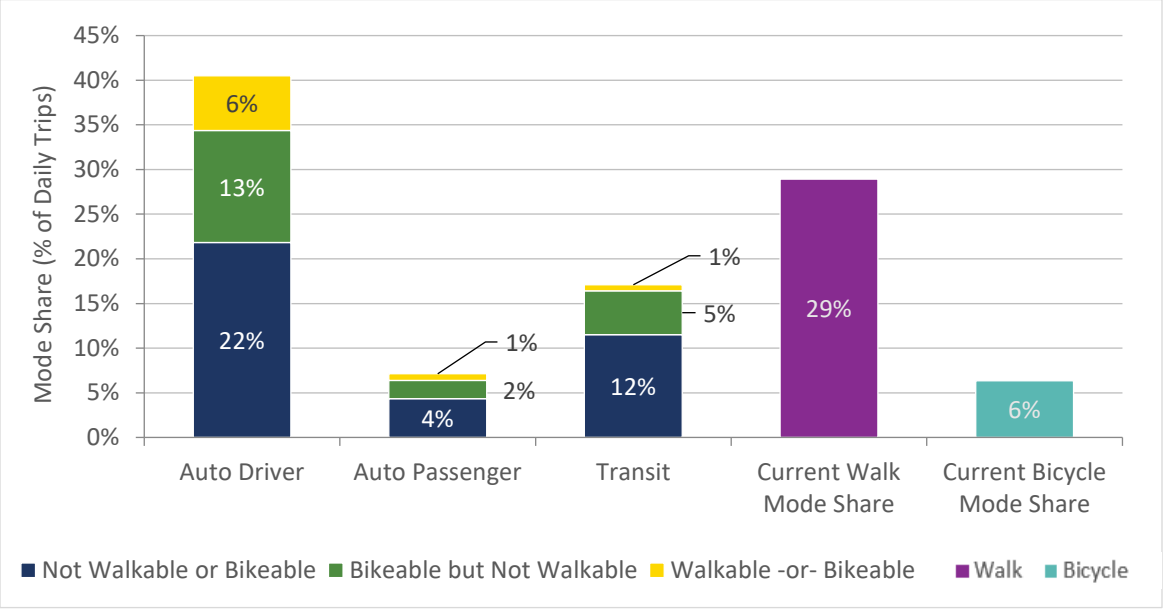


Table 24 shows mode shift potential for trips taken by auto drivers by zone. While reading this table, zones with lower mode shift potential should be interpreted as zones with high number of residents already biking or walking wherever they can.

Mode shift potential (from auto driver to cycling) ranges from 8% for CBD - West End zone to 27% for Vancouver Kerrisdale zone. Notably, at least one in four auto trips made by residents of Vancouver Kerrisdale and Vancouver Southeast are within what is considered a bikeable distance. About one in five trips made by residents of Vancouver East, Vancouver South, Vancouver Kitsilano, and Vancouver Port are considered bikeable. Mode shift potential from auto driver to walking is lowest in the CBD zones and Vancouver Broadway at 3% each and highest in Vancouver Kerrisdale (10%) and Vancouver Southeast (8%).

It should be noted that this analysis does not take into account real or perceived considerations that may influence actual mode shift potential for a given route or trip. This includes considerations such as whether there is appropriate physical infrastructure to support active transportation modes, the

physical ability of the individual, the purpose of the trip (e.g., whether it involved transporting large or heavy items), and the like. Additionally, reported trips may have been part of a larger trip chain with longer travel times and/or distances that required the use of a vehicle. Therefore, the number and proportion of walkable and bikeable trips should be considered an upper limit for the potential to shift these types of trips to active modes.

Table 24. Mode Shift Potential of Auto Driver Trips Based on Trip Distance, by Zone of Residence

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Auto Driver Trips	775,000	44,300	47,400	58,800	110,700	98,000	68,100	157,100	140,100	50,500
Auto Driver Mode Share	41%	25%	27%	29%	42%	57%	35%	60%	42%	37%
Bikeable Trips	357,300	14,100	21,400	33,200	47,800	46,800	34,300	64,400	70,500	24,800
% of Auto Driver Trips	46%	32%	45%	56%	43%	48%	50%	41%	50%	49%
Mode shift potential	19%	8%	12%	16%	18%	27%	18%	25%	21%	18%
Walkable Trips	117,700	5,600	5,000	6,800	16,300	17,800	13,100	21,500	24,100	7,500
% of Auto Driver Trips	15%	13%	11%	12%	15%	18%	19%	14%	17%	15%
Mode shift potential (% of all trips)	6%	3%	3%	3%	6%	10%	7%	8%	7%	5%

7 Travel Patterns

This section discusses the overall travel patterns and habits of residents of the city of Vancouver. This section provides an understanding of "usual" travel behaviour, which is differentiated from the snapshot of a travel day presented in the survey participant responses. This section includes commute travel patterns, usual non-commute modes, and transit use.

7.1 Work Commute Patterns

Commute travel patterns discussed in this section include city residents' reported type of workplace/work arrangement (i.e., work from home or work outside the home at a usual place of work), usual commute mode of travel to work, frequency of telecommuting, and work destinations that residents commute to.

7.1.1 Workplaces

As shown in **Figure 74**, 18% of the 398,100 workers who live in Vancouver work exclusively from home, and 7% have no fixed workplace address. Most workers (75%) have a usual place of work that they travel to at least some of the time. Note that workers having a usual place of work outside the home may also sometimes work from home (hybrid work arrangements). Further analysis of the survey data revealed that 46% of workers with a usual workplace (or 34% of all workers regardless of workplace location) have hybrid work arrangements, i.e., telecommuting at least one day per week. Patterns of commuting and telecommuting for workers with a usual workplace are explored further in **Section 7.1.3.**

Figure 75 illustrates the trend in workplace location over time, using Census data for earlier years (as VTS surveys prior to 2021 did not collect information in workplaces in the same format as 2021 onwards). At the time of the Census in May 2021, work from home was at its highest, at 34%, with this percentage beginning to drop already by Fall of the same year as more people returned to usual workplaces outside the home, but with further drops in 2022. From 2022 to 2024, the proportions of work from home have been relatively stable, fluctuating between 16% and 18%, significantly more still than before the Census. In the same period, usual workplace has fluctuated between 74% and 78%. It is unknown whether the variations seen in 2023 (e.g., a slight dip in work from home to 16%, followed by a return to 18% in 2024) are indicative of actual fluctuations in workplace arrangements or an artefact of random sampling of new recruits and/or attrition of panel members. Overall, the picture is one of workers settling into the new normal. Further evolution of the trends may become clearer in future survey cycles, and may depend in part on the extent to which employers and workers negotiate their respective preferences for workers being present at the office versus working from home.

Figure 74. Type of Workplace

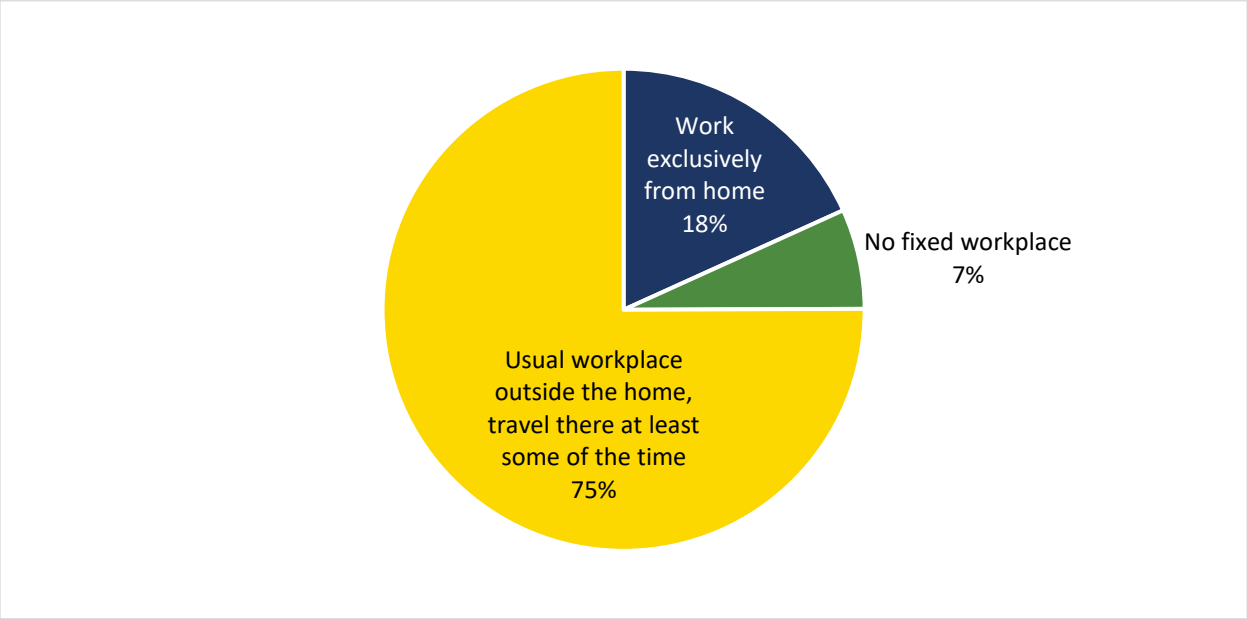
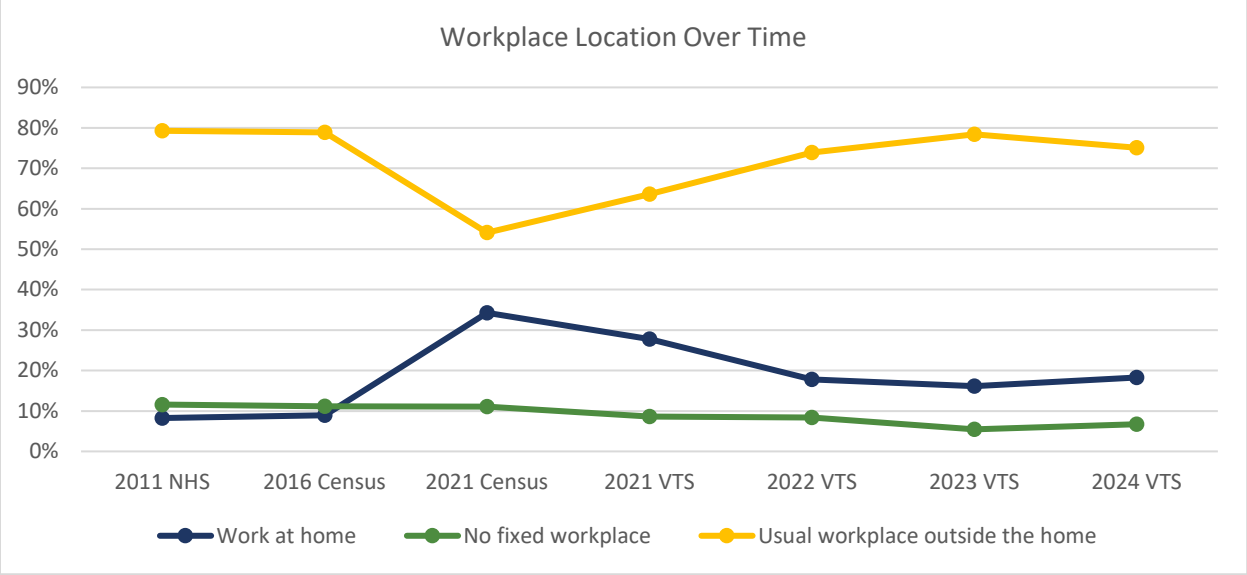


Figure 75. Type of Workplace, 2011 to 2024



Sources: 2011 National Household Survey (NHS), 2016 Census, 2021 Census, 2021-2024 Vancouver Transportation Survey. NHS and Census data are for population 15+ years of age; VTS data are for population 18+ years of age. Note that the measurement for the 2021 Census was in May, at the height of the pandemic, while the measurement for the 2021 VTS was in the Fall. NHS and Census figures for "worked outside of Canada" are not displayed in the chart (about 1% each year). There is no such category in the VTS (i.e. respondents who work outside of Canada would have chosen one of the three categories displayed).

7.1.2 Usual Commute Mode

Figure 76 shows residents' usual mode of travel for commute purposes. About four out of ten Vancouver workers who commute to work at least some of the time do so by automobile (37% as drivers and 2% as passengers). One-third (33%) commute by transit, about 14% by bike, and 13% walk.

Readers are reminded that findings discussed in this section reflect usual commute mode, not actual mode choice or mode share on a given workday. Survey participants may not use their usual mode all the time. Results displayed in this section represent the usual mode choice for those who currently commute to work at least some of the time regardless of whether they commuted to work that day or not. **Section 6.3** details actual daily work commute mode shares.

Figure 76. Usual Mode of Travel for Commute

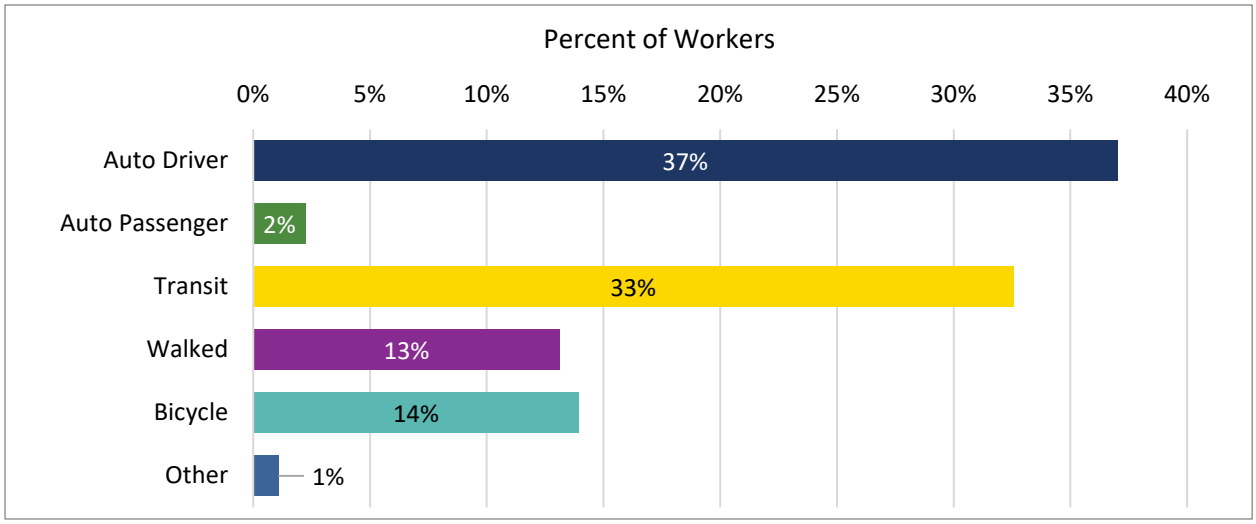
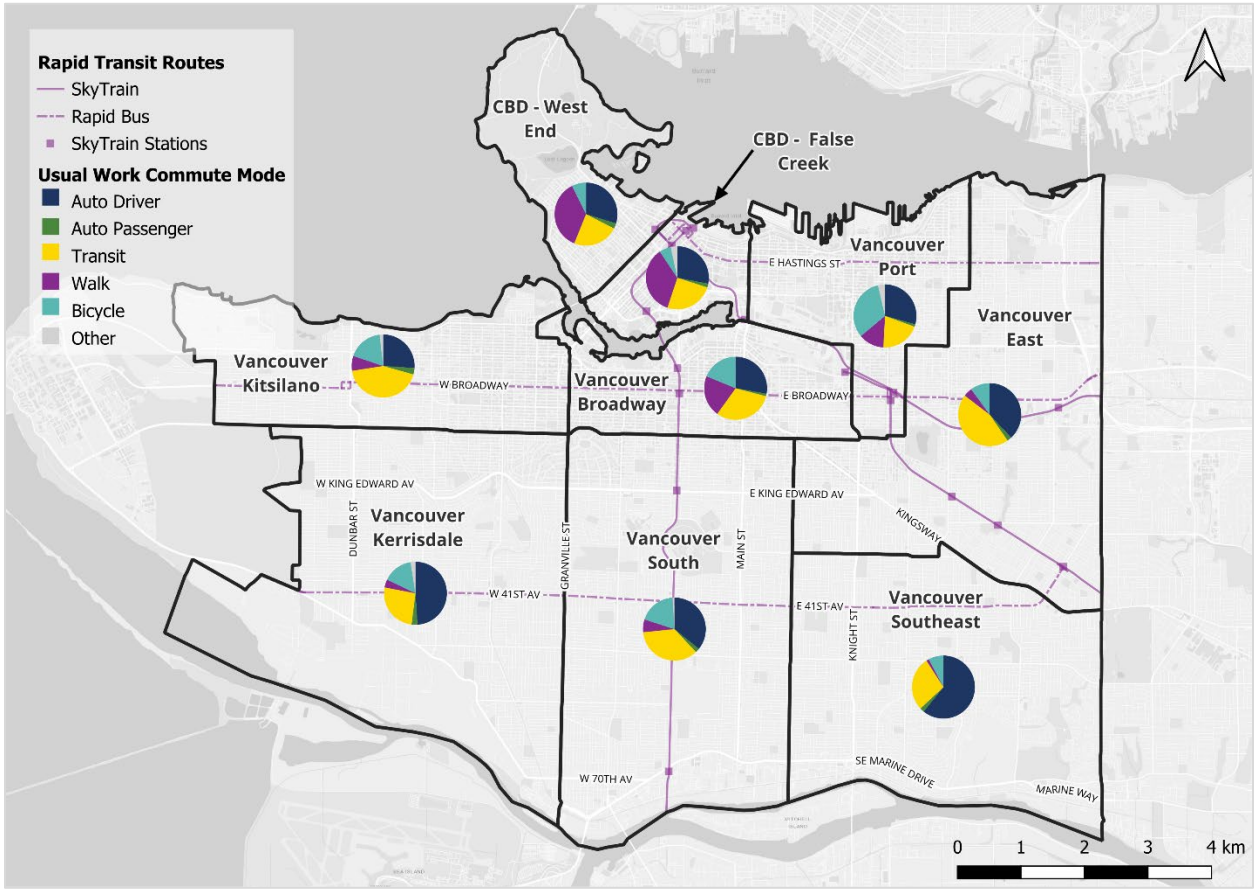


Figure 77 provides a breakdown of usual commute mode by zone. Auto driver is the most common usual mode across all zones, ranging from 26% to 38% for most zones. Auto driver accounts for nearly two-thirds (61%) of residents' usual commute modes in Vancouver Southeast and almost half (49%) in the Vancouver Kerrisdale zone.

Sustainable transportation modes (Transit + Walk + Bike) account for more than half of residents' usual commute modes, ranging from 60% to 71% for all zones except where we see the highest percentage of auto drivers, i.e., Vancouver Southeast (37%) and Vancouver Kerrisdale (46%).

Figure 77. Map of Usual Mode of Travel for Commute by Zone



7.1.3 Commuting and Telecommuting

Survey participants who have a workplace outside the home were asked how many days they commuted to work in the last week before the survey and how many days they telecommuted rather than commuted to work. Examining telecommuting first, **Figure 78** presents percentages based on total workers. This includes the 18% of workers who work exclusively from home and the 7% who have no fixed workplace, who are included to provide the full picture of all workers. The data suggest that quite a few workers have hybrid work arrangements where they work from home at least one day per week (34%) but commute to the office at least one day per week. It may be noted that the telecommuting behaviours may extend to work on both weekdays and weekends.

Figure 78. Telecommuted Last Week (% of all workers)

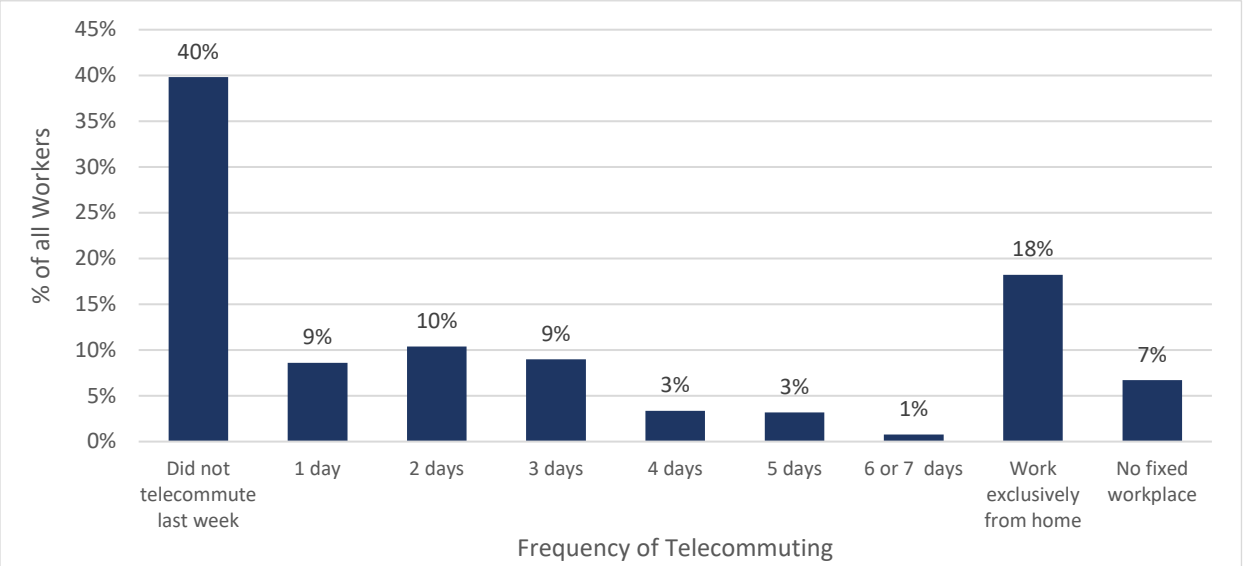


Figure 79 summarizes the frequency of commuting to work. The survey results challenge the notion that most workers have a typical Monday-to-Friday commute to work. About 25% of workers commuted to a usual workplace five or more days in the week before they participated in the survey, 13% commuted to work four days in the previous week, and 30% commuted to work between one to three days. Another 7% have a usual workplace outside the home but did not travel to work in the previous week, likely either because they only rarely travel to work and telecommute most of the time or because of other reasons such as illness or time off. As noted earlier, another 18% of workers work exclusively from home, while another 7% have no fixed workplace. As more employers adjust their work-from-home and hybrid-work policies to either increase in-office days or allow for more flexibility in work-from-home days and flex days (e.g., to compete in a tight labour market), we may see commute and telecommute patterns shift further.

Figure 79. Commuted to Work Last Week (% of all workers)

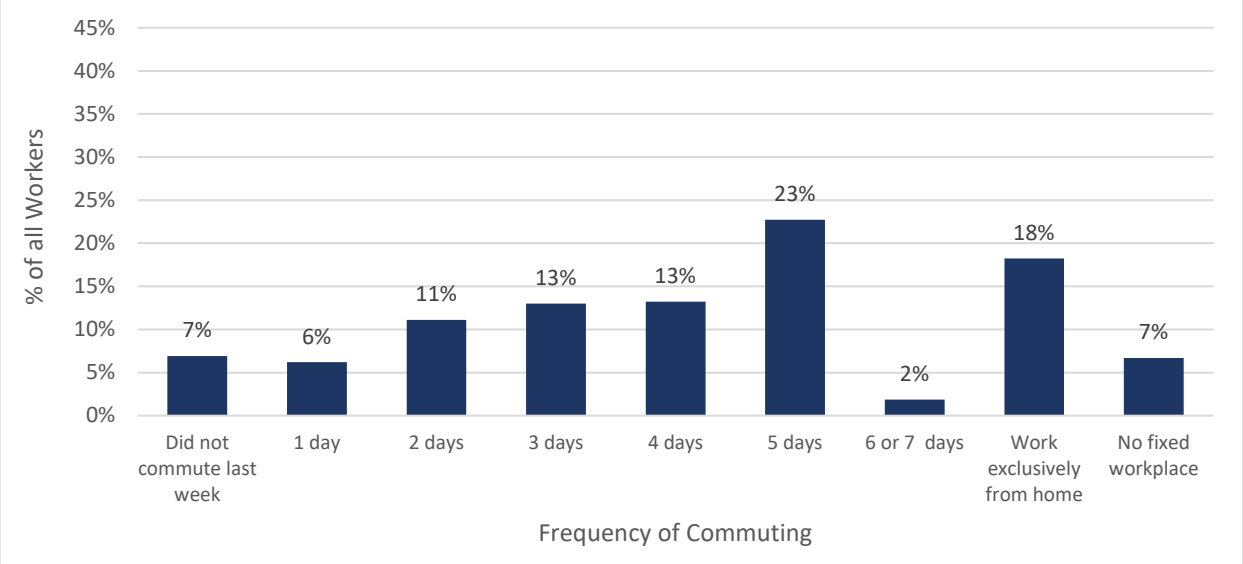


Table 25 and **Table 26** show the above data broken down by zone. In terms of telecommuting, there is some consistency across zones, with most zones having at least 32% of all survey participants who work reporting that they did not telecommute in the last week, with this percentage being highest amongst residents of Vancouver Southeast (53%). Telecommuting at least two days in the last week is most common amongst residents of Vancouver Kitsilano (35%), followed by Vancouver East (33%), and Vancouver Port (32%). In terms of the frequency of commuting to work in a given week, around 27%-34% of all workers in CBD zones, Vancouver Southeast, and Vancouver East reported commuting to work five days per week or more. In all other zones, fewer workers (around 15%-21%) reported commuting to work five days per week or more[59].

Vancouver Kerrisdale has the highest percentage of workers who reported exclusively working from home, at 29%, followed by the CBD - False Creek, at 26%. Vancouver Southeast has the least workers (11%) that reported to exclusively work from home.

Table 25. Frequency of Telecommuting by Zone (% of all workers)

	Van-couver	CBD – West End	CBD – False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Did not telecommute last week	40%	39%	42%	33%	39%	43%	32%	53%	36%	42%
1 day	9%	6%	8%	12%	9%	2%	11%	7%	11%	6%
2 days	10%	10%	7%	10%	6%	7%	22%	8%	12%	13%
3 days	9%	12%	6%	9%	10%	7%	6%	8%	12%	7%
4 days	3%	3%	1%	3%	3%	3%	2%	3%	4%	9%
5 days	3%	4%	3%	4%	0%	4%	5%	2%	4%	2%
6 or 7 days	1%	0%	3%	0%	1%	0%	0%	0%	2%	0%
Work exclusively from home	18%	21%	26%	23%	20%	29%	14%	11%	13%	14%
No fixed workplace	7%	5%	4%	5%	11%	4%	7%	9%	7%	7%
Subtotal at least 2 days/week	27%	29%	20%	27%	21%	22%	35%	21%	33%	32%
Subtotal at least 2 days/week or work exclusively from home	45%	50%	46%	50%	41%	51%	50%	31%	46%	46%

Table 26. Frequency of Commuting to Work on Weekdays (% of all workers) – by Zone

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Did not commute last week	7%	7%	6%	5%	6%	7%	11%	6%	7%	9%
1 day	6%	8%	4%	9%	4%	6%	2%	5%	8%	11%
2 days	11%	12%	8%	12%	9%	13%	10%	11%	12%	17%
3 days	13%	11%	10%	7%	12%	10%	25%	12%	16%	12%
4 days	13%	9%	10%	20%	17%	11%	16%	13%	11%	10%
5 days	23%	28%	30%	15%	19%	14%	15%	31%	26%	19%
6 or 7 days	2%	1%	2%	4%	2%	5%	0%	3%	1%	1%
Work exclusively from home	18%	21%	26%	23%	20%	29%	14%	11%	13%	14%
No fixed workplace (work travel may be variable)	7%	5%	4%	5%	11%	4%	7%	9%	7%	7%

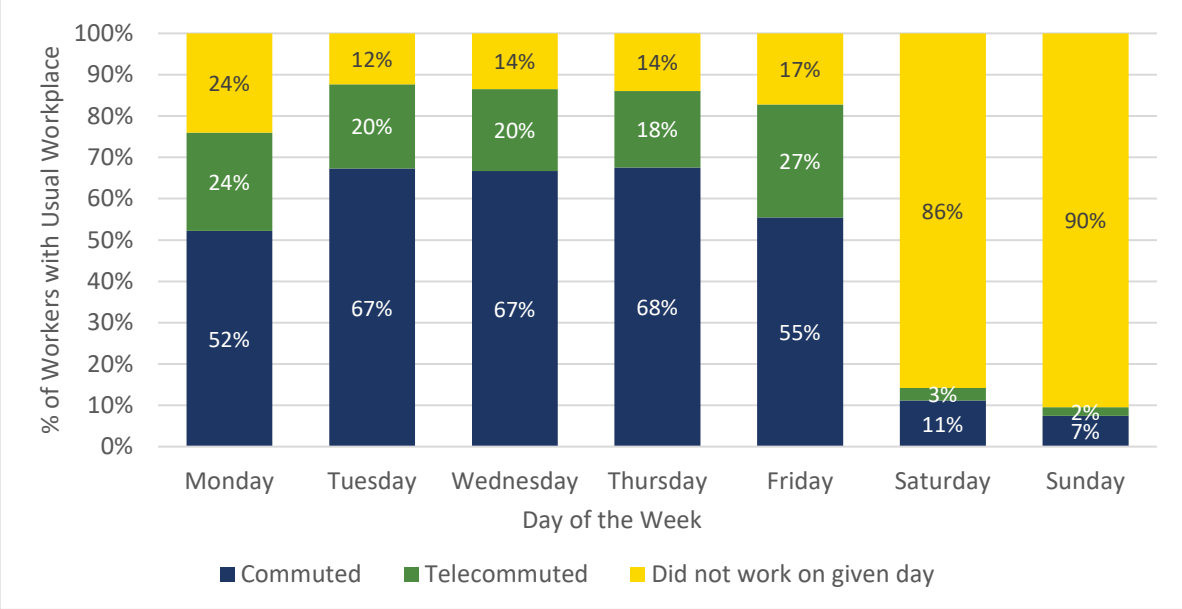
[59] Due to rounding, the percentage of workers commuting to work five days per week or more reported in the text may differ from the percentage resulting from summing percentages in the table.

7.1.3.1 Commuting and Telecommuting by Day of Week (for Workers with Usual Workplaces)

Figure 80 highlights commuting and telecommuting patterns reported for each day of the week in the week previous to survey participation. These figures are for workers with a usual workplace outside the home that they sometimes or regularly commute to and exclude workers who work exclusively from home and those with no fixed workplace address. On average, on weekdays, 62% of these workers reported commuting and 22% reported telecommuting to work.

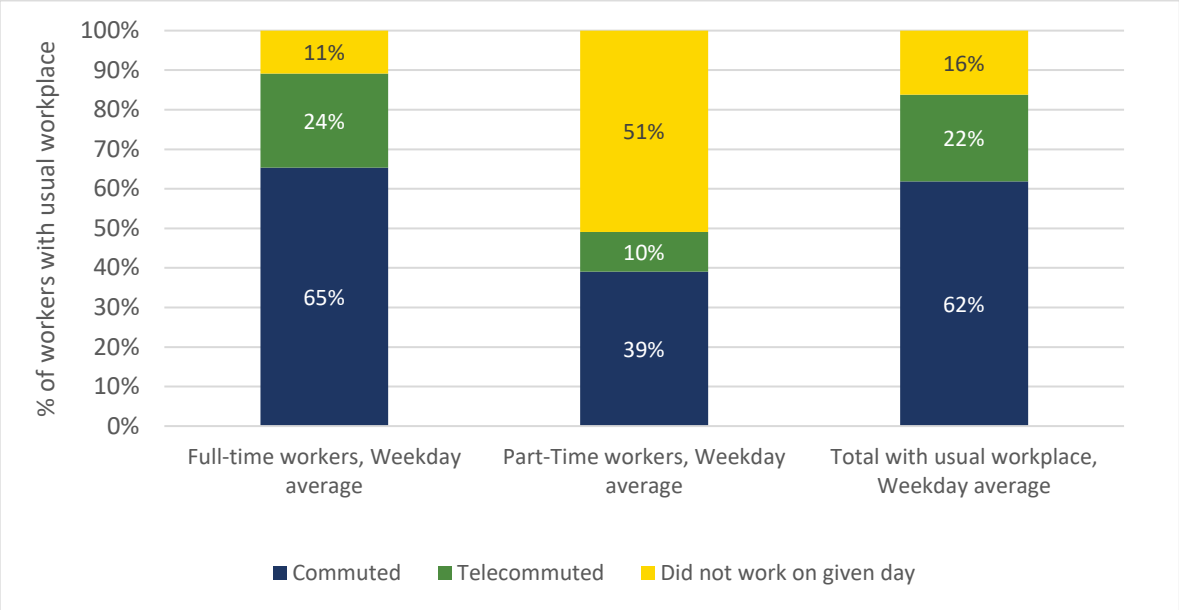
As illustrated, weekday commuting to work is highest and fairly consistent Tuesdays through Thursdays (with 67% - 68% travelling to their usual workplace on these days), and notably lower on Mondays and Fridays, with Monday at 52% and Friday at 55%. Not all workers work on each weekday, and Monday was also the weekday with the largest number of workers reporting that they did not work on that day (24%).

Figure 80. Commute and Telecommute Pattern by Day of the Week for Workers with Usual Workplace



Work commuting and telecommuting patterns differ for full-time workers compared to part-time workers (**Figure 81**, below): The survey results suggest that on average weekday, 65% of full-time workers go to work, 24% telecommute, and 11% do not work; for part-time workers, on an average weekday, 39% go to work, only 10% telecommute, and about half do not work (51%). Telecommuting is less of an option for part-time workers with a usual workplace outside the home, which may be, in part, due to the nature of some part-time jobs (e.g., part-time jobs are more common in retail and service industries, which require many of their frontline workers to be on premises). This may be a consideration from an equity perspective, in that part-time workers are typically lower income earners who may have less opportunity to save on commuting costs by working from home.

Figure 81. Summary of Commute and Telecommute Patterns by Work Type for Workers with Usual Workplace



7.1.4 Daily Travel to Work

Work arrangements, telecommuting patterns, usual mode choice, work schedules, and daily circumstances all contribute to the daily volumes of actual work trips on a given day. **Figure 82** provides a picture of workers' activity on an average fall weekday. **Table 27** breaks these results out by workplace type. This analysis combines daily trips reported (specifically, the first work trip)[60], information on work arrangements, and answers to validation questions built into the survey.

The survey results suggest the following about an average weekday:

- Combining categories, more than four out of five (83%) workers work.
- More than one half (57%) either travel to their usual workplace (50%) or travel for work-related purposes (7%), such as a business meeting, work errand, arriving at a worksite, starting the workday as a driver, etc. This is an increase from 52% in 2021 and 50% in 2022, but similar to 58% in 2023.

[60] Each worker's trip data was scanned to identify the first trip to usual work or, barring this, first work-related trip. The primary mode of the first trip was also identified. If the trip to work did not originate from home, preceding trips were scanned up to the trip leaving home to identify the most appropriate reported mode to use as the work commute mode. E.g., if someone reported three trips, first walking to a post office, then taking transit to a coffee shop, then walking from the coffee shop to work, the primary work commute mode was identified as transit (as the mode most likely to travel the longest distance in the overall multi-trip commute tour).

- At least 26% work from home, with 11% being workers with a usual workplace who are working from home instead of travelling to work, and 15% being either those who work exclusively from home or those with no fixed workplace who worked from home on the given day.

The actual behaviours reported for survey participants' travel days demonstrate the variety of work arrangements and work-related travel patterns (with only a slim majority of workers travelling to work or for work purposes on a given day). The commuting and telecommuting patterns that underlie these daily activity patterns are explored in more depth in the sections that follow this one.

Figure 82. Daily Work Travel and Commute Pattern

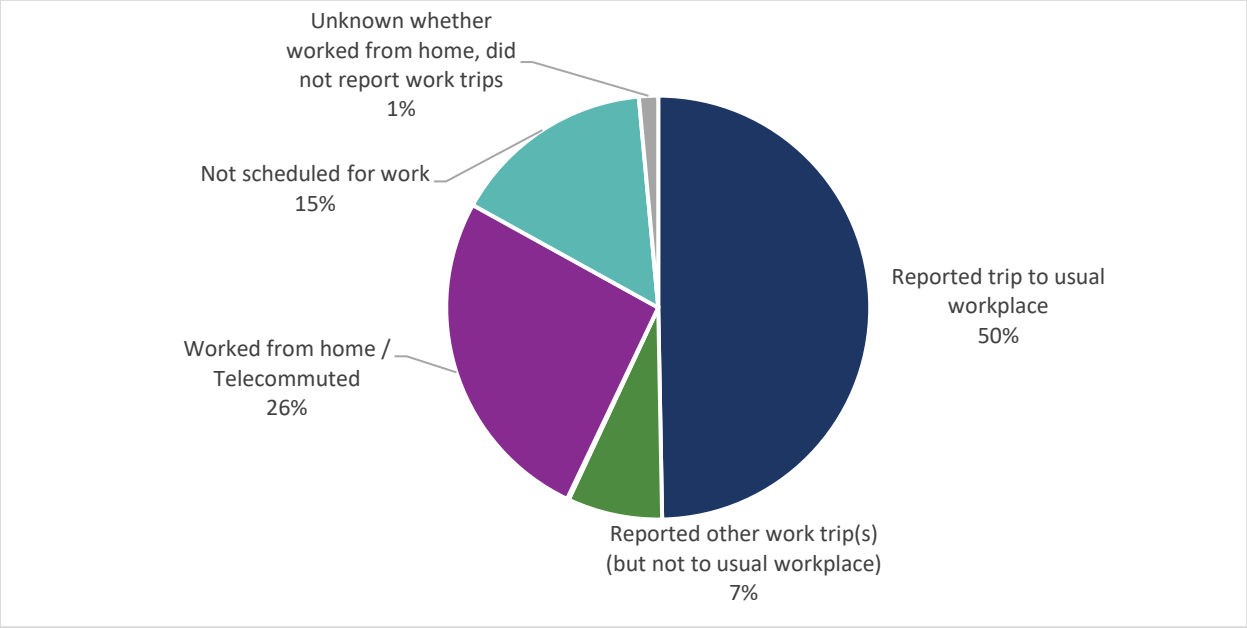
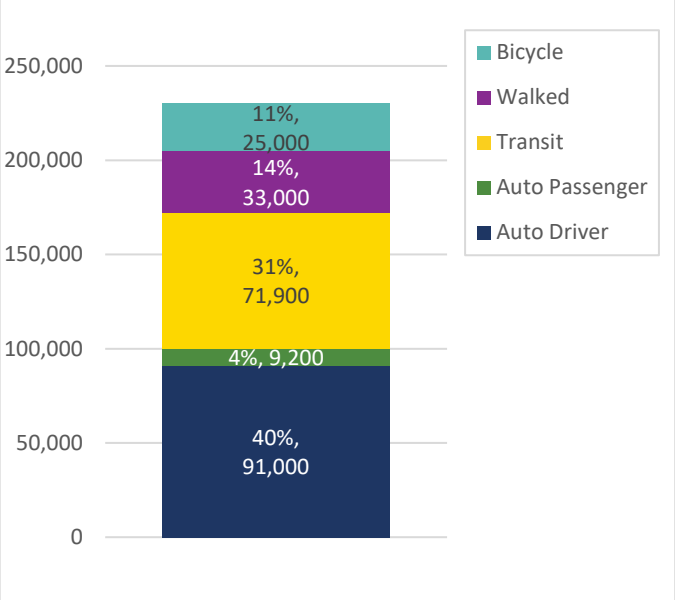


Table 27. Daily Work Travel and Commute Pattern by Type of Workplace

Commute Pattern	Works exclusively from home	No fixed workplace address	Usual workplace outside the home	Total workers
Workers	78,500	26,700	298,800	404,000
Reported trip to usual workplace	0%	0%	67%	50%
Reported other work trip(s) (but not to usual workplace)	9%	53%	3%	7%
Away on business / working on the road	0%	0%	0%	0%
Worked from home / Telecommuted	73%	9%	15%	26%
Not scheduled for work	10%	38%	15%	16%
Unknown whether worked from home, did not report work trips	8%	0%	0%	1%
Subtotal reported trip to usual workplace or for other work-related purposes	9%	53%	70%	57%
Subtotal known to have worked (reported trips to work or working from home)	82%	62%	85%	83%

Figure 83 provides a different view of the mode shares for travel to work that shows the number of daily commuters and the proportions on an average weekday. As shown, in Fall 2024, 40% of all trips to work on a given day were made by auto driver as the mode of the first trip to work or for work-related purposes. This is down from a high of 50% in 2021. Nearly one-third (31%) of all trips to or for work were made via transit, with an equivalent proportion reporting either cycling (11%) or walking (14%). These mode shares are very similar to 2023.

Figure 83. Daily Work Commute Mode Shares (Mode of First Trip to Work on Travel Day)



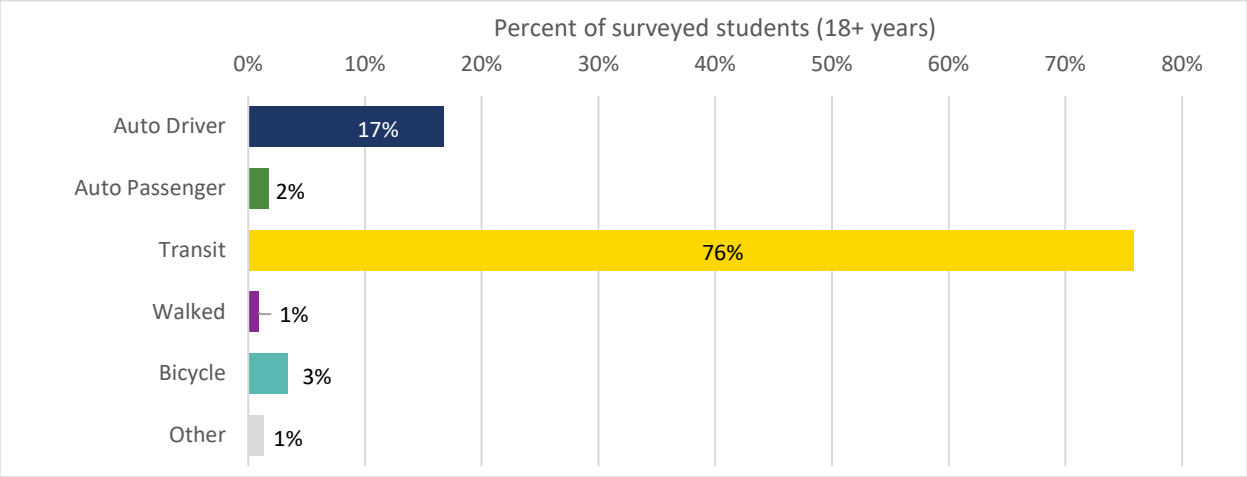
7.2 Usual School Commute Mode

7.2.1 Survey Participants

Given the small sample of survey participants who were students (n=108), the survey results for school commutes are not presented in as much detail as was provided for work commutes. The findings should be interpreted with some caution, as they may not necessarily be generalizable to the entire population of adult students who live in the city.

Figure 84 shows the usual mode of travel for school commutes. Students were most likely to report transit as their usual commute mode (76%), followed by auto driver (17%). Smaller percentages of students reported their usual commute mode as walking (1%) or auto passenger (2%), and about 3% reported that they cycle to school as their primary commute mode.

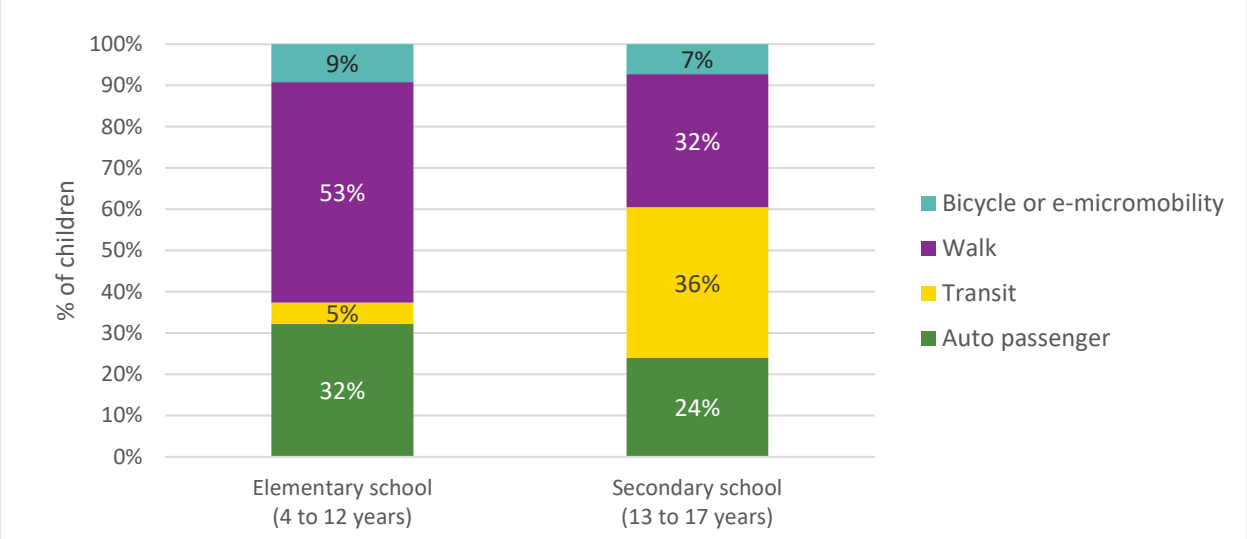
Figure 84. Usual Mode of Travel for School Commute (Adult Students)



7.2.2 Children of Survey Participants

Survey participants were asked to report the usual mode of travel to school for any children 17 years old and younger. This question was asked in the survey for the first time in Fall 2022 to gain insights into how children travel to school. Survey respondents indicated that 68% of their children aged 4 to 12 years and 76% aged 13 to 17 years use a sustainable transportation mode to travel to school. Walking has the highest mode share at 53% for ages 4 to 12. On the other hand, transit has the highest mode share at 36% for ages 13 to 17, followed by walking at 32%. Bicycle or e-micromobility has the least share at 9% for ages 4 to 12 and 7% for ages 13 to 17 (see **Figure 85)**.

Figure 85. Usual Mode of Travel for School Commute (Children 17 and younger) [61]



[61] Data for this figure are further weighted by the number of children 4 to 17 years of age reported by the survey participant.

7.3 Usual Non-Commute Mode

This section describes the usual non-commute trips, which include purposes such as shopping, meeting friends and family, recreation, and other discretionary purposes.

Figure 86 shows usual mode choice for non-commute trips. Auto driver is the most common mode choice for non-commute purposes, at 45%. Transit is the usual non-commute mode for 22% of survey participants and walking for 17%. Compared with the usual mode for work commute trips in **Figure 76**, auto driver is higher by 8%, auto passenger is higher by 5%, walking is higher by 5%, transit is lower by 11%, and cycling is lower by 6%.

Figure 86. Usual Mode of Travel for Non-Commute Purposes

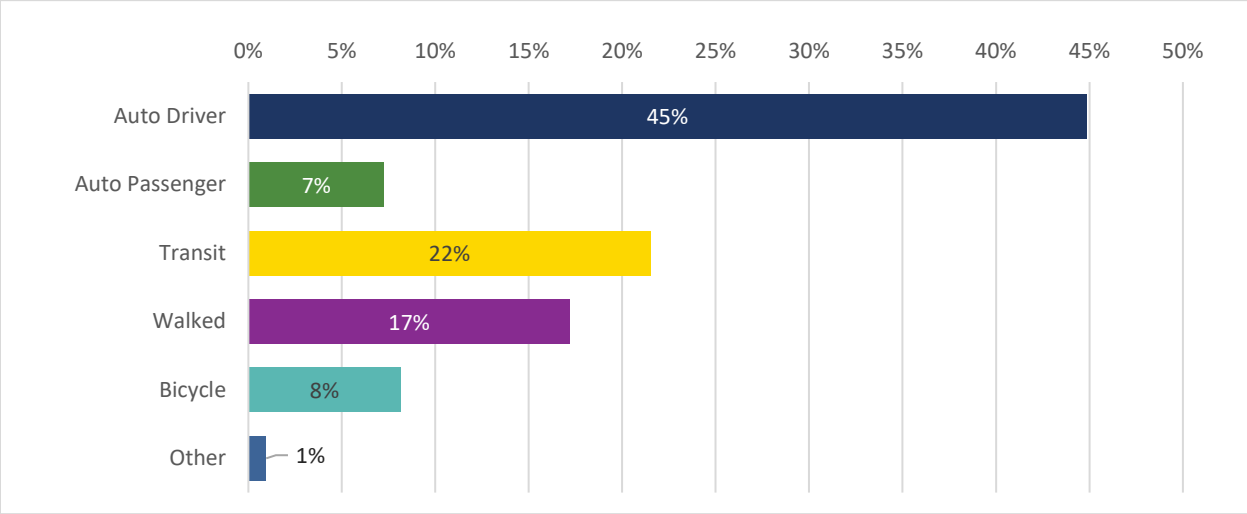
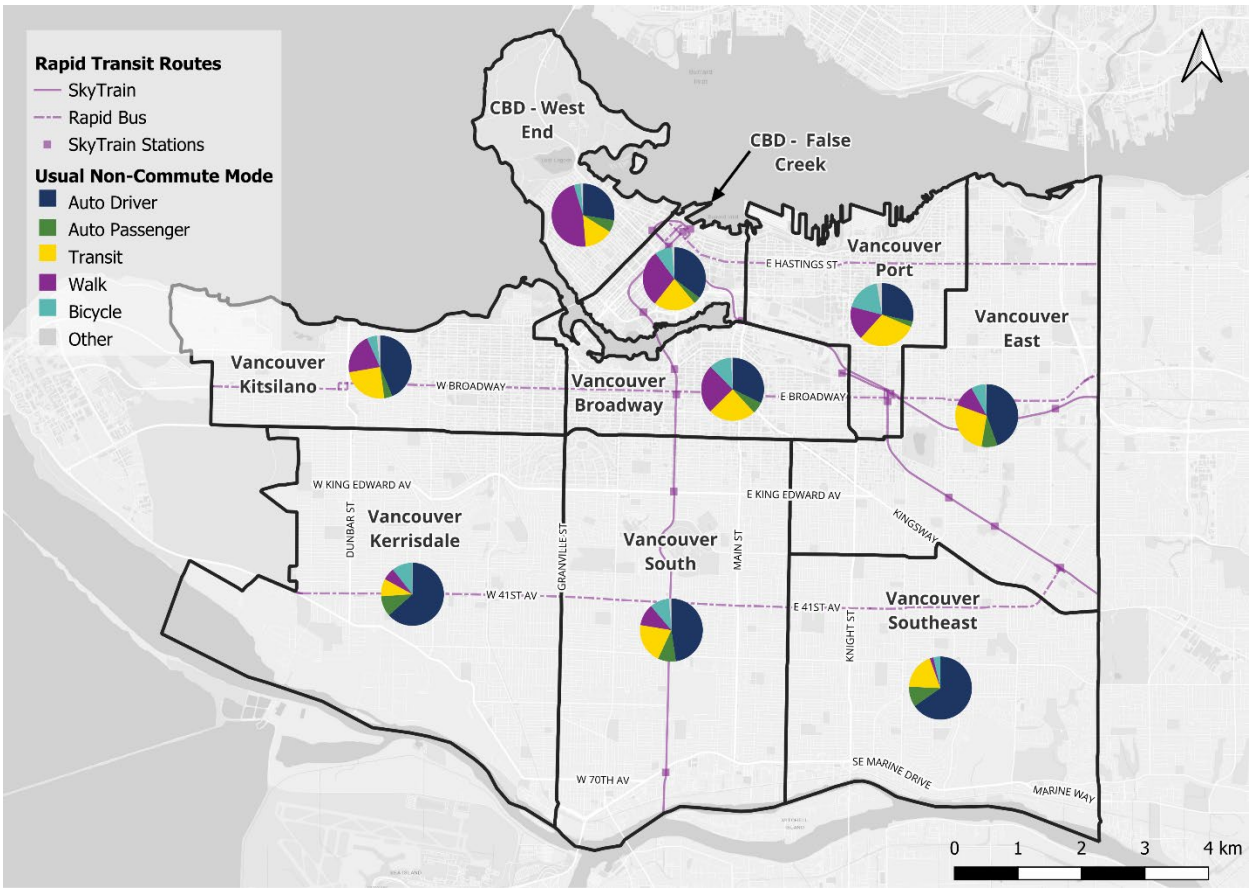


Figure 87 shows the above data broken down by zone. Across zones, auto driver and walk modes have the most variability, with walking being more prevalent in central areas and less prevalent on the periphery. In CBD - West End, CBD - False Creek and Vancouver Broadway, walking is the most common usual non-commute mode (47%, 29% and 25%, respectively), followed by auto driver (28%, 35% and 32%), and then transit (15%, 22% and 24%). Also notable is the large percentage of residents from Vancouver Kerrisdale (63%) and Vancouver Southeast (65%) who report auto driver as their usual mode for non-commute trips; over 70% of residents in these two zones rely on vehicles (either as drivers or passengers) as their usual mode for non-commute purposes.

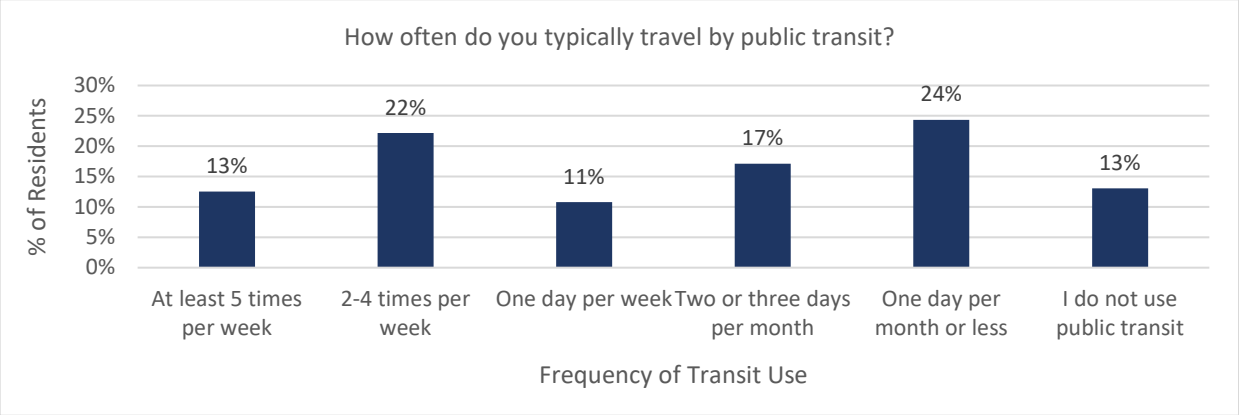
Figure 87. Map of Usual Mode of Travel for Non-Commute Trips by Zone



7.4 Transit Use

Figure 88 shows the frequency of transit use for Vancouver residents. Most survey participants (87%) reported that they take transit at least some of the time, with 13% doing so at least five days per week.

Figure 88. Frequency of Transit Use[62]



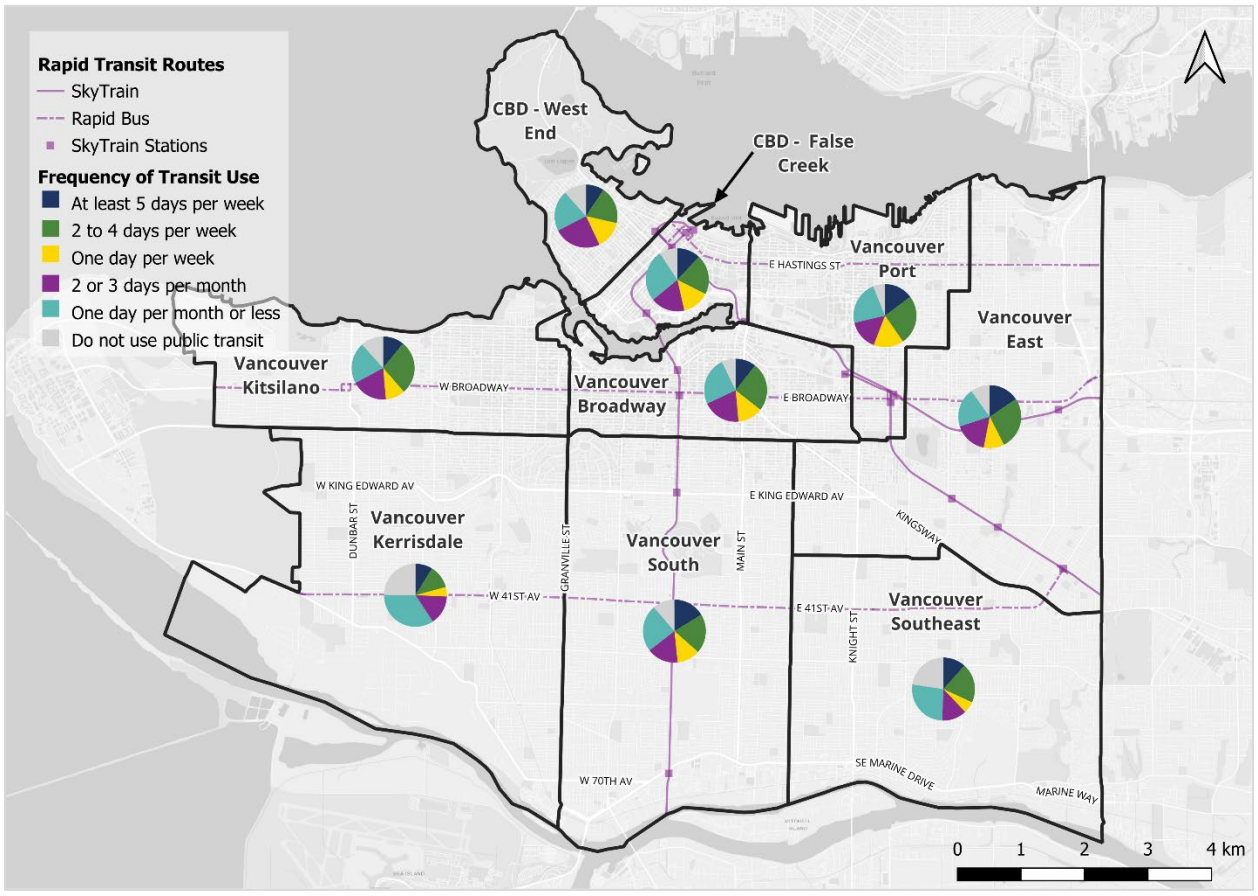
[62] Percentages do not add to 100% due to rounding.

Table 28 shows transit frequency by zone in table format and **Figure 89** shows a map of the same data. The data shows that Vancouver Kerrisdale has the largest percentage of residents with infrequent transit use, with 79% of its residents using transit one day per week or less (and this zone has one of the highest driver mode shares, see **Section 6.3.4**), followed by CBD - West End, at 71% (with this zone having the highest walk mode share of all the zones, see **Section 6.3.4**). Looking only at regular transit use (i.e., use transit five times per week or more), we see that Vancouver East and Vancouver South have the highest percentage of residents that use transit on a regular basis, at 16% each.

Table 28. Frequency of Transit Use – by Zone

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
At least 5 times per week	13%	9%	12%	11%	16%	9%	11%	12%	16%	15%
2-4 times per week	22%	19%	20%	25%	20%	12%	28%	20%	27%	25%
One day per week	11%	14%	14%	13%	12%	5%	10%	6%	11%	16%
Two or three days per month	17%	24%	18%	19%	16%	15%	19%	13%	17%	15%
One day per month or less	24%	21%	27%	25%	24%	34%	21%	27%	20%	23%
I do not use public transit	13%	12%	9%	7%	11%	25%	12%	23%	10%	6%
Subtotal one day per week or less often or never	65%	71%	68%	64%	63%	79%	61%	68%	57%	60%

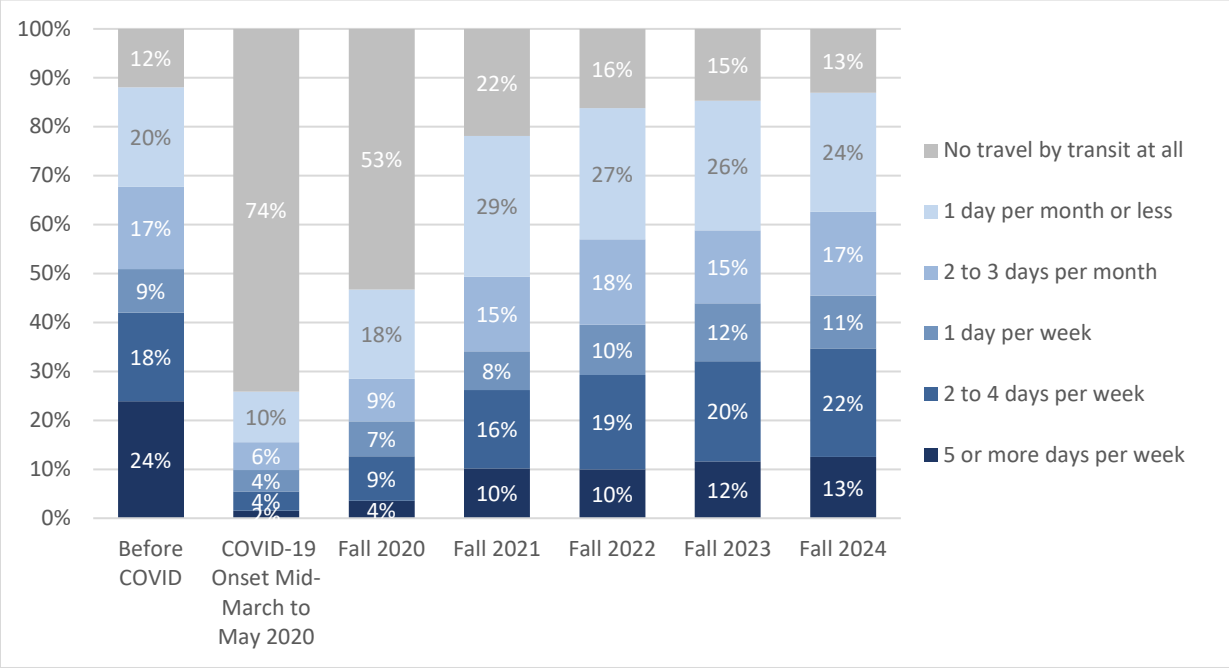
Figure 89. Map of Frequency of Transit Use – by Zone



7.4.1 Change in Frequency of Transit Use Since 2019

Figure 90 shows the frequency of residents' transit use between 2019 and 2024. This figure illustrates the significant reduction in transit use at the onset of the pandemic and related lockdowns/restrictions in 2020 and a pattern of a slow but steady increase in transit use in subsequent years. As is shown, the percentage of residents that never take transit continues to decrease in 2024 and has almost returned to pre-pandemic levels (13% in 2024 versus 12% in 2019). In general, regular transit use (5 or more days a week) remains lower than in 2019 and residents are more likely to use transit sparingly, with only 13% of survey participants reporting they use transit five or more days per week in 2024 compared to 24% in 2019. With hybrid work arrangements (mix of commuting and telecommuting) having become more common since the onset of the pandemic, it is likely that there will be a long-term impact on regular transit use.

Figure 90. Change in Frequency of Transit Use, 2019 to 2024



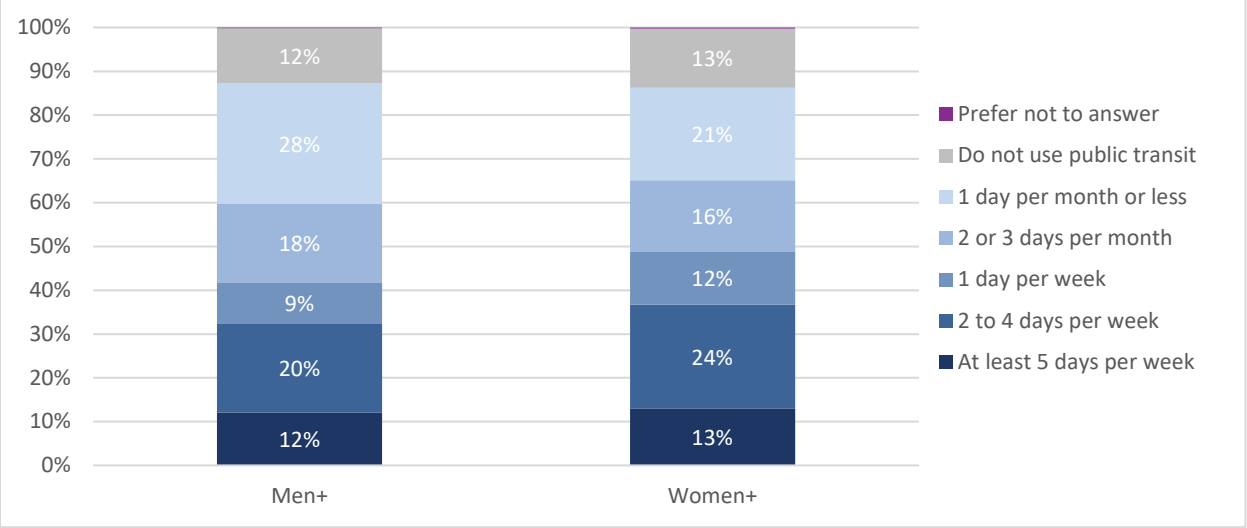
7.4.2 Frequency of Transit Use by Personal Demographics

Transit frequency was explored by personal demographics, including work status, age, and gender. **Figure 91** shows similar patterns of transit use amongst workers and non-workers, with workers being more likely to use public transit regularly (i.e., 2 or more days per week). This finding is not unexpected, as there seems to be more consistency in transit mode use for commute trips and non-commute trips.

Figure 91. Frequency of Transit Use – Workers and Non-workers [63]

Figure 92 shows that men are slightly less likely to regularly use transit (2 or more days per week) compared to women.

Figure 92. Frequency of Transit Use – by Gender [64]



As shown in **Figure 93**, transit use steadily declines with age. Regular transit use (2 or more days per week) is highest amongst ages 18-24 years old at 73% and declines with each increasing age bracket until reaching a range of 22%-24% amongst those over the age of 45 years old. The U-Pass program, which gives students access to bus, SeaBus and SkyTrain services within the region, may contribute to the relatively larger proportion of 18 to 24 years old who use transit two to five (or more) days per week.

[63] Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

[64] Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

Figure 93. Frequency of Transit Use – by Age Group [65]

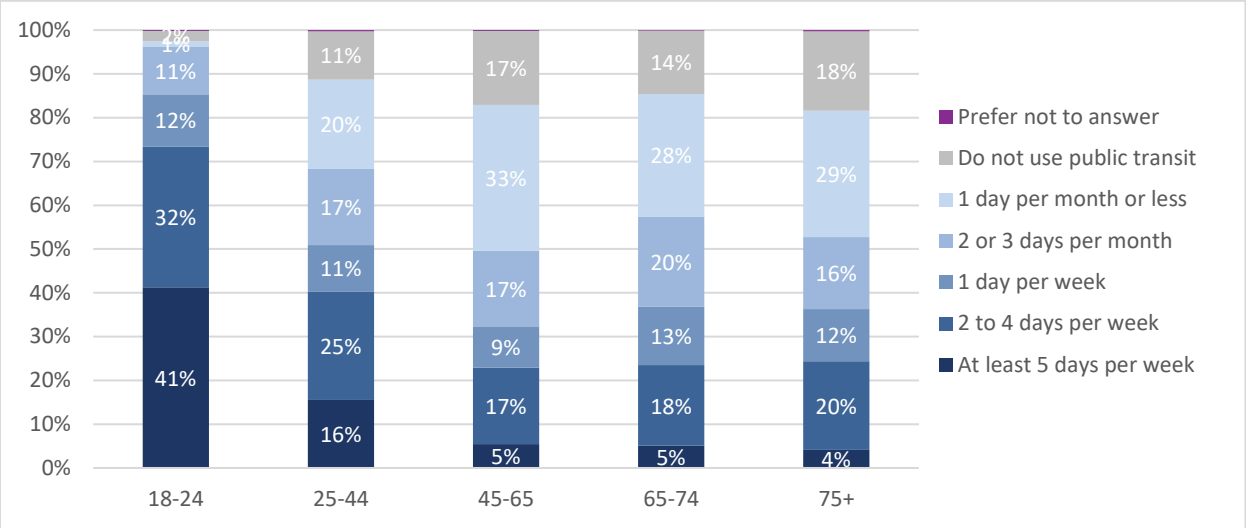
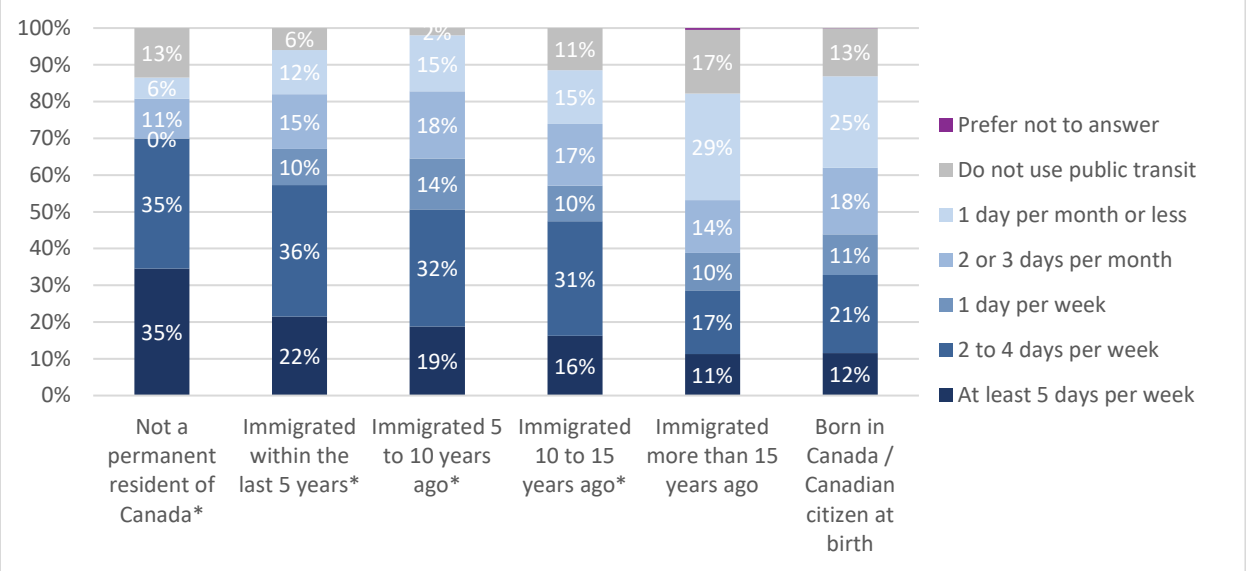


Figure 94 shows the frequency of transit use by immigration status. It shows that new immigrants to Canada are more likely to use transit regularly. The frequency of transit use decreases for the participants who have lived in Canada for longer. 70% of the temporary residents used regular transit (2 or more days per week). This percentage comes down to the range of 28%-33% for participants who immigrated more than 15 years ago and who were born in Canada. These trends are consistent with the mode share by immigration status in **Section 6.3.6**.

Figure 94. Frequency of Transit Use - by Immigration Status [66]



[65] Interpret results for age 18-24 with caution due to smaller sample size. Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

[66] Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

7.5 Walking Habits

7.5.1 Frequency of Walking by Personal Demographics

Survey participants were asked how many days per week they walk, whether to destinations or for recreation. **Figure 95** shows the walking habits of residents overall, by their occupation status, and gender.

- Overall, 46% of survey participants reported walking at least five days per week, with another 34% reporting walking two to four days per week. About 20% report walking one day per week or less frequently (including 4% indicating that they never walk).
- The data suggest that both workers and non-workers have similar walking habits, on average, although residents who are workers were slightly more likely to report walking regularly (at least two days per week) at 81% compared to non-workers at 77%.
- By gender, the proportion who walk regularly is again similar, with 79% of men and 80% of women walking at least two days per week, although, within this, men appear to be slightly more likely to walk at least five days per week (47% compared to 44% for women).

Figure 96 provides walking frequency by age group. Residents between the ages of 25 and 44 were most likely (83%) to report walking regularly (47% at least five days per week; 36% two to four days per week). While frequency of walking appears to dip for those 45 to 65 years of age (77% two days per week or more), it increases again for those 65 to 74 years of age (81%), before dropping for those over the age of 75 (72%), with 9% of those over 75% reporting that they never walk.

Figure 97 provides walking frequency by zone of residence, and shows the most variation of any of the variables examined here.

- Those living in the CBD - West End and CBD - False Creek zones reported walking most often, with 94% and 92%, respectively, walking regularly (and within this, over six in ten reporting walking five days per week or more). It may be noted that these zones have high residential density; a concentration of jobs, services, and amenities; and a somewhat younger population on average compared to the rest of the city.
- In Vancouver Southeast, only 60% of residents reported walking regularly (32% at least five days per week, 28% two to four days per week). The average age in this zone is somewhat higher than all other zones except Kerrisdale. However, age is only a small part of the explanation: the result for this zone is significantly lower even than the average result for population 75+ years of age, at 72% walking two or more days per week, as noted above.
- Vancouver East, Vancouver Kerrisdale, and Vancouver South were also below the average for the city, with 71%, 75%, and 76% of residents, respectively, walking two or more days per week.

Readers are also referred to **Section 8.2** on perceptions of neighbourhood walkability, which shows that residents of the neighbourhoods with less frequent walking on average (Vancouver Southeast Vancouver South, Vancouver Kerrisdale, and Vancouver East) are less likely than the residents of other neighbourhoods to perceive their neighbourhood as walkable.

Figure 95. Walking Frequency Overall, by Occupation Status, and by Gender [67]

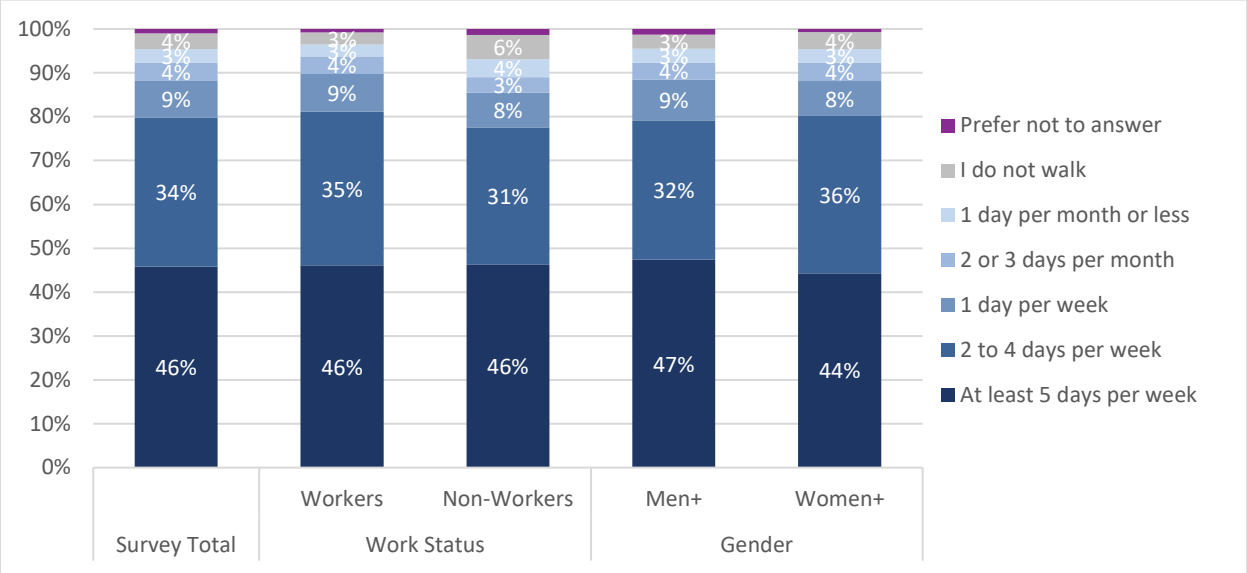
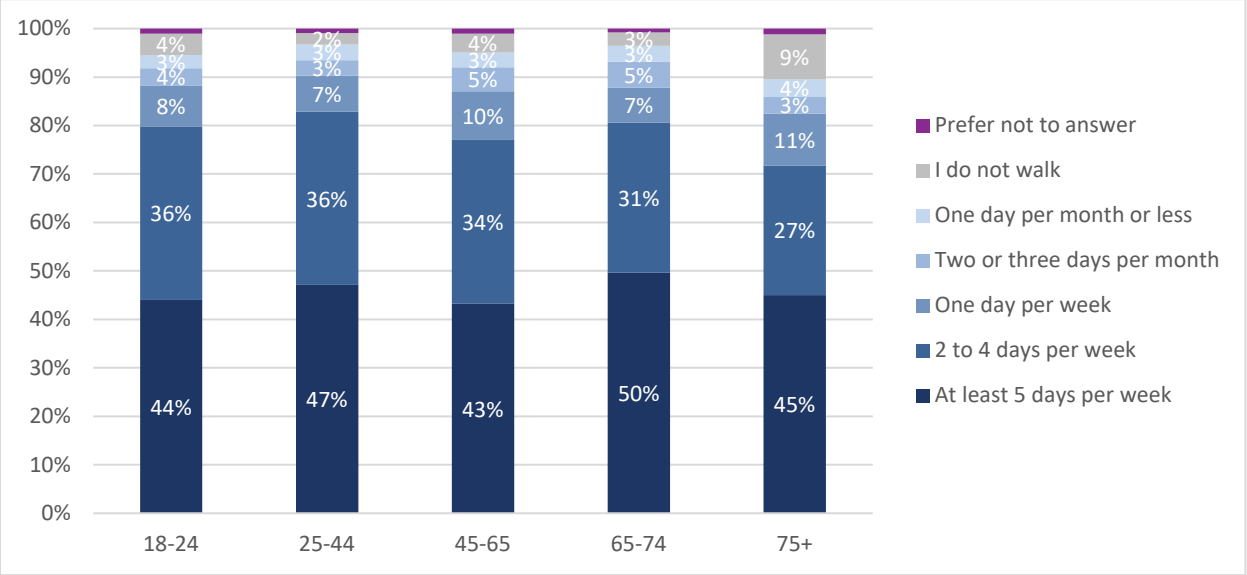


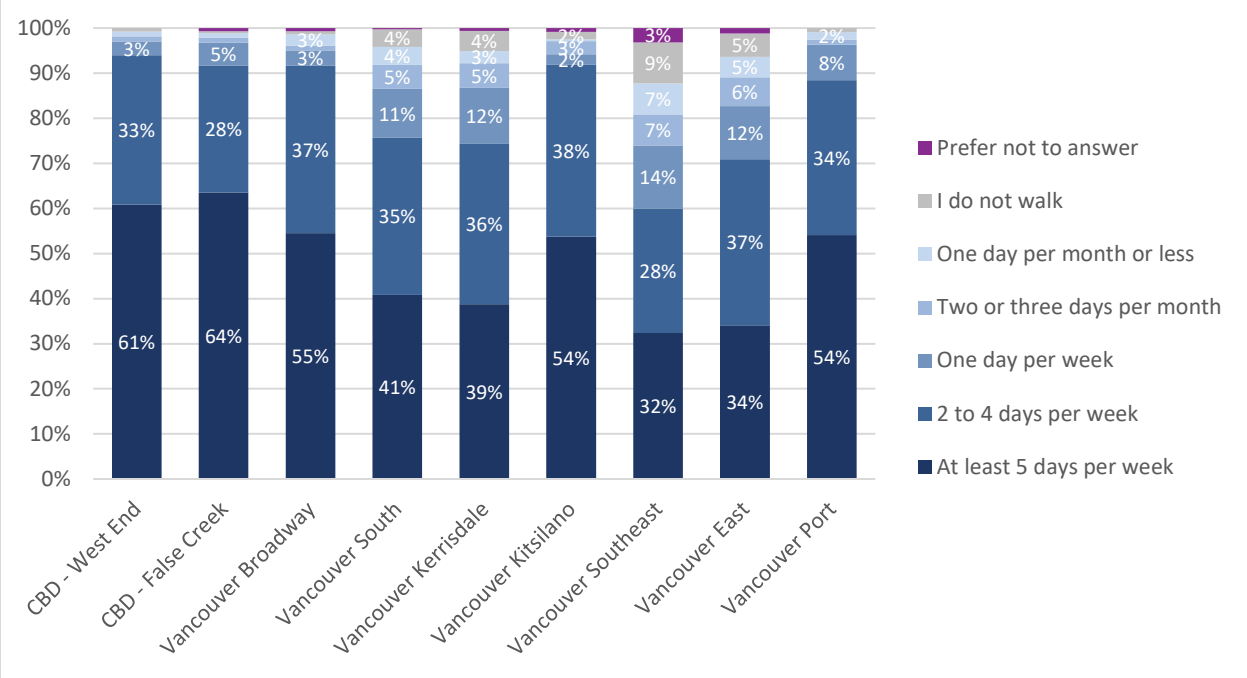
Figure 96. Walking Frequency by Age Group [68]



[67] Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

[68] Interpret results for age 18-24 with caution due to smaller sample size. Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

Figure 97. Walking Frequency by Zone of Residence [69]



7.5.2 Reasons for Not Walking More

Follow-up questions on the survey shed some light on the walking frequency reported. The 20% of survey participants who walk one day per week or less were asked why they do not walk more often (**Figure 98**).

- The top reason cited by half (51%) of such people was that their trip destinations are too far away.
- Almost one-quarter (23%) indicated that either they have a disability or travel with a person with a disability.
- Less common reasons included that routes were not comfortable enough (too much traffic, not enough places to sit and rest, or not enough shade, 12%); lack of things to see or do on the way (9%); routes are not accessible (8%); or feeling unsafe (7%).
- One in ten was unable to provide a reason why they do not walk more often.

Those who volunteered other reasons for not walking (7%) cited factors such as weather, convenience, and/or preferring other active modes such as biking.

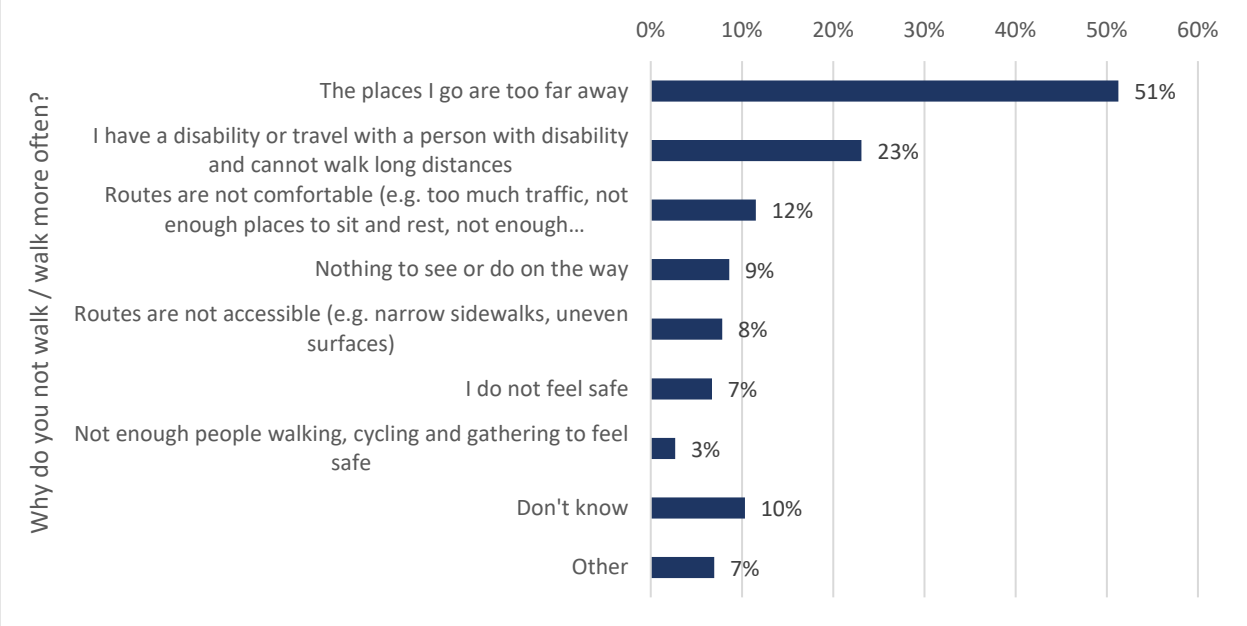
Table 29 provides reasons for not walking as often by zone of residence.

- More than half of those who walk infrequently (one day per week or less) and live in Vancouver East, Vancouver Port, Vancouver Southeast, and Kerrisdale cited that the places that they go are too far away, at 52%, 54%, 55% and 61% respectively.
- In these four zones, between 18% and 26% of those who walk infrequently reported having a disability or travelling with a person with a disability.

[69] Labels for the 1% or less of participants in each demographic who did not answer the question are not displayed in the chart.

- Other reasons that were more common in these districts were there being nothing to see or do on the way (14% Vancouver Southeast, 10% Vancouver East), routes not being accessible (15% Vancouver Southeast, 11% Kerrisdale), routes not being comfortable (between 12% and 14% for all four above-noted zones), and not feeling safe (13% Kerrisdale).

Figure 98. Why do you not walk / walk more often? (of those who walk one day per week or less)



Percentages total to more than 100% due to multiple responses

Table 29. Reasons for Not Walking Much, by Zone of Residence

	CBD - West End*	CBD - False Creek*	Van. Broad-way*	Van. South	Van. Kerris-dale	Van. Kits-ilano*	Van. South-east	Van. East	Van. Port*
Percent of respondents who walk one day per week or less	**6%**	**8%**	**8%**	**24%**	**26%**	**8%**	**40%**	**29%**	**12%**
The places I go are too far away	31%	38%	25%	52%	61%	42%	55%	52%	54%
Nothing to see or do on the way	6%	9%	0%	7%	1%	0%	14%	10%	6%
Routes are not accessible (e.g. narrow sidewalks, uneven surfaces)	0%	1%	1%	6%	11%	1%	15%	5%	2%
Routes are not comfortable (e.g. too much traffic, not enough places to sit and rest, not enough shade)	6%	1%	2%	13%	14%	0%	14%	12%	12%
I do not feel safe	13%	16%	3%	3%	13%	3%	8%	5%	0%
Not enough people walking, cycling and gathering to feel safe	0%	0%	12%	0%	0%	0%	6%	2%	0%
I have a disability or travel with a person with a disability and cannot walk long distances	28%	15%	35%	20%	24%	52%	18%	26%	25%
Don't know	4%	21%	7%	13%	6%	10%	14%	7%	7%
Other	18%	5%	34%	6%	4%	2%	4%	8%	6%

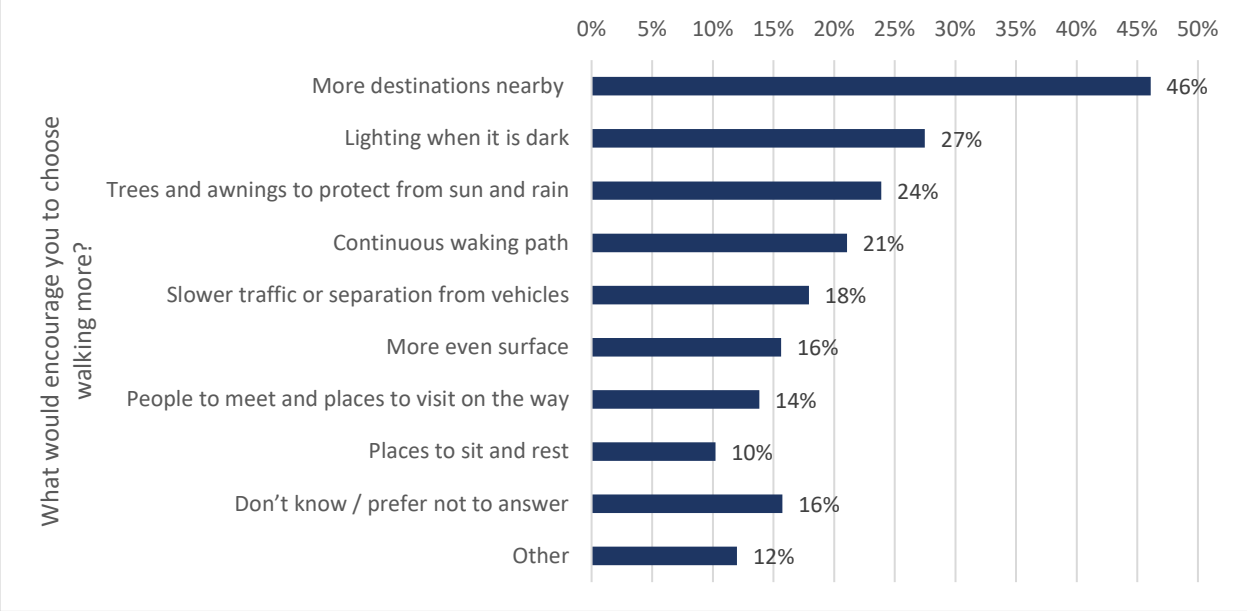
* For zones with a small percentage of survey participants who walk one day per week or less, results should be interpreted with more caution due to small sample sizes. The results for these zones are shaded in grey.

Participants who walk one day per week or less were also asked what would encourage them to walk more often (**Figure 99**).

- Many would be motivated by a purpose or activity to walk to: almost half (46%) indicated that there would need to be more destinations nearby (i.e., within walking distance), while 14% indicated people to meet and places to visit on the way. This is consistent with half of respondents indicating that the reason they do not walk more often is because their destinations are too far away.
- Route-related that may be associated with safety were cited by notable proportions of participants: better lighting after dark (27%), continuous walking paths (21%), slower traffic or separation from vehicles (18%), and/or more even walking surfaces (16%).
- Other comfort-related factors include trees and awnings to protect from the sun (24%) and places to sit and rest (10%).
- 16% were unable to say what might motivate them to walk more.

Those who volunteered other reasons (12%) cited factors such as being in a better health condition, becoming less busy and a safer community

Figure 99. What would encourage you to choose walking more?

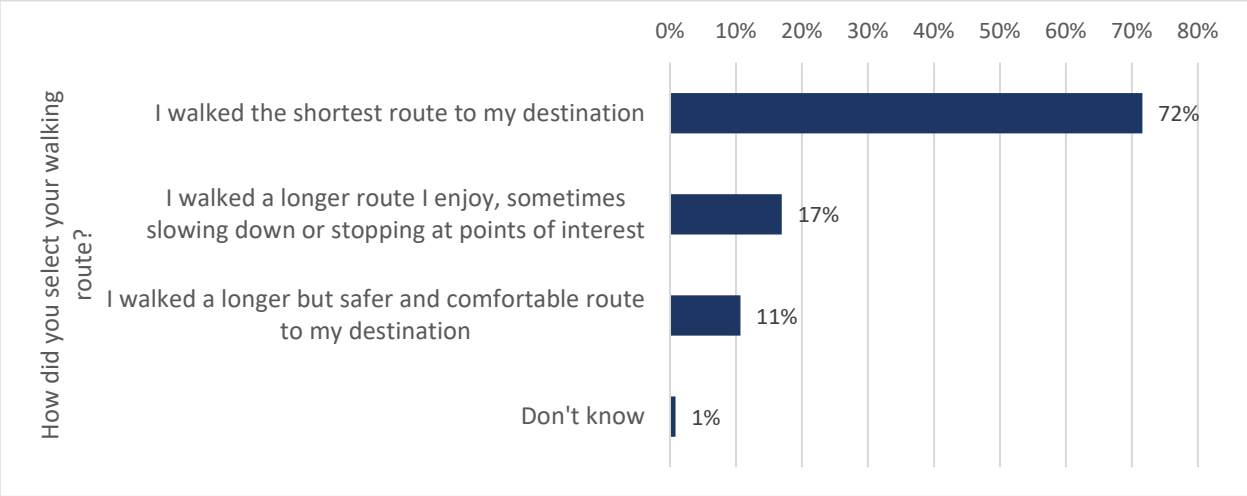


Percentages total to more than 100% due to multiple responses

7.5.3 Walking Route Choices

Survey respondents who walked were asked about their route selection and attributes of their route for their first walking trip reported. As shown in **Figure 100**, just over seven in ten respondents (72%) chose the shortest route to their destination. Another 17% reported walking a longer route that they enjoy taking (sometimes slowing down or stopping), while 11% made the choice to walk a longer route that they perceive as safer and more comfortable to walk.

Figure 100. How did you select your walking route?

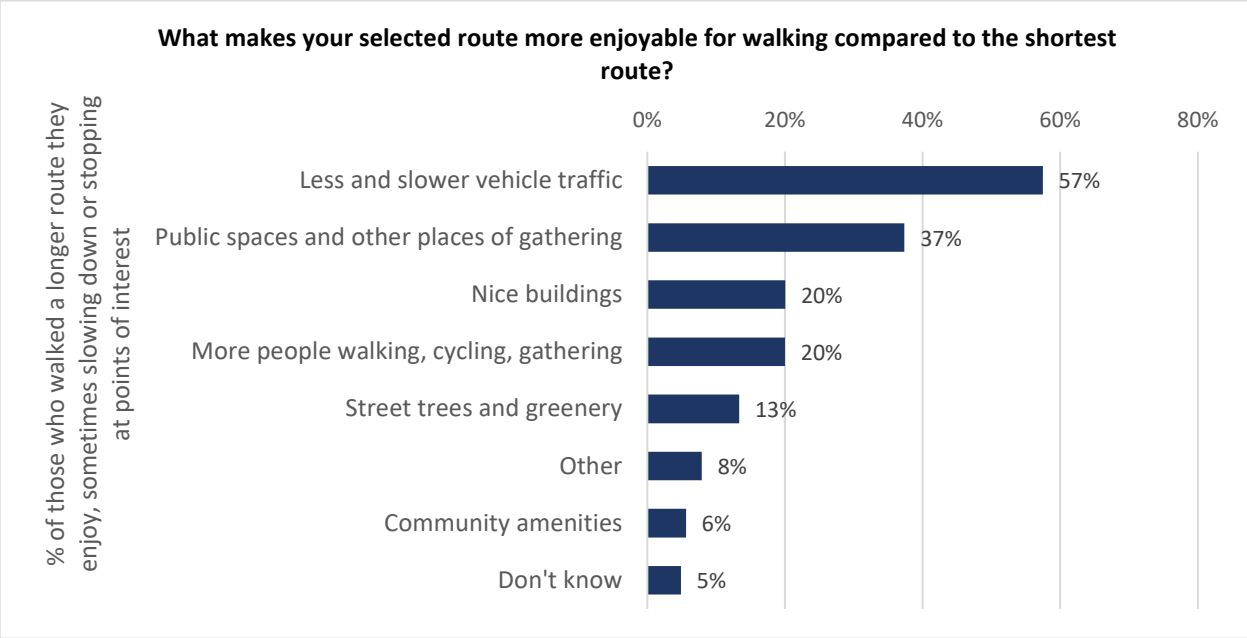


Individual percentages may not sum to exactly 100% due to rounding

Of those who chose a more enjoyable route, almost six in ten (57%) made the choice to avoid busy and/or fast vehicle traffic, while almost four in ten (37%) made the choice in order to access public spaces and other places of gathering (**Figure 101**). Other characteristics of more enjoyable routes included the presence of nice buildings (20%); more people walking, cycling, or gathering (20%); and streets and greenery (13%); while the presence of community amenities was cited by just over one in twenty (6%). Another 8% cited various other aspects of enjoyable routes, with the more common reasons including an easier walk with less hills, places for animals to relieve themselves and general convenience.

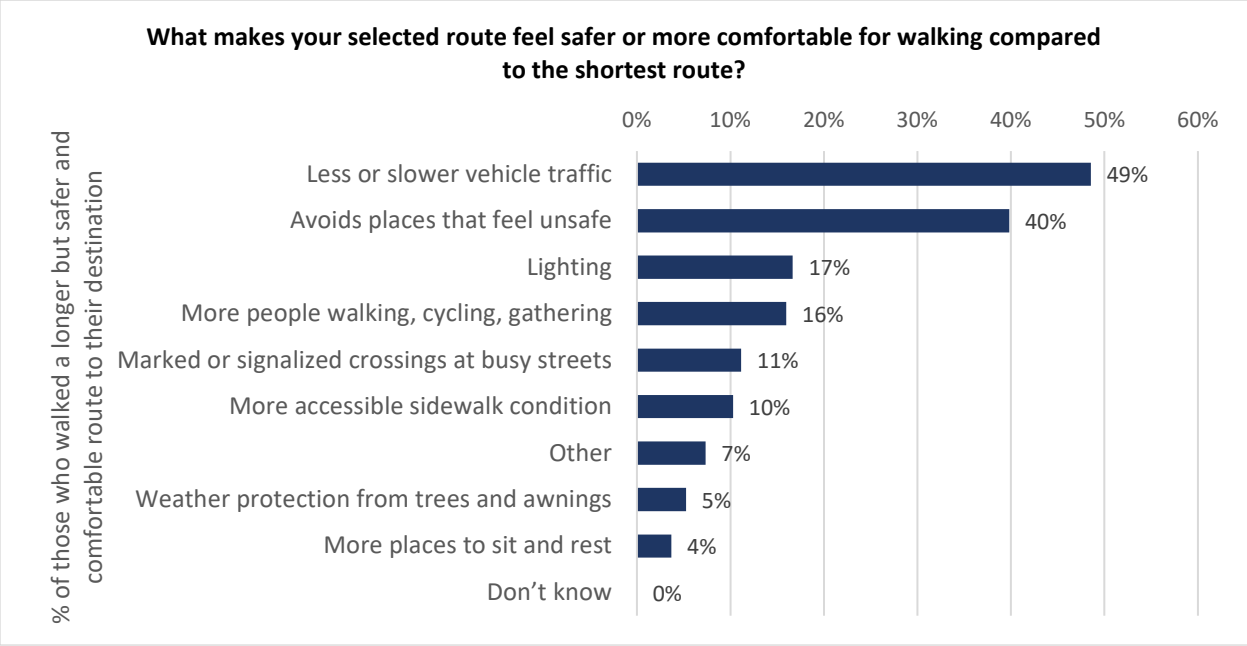
Of those who chose a safer and/or more comfortable route, almost half (49%) made the choice to avoid busy and/or fast vehicle traffic; four in ten (40%) made the choice to avoid places that felt unsafe (**Figure 102**). Other characteristics of safer routes chosen by at least one in ten walkers include: lighting (17%), the presence of more people walking, cycling or gathering (16%), marked or signalized crossings (11%), and more accessible sidewalks (10%). Protection from the weather and places to sit and rest were noted by about one in twenty walkers (5% and 4%, respectively). Another 7% cited various other aspects of safer routes, including more traffic, stores and policing.

Figure 101. What makes your longer route more enjoyable for walking? (of those choosing a longer route they enjoy)



Percentages add to more than 100% due to multiple responses.

Figure 102. What makes your longer route feel safer or more comfortable for walking? (of those choosing a longer route for safety or comfort)



Percentages total to more than 100% due to multiple responses.

7.5.4 Walking Habits - Key Takeaways

Overall, 80% of survey participants walk regularly (at least two days per week), with 46% walking at least five days per week, and 34% walking two to four days per week. Those living in the CBD - West End and CBD - False Creek zones reported walking most often. Those living in Vancouver Southeast reported walking least often on average, while Vancouver East, Vancouver Kerrisdale, and Vancouver South were also below the average for the city.

Among the one-fifth who walked once a week or less, the main barrier was destinations being too far from the destinations they travel to (51%), followed by disability-related limitations to their mobility (23%), uncomfortable routes (12%), and a general lack of interest or safety concerns.

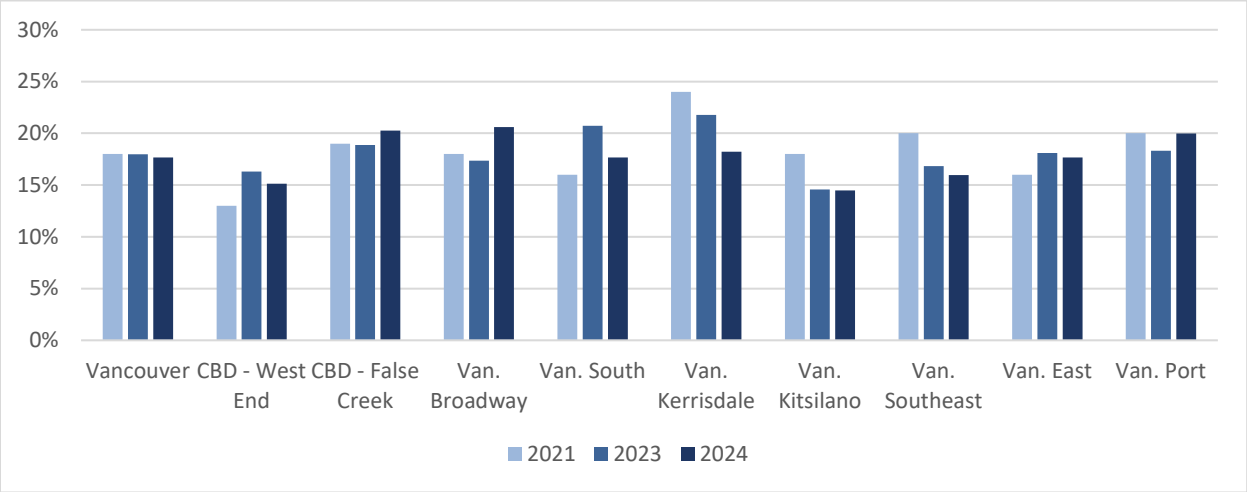
Encouragements that would motivate infrequent walkers to walk more include more nearby destinations (46%), better lighting (27%), safer and more continuous walking paths, shade, and seating. Some participants noted that better health, more time, or improved community safety could also help.

Overall, 72% of participants who reported a walking trip on their travel day selected the shortest route to their destination, while 17% chose a longer, more enjoyable route and 11% opted for a route they felt was safer or more comfortable. Enjoyable routes were primarily chosen to avoid traffic (57%) or to access public spaces (37%), with other factors including aesthetic surroundings, the presence of others, and greenery. Safer routes were similarly chosen to avoid fast traffic (49%) or unsafe areas (40%), with lighting, crossings, accessible sidewalks, and resting spots also noted.

7.6 Use of Delivery Services

The survey results suggest that residents of the City of Vancouver receive around 75,300 daily deliveries, with about 18% of residents across the city receiving at least one delivery per day (**Figure 103**). This is similar to what was observed in 2021 and 2023. Residents living in the Vancouver Broadway (21%), CBD - False Creek (20%) and Vancouver Port (20%) zones were most likely to report receiving a delivery while residents of the Vancouver Kitsilano zone were least likely to report receiving a delivery (14%). Note that at the zone level, some of the variability from year to year may be due to the modest sample sizes by zone.

Figure 103. Vancouver Residents' Use of Delivery Services by Zone of Residence



Deliveries included small goods or packages, restaurant food, grocery deliveries, large goods and other deliveries. The delivery of small goods or packages accounts for 75% of all deliveries, amounting to about 56,600 deliveries per day (**Table 30**). Restaurant food deliveries account for 14% of all deliveries and grocery deliveries account for 7% of all deliveries. This pattern is similar across all zones, though Vancouver Kerrisdale does stand out for having a larger percentage of grocery deliveries, at 11%, and a relatively lower percentage of restaurant food deliveries, at 4%. Compared to 2021, the first survey cycle in which this question was asked, the proportion of deliveries of small goods and packages is identical, at 75%. The proportion of restaurant food deliveries increased slightly, accounting for 13% of all deliveries in 2021 and 14% in 2024, while the proportion of grocery deliveries declined from 9% in 2021 to 7% in 2024. Deliveries of large goods and other kinds of deliveries combined are about the same.

Table 30. Type of Delivery Service – by Zone

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Small goods or packages	75%	73%	80%	74%	73%	82%	70%	80%	72%	73%
Restaurant food	14%	16%	13%	12%	18%	4%	15%	9%	18%	17%
Grocery deliveries	7%	6%	3%	8%	8%	11%	9%	9%	6%	6%
Large goods (e.g., appliances)	1%	2%	1%	1%	1%	0%	0%	0%	2%	0%
Other (specify number)	3%	4%	2%	5%	0%	3%	6%	2%	2%	5%

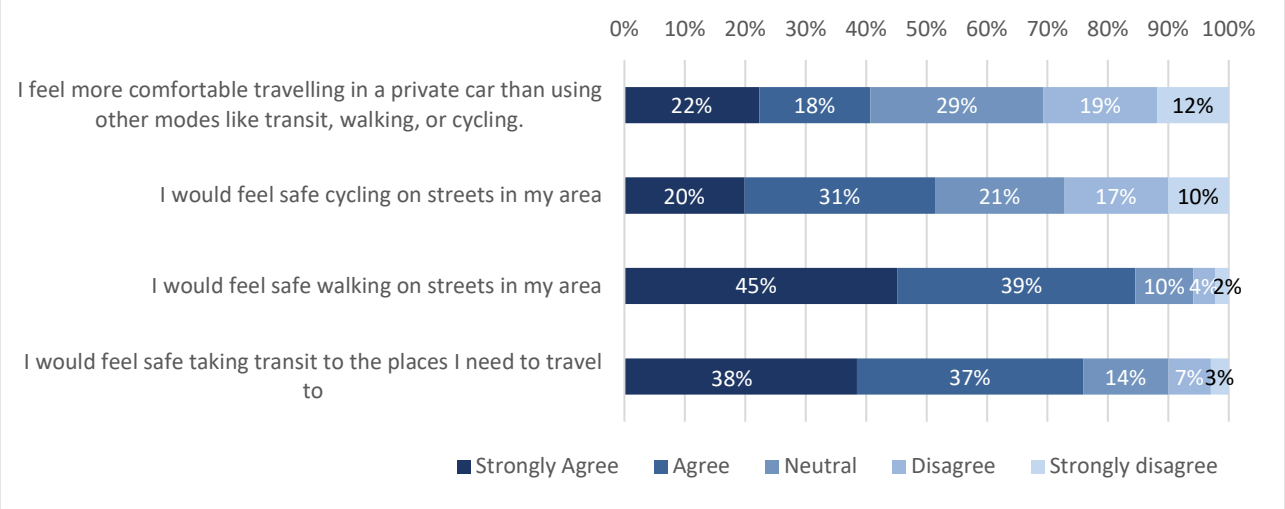
8 Perceptions and Attitudes

This section describes survey respondents' perceptions and attitudes related to key transportation issues, including perceptions of safety by zone, and perceptions of walkability of the survey participant's neighbourhood.

8.1 Perceptions of Safety of Transportation Modes

Survey participants were asked a series of questions related to their perceptions of comfort and safety when travelling by various modes. As shown in **Figure 104**, overall, the majority of residents of the city of Vancouver perceive a high degree of safety walking (84%) and taking transit (75%) in their area. About half of residents feel safe cycling on the streets in their area (51%). When comparing modes, about four in ten residents feel more comfortable travelling in a private car rather than using other modes like transit, walking, or cycling to the places they need to go (40%).

Figure 104. Survey Participants' Perceptions of Safety and Attitudes



Closer examination of the survey results revealed two interesting observations:

- Of the 14% of the residents who indicated that cycling is their usual mode for work commutes, 81% indicated that they feel safe cycling in their area (with 41% agreeing and 40% strongly agreeing).
- Residents who indicated auto driver as their usual mode for work commutes were much more likely than those with other usual commute modes to report that they feel more comfortable

travelling in a private car than using other modes like transit, walking, or cycling (61% auto driver compared to 26% for those who take transit, 31% for those who walk, and 10% for those who cycle).

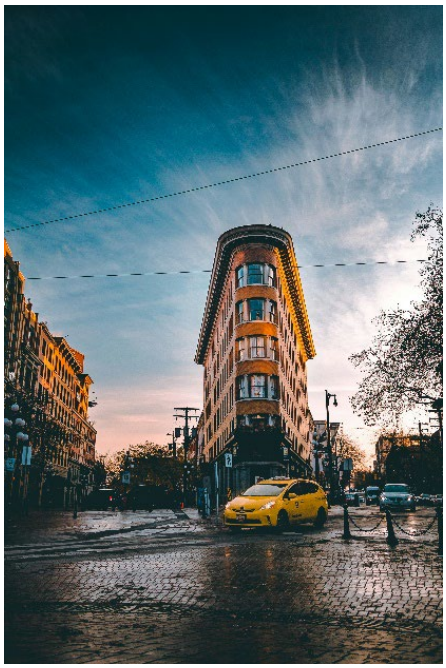
Table 31 shows the data presented above broken down by zone. Some notable differences between zones stand out:

- Vancouver Southeast and Vancouver Kerrisdale stand out as zones with more people who feel more comfortable travelling in a private car over other modes, at 58% and 57% respectively. These two zones have the highest auto driver mode share (see **Section 6.3.4)**. Vancouver Southeast also indicated one of the lowest perceptions of safe cycling at 42%.
- Vancouver Broadway has the fewest people who feel more comfortable travelling in a private car than other modes, at 26%. It also had the highest percentage of residents who feel safe cycling (64%) and the second-highest percentage of residents who feel safe walking and using transit, at 91% and 80% respectively. This stands to reason given that this zone has one of the highest transit mode shares of all zones.
- More than 80% of residents reported feeling safe while walking in all zones except CBD - False Creek. CBD - False Creek had the lowest percentage of residents who feel safe walking on streets in their area at 58%. Ironically, this zone has one of the highest walking mode shares. Vancouver Broadway, Kerrisdale and Kitsilano are the zones with the highest percentage of residents who feel safe walking on the streets.
- The rest of the zones had similar responses to the average for the city.

Table 31. Perceptions of Safety by Zone (% Agree or Strongly Agree)

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
I feel more comfortable travelling in a private car than using other modes like transit, walking, or cycling.	41%	33%	42%	26%	41%	57%	28%	58%	42%	29%
I would feel safe cycling on streets in my area	51%	51%	45%	64%	51%	49%	56%	42%	51%	60%
I would feel safe walking on streets in my area	85%	85%	58%	91%	89%	92%	91%	81%	88%	82%
I would feel safe taking transit to the places I need to travel to	76%	75%	67%	80%	82%	75%	78%	71%	78%	76%

8.2 Neighbourhood Walkability



The City of Vancouver has a goal of ensuring 90% of people live within an easy walk or roll of their daily needs by 2030. A question on perception of walkability provides a benchmark to help measure this goal.

Figure 105 and **Table 32** show the percentage of survey participants who agreed or disagreed that their neighbourhood is walkable, that is, they can reach many of the services and amenities they need by walking. Overall, three-quarters (74%) of residents of the city agree that they can reach many of the services and amenities they need by walking. As shown in **Table 32,** perceptions of walkability vary by neighbourhood with CBD - West End (96%), CBD - False Creek (93%), Vancouver Port (88%), and Vancouver Kitsilano (87%) having the highest percentage of residents who agree that their neighbourhood is walkable. Vancouver Southeast stands out, as it has the lowest percentage of residents who agree that their neighbourhood is walkable, at 52%. Recall that this zone also has relatively low percentages of residents reporting that they felt safe cycling (**Section 8.1**) and a relatively low percentage of internal trips (**Section 6.4.2**).

Figure 105. Perceptions of Neighbourhood Walkability

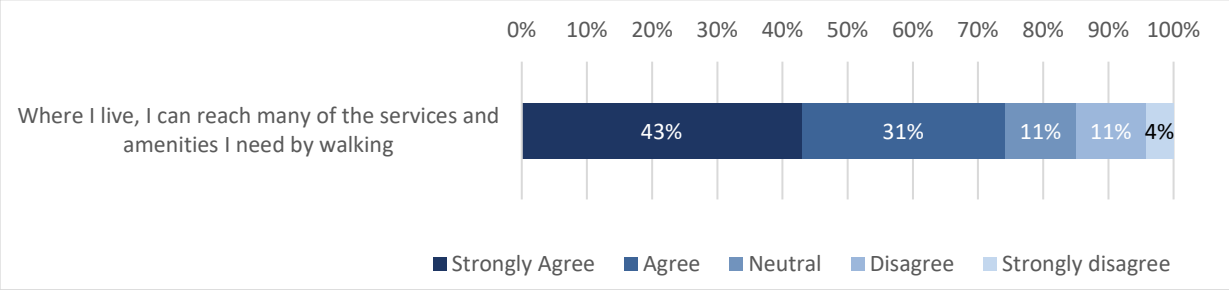


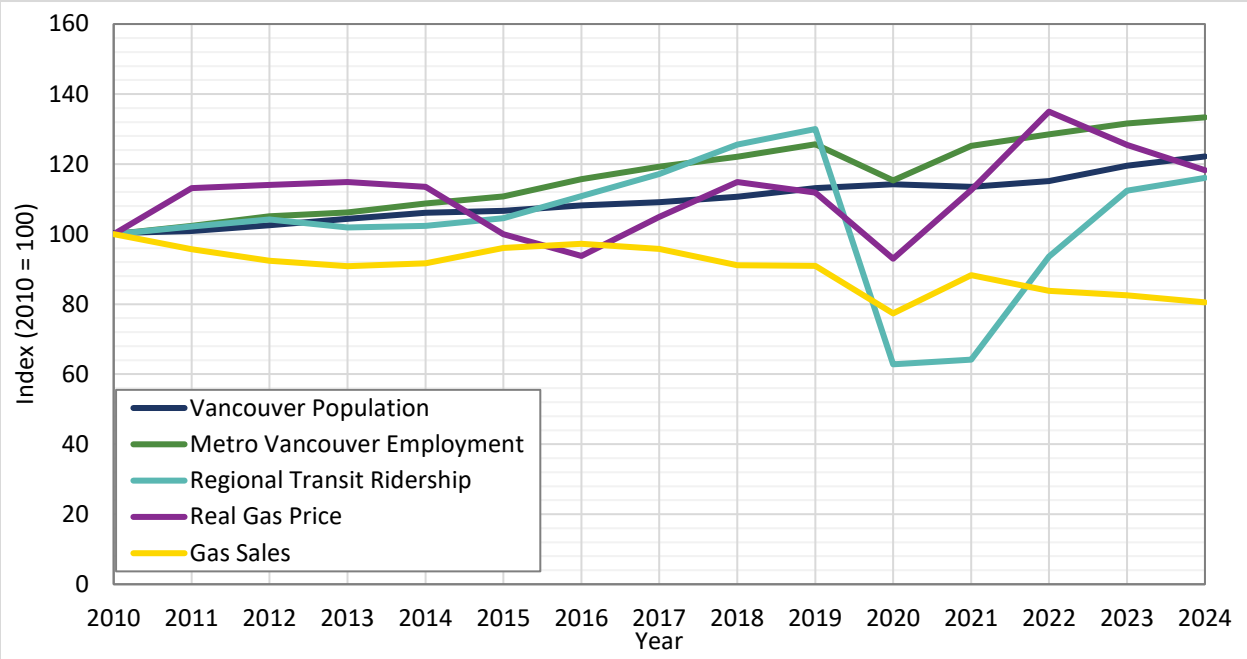
Table 32. Perceptions of Neighbourhood Walkability (% Agree or Strongly Agree)

	Van-couver	CBD - West End	CBD - False Creek	Van. Broad-way	Van. South	Van. Kerris-dale	Van. Kits-ilano	Van. South-east	Van. East	Van. Port
Where I live, I can reach many of the services and amenities I need by walking	74%	96%	93%	87%	62%	62%	88%	52%	65%	88%

9 Factors Contributing to Changes in Trip Demand Over Time

This section discusses some of the trends in key factors that influence travel behaviours and patterns across the city of Vancouver and Metro Vancouver. These factors include changes in population, employment, transit use, fuel prices, and fuel sales. Figure 106**Figure 106** shows the historical trends of the key factors over the last decade from 2010 to 2024.

Figure 106. Historical Trends of the Key Factors, 2010 to 2024 [70]



The population of the city of Vancouver has continued to grow in 2024. Employment in the city has recovered and exceeded pre-pandemic levels after declining to 92% of 2019 levels in 2020. The population and employment numbers may be expected to continue to grow with continued immigration and economic growth, thus driving an increase in trip demand over time, although it may be noted that the economic outlook may have some volatility depending on the ongoing evolution of Canada's trade relationship with the United States.

The impact of the pandemic on transit use has been evident since 2020, when we saw a sharp decline, with TransLink annual ridership dropping to only 48% of 2019 levels in 2020 and recovering to about 89% of 2019 levels in 2024, with the increase in the last year being quite modest. This aligns with the survey findings highlighted above in **Section 7.4.2**. Residents surveyed reported transit usage has increased over the last couple of years but has not returned to pre-pandemic levels. The partial recovery of transit use is mainly due to changes relating to more people returning to work at their usual location outside the home (e.g., office), returning to in-person schooling, and a decline of perceived risk of contracting COVID-19 in public transit. A full transit recovery to the 2019 levels may be inhibited by the increase in work from home and hybrid working arrangements. The increase in telecommuting may be

[70] Sources: BC Statistics Agency population estimates 2010-2024; Statistics Canada Labour Force Survey; TransLink ridership figures; Statistics Canada average retail gas prices; City of Vancouver data on gas sales.

considered a positive because this also means fewer commutes via automobile as well, although the long-term impact on telecommute workers' levels of physical activity and health has yet to be assessed.

Fuel prices have decreased by 6% in 2024 again after decreasing by 7% in 2023. This pattern differs from that of fuel sales, which dropped to 85% of 2019 levels in 2020, increased in 2021, and have gradually decreased since 2022 to 89% of 2019 levels in 2024. The demand for fuel aligns with the change in travel behaviour and associated trip rates observed since 2019 and may also be affected by the gradual increase in the proportion of zero-emission and hybrid vehicles. Time will tell whether or when fuel demand and trip rates will return to pre-pandemic levels, given the profound shifts in work arrangements for some workers. The modest decrease in fuel sales from 2021 to 2024 supports the idea of gradual change in travel patterns affected by multiple, often counterbalancing factors (fuel costs, cost-of-living pressures, evolving work arrangements, and increases in EVs) rather than a rapid snap back to 2019 levels. As time goes on, it will be interesting to see how the trends in mode share and VKT align with indicators presented above.

Appendix A: Survey Instrument

2024 City of Vancouver Transportation Survey

Online Survey / Telephone Interview Script

1. INTRODUCTION – ONLINE TRAVEL SURVEY – NEW PARTICIPANTS

[CLIENT LOGO(S)]
To begin the survey, please enter the secure access code found on the top of your notification letter.
Secure Access Code:_____ **Begin Survey**

Welcome to the City of Vancouver Transportation Survey.
The City of Vancouver is undertaking a Transportation Survey that will help the City to better understand the travel behaviour and preferences of residents, and will assist the City in making informed decisions regarding future transportation plans and investments.

The goal of the survey is to understand where people are going and how they get there by collecting information on the trips made by residents of the City of Vancouver. The survey helps to identify and track trends in sustainable transportation, including daily trips made, modes of transportation used, and vehicle-kilometres travelled. Understanding how, where, and why residents travel allows the City to better plan for future transportation needs.

In appreciation of your time, you'll be entered for a chance to win one of 110 prizes ranging from $25 to $100 in value upon the completion of this survey.

How long does it take to complete the survey? Approximately 10-25 minutes. It is extremely important all your data is entered completely and accurately. You can also complete the survey by telephone with one of our professional interviewers by calling us toll-free at **1-855-412-1939**.

What kinds of questions are asked? The survey asks questions about your household and demographic characteristics, all trips taken on the previous weekday, as well as your opinions on some transportation-related issues in the City of Vancouver.

Will my privacy be protected? Yes. Your survey responses will be combined with others' responses before they are analyzed. Your contact information will only be used to contact you for follow up about the survey. Click here to view our **Privacy Statement**.

How was I selected for the survey? Your household was selected at random from households across the City of Vancouver. A limited number of households receive an invitation to join the study, so the few minutes you take to participate will have a big impact. The survey is voluntary, but to truly represent the travel behaviour of all types of residents in your neighbourhood, we hope that you or a member of your household will choose to participate.

Who is being surveyed? We will be surveying randomly selected households across the City of Vancouver. Only a limited number of invitations are sent out, so your participation is important.

Who is conducting the survey? The City of Vancouver has contracted independent B.C.-based research firm R.A. Malatest & Associates Ltd. to conduct the 2024 survey.

Are there incentives for participation? Participants who complete the survey are eligible to enter a prize draw. You could win one of ten $100 cash prizes or one of 100 $25 e-gift certificates to local merchants. Odds of winning are 1 in 30. The prize draw is administered by R.A. Malatest & Associates Ltd. and will be drawn once the survey administration period is completed.

What day of the week should I report on? We are interested in your travel on the most recent weekday. It is important that you provide a snapshot of what you actually did on that day, even if it was not a typical day, and even if you did not travel.

Who do I contact for more information or for help?

- If you would prefer to complete the survey by telephone, please call **1-855-412-1939** (toll free).
- You may also call the number above for assistance with the online survey, or email us at info@vantripsurvey.ca.
- If you wish to validate the authenticity of this survey you may contact the Traffic and Data Management Branch at the City of Vancouver (transportationdata@vancouver.ca, 604-829-9732).
- For more information about this survey, please visit vantripsurvey.ca.

Please note that your answers to the survey are saved each time you click on the Previous or Next Buttons.

R1. Are you the only person in your household who is 18 years of age or older?
1. Yes
2. No

R2. [if R1=No]
In order to obtain a representative cross-section of the population, it is important that we randomize the selection of the person in your household who completes the survey.

Of all of the people in your household who are 18 years of age or older, are you the person whose birthday comes next?

1. Yes
2. No

R3. [If R2=No]
In order to randomize the selection of the person who completes the survey, we would like to do the survey with the person in your household whose birthday comes next.

If this person is available now:
Please ask this person to complete the survey. If they will use the same computer or mobile device as you are using now, click here to **return to the Introduction**, so that this person can start from the beginning.

If this person is not available now, or will do the survey on another computer or mobile device:

Please ask this person to complete the survey. They can log in at **vantripsurvey.ca** with the secure access code from your household's invitation letter. Your secure access code is: [recall access code].

Or, you can send this person an email invitation. Fill out the email address below and add your own personal message, and click Send Email to have our system send a link to the survey.

Email address: _____
Personal Message: _____
Your name: _____
(please enter your name so that this person knows you sent this to them)

[SEND EMAIL BUTTON]

The email address entered will only be used to send a link with the secure access code for your household. The email address will not be used for any other purpose and will be destroyed after use.

The protection of your privacy is important to us. The secure access code is intended for your household's use only. Do not share your access code with anyone outside your household if you do not want them to have access to your survey answers. Once the survey is complete, access to the survey will be closed and your data will be secure.

Click here to **return to the Introduction**.

[PROGRAMMER: The above page is a cul de sac. It should only have the Previous and Send Email buttons, and no continue button]

R4. [when the send email button is clicked please redirect the survey to the following message:

An email has been sent to the person in your household identified as the next person who will celebrate a birthday.

The goal of the City of Vancouver Transportation Survey is to provide the City with an understanding of where people are going and how they get there by collecting information on the trips made by one member of your household. This information will be used for planning purposes and to make informed decisions on transportation infrastructure.

We ask that the person with the next birthday complete the survey in order to randomize the selection within each household and obtain a representative sample or all types of people in the City of Vancouver.

Click here to **return to the Introduction**.

[PROGRAMMER: this page is also a cul-de-sac]

2. INTRODUCTION – TELEPHONE INTERVIEW – NEW PARTICIPANTS

Hello, my name is _____ , and I am calling on behalf of the City of Vancouver to follow up on an invitation we recently sent you to participate in a major study of the travel patterns of Vancouver residents.

The data collected in this study will help inform decisions to improve transportation infrastructure and services across the region. On this survey, we will ask some questions about the trips made by one member of your household yesterday.

To randomize our interviews, may I speak to the person in your household who is 18 years of age or older and whose birthday comes next?

(INTERVIEWER: Verify 18 years of age or older. If no, ask to talk to appropriate person and restart intro. If person 18+ years with the next birthday is not available, schedule a callback.)

USE FOLLOWING SCRIPTS AS NECESSARY:

The survey will be about the transportation choices people make.

- This survey is about the transportation choices people make. The survey results will be used to help plan improvements to roads, transit infrastructure, and pedestrian and cycling facilities across the region.
- Your household has been randomly selected. The survey is voluntary, but to truly represent the travel behaviour of residents in your area, it is important that you, or someone else in your household who is 18 years of age or older, participate.
- It is important that we complete the survey with a random cross-section of the entire population that is 18 years of age or older. We ask to speak to the person who will next celebrate a birthday to randomize the choice within each household.
- The survey takes about 10-25 minutes depending on your answers.
- The survey contains questions about your household and your demographics. It also asks about the trips you made on a previous weekday, as well as a few opinion questions on transportation issues facing the City of Vancouver.
- Even if you did not make any trips yesterday, it is important that we record that information as well. The survey will be shorter for you.
- I work for R.A. Malatest & Associates Ltd, a professional B.C.-based research firm. The City of Vancouver has contracted our firm to conduct this survey on their behalf.

- If you wish to validate the authenticity of this survey you may contact the Traffic and Data Management Branch at the City of Vancouver (transportationdata@vancouver.ca, 604-829-9732).

- I can send you an email with information about the study, and a link to the website for this study. (If you prefer I can mail you information about the purpose of the survey, and call you back after you have reviewed the information.)

- Participants that complete the survey are eligible to enter a prize draw. You could win one of ten $100 cash prizes or one of 100 $25 e-gift certificates to a local merchant. Your chances of winning a prize are approximately 1 in 30. A total of $3,500 in prizes will be awarded. The prize draw is administered by R.A. Malatest & Associates Ltd. and will be drawn once the survey administration period is completed.

A2. [ONLY ASKED OF TELEPEHONE INTERVIEW RESPONDENTS. ASSUME ONLINE RESPONDENTS HAVE RECEIVED THE LETTER IN THE MAIL IN ORDER TO GET ACCESS CODE TO LOG ON]
Have you received the letter in the mail describing this study?

1. Yes
2. No
3. Don't know

INTERVIEWER: IF RESPONDENT DID NOT RECEIVE LETTER AND WISHES MORE INFORMATION BEFORE PROCEEDING:
I can send you an email with information about the study, and a link to the website for this study. (If you prefer I can mail you information about the purpose of the survey, and call you back after you have reviewed the information.)

3. INTRODUCTION – ONLINE – RETURNING PANELISTS

Welcome back to the City of Vancouver Annual Transportation Survey!

This series of annual surveys helps the City of Vancouver better understand residents' transportation needs and make informed decisions on planning for roads, public transit, cycling, and pedestrian infrastructure.

As a returning survey participant, you'll be entered into a prize draw for **one of ten $100.00 cash prizes and 100 $25.00 e-gift cards to local merchants**. Your odds of winning are approximately 1 in 30. ***[IF TARGET_DEMOGRAPHIC=1:*** **You will also receive a $25.00 e-gift card just for completing this survey!]**

What questions will I be asked? You'll be asked to update some demographic questions you answered last year. You will also be asked about all trips taken on the previous weekday, as well as your opinions on some transportation-related issues in the City of Vancouver.

Will my privacy be protected? Yes. Your survey responses will be combined with others' responses before they are analyzed. Your contact information will only be used to contact you for follow up about the survey. Click here to view our **Privacy Statement**.[PROGRAMMER: open link in new window]

Who is conducting the survey? The City of Vancouver has contracted independent B.C.-based research firm R.A. Malatest & Associates Ltd. to conduct the survey.

Who do I contact for more information or for help?

- If you would prefer to complete the survey by telephone, please call 1-855-412-1939 (toll free).
- You may also call the number above for assistance with the online survey, or email us at info@vantripsurvey.ca.
- Information about the survey is available on www.vantripsurvey.ca [PROGRAMMER: open link in new window]
- Survey results from previous cycles are available here: https://vancouver.ca/streets-transportation/annual-transportation-survey.aspx [PROGRAMMER: open link in new window]
- If you wish to validate the authenticity of this survey you may contact the Traffic and Data Management Branch at the City of Vancouver (transportationdata@vancouver.ca, 604-829-9732).

Please note that your answers to the survey are saved each time you click on the Continue buttons. Click Continue to start the survey.

4. INTRODUCTION – TELEPHONE – RETURNING PANELISTS

Welcome back to the City of Vancouver Annual Transportation Survey!

This series of annual surveys helps the City of Vancouver better understand residents' transportation needs and make informed decisions on planning for roads, public transit, cycling, and pedestrian infrastructure.

As a returning survey participant, you'll be entered into a prize draw for **one of ten $100.00 cash prizes and 100 $25.00 e-gift cards to local merchants**. Your odds of winning are approximately 1 in 30. ***[IF TARGET_DEMOGRAPHIC=1:*** **You will also receive a $25.00 e-gift card just for completing this survey!]**

INTERVIEWER: READ IF NECESSARY

What questions will I be asked? You'll also be asked to update some demographic questions you answered last year. You will also be asked about all trips taken on the previous weekday, as well as your opinions on some transportation-related issues.

Will my privacy be protected? Yes. Your survey responses will be combined with others' responses before they are analyzed. Your contact information will only be used to contact you for follow up about the survey.

Who is conducting the survey? The City of Vancouver has contracted independent B.C.-based research firm R.A. Malatest & Associates Ltd. to conduct the survey.

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- Survey results from previous cycles are available at https://vancouver.ca/streets-transportation/annual-transportation-survey.aspx.
- If you wish to validate the authenticity of this survey you may contact the Traffic and Data Management Branch at the City of Vancouver (transportationdata@vancouver.ca, 604-829-9732).

Please note that your answers to the survey are saved as we go and this call may be recorded for quality control purposes.

Click Continue to start the survey.

5. SURVEY PRIVACY STATEMENT

[available anywhere there is a link to the Privacy Statement]

The survey team is dedicated to protecting the privacy of its participants.

Collection of information for the survey is being undertaken in accordance with Sections 26 through 36 of BC's *Freedom of Information and Protection of Privacy Act (FOIPPA)*. The confidentiality of any information collected is protected under the provisions of the Act.

Any information obtained from each household is processed, stored, and used in a form that does not permit any particular household to be identified. Your survey answers will be aggregated with that of other households when the data are analyzed.

Canadian-based research firm R.A. Malatest & Associates Ltd. is conducting the survey data collection under the direction of the City of Vancouver with the highest standards of the protection of privacy and confidentiality. Click here for a link to the firm's Privacy Policy [URL: https://www.malatest.com/privacy-policy/ [LAUNCH IN SEPARATE WINDOW].

For more information, please contact 1-855-412-1939 (toll free) or email **info@vantripsurvey.ca.**

To contact the City of Vancouver regarding privacy questions or concerns, please send an email to the Traffic and Data Management Branch of the City of Vancouver:
transportationdata@vancouver.ca

Per FOIPPA requirements, your information will be securely retained for at least 12 months after the conclusion of data collection. If you give your permission to be contacted for a follow-up survey, your contact information and linked survey responses will be retained for the purpose of a follow up survey in one year. If after completing the survey you wish to withdraw your consent to collect or retain your information, please email info@vantripsurvey.ca.

For more information about this research study please visit
vantripsurvey.ca .

6. RETURNING PANELISTS – CONFIRMATION OF PREVIOUS INFORMATION

P1. **Do you still live in the City of Vancouver?**

1. Yes
2. No

P2. [P1=no]

What city or town outside the City of Vancouver did you move to?

_____

99. Prefer not to answer

P2X. [P1=no]

You indicated that you no longer reside in the City of Vancouver.
This survey is intended for residents of the City of Vancouver. We have no further questions.
You will still be entered into the prize draw.
If you do live in the City of Vancouver, click Previous to change your answers.
Click Submit to finalize your survey.
[SKIP TO PRIZE DRAW CONFIRMATION]

QCONFIRM

P3. We would like to confirm the information you provided about yourself when you participated in the 2022 City of Vancouver Annual Transportation Survey.
Please carefully review the information below and indicate if anything is different.

Contact Information

Name: [AQNEW_NAME_PREV]
Phone Number: [AWONLINE_PHN_PREV] ext [AQONLINE_EXT_PREV]
Email: [AQONLINE_EML_PREV]

Household Information

Address: [RECALL FROM PREVIOUS SURVEY]
Number of people living in household: [AQNUM_HH1_PREV]

Demographics

Gender:	[AQGENDER_PREV]
Age Range:	[AGE RANGE FROM AGE+1 IF AGE PREVIOUSLY KNOWN, OR PREVIOUS AGE RANGE IF SPECIFIC AGE NOT PREVIOUSLY KNOWN]
Occupation Status:	[Display all categories that applied last time: Work full-time (30+ hours/week), Work part-time (<30 hours/week), Student full-time, Student part-time, Unemployed, Retired, Other: [AQSTUDENT_EMPLOY_PREV]]
Type of Occupation:	[AQOCC_TYPE_PREV] or “Not applicable” if empty
School Attended:	[Recall QSCHOOL_NAME_PREV] or “None” if empty
Workplace:	[Recall if work from home, no fixed address QWORK_LOC_PREV] [Recall Workplace Address from previous survey]

Is all of the above information correct?
1. Yes, everything is correct
2. No, at least one thing is different

[If any detail is incorrect, ask the question again in the survey. If all details are correct, skip the related questions.]

7. HOUSEHOLD INFORMATION

PHONE: **Before we begin, I'd like to let you know that this survey is entirely confidential.**
WEB: **This survey is entirely confidential and uses secure internet protocols.**

Your survey responses will only be analyzed after all personal identifying information has been removed. Survey responses will be aggregated for analysis and will be used only for transportation and city planning purposes.

PHONE: **I am now going to ask you some general questions concerning your household**

B3. Do you or does anyone in your household work for the City of Vancouver?
1. No
2. Yes
3. Not sure

B4. [If B3=1. YES] Please note that while we can include your responses to this study, due to standard contest rules you will not be eligible for any incentives or prizes. Are you still willing to participate?
1. Yes -> proceed with survey
2. No -> Thank and terminate survey.

B1A. **Please provide a phone number and email address you may be reached for follow up about this survey.**

Name: [NAME]
Phone Number: [PHONE NUMBER] Extension: _____
Email: _____

Your contact information will be kept confidential and will not be shared with anyone. We will contact you only in the event we need to verify your responses or to invite you to complete a follow-up survey in another year (if you agree to be contacted again).
Click here to view our Privacy Statement.

B2. [if address exists in sample file AND street address flag=1 (i.e., address is not a mailing address like a rural route or PO Box])]
The home address we have on file for you is listed below. Please verify the address and correct it if necessary. This information is required to identify the location of your trips.

We are interested in the physical address of your home, not your mailing address.

STREET ADDRESS
CITY / TOWN
POSTAL CODE

Confirm address is correct, or edit the fields displayed

1. Yes
2. No
9. Prefer not to answer

B2X. [IF DECLINE TO ANSWER IN B2]

Unfortunately, the survey cannot proceed without an answer to this question. Your participation is very important, and all personal information you provide will be kept strictly confidential. Click here to view our Privacy Statement.

If you are uncomfortable providing us your exact street address and you live in an urban area, you may provide your postal code. If you live in a rural area, please provide your street address, or at least the closest cross-streets.

PHONE: **Rather than terminating the survey, would you reconsider answering this question?**

[if agree, go back to previous question]

[If still refuse:] Thank you for your time. Have a pleasant day / evening.

HomeLat, HomeLong, etc.

HOME_LOCATION

[Map the address provided using Google Maps]

[If no address in sample or if address flag indicates a mailing address such as PO Box and address page was skipped]: **Please provide the address of your place of residence. This information is required to identify the location of your trips. Please do not provide a rural route or a PO Box.**

[If confirmed address on previous page:] [display confirmed address above Google Map]

WEB: **Does the map correctly show where your home address is located? If not, please move the marker to where it is located, or use the Search box to search for your correct address.**

PHONE: CONFIRM WITH RESPONDENT WHAT THE MAP SHOWS: E.g., I am looking at the location on Google Maps. It looks like your home is near the intersection of [STREET] and [STREET]. Is that correct?

LOCATION CAPTURE [HOME COORDINATES]

8. LOCATION CAPTURE MODULE

*The general format of the location capture screen is as follows, modified for each survey question as required. Anywhere the survey indicates **LOCATION CAPTURE** in the survey instrument this format will be used.*

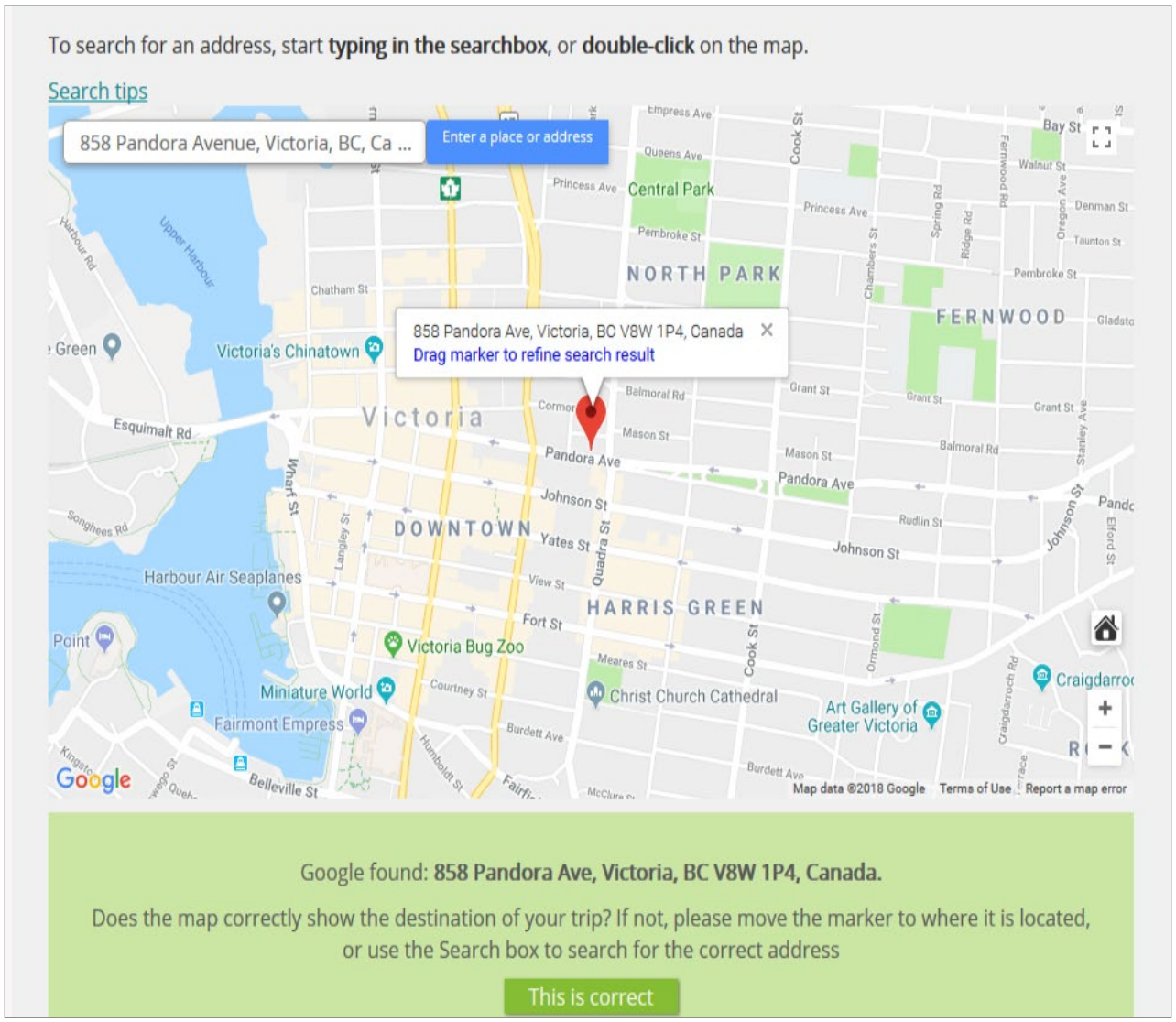
LOC1
- **Home** (display confirmed address, from sample or as captured in the survey)
- your main **work** location (display address captured in survey)
- your **school** (display address captured in survey)
- [previously captured destination #1]
- [previously captured destination #2]

...etc...

- On the road / no fixed location (no fixed place of work) [Work and school location capture only]
- Other location [Google Geocode searches and Google Maps confirmation]
- "Did not take another trip (stayed there the remainder of the day past 3:59 a.m.)"

Example screen shot: First page allows respondent to pick from locations already given by the household, or indicate that it is another location:

Example screen shot: If respondent selects 'Other location' they can provide their location by via Google search, double-clicking on the map, or dragging the marker.



9. HOUSEHOLD INFORMATION (CONT'D)

DwellingType

B3. ONLINE: **Please identify the type of dwelling you reside in:**
PHONE: **What type of dwelling do you live in?**
1. single-detached house (include laneway houses and detached garden suite)
2. row house or townhouse
3. semi-detached house (side-by-side)
4. a secondary suite in a house (e.g., basement apartment or upstairs apartment)
5. on-campus student residence
6. apartment or condominium in a high-rise building (5 or more storeys)
7. apartment or condominium in a low rise building (fewer than 5 storeys)
8. mobile home / movable dwelling
9. residential care or long term care facility
77. other, please specify:_____

DwellingOwnership

B3A. **Do you rent or own your place of residence?**
1. Rent
2. Own
99. Prefer not to answer

NumHouseholders

B4. **How many people are currently living in your household, including yourself?**
(Include children only if living in your household today.
Include roommates, housemates, live-in housekeepers, and lodgers if they share communal facilities. Exclude anyone living in a separate apartment within the building.
Do not include visitors, even if they are staying for an extended period of time.)
___ Total # persons in household
(confirm with respondent)
99. Prefer not to answer [go to B5]

B5. [IF DECLINE TO ANSWER IN B4]
Unfortunately, the survey cannot proceed without an answer to this question. Your participation is very important, and all personal information you provide will be kept strictly confidential. Click here to view our Privacy Statement.
PHONE: **Rather than terminating the survey, would you reconsider providing this information?**
WEB: **Click the Previous button to go back and provide a response, or click End Survey to quit**
[if agree, go back to previous question]
[If still refuse, record as refusal:] Thank you for your time. Have a pleasant day / evening

Num18Plus

B4A. [NumHouseholders>1]

How many people in your household are 18 years of age or older?

___ Total # persons in household 18 years if age or older

99. Prefer not to answer [go to B5]

NumberVehicles

B6. **How many of the following types of vehicles do you own or have regular access to?**

Please include all licensed cars, vans, or light trucks, and motorcycles that are **brought home and parked** overnight but not scooters or bicycles; Do not include car share vehicles.

___ Gas powered passenger vehicles/vans/SUVs/trucks
___ Diesel powered vehicles
___ Hybrid vehicles (gas/electric)
___ Plug-in hybrid vehicles (gas/electric, but can be run on electric only)
___ Electric vehicles
___ Biodiesel
___ Other fuel source (e.g., propane, natural gas)
___ Motorcycles
77. none
99. Don't know

[Note: previous CoV surveys excluded motorcycles, but we have included them as they speak to the transportation options available to household members.]

HomeParking

B7D. **At your current place of residence, how many parking spaces are available to members of your household, excluding parking on city streets or pay-to-park lots (e.g., Easy Park)?**

(If you live in a rental building or condo, include only the number of parking spaces currently owned, rented, or assigned to your household.)

_____ (# of spaces) [allowable range: 0-20]
77. None
99. Don't know

[From this and the # of vehicles, the theoretical pressure on on-street parking and other parking arrangements can be assessed.]

HomeEVCharging

B7E. I have access to EV (electric vehicle) charging where I live, whether at home or close by.

1. Yes
2. No
99. Don't know

NumtBikesAdult, NumtBikesEBike, NumBikesChild

B8. **How many working bicycles and electric bicycles are available to members of your household, including yourself? Please exclude bikeshare bicycles.**

Adult bicycles: ____
Adult E-bicycles: ____
Children's bicycles: ____
99. Don't know

NumEmobility

B8A. Electric micromobility devices like e-kick scooters, e-skateboards and hoverboards are becoming more common. In total, how many of these devices does your household own?

_____
77. None
99. Don't know

10. DEMOGRAPHICS

The next section is about your demographics. You will be asked to provide some information about yourself before moving on to recording your trips in the next section of the survey.

Your responses are entirely confidential. Your personal information will be protected, and any identifying information will be deleted from the data prior to analysis. Click here to view our Privacy Statement.

[PANEL MEMBERS:] If you have confirmed your information from last year's survey as correct, you may get fewer questions in this section. You may also see some questions already filled in with your answers from the last survey you completed. If your answer is unchanged, please click Continue.

Gender

C1. **What best describes your gender?**

[INTERVIEWER: do not ask unless necessary – record only]

1. man
2. woman
3. non-binary
4. prefer to self-describe: _____

9. prefer not to say

Age

C2. **What is your age?**

___

9. prefer not to answer

[Note: Previous CoV surveys asked year of birth. It is easier to adapt our existing template if we can just ask age rather than year of birth. For people who opt in to the panel, we can translate from age to approximate year of birth, and ask for update in subsequent cycles.]

AgeGroupOriginal

C2A. [if not provide specific age] **What age range do you belong to?**

(INTERVIEWER: Read the age ranges, starting at a relevant one)

1. 0 – 17 years
5. 18 – 24 years
6. 25 – 34 years
7. 35 – 44 years
8. 45 – 54 years
9. 55 – 64 years
10. 65 – 74 years
11. 75+ years
99. prefer not to answer

AgeGroupCollapsed

C2B. [if 99 to C2A]

Unfortunately, the survey cannot proceed without an answer to this question. Demographic information such as age is crucial to transportation research. Your participation is very important, and all personal information you provide will be kept strictly confidential. Click here to view our Privacy Statement.

PHONE: **Rather than terminating the survey, would you reconsider answering this question?**

If you are uncomfortable providing us your exact age, please select from the ranges below to continue the survey.

1. 0 – 17 years
3. 18-64 years
4. 65+ years

INTERVIEWER: Go back to previous question if precise range given or select from broad ranges above

[If still refuse:] Thank you for your time. Have a pleasant day / evening.

[Note: ages given in age ranges will be randomly imputed for data weighting and analysis purposes]

C2C. [If age<18 IN C2 or C2A age range=1 or C2B age range =1]
[Cul-de-sac page with only Previous and End Survey buttons]
This survey must be completed by someone 18 years of age or older.
If you are 18 years of age or older, click the Previous button to change your answer.
If you are under the age of 18, please have a member of your household who is 18 years of age or older fill out the survey.

DriversLicence

C3. **Do you currently have a valid driver's licence?**
[mouseover for valid driver's licence: This includes any category of motor vehicle licence, including a temporary learner's permit. Answer 'No' if the licence has expired and has not been renewed or if it has been suspended.]
1. Yes
2. No
99. Prefer not to answer

[PROGRAMMING: even if the panel member has confirmed their occupation status from the last survey, please trigger the occupation status question anyway. It is okay that is prefilled. We would like to make sure that they confirm their occupation status especially if they accidentally skipped it in the confirmations.]

AttendSchool, OccEmployed, Etc.

C4. **Which of the following apply to you? Select all that apply.**
PHONE:
INTERVIEWER: ASK ABOUT BOTH EMPLOYMENT STATUS AND STUDENT STATUS
Are you currently working (i.e., an employee or self-employed)? Is that full-time or part-time?
Do you currently attend school or another educational institution? (K-12 or post-secondary) Is that full-time or part-time?
1. Work full-time (30 or more hours per week)
2. Work part-time (less than 30 hours per week)
7. Volunteer only (not for pay)
3. Student full-time
4. Student part-time
5. Unemployed
8. Looking after home/family
6. Retired [only display if age 40 +]
77. Other, specify: _____

[PROGRAMMING NOTE: cannot select 'unemployed' if work full-time or part-time]

11. DEMOGRAPHICS – SCHOOL DETAILS

FTWorkFTSchool

C4X. [if respondent indicated both f/t student and f/t worker, provide confirmation message:]
From your answers, it appears that you attend school full-time and also work full-time (more than 30 hours per week at your main job). Is this correct?
1. Yes, attend **school full-time** and **work full-time** (more than 30 hours/week)
2. No, attend **school part-time** and **work full-time** (more than 30 hours/week)
3. No, attend **school full-time** and **work part-time** (less than 30 hours/week)
4. Unsure

[PROGRAMMING: even if the panel member has confirmed their school information from the last survey, please trigger this set of school questions again. We would like to confirm the correct name and coordinates for their school using the current geocoding system.]

SchoolType

C4A. [if student]
What kind of school do you attend?
2. Secondary school (high school)
5. College or university
6. Alternate, adult basic education, or other
7. Online / distance learning only, please specify level (high school, college, university, adult basic education: _____)
8. Prefer not to answer

SchoolName

C4B. [if student]
What is the name of your school?
(you can choose from suggestions that appear as you type, or, if none of the suggestions applies, you can type the name exactly as you know it)
1. School Name: _____ [Auto-suggest as you type]
8. Home schooled (does not attend a school outside the home)

[List of K-12 schools obtained from provincial list, supplemented with public post-secondary, and larger private post-secondary]
[Include street address and municipality in description of school location]

SchoolAddress, SchoolLat, SchoolLong, etc.

C4D. [skip location capture if SchoolType = 7. online/distance education or if SchoolName=8. home schooled]
[If not on list] **What is the location of the school?**
[If on list, map location:] **Does this location appear to be correct?** (If it is not correct, please drag the marker on the map, double-click, or use the search bar to find the correct location)

LOCATION CAPTURE [SCHOOL CO-ORDINATES / TAZ]

12. DEMOGRAPHICS – WORK DETAILS

[PROGRAMMING: even if the panel member has confirmed their employment information from the last survey, please trigger the question about their workplace location anyway. We would like to confirm the correct coordinates for their workplace using our current geocoding system.]

WorkAddress, WorkLat, WorkLong, etc.

C6A. [if employed] **What is the address of your normal place of work (main job)? (This is the address of the workplace that you normally commute to, whether regularly or occasionally)** (This is the address of the worksite that you normally commute[s] to every day)

Please only select 'work from home' as your response if you do not work at any other location. If there is an office, business, or other work location outside the home that you regularly go to or report in at, please select 'Work at a workplace…." And use Google maps on the next page to may your work location.

6. Work at a workplace you go to regularly or occasionally (away from home), including hybrid work models (combination or work from home and at a workplace away from home) –> identify address on map
1. Work exclusively from home
3. No fixed workplace address / no usual place of work / work on the road / work site changes daily

LOCATION CAPTURE [WORK CO-ORDINATES / TAZ] – Use Google Maps on the next page to map your work location

PROGRAMMING:
Mouseover on "No fixed workplace address", response option 3: If you regularly work outside the home but do not travel to the same worksite every day, please select "No fixed workplace address". Do not use this option if you work from home all of the time. Do not use this option if you have a fixed workplace address, terminal, or base outside the home that you start or end your day at.

Mouseover on "regularly or occasionally" in response option 6: Even if you are currently working from home most of the time due to the COVID pandemic or hybrid work schedule, identify the workplace you would normally commute to.

CommercialDriver

C7. Are you a commercial driver, that is do you drive or make deliveries as part of your job (e.g., bus or taxi driver, courier, etc.).

1. Yes
2. No

EmployeePrograms

C6L. [if employed]

Do you have access to employee programs that support or provide the following? Check all that apply.

1. Company carpool / car share
2. Employer subsidized transit pass
3. Employer subsidized bike share / Mobi membership
4. Access to bike storage (e.g., bike lockers)
5. EV support (access to electric vehicle charging stations, parking privileges)
7. Employee shuttle to and from transit hubs
8. Emergency ride home program
9. Access to shower/locker facilities at work
10. e-bike / e-scooter charging station
11. Annual active transportation campaigns and promotions
12. Active transportation financial incentive programs
66. Other, specify: _____
77. No, I do not have access to such programs
99. Don't know

[PROGRAMMER: do not allow selection of 77. No and other options]

SchoolPrograms

C6M. [if student]

At your school, do you have access to programs that support or provide the following? Check all that apply.

1. Car share available on school campus
2. School subsidized transit pass
3. School subsidized bike share / Mobi membership
4. Access to bike storage (e.g., bike lockers)
5. EV support (access to electric vehicle charging stations, parking privileges)
7. Student shuttle to and from transit hubs
9. Access to shower/locker facilities at school
10. e-bike / e-scooter charging station
11. Annual active transportation campaigns and promotions
66. Other, specify: _____
77. No, I do not have access to such programs
99. Don't know

[PROGRAMMER: do not allow selection of 77. No and other options]

13. TRIPS INTRODUCTION

D1.
This section consists of questions about the trips you took **during a single weekday** (your Travel Day).

In order to ensure the most accurate recollection of your travel, please use [yesterday/TRAVELDAY] as your Travel Day.

We will ask you about the trips you made on [TRAVEL DAY], that is any trip during the 24-hour period between 4:00 a.m. yesterday ([TRAVEL DAY]) and 3:59 a.m. this morning, whether for work, school, shopping or any other purpose.

This section will have a series of questions for each separate trip.

What is a trip? A trip is a one-way journey from one location to a destination for a single purpose. A trip may include more than one mode of travel, such as car and transit.

- It is important to report **all trips**, even for a short distance, on foot for instance.
- If you stopped off on your way to somewhere else, such as to drop off a child at school or pick up a coffee, then that journey would have two trips. The return portion of a journey is also considered a separate trip.
- Report all trips, whether made by walking, car, truck, bicycle, transit or any other mode of travel.
- [if person is employed:] Report your trips for business meetings and work-related purposes.
- Report recreational outings that end at the same place they started, such as walking the dog or going for a jog.
- Do not report moving around between classes on campus or within the same building complex.

[Recreational trips with no destination (walking the dog, going for a jog) will be captured. However they might be reported on separately, and excluded from the reporting of mode shares, depending on how other jurisdictions do it (for comparability).]

How precise do locations need to be? We will ask you where you travelled to. Please try to describe locations as precisely as possible, to the accuracy of street address. Use the Google Map provided to search for a specific business or place, or double click on the map to set a 'pushpin' marker. You can drag the marker to the exact location. If possible, try to avoid placing markers at intersections – drag them to the actual destination you travelled to.

[if person is employed as a commercial driver (C7=1.YES):]
If you are a commercial driver (bus driver, taxi driver, courier, traveling salesman): You do not have to tell us about the all the work trips you made for commercial deliveries, or while driving a taxi or bus. But please report the following:

- Your first trip to where you started your work day (terminal, office) or your first delivery or stopping point if you started your delivery/work schedule directly from home.
- Your final work-related stopping point if it is different from the one above.
- A return trip to your home or other non-work related location at the end of your work day.
- All personal trips by any mode of travel.

(INTERVIEWER: If the person was out of town yesterday, we can capture their travel if it passed through or ended up in the City of Vancouver).

14. TRIP CAPTURE – START OF TRAVEL DAY

QSTART_HOME

E1. Did your first trip start from home on [Travel Day]?

(Note: Trips include those made via any mode of travel, including all motorized modes of transportation and any non-motorized modes of transportation such as walking, cycling, rollerblading, skateboarding, and so on)
(If SchoolType=college or university: **Do report trips to or from school campuses or any trips made off-campus. Do not report trips moving around between classes on the same campus or within the same building complex.)**

1. Yes, my first trip started from home
2. No, my first trip started somewhere else
3. I did not take any trips [Travel Day]

WhyNoTrips

E1X. [If E1=2 (no trips):]
Why did you not leave home or make any trips [yesterday/TRAVEL DAY]?
1. Out of town for entire day
2. Sick/ill or care for other sick/ill household member
3. Not scheduled for school classes or activities
4. Not scheduled for work or on extended leave from work (paternity/maternity, short-term disability)
5. Worked from home, and did not leave home for any reason
6. No need to leave home
7. Could not leave home, no transportation available
8. [if B3 dwelling type=5 on-campus residence:] I did not leave campus all day.

WhyNoWork1

E1X1. [if employed=yes AND (E1X=3 or 6 or 7 or 8 or 77), regardless of whether work from home or not]
You did not report going to work [yesterday/on TRAVEL DAY].
Were you working at home?
8. [if B3 dwelling type=5 on-campus residence:] No, worked on the same campus where I live, so did not have off-campus trips.
1. Yes, worked from home (telecommuted)
2. No, away on business / working on the road
3. No, did not work
4. No, actually I worked and did take work-related trips
5. Other, specify: _____

E1X2. [if E1X1=4 No, actually I worked and did take work-related trips)]
Please report your trips to and from work, or for work-related purposes, whether you walked or used another mode of travel.
[PROCEED TO E4]

WhyNoSchool1

E1X3. [if a student AND (E1X=4 or 5 or 6 or 7 or 8 or 77), regardless of whether home-schooled or not]
You did not report going to school. Did you attend school [yesterday/on TRAVELDAY]?
8. [if B3 dwelling type=5 on-campus residence:] Yes, attended classes on the same campus where I live, so did not report trips.
1. Yes, did go to school
2. Attended school from home (home schooled, distance learning)
3. No, did not have any scheduled classes, stayed home sick, or did not attend school for another reason
4. No, away on a field trip or other travel
5. Other, specify: _____

E1X4. [if E1X3=1 Yes, did go to school)]
Please report your trips to and from school, or for school related purposes, whether you walked or used another mode of travel.
[PROCEED TO E4]

OriginLat, OriginLon, etc.

E4. **Did your first trip start from home?**

1. Yes, my first trip started from home
2. No, my first trip started somewhere else

OriginNotHomeReason

E4A. [If E4 <> home]

You mentioned that your first trip of the day started at a location other than your home. Is it that you were…?

1. Working a night shift (past 4 am, the start of the travel day)
2. Staying overnight at another household? (friend's, relative's, parent's, etc.)
3. Away from home on business travel?
4. Away from home on vacation (or other personal travel)?
5. Another reason, please specify: _____

E4B. [if E4A=3, 4 (away on business or vacation travel)]

You mentioned that you started the travel day away from home because you were away on business or vacation travel. Did you travel back to the City of Vancouver between 4:00 a.m. [yesterday/TRAVEL DAY] and 3:59 a.m. [today/TRAVELDAY +1]?

1. Yes
2. No

[PROGRAMMER: In E4B above, add a modal pop up to the City of Vancouver: The boundaries of the City of Vancouver include Boundary Road to the east, Burrard Inlet and Vancouver Harbour to north, the Fraser River / Marine Drive in the South, and the edge of the UBC endowment lands in the West (i.e. does not include UBC).

E4X. [If E4B=no]

You said that you were away the entire day due to business or vacation. Since you did not return to the survey area, you do not have to enter trips for this day.

If you did return, please click the Previous button below to change your answer to Yes, and then please report on your travel for the day.

[PROGRAMMING NOTE: if E4B=no, conclude trip capture and log person as "No trips"]

E4C. [If E4=another location and (E4B=yes or E4A=1,2,or 5)]

What was the starting point of your first trip [yesterday/TRAVEL DAY]?

LOCATION CAPTURE [ORIGIN CO-ORDINATES]

15. TRIP CAPTURE – LOCATION, TIME, PURPOSE, MODES

DestLat, DestLong, etc.

E5. [if trip=1:] **Where did you go first?**
[if trip>1:] **Where did you go next?**

If this is a recreational trip where your start and end locations are the same, please select the location you returned to. (Examples of recreational trips are dog walking, jogging, scenic drive with no destination, etc)

[if trip>1 and ORIGIN=Usual Work and CommercialDriver = 1.Yes:] If you left work at any time before the end of your work day, such as to go for coffee or a lunch outside your workplace or for a business errand, please report each trip to such a destination.

[if trip>1 and ORIGIN=Usual School:] If you left school at any time before the end of your school day, such as to go for coffee or a lunch outside or for an errand, please report each trip to such a destination.]

(Note: For trips requiring air travel: please treat the trip to the airport as a separate trip from the trip on the airplane.)
LOCATION CAPTURE [DESTINATION CO-ORDINATES / TAZ]
[WORK LOCATIONS AND SCHOOL LOCATIONS ARE INCLUDED IN LIST OF KNOWN LOCATIONS; And option to end Trip Capture "Did not take another trip (stayed there the remainder of the day past 3:59 a.m.)"]

RecreationTrip

E5R. [if ORIGIN=DESTINATION]
It appears that your origin ([ORIGIN ADDRESS]) and destination ([DESTINATION ADDRESS]) are the same.

Was this a recreational trip such as walking the dog, or going for a jog or bike ride with the same start and end location?
1. Yes
2. No

[if ORIGIN=DESTINATION and RecreationTrip=No]
It appears that your origin ([ORIGIN ADDRESS]) and destination ([DESTINATION ADDRESS]) are the same.

If you are entering trips out of sequence, please continue. Otherwise, if you have missed reporting a stop, please go back and revise your answer.

Modal with a button label that says: *Is this a recreational trip for exercise or walking the dog?*

Modal text on click:

If you walked your dog, went jogging, cycled for exercise, or took a scenic drive with no destination:

- If your start and end locations are the same and you did not stop anywhere along the way, please enter the same destination as where you started your trip. For example, if you left home to walk the dog and returned home, enter home as your destination.
- If you stopped along the way, please enter the place you stopped at.

If you travelled to a specific place where exercise took place, such as a trip to the gym, or a drive to a park where you then went for a hike:

- Please enter the place you travelled to. Your travel to that place is one trip. Your travel leaving from that place to return home or go somewhere else will be a separate trip.

Depart

E2. **At what time did you leave on this trip?**

Please enter a time between 4:00 a.m. the previous day [TRAVELDAY] and 3:59 a.m. [TRAVELDAY+1]

Time: [Dropdown with hours and AM/PM] Minutes: _____ [0-59]

Please provide your best guess if you cannot give the exact time.

Purpose

[if destination selected above = home, assume purpose is RETURN HOME and do not ask this question]

[if RecreationTrip = Yes, assume purpose is 42 Recreational and do not ask this question]

E3. **What was the main purpose of this trip?**

10. Travel to work (usual place of work)
11. Work-related

    [mouseover: Trips to attend meetings, and for other work-related purposes.
    If job hunting or volunteering, please select 'Other'.]
12. Working on the road / itinerant workplace / no fixed work address
20. Attend post-secondary school (university, college, private post-secondary)
30. Attend school (K-12)

    [mouseover: Trips made for the purpose of attending school.
    If driving someone to/from school, select 'Pick up a passenger' or 'drop off a passenger'.
    If parent attending parent-teacher meeting, select 'Other'.
    If work at the school, select Work.]
41. Dining / restaurant (whether eat-in or take-out)
42. Recreational (sports, leisure activity)
43. Social (visiting friends, family, religious)
44. Shopping or household maintenance (grocery, clothing store, auto repair, gas station)
45. Personal business (e.g., bank, dentist, health appointments, personal care, volunteering)
91. Pick up a passenger (e.g., pick up child at school or daycare, pick up someone at work, etc)
92. Drop off a passenger (e.g., drop off child at school or daycare, drop off someone at work, etc)
80. RETURN HOME ([recall address])

888. Other, please specify: _____

E5B. [Include probes to clarify if trip purpose = RETURN HOME but did not select home as destination]

E5C. [Include probes to clarify if trip purpose <> RETURN HOME but select destination=home]

Mode1, Mode2, Mode3, Mode4, Mode5

E7. **How did you get there? Please select up to 5 modes, in order of use.**

If you used more than public transit mode (bus, SkyTrain, SeaBus, West Coast Express), please list them separately in the order you took them.

INTERVIEWER: If Transit bus, Sea Bus, Sky Train or West Coast Express in first mode, probe: how did you get to the bus stop or transit station?
If only one mode, prompt: did you use another mode of transportation?
If answer of "carpooling": was that as a passenger or as a driver?
What was your first mode of transportation?

Mode 1: [select from drop down]
Mode 2: [select from drop down]
Mode 3: [select from drop down]
Mode 4: [select from drop down]
Mode 5: [select from drop down]

1. Auto driver – private vehicle
2. Auto passenger – private vehicle
21. Car share driver (Modo, Evo, etc)
22. Car Share passenger (Modo, Evo, etc)
3. Transit Bus
4. SeaBus
5. SkyTrain
6. West Coast Express
7. HandyDART
8. School bus
9. Personal bicycle
91. Personal e-bike (pedal-assisted electric bicycle)
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)
12. Taxi
15. Ride hailing (e.g., Lyft, Uber, etc.)
13. Motorcycle
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)
17. Other (please specify): _____

[note: response numbering is not in sequence as it matches how modes are already numbered in the underlying programming template]

16. TRIP CAPTURE – TRANSIT

TransitAccessModeCheck

E7A. [if first mode recorded was 3|4|5|6 transit]
How did you get to the bus stop or transit station?
19. Transit station or bus stop was right at or within 50m of my origin (the starting point of the trip: [previous destination])
[+ Same list of modes as above excluding public transit]
1. Auto driver – private vehicle
2. Auto passenger – private vehicle
21. Car share driver (Modo, Evo, etc)
22. Car Share passenger (Modo, Evo, etc)
7. HandyDART
8. School bus
9. Personal bicycle
91. Personal e-bike (pedal-assisted electric bicycle)
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)
12. Taxi
15. Ride hailing (e.g., Lyft, Uber, etc.)
13. Motorcycle
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)
17. Other (please specify): _____

TransitEgressModeCheck

E7B. [If last of the modes recorded was 3|4|5|6 transit (last mode could be in any of Mode2-5)]
How did you get from the bus stop or transit station to your final destination ([destination of this trip])? Or did transit drop you off right at or within 50m of your destination?
19. Transit station or bus stop was right at my destination ([recall current destination])
[+ Same list of modes as above excluding public transit]
1. Auto driver – private vehicle
2. Auto passenger – private vehicle
21. Car share driver (Modo, Evo, etc)
22. Car Share passenger (Modo, Evo, etc)

7. HandyDART
8. School bus
9. Personal bicycle
91. Personal e-bike (pedal-assisted electric bicycle)
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)
12. Taxi
15. Ride hailing (e.g., Lyft, Uber, etc.)
13. Motorcycle
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)
17. Other (please specify): _____

MinutesWalk

E9W. [(If (E7A=11 Walk or 93 Roll) or (E7B=11 Walk or 93 Roll) or (any of Modes 1-5 is 3|4|5|6) or {(any of Modes 1-5 = 11 Walk or 93 Roll) AND (any of Modes 1-5 =a mode other than 11 Walk or 03 Roll)})
or
({Mode1 = 1 driver or Mode1 = 2 auto passenger} and Destination is other than home)
or
(E5R (O=D recreational trip) = 1 yes)]

If (E7A=11 Walk or 93 Roll) or (E7B=11 Walk or 93 Roll) or (any of Modes 1-5 is 3|4|5|6) or {(any of Modes 1-5 = 11 Walk or 93 Roll) AND (any of Modes 1-5 =a mode other than 11 Walk or 93 Roll)}: **In total, about how many minutes did you [AS APPROPRIATE: walk/roll] as part of this trip?**

If {Mode1 = 1 driver or Mode1 = 2 auto passenger} and Destination is other than home: **How many minutes did spend walking to and from parking as part of this trip?**

If E5R (O=D recreational trip) = 1 yes: **How many minutes was this trip?**

____ minutes [PROGRAMMER: Set upper limit = 180 min (to accommodate long hikes)]

99. Unknown

17. TRIP CAPTURE – AUTO DRIVER OR PASSENGER

DriverNoLicence

E19A. [if (E7 mode or E7A or E7B = auto driver OR motorcycle OR car share driver) AND not licensed to drive]

[if auto driver:] **You reported that you were an automobile driver for this trip; however, you previously indicated that you do not have a driver's licence. Which of the following best applies…?**

[if motorcycle:] **You reported that you were traveled by motorcycle on this trip; however, you previously indicated that you do not have a driver's licence. Which of the following best applies…?**

1. I actually have a driver's licence
2. I travelled as a [if motorcycle: motorcycle] passenger, not the driver
3. I travelled as a learning driver
7. Other, please specify: _____

DriverNoHhVehicles

E19B. [If (E7 mode or E7A or E7B = auto driver OR motorcycle OR car share driver) AND no vehicles available to the household (B6=0)]

You reported that you were an automobile driver for this trip; however, you previously indicated that your household has no vehicles available for your use. Which of the following applies…?

1. I drove a work vehicle, rental, or borrowed vehicle
2. I drove a car share vehicle
3. My household actually has vehicles. Please specify how many of each of the following types of vehicles: _____
6. No, I was a actually a passenger, not the driver

VehicleOccupants

E10. [if E7 mode or E7A or E7B = automobile driver OR auto passenger OR car share driver OR car share passenger (look at answers of all of main mode question and of access and egress mode questions)]

How many people were in the car, including yourself?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7 or more
9. Don't know

18. TRIP CAPTURE – WALK

PRGORAMMING NOTE: ASK THESE QUESTIONS FOR ONLY THE FIRST WALK TRIP REPORTED.

WalkRouteSelection

E11. How did you select your walking route?

1. I walked the shortest route to my destination
2. I walked a longer but safer and comfortable route to my destination
3. I walked a longer route I enjoy, sometimes slowing down or stopping at points of interest
9. Don't know

E11A. [If E11=2] What makes your selected route feel safer or more comfortable for walking compared to the shortest route?

1. More accessible sidewalk condition
2. Marked or signalized crossings at busy streets
3. Less or slower vehicle traffic
4. Lighting
5. Weather protection from trees and awnings
6. More places to sit and rest
7. Avoids places that feel unsafe
8. More people walking, cycling, gathering
9. Other. Please specify: _____
99. Don't know

E11B. [If E11= What makes your selected route more enjoyable for walking compared to the shortest route?

1. Street trees and greenery
2. Public spaces and other places of gathering
3. Nice buildings
4. Less and slower vehicle traffic
5. Community amenities
6. More people walking, cycling, gathering
7. Other. Please specify: _____
9. Don't know

19. TRIP CAPTURE – OTHER STOPS

[Note: answers in this section will be used to split original trip record reported into multiple trip records, but will not be included in the final dataset.]

OtherStop

E50. [ask this question if Age>18 and {(Origin=Home and Destination=any householder's work or school) OR (Origin= any householder's work or school and Destination=Home)}. Intent is to capture missed incidental trips during commute trips without forcing respondent to go back and correct previous info.]
In your trip from [ORIGIN] to [DESTINATION], did you make any other stops along the way? (stopped for gas, went through drive-through, picked someone up, or dropped someone off)
1. Yes
2. No

OtherStopLat, OtherStopLong, etc.

E50B. [If E50=Yes]
Where did you stop?
LOCATION CATPURE

OtherStopPurpose

E50C. [If E50=Yes]
Why did you stop there?
[Repeat list of trip purposes]

OtherStopPickup

E50D. [If E50=Yes and E50C = picked someone up and Mode=Driver]
How many people did you pick up there?

___

OtherStopDropoff

E50E. [If E50=Yes and E50C = dropped someone off and Mode=Driver]
How many people did you drop off there?

___

OtherStopArrive

E50F. **What time did you arrive at [location in E50B]?**
Please enter a time between 4:00 a.m. the previous day [TRAVELDAY] and 3:59 a.m. [TRAVELDAY+1]
Time: [Dropdown with hours and AM/PM] Minutes: _____ [0-59]

OtherStopDepart

E50F. **What time did you leave [location in E50B] to go to [E5 DESTINATION]?**

Please enter a time between 4:00 a.m. the previous day [TRAVELDAY] and 3:59 a.m. [TRAVELDAY+1]
Time: [Dropdown with hours and AM/PM] Minutes: _____ [0-59]

20. TRIP CAPTURE – OTHER INFORMATION

TripNotes

E11N.

PHONE: INTERVIEWER: If there is anything unusual about a trip (e.g., round trip from home to home) or the individual trip chains, or if useful information, please make notes here, otherwise proceed to next question without delay. Use only when necessary.

WEB: Please note any exceptions on this trips or issues/errors you may have had (e.g., clarification of location, purpose, etc.)]?

_____

For assistance, please contact 1-855-412-1939 or email us at info@vantripsurvey.ca .

21. TRIP CAPTURE – END OF TRAVEL DAY

NotReturnHome

E13. [if E12 = No AND (destination <> home OR trip purpose <> home)

From your answers, it appears you did not return home.
Just to confirm, were you at this final destination, [RECALL DESTINATION], until at least past 4 a.m. [today/TRAVEL DAY+1] (the end of the travel day)?

1. Did not return home, was at this final destination until past 4 a.m.
2. Returned home (more trips to record) [RETURN TO E12 AND CORRECT ANSWER]

NotReturnHomeReason

E14. [if E14 = 1. yes]

Why did you not return home before the end of the day?
(Note: for this survey, the end of the Travel Day extends past midnight to 4 am the next day)
(We are only asking as a check to ensure that we captured your entire travel)

1. Worked a night shift past 4 am
2. Stayed overnight at another household (whether friend, relative, parent)?
3. Away from home on business travel
4. Away from home for vacation travel
5. Other, please specify: _____

WhyNoWork

E16. [if employed=yes AND did not make a work-related trip AND no trip destination of 'usual workplace' (E5<>main work location) AND E12=777 (No more trips)]
From the trips described, it does not appear that you made any work-related trips. Did you work between 4am Tuesday and 3:59 am Wednesday?
4. Yes, I worked and did take work-related trips
1. Yes, but I worked from home (telecommuted)
2. No, away on business / working on the road
3. No, did not work
5. Other, specify: _____

E17A. [if E16=Yes actually did work)]
Please add your trips to and from work, on the Trips Overview page whether you walked or used another mode of travel.
Please also record any other trips by modes other than walking that you may have missed.
Link to Trips Overview page.

WhyNoSchool

E16A. [if a full-time student AND did not make a school-related trip AND no trip destination of 'school' (E5<>person's own school) AND E12=777 (No more trips)]
You did not report going to school. Did you attend school [yesterday/on TRAVELDAY]?
1. Yes, did go to school
2. Attended school from home (home schooled, distance learning)
3. No, did not have any scheduled classes, stayed home sick, or did not attend school for another reason
4. No, away on a field trip or other travel
5. Other, specify: _____

E17B. [if went to school E16A=Yes and usual school location other than 'home']
Please add your trips to and from school, on the Trips Overview page whether you walked or used another mode of travel. *Link to Trips Overview Page*
Please also record any other trips by modes other than walking that you may have missed.

E20. Your trips can be reviewed and edited on this page before exiting the trip section of the survey. You can also add additional trips here that you may have missed. Can you think of any other trips you made [yesterday/TRAVEL DAY] either during the day or in the evening that we may have missed?
If so, click on Add Trips or use the Edit trip links to edit a trip you've already entered.
If you are done entering trips, click on Go to Household Summary where you can continue through the final questions of the survey once you've finished your trip entries.

Deliveries

E21. **On [TRAVELDAY] did you receive any deliveries at home?**
(Deliveries can include packages, restaurant food, groceries, large goods like appliances, etc.)
1. Yes
2. No

DeliveryTypes

E22. [If e21=1. YES] **How many of each of the following types of deliveries did you receive?**
____ Grocery deliveries
____ Restaurant food
____ Small goods / packages
____ Large goods (e.g., appliances)
____ Other. Please specify: _____

22. OTHER TRAVEL HABITS

Thank you for reporting your travel information for your travel day! The next set of questions asks about your use of different modes and your usual travel habits.

CarShare

C3C. **Are you a member of any car share services? (Check all that apply)**
1. None
3. Modo
5. Evo
6. Other, specify: _____
99. Prefer not to answer
[PROGRAMMING NOTE: None is mutually exclusive from other options]

BikeShare

C3D. **Are you a member of any bike share services? (Check all that apply)**
1. None
2. Mobi (City of Vancouver's bike share system)
3. Lime (North Vancouver's e-bike share system)
77. Other, please specify: _____
99. Prefer not to answer
[PROGRAMMING NOTE: None is mutually exclusive from other options]

SchoolCommute1

C4F. [if student AND SchoolName not Home Schooled AND SchoolType not Online only]
What is your usual mode of transportation at this time of year for trips to or from school as a student? If you usually use more than one mode (such as auto and transit on the same trip), please select the one used for most of the travel distance. Select one only.

1. Auto driver – private vehicle
2. Auto passenger – private vehicle
21. Car share driver (Modo, Evo, etc)
22. Car Share passenger (Modo, Evo, etc)
3. Transit Bus
4. SeaBus
5. SkyTrain
6. West Coast Express
7. HandyDART
8. School bus
9. Personal bicycle
91. Personal e-bike (pedal-assisted electric bicycle)
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)
12. Taxi
15. Ride hailing (e.g., Lyft, Uber, etc.)
13. Motorcycle
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)
17. Other (please specify): _____

WorkCommute1

C6F. [if employed AND regular workplace outside the home (not home or no fixed workplace)]
What is your usual mode of transportation at this time of year for trips to or from work? If you usually use more than one mode (such as auto and transit on the same trip), please select the one used for most of the travel distance. If you alternate between modes on different days, pick the one you use most often. Select one only.

1. Auto driver – private vehicle
2. Auto passenger – private vehicle
21. Car share driver (Modo, Evo, etc)
22. Car Share passenger (Modo, Evo, etc)
3. Transit Bus
4. SeaBus
5. SkyTrain
6. West Coast Express
7. HandyDART
8. School bus
9. Personal bicycle

91. Personal e-bike (pedal-assisted electric bicycle)
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)
12. Taxi
15. Ride hailing (e.g., Lyft, Uber, etc.)
13. Motorcycle
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)
17. Other (please specify): _____

TelecommuteFreq&CommuteFreq

C6L. [if employed AND regular workplace outside the home (not home or no fixed workplace)]
Thinking about last week, which days did you telecommute (work from home instead of commuting to your regular workplace) and which days did you commute to work?
If you worked from home and drove to work on the same day, you may select both.

	Telecommute	Commute to Work	N/A – did not work
1. Monday	☐	☐	☐
2. Tuesday	☐	☐	☐
3. Wednesday	☐	☐	☐
4. Thursday	☐	☐	☐
5. Friday	☐	☐	☐
6. Saturday	☐	☐	☐
7. Sunday	☐	☐	☐

99. Prefer not to answer

OtherUsualMode

C15. **What is your usual mode of travel for trips for shopping, meeting friends and family, recreation, and other non-commute purposes? (i.e., trips other than travel to/from work and school). If you use more than one mode, please choose the one you use most often.**
1. Auto driver – private vehicle
2. Auto passenger – private vehicle
21. Car share driver (Modo, Evo, etc)
22. Car Share passenger (Modo, Evo, etc)
3. Transit Bus
4. SeaBus
5. SkyTrain
6. West Coast Express
7. HandyDART

8. School bus
9. Personal bicycle
91. Personal e-bike (pedal-assisted electric bicycle)
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)
12. Taxi
15. Ride hailing (e.g., Lyft, Uber, etc.)
13. Motorcycle
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)
17. Other (please specify): _____

TransitFreq

C16. **How often do you typically travel by public transit? Public transit includes TransLink buses, SkyTrain, SeaBus, or West Coast Express.**

1. At least 5 days per week
2. 2 to 4 days per week
3. One day per week
4. Two or three days per month
5. One day per month or less
6. I do not use public transit
99. Prefer not to answer

TransitFreqReasons

C16A. [If C16=3,4,5,6]
[If C16=6] **Why do you not use transit? (Select all that apply)**
[If C16=3,4,5] **Why do you not use transit more often? (Select all that apply)**
[Programmer: Randomize list items 1-12]

1. Transit takes too long
2. Too many transfers
3. Too far to walk to transit stops
4. Transit departure times are not convenient
5. Wait times at transit stops are too long
6. I am uncomfortable/feel unsafe on transit
7. I don't find transit dependable / too many service delays
8. Cost
9. Concerns about COVID-19 on public transit
10. Poor health, disability or accessibility concerns
11. I primarily walk / the places I go are within easy walking distance
12. I prefer driving
77. Other, please specify: _____
99. Don't know / prefer not to answer

WalkFreq

C17. **How often do you typically walk (to destinations and/or for recreation)?**

1. At least 5 days per week
2. 2 to 4 days per week
3. One day per week
4. Two or three days per month
5. One day per month or less
6. I do not walk
99. Prefer not to answer

WalkFreqReasons

C17A. [If C17=3,4,5,6]
[If C17=6] **Why do you not walk? (Select all that apply)**
[If C17=3,4,5] **Why do you not walk more often? (Select all that apply)**
[Programmer: Randomize list items 1-6]

1. The places I go are too far away
2. Nothing to see or do on the way
3. Routes are not accessible (e.g. narrow sidewalks, uneven surfaces)
4. Routes are not comfortable (e.g. too much traffic, not enough places to sit and rest, not enough shade)
5. I do not feel safe
6. Not enough people walking, cycling and gathering to feel safe
7. I have a disability or travel with a person with disability and cannot walk long distances
77. Other, please specify: _____
99. Don't know / prefer not to answer

C17B. [IF C17=3,4,5,6] **What would encourage you to choose walking more?**
[Programmer: Randomize list items 1-8]

1. People to meet and places to visit on the way
2. Places to sit and rest
3. Trees and awnings to protect from sun and rain
4. Lighting when it is dark
5. More even surface
6. Continuous waking path
7. Slower traffic or separation from vehicles
8. More destinations nearby
9. Other, please specify: _____
99. Don't know / prefer not to answer

23. PERCEPTIONS

Please indicate the extent to which you agree or disagree with the following statements. Please use a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

[Programmer: randomize order]

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Unsure
Where I live, I can reach many of the services and amenities I need by walking	❍	❍	❍	❍	❍	❍
I feel more comfortable travelling in a private car than using other modes like transit, walking, or cycling.	❍	❍	❍	❍	❍	❍
I would feel safe cycling on streets in my area	❍	❍	❍	❍	❍	❍
I would feel safe walking on streets in my area	❍	❍	❍	❍	❍	❍
I would feel safe taking transit to the places I need to travel to	❍	❍	❍	❍	❍	❍

24. CHILD(REN) SECTION

C21. **[if # of household members is not = to 1 / do not display for 1 person HHs]**
How many ELEMENTARY SCHOOL-aged children (4 to 12 years old) are in your household?

1. None
2. 1
3. 2
4. 3
5. 4
6. 5

99. Prefer not to answer

[PROGRAMMING: If C21 = 1 [none] skip to C32]

C22. **[if # of household members is not = to 1 / do not display for 1 person HHs]**
How does your child/or children in ELEMENTARY SCHOOL usually get to and from school?
[PROGRAMMING: Add one column per child, based on response to C21]

	Child 1	Child 2	Child 3	Child 4	Child 5
2. Auto passenger – private vehicle	☐	☐	☐	☐	☐
22. Car Share passenger (Modo, Evo, etc)	☐	☐	☐	☐	☐
3. Transit Bus	☐	☐	☐	☐	☐
4. SeaBus	☐	☐	☐	☐	☐
5. SkyTrain	☐	☐	☐	☐	☐
7. HandyDART	☐	☐	☐	☐	☐
8. School bus	☐	☐	☐	☐	☐
9. Personal bicycle	☐	☐	☐	☐	☐
91. Personal e-bike (pedal-assisted electric bicycle)	☐	☐	☐	☐	☐
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)	☐	☐	☐	☐	☐
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)	☐	☐	☐	☐	☐
12. Taxi	☐	☐	☐	☐	☐
15. Ride hailing (e.g., Lyft, Uber, etc.)	☐	☐	☐	☐	☐
13. Motorcycle passenger	☐	☐	☐	☐	☐
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)	☐	☐	☐	☐	☐
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)	☐	☐	☐	☐	☐
17. Other (please specify): _____	☐	☐	☐	☐	☐

C23. How many SECONDARY SCHOOL-aged children (13 to 18 years old) are in your household?

7. None
8. 1
9. 2
10. 3
11. 4
12. 5
99. Prefer not to answer

[PROGRAMMING: If C23 = 1 [none] skip to C32]

C24. **How does your child/or children in SECONDARY SCHOOL usually get to and from school?**
[PROGRAMMING: Add one column per child, based on response to C21]

	Child 1	Child 2	Child 3	Child 4	Child 5
1. Auto driver – private vehicle	☐	☐	☐	☐	☐
2. Auto passenger – private vehicle	☐	☐	☐	☐	☐
22. Car Share passenger (Modo, Evo, etc)	☐	☐	☐	☐	☐
3. Transit Bus	☐	☐	☐	☐	☐
4. SeaBus	☐	☐	☐	☐	☐
5. SkyTrain	☐	☐	☐	☐	☐
7. HandyDART	☐	☐	☐	☐	☐
8. School bus	☐	☐	☐	☐	☐
9. Personal bicycle	☐	☐	☐	☐	☐
91. Personal e-bike (pedal-assisted electric bicycle)	☐	☐	☐	☐	☐
92. Bike Share bicycle or e-bike (e.g., Mobi, Lime)	☐	☐	☐	☐	☐
11. Walking (incl. wheelchair, medical mobility scooter, or other assistive device)	☐	☐	☐	☐	☐
12. Taxi	☐	☐	☐	☐	☐
15. Ride hailing (e.g., Lyft, Uber, etc.)	☐	☐	☐	☐	☐
13. Motorcycle passenger	☐	☐	☐	☐	☐
93. Personal micromobility device (e.g., kick scooter, skateboard, inline skates, unicycle)	☐	☐	☐	☐	☐
94. Personal electric micromobility device (e.g., e-kick scooter, e-skateboard, hoverboard, e-unicycle/mono-wheel)	☐	☐	☐	☐	☐
17. Other (please specify): _____	☐	☐	☐	☐	☐

25. FINAL DEMOGRAPHICS

We have some final demographic questions that will help us better understand the transportation needs of different populations on the City of Vancouver.

PhysicalActivity

C32. **Taking into account work, recreation, and activities around your home, which of the following best describes your lifestyle and level of physical activity ....?**
[PHONE: ONLY READ TEXT IN BRACKETS IF NECESSARY TO CLARIFY]
1. Sedentary (desk job, little or no exercise)
2. Light physical activity (on your feet some of the day, light exercise once or twice per week)
3. Moderately active (on your feet most of the day, moderate exercise 3 to 7 times per week)
4. Very active (walking most of the day, hard exercise almost every day)
99. [DISPLAY FOR BOTH ONLINE AND PHONE; BUT FOR PHONE, DISPLAY INSTRUCTION PHONE: DO NOT READ:] Prefer not to answer

Income

B9. WEB: **Which of the following ranges best describes your household's total income last year? (Please consider all sources of income for all household members, before taxes)**
PHONE: May I ask which of the following ranges best describes your household's total income last year? (Consider all sources of income, before income taxes)? (INTERVIEWER: read answers until confirmation)

This information is useful for transportation planning purposes, to get a better understanding of the travel patterns of different types of households. Your answers will remain entirely confidential. Click here to see our Privacy Statement.

1. $0 to less than $25,000
2. $25,000 to less than $50,000
3. $50,000 to less than $75,000
4. $75,000 to less than $100,000
5. $100,000 to less than $150,000
6. $150,000 or more
99. Prefer not to answer

[The ranges above would have, in the 2016 Census year (5 years ago), divided City of Vancouver households into six income groups of: 19%, 20%, 20%, 13%, 15%, and 15% of all households.]

RacialIdentity

[Ask only to new recruits]

C40. **What is your racial identity? (Select all that apply)**

[Telephone:] **Which of the following best describes your racial identity? You may pick more than one.**

10. Indigenous, for example, First Nations, Inuit, or Metis
1. Asian - East (e.g. Chinese, Korean, Japanese)
2. Asian - South East (e.g. Vietnamese, Cambodian, Malaysian, Filipino)
3. Asian - South Asian (e.g. Indian, Pakistani, Sri Lankan, Bangladeshi)
4. Asian - West (e.g. Iranian, Afghan, Turkish)
5. Black (African, Caribbean/Latin America, Canadian/American)
6. Hispanic or Latin American (e.g. Chilean, Cuban, Brazilian, Mexican)
7. Middle Eastern / North African (e.g. Arab, Egyptian, Kurdish, Persian)
8. White (e.g. European – English, Italian, Ukrainian, French)
77. Other, please specify: _____
88. Don't know [MUTUALLY EXCLUSIVE]
99. Prefer not to answer [MUTUALLY EXCLUSIVE]

[PROGRAMMER: Please make the examples in brackets mouse-over hover text, but leave the examples for Indigenous]

Why do we ask this question? By comparing this question to the Census, this question will help use understand whether we have surveyed a representative sample of the entire population. It will help us better understand the different transportation needs and travel patterns of all residents of the City of Vancouver, including how difficult or easy it is for recent immigrants to travel around our region. This question, like other question on the survey, is entirely voluntary.

[Telephone:] INTERVIEWER: If the respondent asks more questions or is challenging: I only have the explanation I have given you. If you would like more information or have concerns, I can put you in touch with a researcher (provide project contact). If you are not comfortable with the question, we can move on to the next question.

ImmigrationStatus

C41. **Were you born in Canada? If you were born in another country, how long ago did you immigrate?**

1. Born in Canada / Canadian citizen at birth (even if born outside of Canada)
2. Immigrated within the last 5 years (2020 or after)
3. Immigrated 5 to 10 years ago (2014-2019)
4. Immigrated 10 to 15 years ago (2009-2013)
5. Immigrated more than 15 years ago (before 2008)
6. Not a permanent resident of Canada (student visa, visitor, other status)
99. Prefer not to say

Why do we ask this question? By comparing this question to the Census, this question will help us understand whether we have surveyed a representative sample of the entire population. It will help us better understand the different transportation needs and travel patterns of all residents of the City of Vancouver, including how easy or difficult it is for recent immigrants to travel around our region. This question, like other questions on the survey, is entirely voluntary.

[Telephone:] INTERVIEWER: If the respondent asks more questions or is challenging: I only have the explanation I have given you. If you would like more information or have concerns, I can put you in touch with a researcher (provide project contact). If you are not comfortable with the question, we can move on to the next question.

VehicleType

B7B. [if # household vehicles>=1 and has drivers licence]
What type of motor vehicle do you usually drive for personal use?
1. Passenger vehicle
2. SUV
3. Pick-up truck or van
4. Motorcycle
5. Medium duty commercial truck or cube van
6. Heavy duty truck or tractor
7. Other, please specify: _____
8. Not applicable / I almost never drive
9. Prefer not to answer

VehicleFuelType

B7B. [if # household vehicles>=1 and has drivers licence]
What is the fuel type of the vehicle you usually drive?
1. Gasoline
2. Diesel
3. Hybrid (gas/electric)
4. Plug-in hybrid
5. Electric-only
6. Biodiesel
77. Other, please specify: _____
99. Prefer not to answer

B7C. **What is the make and model of the vehicle you usually drive?**
If you cannot find your make or model, select 'Other' then type in the answer.
[PROGRAMMER: if possible, Filter Model based on selection of Make; for both make and model, trigger display of open-ended field on selection of "Other"]

Make: [drop down list of makes] _____

Model: [drop down list of models] _____

VehicleKmEntry

B21 **We would like to better understand how many kilometers residents drive in a year, as it helps to provide a measure of fuel consumption and emissions, which impact air quality and climate change.**

Would you like to enter your odometer reading right now, or send yourself a link to enter it later? We can email or text you a link, so that you can fill out the odometer reading in your car with your smartphone or tablet, if you choose.

1. Enter my odometer reading right now
2. Email me a link to enter my odometer reading later to this email address: _____
3. Text me a link to this phone number: _____
4. I prefer not to provide my odometer reading

[PROGRAMMER: ALSO SET UP SEPARATE FORM THAT ALLOWS THE ENTRY OF THE ODOMETER READING TO THE SAME DATA FIELD IN THE HOUSEHOLD TABLE, SO THAT THEY CAN STILL MAKE AN ENTRY EVEN AFTER THIS FORM IS SUBMITTED AND CLOSED FROM FURTHER ACCESS. IF THE RESPONDENT CHOOSES TO BE SENT A LINK TO ENTER THEIR ODOMETER READING, EMAIL OR TEXT A LINK TO THEIR CASE IN THE SEPARATE FORM. EMAIL TEXT:
Subject: City of Vancouver Transportation Survey Odometer Reading
Please use the following link to enter the current odometer reading for your vehicle: [Link]
SMS TEXT: City of Vancouver Transportation Survey Odometer Reading: Please use the following link to enter the current odometer reading for your vehicle: [Link]
THE CASE IN THEIR SEPARATE FORM SHOULD BE GENERATED BY THE TIME THEY REACH THIS POINT IN THE SURVEY]

VehicleKm, VehicleYear

B22 [If VehicleKmEntry=1]
Please enter the current odometer reading for your vehicle to the nearest 100 km. If unsure, you may check the vehicle and return to enter it later.

_____

What is the year of manufacture of your vehicle? This will help determine how many km are driven each year, on average.

_____

VehKmEst

B23 **About how many kilometres would you estimate this vehicle is driven per year?**
_____ km
99. Unsure/cannot estimate

SurveyNotes

B10A. **Did you have any difficulty reporting your trip information? Or do you have any comments about the information you provided on your survey?**

_____

99. No

INTERVIEWER: Do not ask the respondent if they have any final comments to make. Do not record any information here unless it pertains to potential issues in the trip data collected (e.g., you think you made an error in capturing trips, or the system did not perform as expected).

26. PRIZE DRAW

PrizeDraw

F1. **Participants in the survey are eligible to enter a prize draw. A total of $3,500 in prizes will be awarded. Would you like to enter into the draw?**

INTERVIEWER: If more information requested

Prizes include:

- 10 $100 cash prizes
- 100 $25 e-gift certificates to local merchants.

Your chances of winning a prize are about 1 in 30. The prize draw is administered by R.A. Malatest & Associates Ltd. and will be drawn once the survey administration period is completed.

1. Yes
2. No

PrizeDrawName, PrizeDrawPhone, PrizeDrawEmail

F2. [If yes]

PHONE: **May I confirm your name and phone number and email address, so that we can contact you to let you know if you have won?**

WEB: **Please confirm your name and phone number, so that the survey administrator can contact you at this phone number in the event your name is selected in the prize draw.**

BOTH PHONE AND WEB: An email address is required to receive a gift card. Your contact information will be kept confidential and will be used only to contact you in the event your name is selected in the prize draw. If you cannot provide an email address, we will attempt to contact you by phone. If we cannot reach you, we may not be able to provide you your prize.

Name: _____ [prepopulate with first name, if respondent provided their name earlier]

Phone: _____ [prepopulated with household phone number. Allow edits in case respondent wants to be contacted at another number]

Email:_____ [prepopulate with household email, allow edits]

27. PANEL ENROLMENT

[Ask if new recruit, do not ask if already a panel member]

Panel

B11. One of the goals of this annual survey is to understand and track changes in Vancouver residents' travel patterns over time. We would like to conduct follow-up transportation surveys with you in the future. There will be a separate prize draws for each survey you participate in.

In order to do follow-up surveys with you, your contact information and linked survey responses would need to be retained by the City of Vancouver until the next transportation survey.

Your privacy is important to us. Your survey responses will be stored securely and your contact information will only be used to contact you for future transportation surveys. Click here to see our Privacy Statement.

Do you agree to allow the City of Vancouver to securely store your contact information and linked survey responses for the sole purpose of conducting follow-up transportation surveys with you?

1. Yes
2. No

28. UNDER 40 INVITE

UNDER40_INVITE_1

[If HH size is >1 and R3 ≠ 1]

Is there anyone else living in your household that is between the ages of 18 and 39 years old?

1 --Yes
2 – No
99 – Prefer not to answer [return to survey]

UNDER40_INVITE_2 (NO EMAIL SENT)

[If UNDER40_INVITE_1 = 1]

We would like to invite one additional household member between the ages of 18 and 39 to participate in the survey. As a reward, you would receive an additional entry into the prize draw; the other

household member that completes the survey would also be eligible for the prize draw if they complete the survey.

To invite another member of your household to participate please select one of the following options:

1 -- Send an email invitation and a link to complete the survey
2 -- Provide this person's contact information so that we may contact them by phone
3 -- Create a survey access key that you can provide to this household member to access the survey via login from the project website at https://vantripsurvey.ca
99 -- No thanks; take me to the end of the survey.

UNDER40_INVITE_2
[UNDER40_INVITE_2=1]

Great! To send an email, please enter your qualifying household member's name, age and email address below and we will send them an email invitation when the 'continue' button is clicked

Your privacy is important to us. This contact information will be stored securely and will only be used to send this person a link to complete a survey. **View our privacy policy.**

Household member's name:

Household member's age:

Your name:

Message to the household member:

Email address:

99 – No Thanks [return to survey]

UNDER40_INVITE_3
[UNDER40_INVITE_2=2]

Great! Please enter your qualifying household member's name, age and phone number below and we will contact them to invite them to participate in the survey.

Your privacy is important to us. This contact information will be stored securely and will only be used as an invitation to complete a survey. **View our privacy policy.**

Household member's name:

Household member's age:

Your name:

Household member's phone number:

99 – No Thanks [return to survey]

UNDER40_INVITE_4

[UNDER40_INVITE_2=3]

Great! We have created a special access key for your household member: **TELKEY01**

Your household member may use this access key to begin their survey at: http://www.vantripsurvey.ca

Please click 'Continue' to finish completing the survey and enter the prize draw

29. CONCLUSION

Please click on the Submit button to submit your survey answers and conclude the survey.
After you click Submit, you will no longer be able to edit your answers.

That concludes the 2021 City of Vancouver Transportation Survey.
Thank you very much for your participation!

Your survey answers have been saved. Click here to see our Privacy Statement.

[PROGRAMMER: IF HAS VEHICLE AND B22 (ODOMETER READING) IS EMPTY:
If you still need to fill in your odometer reading, you can do so here: Link]

If you wish to change any of your answers, or if you have any concerns about the survey, please contact **info@vantripsurvey.ca** or **1-855-412-1939**

PHONE ONLY: That concludes the survey. Thank you very much for your cooperation. Have a pleasant day/evening.

For more information about the survey, please visit: **vantripsurvey.ca**

30. Email

Email for phone interview staff to send to respondent requesting a link or more information or so that respondent can send their own survey link to themselves with "send yourself an Email function" in footer.

Sender display name = vantripsurvey@malatet.com

Subject Line = 2024 City of Vancouver Transportation Survey

2024 City of Vancouver Transportation Survey

[Date]

Thank you for your interest in the 2024 City of Vancouver Transportation Survey. This email gives you some more information about the survey and your next steps to participate.

Your household has been randomly selected to represent your community in this survey. It is important that your household take part in this survey to assist the planning of transportation services to meet your future needs as well as the needs of your community. Information collected in the past has informed decisions regarding future transportation plans and investments in your community.

Completing the Study

You may complete the survey online. To access your survey and begin entering basic information about your household, please go to vantripsurvey.ca and enter your secure access code to login.

Your **secure access code** is: **[access code]**

You can also complete the survey by phone. Call **1-855-412-1939** (toll free) to complete the survey with one of our professional interviewers.

Privacy and You

Your survey responses will be anonymous, and all information collected will be kept strictly confidential. Your responses will be combined with other responses in your area and used to identify travel patterns. No information collected through this survey will be able to be traced to your household. If you have any questions, please call us at 1-855-412-1939or email us at info@vantripsurvey.ca, or visit our web site at www.malatest.com. See our full privacy policy here.

Your household's involvement in this project is critical to its overall success. Thank you for your assistance in completing this important survey.

This email has been sent to you at your request or the request of someone in your household. Your email address will not be used for any other purpose than contact with you regarding this survey. The protection of your privacy and your personal information is important to us. If you believe you have received this email in error, or if you do not wish to receive any further contact, please let us know at info@vantripsurvey.ca*.*

Appendix B: Survey Invitations

Letter Invitation & Brochure to New Recruits

Log in at
www.vantripsurvey.ca
Your secure access code is
[Access Code]

[City Logo]

Dear City of Vancouver Resident:

I'm pleased to let you know that you have been randomly selected to participate in the **City of Vancouver Transportation Survey**. Your participation will go a long way in shaping how your community moves.

This is the 12th year of the City of Vancouver's Transportation Survey. The goal of the survey is to identify and track trends in transportation, including daily trips made, modes of transportation used, and vehicle-kilometres travelled. By understanding how, where, and why residents travel within the City of Vancouver, we can better plan our future transportation system and services.

You can complete the survey in two ways:

- Take the survey online at **www.vantripsurvey.ca** using the secure access code at the top of this letter, OR
- Over the phone by calling the survey toll-free hotline at **1-855-412-1939**.

You may also receive a phone call requesting your participation.

B.C.-based research firm R.A. Malatest & Associates Ltd. will be conducting the survey on behalf of the City of Vancouver. All information that you provide will be kept strictly confidential. Your personal information will not be shared with any other individual or organization, in accordance with the Freedom of Information and Protection of Privacy Act.

As a thank you for your participation, you will have a 1-in-30 chance to win one of 110 prizes ranging from $25 to $100! Details on the prize draw are available once you access the survey.

Thank you for your participation and contribution to ensuring an inclusive, healthy, prosperous, and livable future for Vancouver.

Sincerely,

On mobile? Use the QR code.

Paul Storer, P.Eng.

Director of Transportation

You've been randomly selected to tell us about your daily travel patterns, which will be used to guide our future transportation planning. It's a huge opportunity to make a real difference.

SHAPE YOUR CITY

The goal of the survey is to better understand travel patterns and preferences and track progress towards goals and targets outlined in the City of Vancouver's Transportation 2040 Plan. The information you provide will be used to make informed decisions on policies and projects related to transportation and travel behaviour.

PRIZE DRAW

As a thank you for your participation, you will have a 1-in-30 chance to win one of 110 prizes ranging from $25 to $100! *Details on the prize draw are available once you access the survey.

PRIVACY

Your survey data will remain confidential and will only be analyzed when combined with the information of other participants.

ABOUT US

The City of Vancouver Transportation Survey is commissioned by the City of Vancouver.

R.A. Malatest & Associates Ltd., a professional BC-based research firm, has been hired to conduct the survey data collection.

**Prizes are administered by R.A. Malatest & Associated Ltd. and will be drawn after the survey is completed*

For assistance with the survey, or any questions about the survey process, please contact R.A. Malatest & Associates Ltd. at

E-mail: info@vantripsurvey.ca
Toll-free survey hotline: 1-855-412-1939

FIND MORE INFORMATION HERE:

https://vantripsurvey.ca

2024 Vancouver Transportation Study

SHAPE YOUR CITY

1-IN-30 CHANCE OF WINNING A PRIZE DRAW

CITY OF VANCOUVER

TELL US HOW YOU MOVE

Why should I participate?

By sharing your voice, you ensure that the services we design reflect your lifestyle and aspirations. This survey serves as your platform to influence policies and initiatives that shape your daily commute—now and in the future.

If you're under 30, your perspectives are especially important because young people tend to be underrepresented in survey research. Help us change that by making your voice heard today!

How do I participate?

You can participate in one of two easy ways:

- Complete the survey online by logging in with the secure access code provided on the letter.
- Give us a call at 1-855-412-1939

WE WANT TO LEARN:

About You

We're interested in learning more about who you are. Some of the key questions include:

- Your age and gender
- Do you have a driver's licence?
- Where is your workplace or school?
- How do you usually travel to work, school, or for recreation?

About How You Travel

We want to understand your travel habits. Here's what we'll ask:

- The origin and destination of your trips
- Departure and arrival times
- Reason for making the trip (e.g. work, shopping)
- Mode of travel (e.g. walking, cycling, transit, car share)

About Your Household

Tell us a little bit about the people you live with and your household setup:

- Type of dwelling (house, townhouse, or apartment)
- Number of people in your household
- Number of vehicles and bicycles available for personal use
- Use of car or bike share programs

Email Invitation to Returning Panelists

Email Subject line: 2024 City of Vancouver Transportation Study
Sender Email: vantripsurvey@malatest.com

Hello and welcome back to the City of Vancouver Annual Transportation Survey!

Last year, you completed a transportation survey for the City of Vancouver and agreed to be part of an ongoing panel to help the City better understand transportation needs and address transportation issues for area residents. Your input will assist the City in making informed decisions regarding future transportation plans and investments.

As a returning panelist, we are looking forward to hearing from you on the trips you make and how you travel over a one-day period. Even if your travel patterns have not changed from last year, your input as a returning panelist on the trips you make is still important. The survey runs from September until the end of November.

You can complete the survey in two ways:

- Login at **www.vantripsurvey.ca** using your secure access code: **[Access Code]**

  OR

- Complete the survey interview over the phone by calling the survey toll-free hotline at **1-855-412-1939** .

As a thank you for your participation, you will have a chance to win one of 110 prizes ranging from $25 to $100! Your chances of winning are about 1 in 30. Details on the prize draw are available once you access the survey.

B.C.-based research firm R.A. Malatest & Associates Ltd. is conducting the survey on behalf of the City of Vancouver. All information that you provide will be kept strictly confidential. Your personal information will not be shared with any other individual or organization, in accordance with the Freedom of Information and Protection of Privacy Act.

If you have any questions about the survey, please reply to this email.

Thank you for your continued participation and contribution to ensuring an inclusive, healthy, prosperous, and livable future for Vancouver. Additional information and survey results from previous cycles are available here: https://vancouver.ca/streets-transportation/annual-transportation-survey.aspx

Need Help? Reply to this email (info@vantripsurvey.ca) or call us at **1-855-412-1939** with your secure access code: **[Access Code]**

Your involvement in this research is critical to its overall success. Thank you for your assistance in completing this important survey.

This email has been sent to you because you agreed to receive emails about the City of Vancouver's Annual Transportation Survey. Your email address will not be used for any other purpose than contact with you regarding this survey. The protection of your privacy and your personal information is important to us. If you believe you have received this email in error, please let us know at info@vantripsurvey.ca.

To unsubscribe from receiving email reminders, please click here [hyperlink to unsubscribe page]

Appendix C: Unweighted and Weighted Counts for Selected Demographics

For reference purposes, the table below provides Census counts for key household and demographic indicators, along with unweighted survey counts, and expanded survey counts. In the VTS, dwelling type and household size were included as controls in the weighting of household-level information, while age and gender were additionally included as controls in the weighting of person-level information.

Statistic	Category	Census counts scaled for population growth since the Census	Unweighted sample (n households or persons)	Weighted and expanded survey result (rounded)
Private households	Households	329,199	3,362	329,200
Adult population	Population 18+ years	604,051	3,362	604,100
Dwelling type	House	48,431	1,403	49,100
	Apt 5+ Storeys	101,914	850	101,900
	Apt <5 Storeys	102,466	657	102,400
	Other Ground-Oriented	75,734	452	75,900
Household size	1 person	128,989	1,095	129,500
	2 persons	108,696	1,321	109,300
	3 persons	41,679	439	42,000
	4 persons	31,355	316	31,600
	5+ persons	18,334	191	16,900
Household income	$0 to less than $25,000	35,416	118	15,700
	$25,000 to less than $50,000	55,374	362	41,200
	$50,000 to less than $75,000	53,255	405	39,100
	$75,000 to less than $100,000	44,990	474	49,500
	$100,000 to less than $150,000	58,456	589	58,200
	$150,000 or more	73,548	770	72,500
	Decline / don't know		644	53,100
Age*	18 - 24 years	50,961	91	50,200
	25 - 29 years	72,195	136	67,600
	30 - 34 years	74,417	149	77,500
	35 - 39 years	61,555	189	56,500
	40 - 44 years	48,494	179	53,900
	45 - 49 years	45,331	207	42,800
	50 - 54 years	48,286	279	50,600
	55- 59 years	47,648	301	37,400
	60 - 64 years	42,396	370	52,400
	65 - 69 years	37,146	394	33,100
	70 - 74 years	32,281	428	36,400
	75 - 79 years	19,738	338	24,800
	80 - 84 years	14,490	194	13,700
	85 - 89 years	9,497	84	5,900
	90 - 94 years	4,211	17	1,000
	95 - 99 years (census) / 95+ survey data	988	6	300
	100+ (census)	97		
	**Census counts are for total population, including residents of collective dwellings; the VTS sample frame only includes residents of private dwellings.*			

Statistic	Category	Census counts scaled for population growth since the Census	Unweighted sample (n households or persons)	Weighted and expanded survey result (rounded)
Gender*	Men+, 18+ years of age	295,881	1,644	291,400
	Women+, 18+ years	313,850	1,718	312,600
	**Census counts are for total population, including residents of collective dwellings; the VTS sample frame only includes residents of private dwellings.*			
Immigration status	Born in Canada / Canadian citizen at birth	360,001	2,207	398,100
	Within the last five years (Census 2011-early 2016, survey 2020-late 2024)	44,087	53	22,200
	5-10 years ago (Census 2006-2010, survey 2014-2019)	29,137	72	30,300
	10-15 years ago (Census 2001-2005, survey 2009-2013)	58,306	50	16,400
	More than 15-years ago (Census before 2001, survey before 2009)	162,136	899	119,900
	Non-permanent residents	45,433	12	4,100
	Refused		69	13,100
Racial identity / population group	Not a visible minority (White, Aboriginal)	319,692	2,163	352,000
	East Asian	200,447	589	117,700
	Southeast Asian	60,111	80	18,100
	South Asian	46,939	68	16,200
	West Asian	10,558	17	4,300
	Black	6,952	10	2,200
	Latin American	17,650	33	10,700
	Middle Eastern/ North African	2,277	17	3,700
	Multiple	13,684	113	33,800
	Other	1,492	50	7,500
	Don't know		2	200
	Refused		222	37,800
Occupation status	Work Full-Time		1,393	320,900
	Work Part-Time		382	51,900
	Student Full-Time		41	25,900
	Work Part-Time / Student Full-Time		28	14,100
	Student Part-Time		8	3,200
	Work Full-Time / Student Part-Time		23	8,700
	Work Part-Time / Student Part-Time		6	2,500
	Retired		1,282	120,700
	Unemployed		78	29,000
	Other		119	25,700
	18+ yrs High School Student		2	1,400
Total employed labour force*	Total workers	387,389	1,832	398,100
	** note that Census data include persons 15+ years of age and were captured during the height of the COVID-19 pandemic; VTS results include persons 18+ years of age*			

Statistic	Category	Census counts scaled for population growth since the Census	Unweighted sample (n households or persons)	Weighted and expanded survey result (rounded)
Workplace location*	Work from home	132,791	345	72,600
	Usual place of work	209,474	1,352	298,800
	No fixed workplace address	42,583	135	26,700
	Worked outside Canada	1,191		
	** note that Census data were collected during the height of the COVID-19 pandemic*			
Usual mode of travel for journey to work*	Auto Driver	128,089	482	91,000
	Auto Passenger	12,663	44	9,200
	Transit	57,592	251	71,900
	Bicycle	12,274	119	25,000
	Walked	32,269	126	33,000
	Other	4,831		
	** Note that Census data were collected in May 2021 at the height of the COVID-19 pandemic and are for all workers 15+ years of age; the VTS data were collected in the Fall and are for workers 18+ years of age.*			