Dalhousie University Commuter Study 2017 (Fall)

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Prepared for:
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1. INTRODUCTION

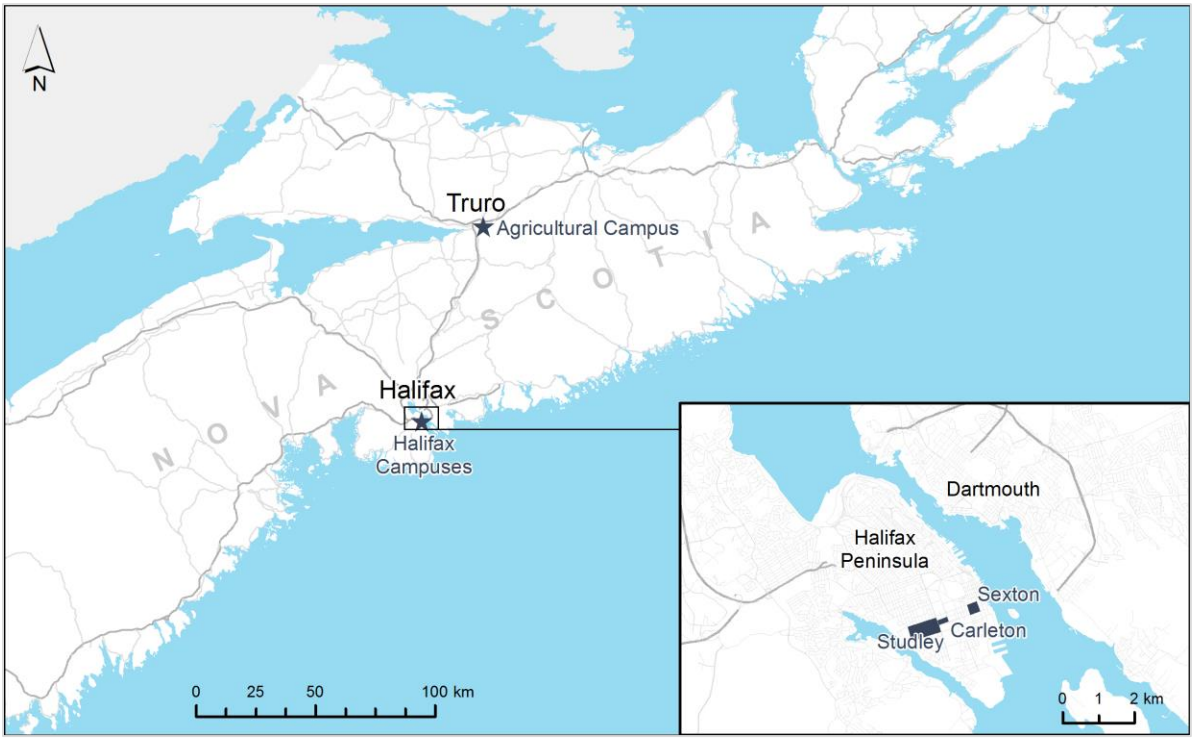
The annual Dalhousie Commuter Survey, conducted by the university's Office of Sustainability, asks thousands of Dalhousie students, staff and faculty about their commuting habits. Conducted since 2009, the survey is an ongoing measurement of the university community's adoption of sustainable transportation options. The 2018 survey is the largest and most representative survey yet. This report presents an analysis of survey results.

1.1 About the University

Dalhousie University is a prominent research and teaching institution in Nova Scotia and one of Canada's oldest universities. It comprises four campuses: three Halifax campuses with around 18,000 students combined and the Agricultural campus in Truro, NS, with around 850 students (Figure 1-1). Dalhousie employs around 1000 faculty and over 5000 non-faculty staff members.

The University laid out its commitment to sustainability in 2009 with its Sustainability Policy, which pledged to "contribute to and model long-lasting sustainable solutions" and recognized sustainability as a process involving continual monitoring and improvement. One key action area in Dalhousie's sustainability plan is sustainable transportation.

Figure 1-1: Dalhousie University campus locations



Since 2009, Dalhousie has undertaken efforts to encourage members of its community to make more sustainable transportation decisions. In partnership with the Halifax Regional Municipality's SmartTrip program, the University has developed a multifaceted approach to incentivizing more sustainable transportation choices. For example, the program provides employee bus passes to encourage transit use and providing reserved parking spaces to encourage carpooling. The Office of Sustainability also promotes active transportation, for instance through the Dalhousie Bike Centre.

1.2 About the Commuter Survey

The Dalhousie Commuter Survey is a tool to monitor the University's progress toward sustainable transportation. Started in 2009 as a result of the Sustainability Policy, the survey regularly asks respondents about their commuting mode choice, commute duration, and access to vehicles and bicycles. It also measures the frequency and mode choice of intercampus travel, and usually includes questions relevant to current sustainable transportation initiatives, such as bicycle lanes. Results from previous surveys have informed decisions on sustainability programs at Dalhousie, for instance supporting the decision to establish a summer student bus pass.

The survey has been conducted each academic year since 2009-10 (Figure 1-2). It is usually held in the fall semester, though in 2016-17 it was conducted in March 2017. The current survey, covering the 2017-18 academic year was conducted from October 16 to November 15, 2017. The survey has varied in size over the years. While about three-quarters of the Dalhousie community are students, the commuter survey usually underrepresents students relative to faculty and staff.

Figure 1-2: Survey responses by academic year

Year	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18
Students	1322	315	329	713	767	719	517	865	1975
Staff	1291	436	547	618	717	604	474	472	668
Faculty				188	252	185	139	205	204
Alumni/other	-	-	-	-	-	-	-	-	41
No answer	-	-	277	161	255	441	609	608	249
Responses	**2613**	**751**	**1153**	**1680**	**1991**	**1949**	**1739**	**2150**	**3137**
Completed	-	-	-	1374	1630	1508	1110	1690	2700

The 2017 Fall Dalhousie Commuter Survey is the largest the university has conducted, with over 3000 responses and 2700 completed surveys. It also has a high proportion of student responses. For the first time, the proportion of student responses (68% of identified respondents) is close to the true proportion of students in the Dalhousie community. The results are largely in line with trends from previous surveys, though some are influenced by the increased proportion of student responses. The remainder of this report presents our analysis of the commuter survey data.

2. RESPONDENT INFORMATION

2.1 Role, Classification and Campus

The large majority of respondents were students, followed by staff and faculty groups as shown in Figure 2-1. The proportion of student respondents has grown dramatically in the last two years, with a corresponding decrease in the proportions of staff and faculty respondents. However, the absolute number of staff and faculty respondents has increased modestly over the last two years. The larger sample size and increase in the proportion of student responses is driven by the number of student responses more than doubling from the 2016-17 survey.

Figure 2-1: Respondent role

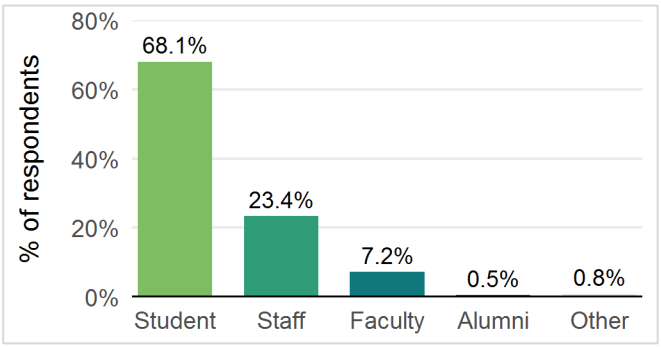
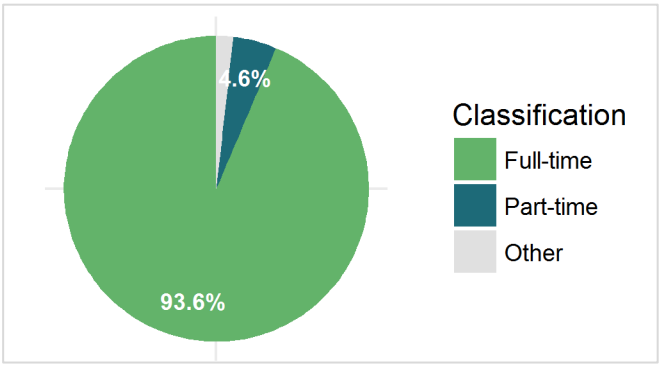
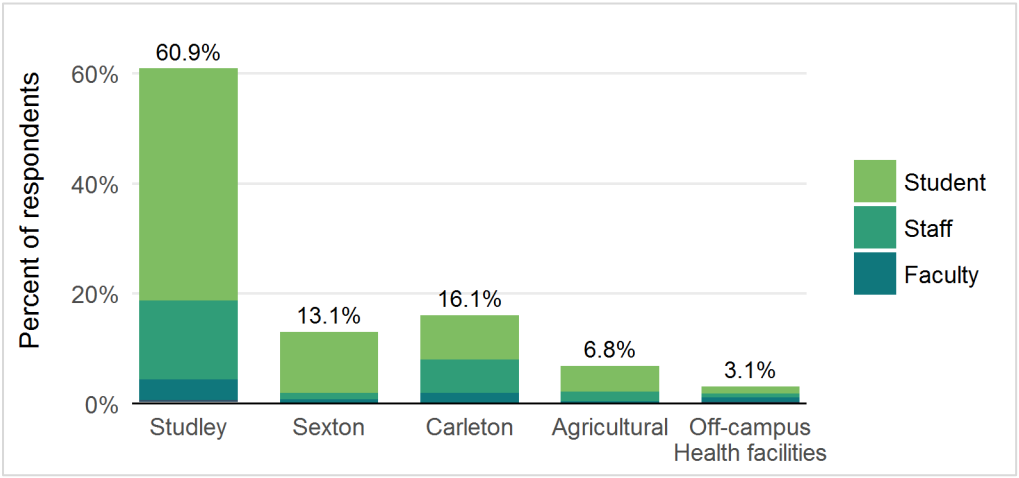


Figure 2-2: Respondent classification



Almost all respondents classify themselves as full-time (Figure 2-2), and the majority of respondents are based out of the Studley campus (Figure 2-3). The proportion of full-time and part-time respondents and the distribution of respondents by campus has remained stable over the last few survey years.

Figure 2-3: Primary campus distribution



2.2 Demographics

Across students, staff and faculty, female respondents outnumbered male respondents by more than two to one (Figure 2-4). This pattern is consistent with previous years' commuter surveys. A small proportion of respondents identified outside the gender binary.

Figure 2-4: Gender distribution

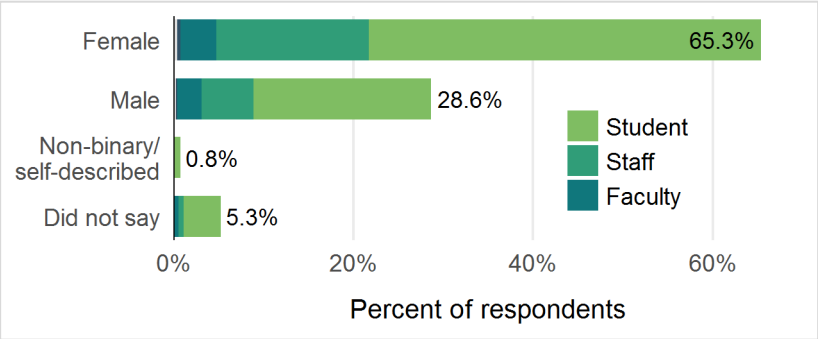
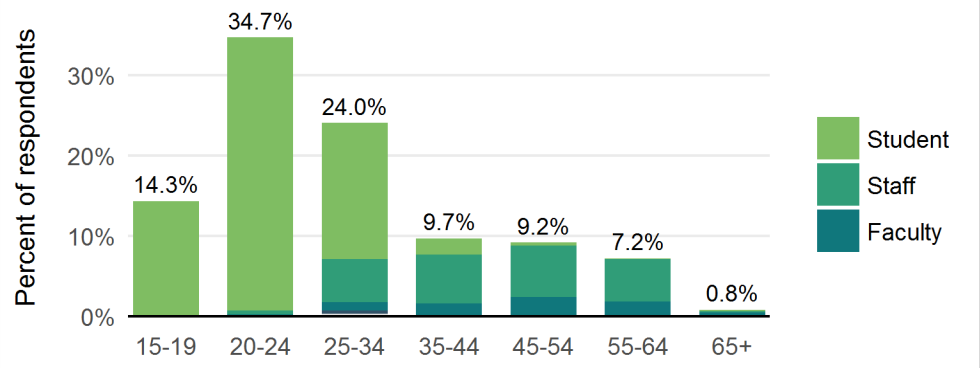
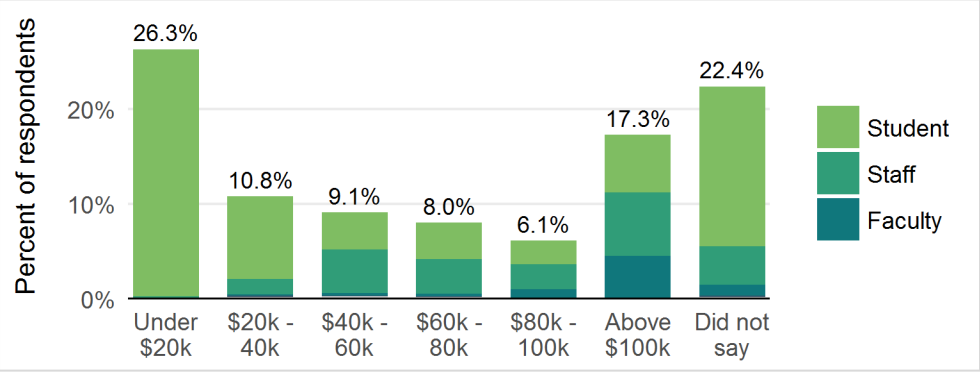


Figure 2-5: Age distribution



As shown in Figure 2-5, student respondents were predominantly in or around their 20s, while staff and faculty respondents mainly ranged from 25 to 65. Students also tended to have incomes under $40,000 per year, while most faculty earned more than $100,000 per year. Staff respondents reported a range of income levels.

Figure 2-6: Annual household income distribution



2.3 Home Location

Respondents' home locations were mapped based on their postal codes (Figure 2-7). Most respondents live near their primary campus; those living further away may have given a permanent address.

Figure 2-7: Respondents' home locations

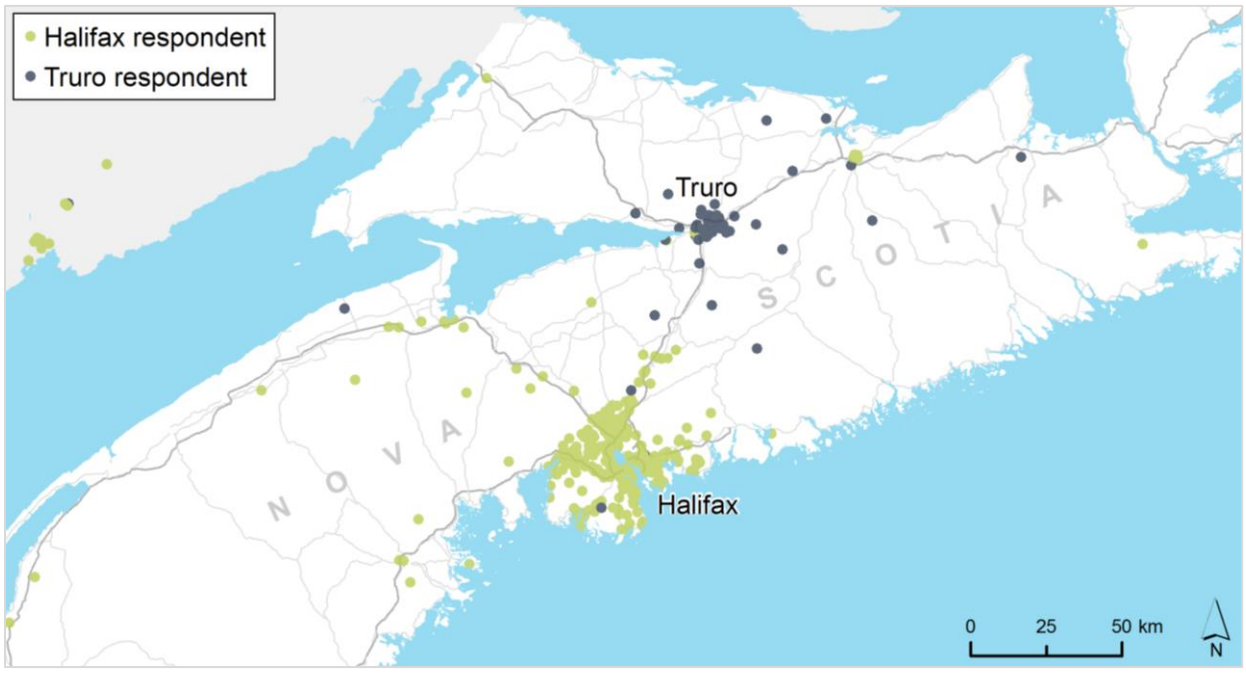


Figure 2-8: Density of Agricultural campus respondents in Truro area

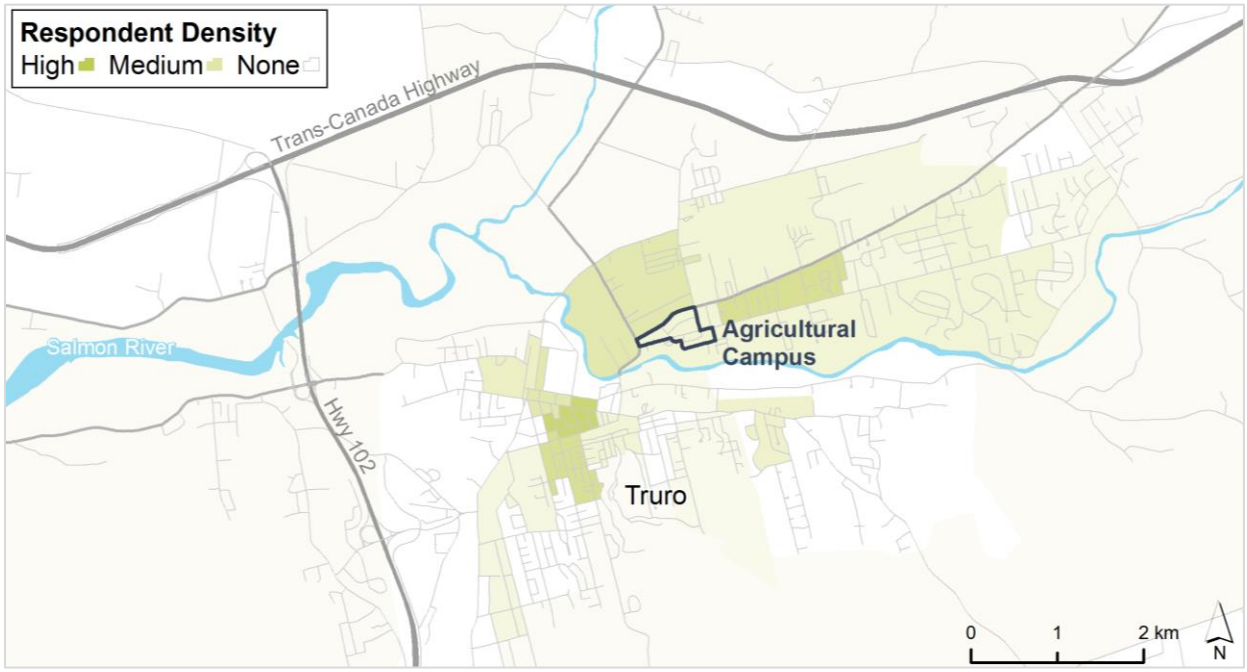
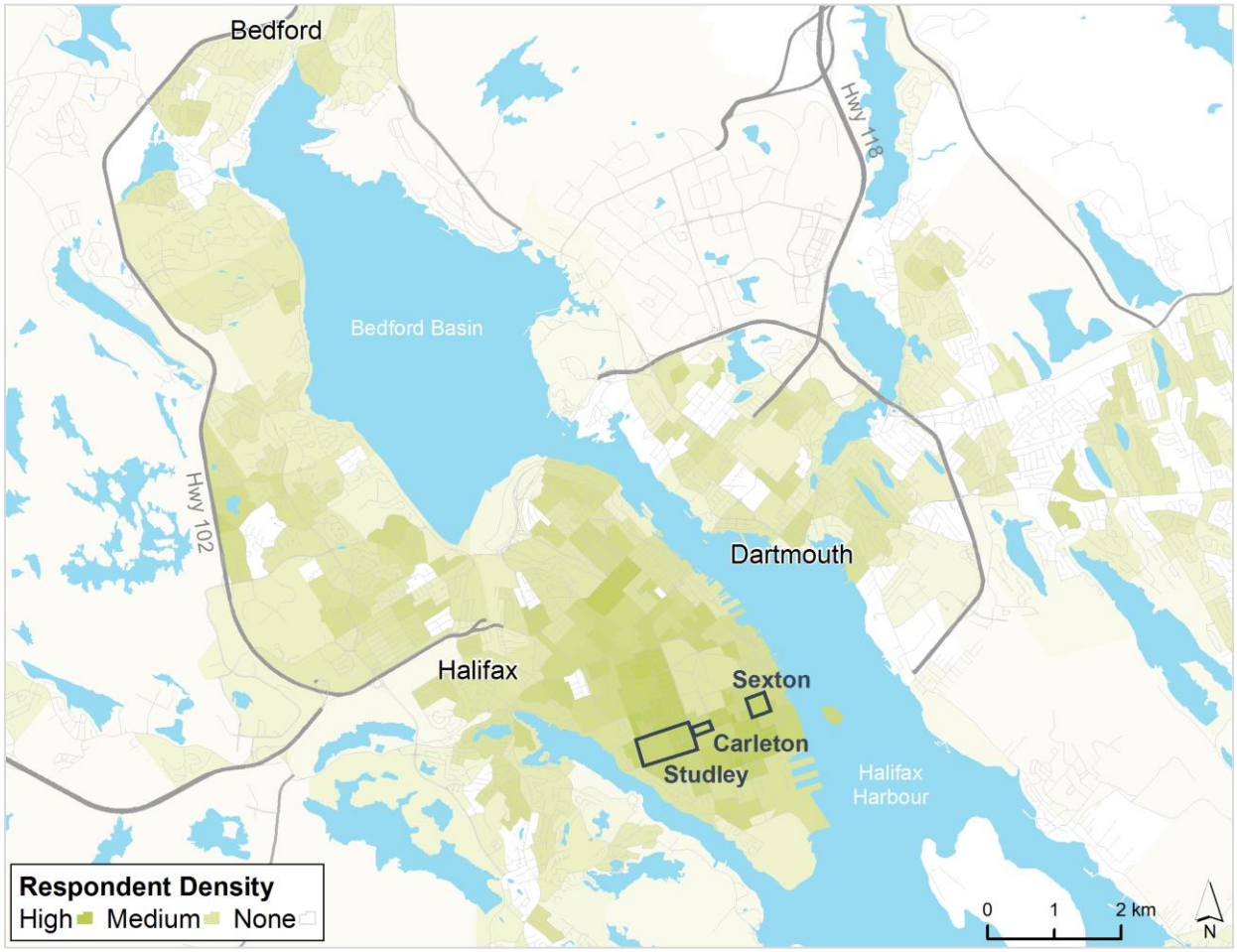


Figure 2-8 shows the distribution of Agricultural campus respondents in the Truro area. Many Agricultural campus students live in the residential parts of Bible Hill, the community to the north-east of Truro that contains the campus. A relatively high proportion also live in the residential areas surrounding Truro's downtown.

For the University's Halifax campuses, Figure 2-9 shows the distribution of their respondents in the Halifax area. The south-end residential areas surrounding the three campuses have the greatest density of respondents. Respondents are underrepresented in areas on both ends of the socioeconomic spectrum. Disadvantaged communities such as Dartmouth North and Spryfield had few responses, as did well-off neighbourhoods such as Glenbourne and Woodlawn. Respondents tend to live in areas with higher-density housing options, such as the area around the Halifax Forum.

Figure 2-9: Density of Halifax campus respondents in Halifax area



2.4 Vehicle and Bicycle Access

About half of all respondents own a vehicle, and three-quarters have access to one (Figure 2-10). As shown in Figure 2-11, vehicle access differs by respondents' role at the University. Staff and faculty predominantly own cars. Students are much less likely to own a vehicle, though many can get a ride or borrow a vehicle. The large majority of respondents who cannot access a vehicle are students.

Carshare membership remains relatively low among all groups of respondents. While alumni had a high carshare proportion, it is based on a small sample.

Figure 2-10: Vehicle access

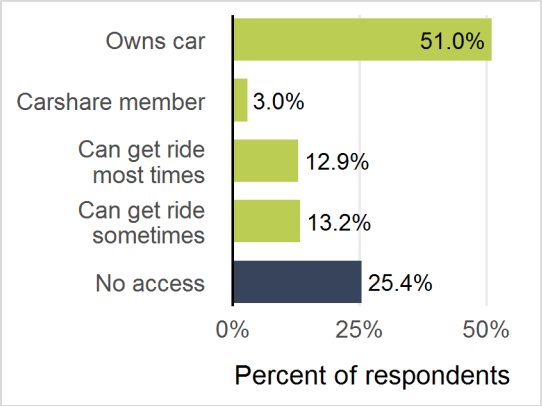


Figure 2-11: Vehicle access by role

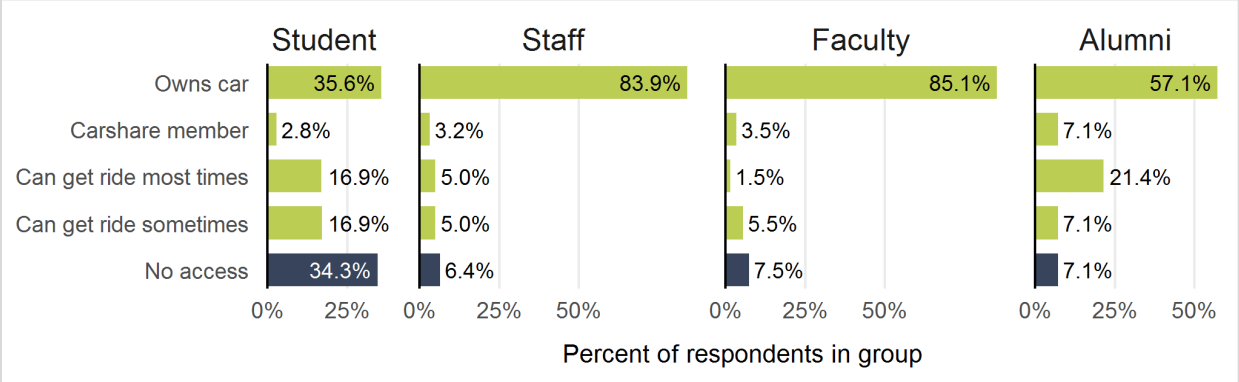
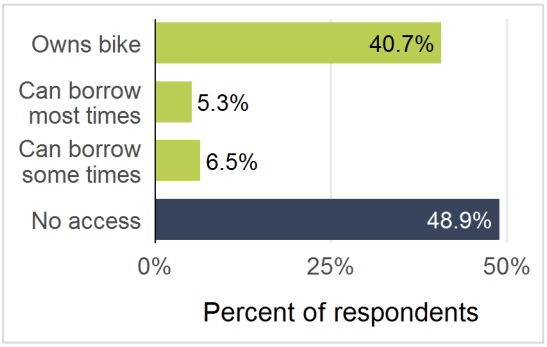
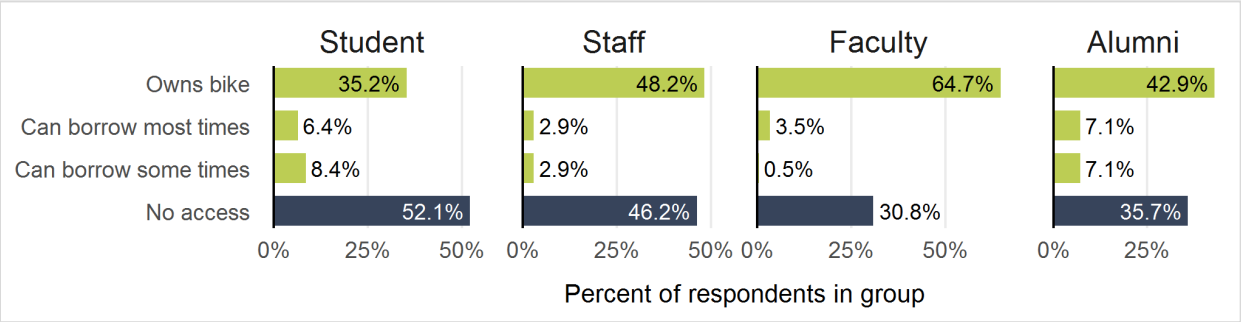


Figure 2-12: Bicycle access



About half of all respondents have access to a bicycle, as shown in Figure 2-12. Ownership and access to a bicycle is also distributed unevenly by respondent role (Figure 2-13). Students are least likely to have access to a bike, while faculty are most likely. The proportion of all groups who borrow bicycles is low.

Figure 2-13: Bicycle access by role

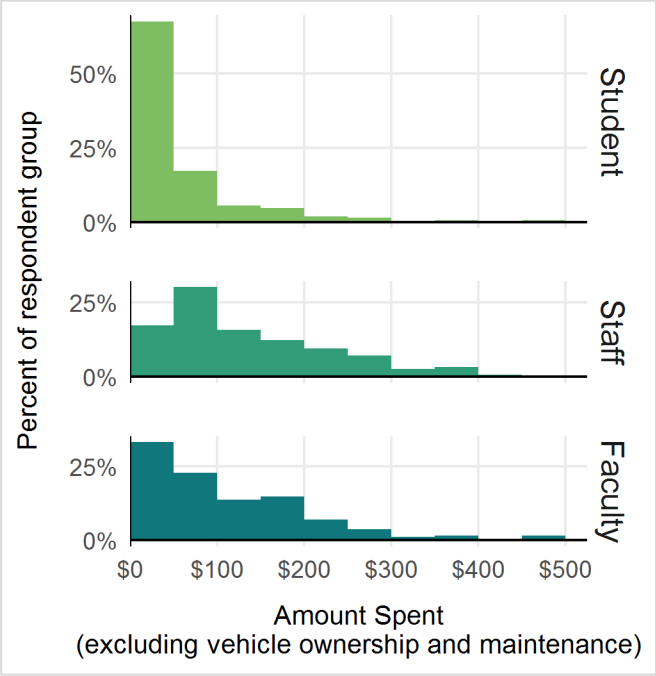


2.5 Travel Spending

Respondents reported their average monthly travel expenditure, shown as histograms in Figure 2-14. Travel spending included direct expenses such as gas and parking for auto commuters but did not include the costs of owning and maintaining a vehicle.

Students spend the least on travel, with a median monthly expenditure of $25. The median faculty member spent $100 and the median staff member reported $120 of spending.

Figure 2-14: Average monthly travel spending by role



3. COMMUTE TO AND FROM DALHOUSIE

The primary focus of the Dalhousie Commuter Survey was to record the characteristics of student, faculty and staff trips to and from campus. This section describes the various aspects of respondents' commutes: mode choice, distance, duration, and timing. It also discusses parking and interest in carpool options.

3.1 Primary Mode

The survey defined primary mode as the method of transport used 70% or more of the time to get to and from campus. Walking is the Dalhousie community's predominant mode of commuting, as seen in Figure 3-1.

Figure 3-2 breaks down mode distribution by respondent role. Most students walk or take public transit, while few drive. Conversely, most staff drive alone or accompanied, while fewer take public transit or walk.

Figure 3-1: Primary commute mode

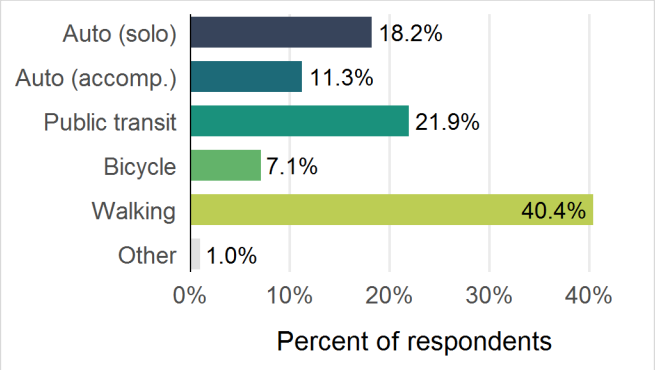


Figure 3-2: Primary commute mode by role

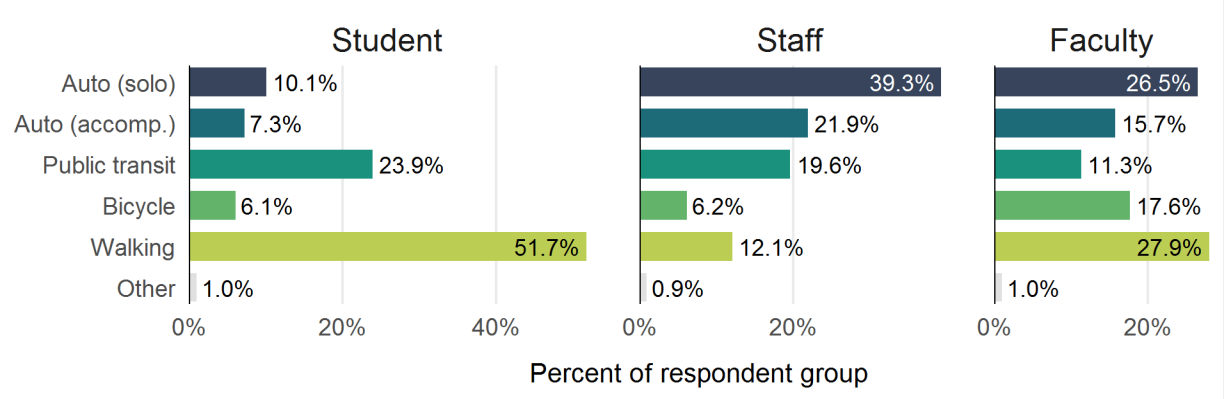
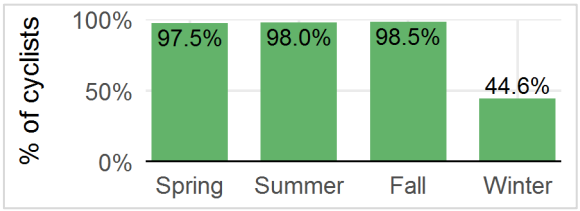


Figure 3-3: Seasonality of bicycle commuting

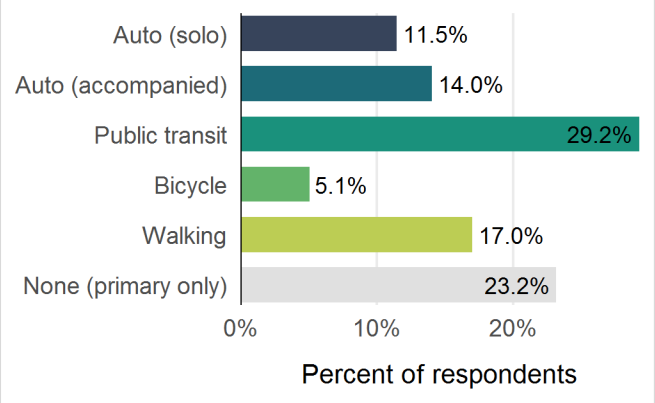


Bicycle commuters tend to cycle between spring and fall, though about half report that they cycle year-round (Figure 3-3).

3.2 Secondary Mode

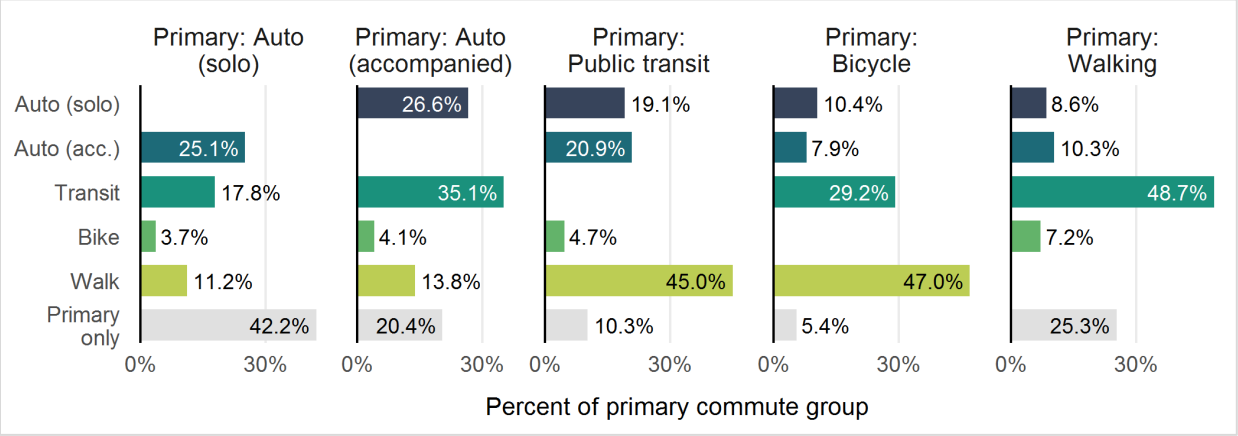
The survey defined secondary mode as being the method of transportation used less than 30% of the time. Many respondents use public transit as their backup mode of commuting (Figure 3-4), while few cycle. Just over a fifth of commuters rely on only one mode to get to and from campus.

Figure 3-4: Secondary commute mode



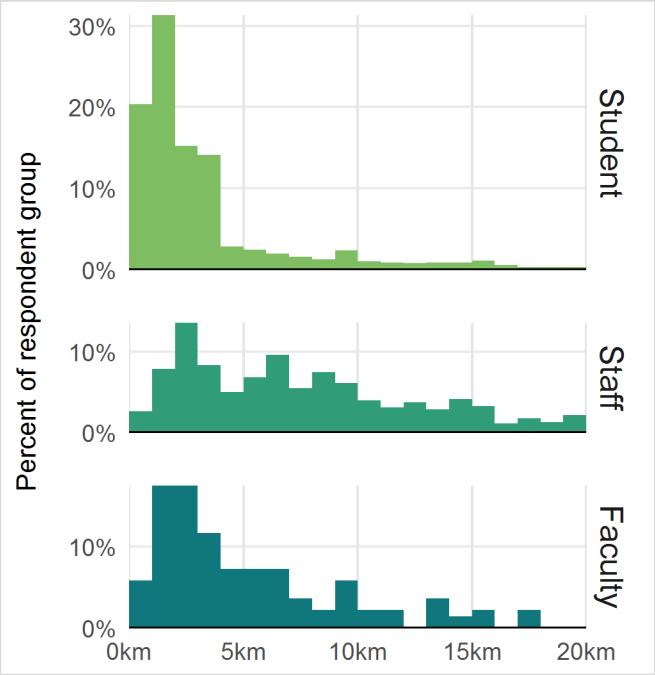
Respondents' secondary modes depend strongly on their primary mode, as shown in Figure 3-5. For example, people who primarily drive themselves to campus are the most likely to not have a backup commuting option. Almost all of those who cycle or take transit have secondary mode options. Transit is favoured as a secondary mode by those who usually walk to campus or drive with someone else. Walking is favoured as a backup by those who primarily take transit or cycle to campus.

Figure 3-5: Secondary commute mode by primary mode



3.3 Commute Distance

Figure 3-6: Commute distance by role

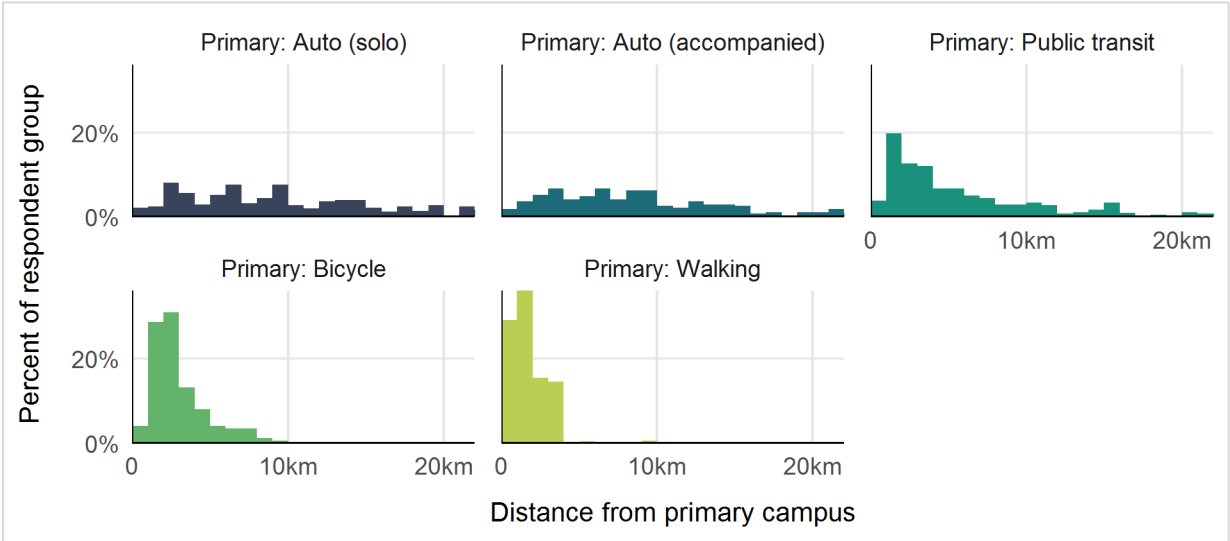


Commuting distances were calculated between respondents' postal codes and their primary campus location based on the road network. The median respondent commutes 3.0 km to their campus.

Figure 3-6 displays a histogram of commute distances divided by respondents' roles. Students tend to live closest to campus, with a median commute of 2.0 km. The median faculty member lives 4.6 km away from their primary campus, and the median staff member lives 8.5 km away from campus.

Commute distance also impacts mode choice significantly, as shown in Figure 3-7. The vast majority of walkers live within 4 km of their primary campus, and the median walk is 1.5 km. Those who live a bit further from campus may cycle, and those far from campus usually drive. The median solo driving commute is 10.1 km. Most public transit users live within 10 km of campus, though some respondents use the mode to commute further.

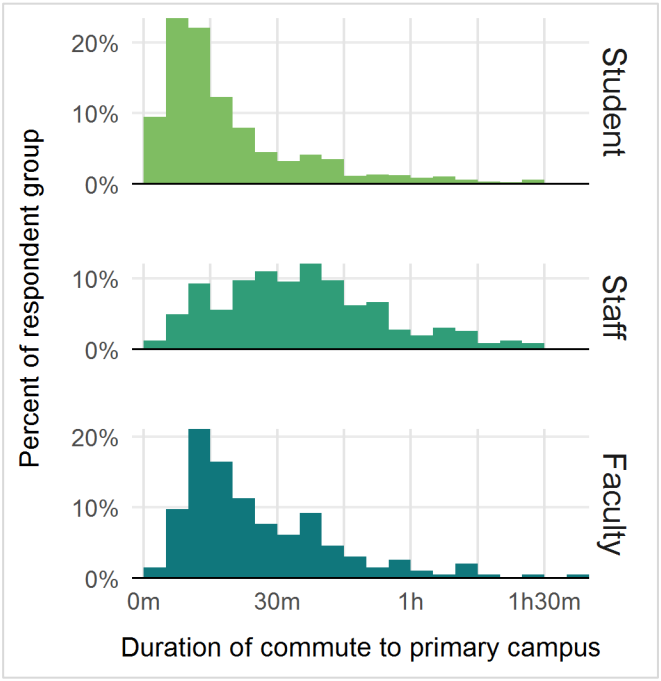
Figure 3-7: Commute distance by mode



3.4 Commute Duration

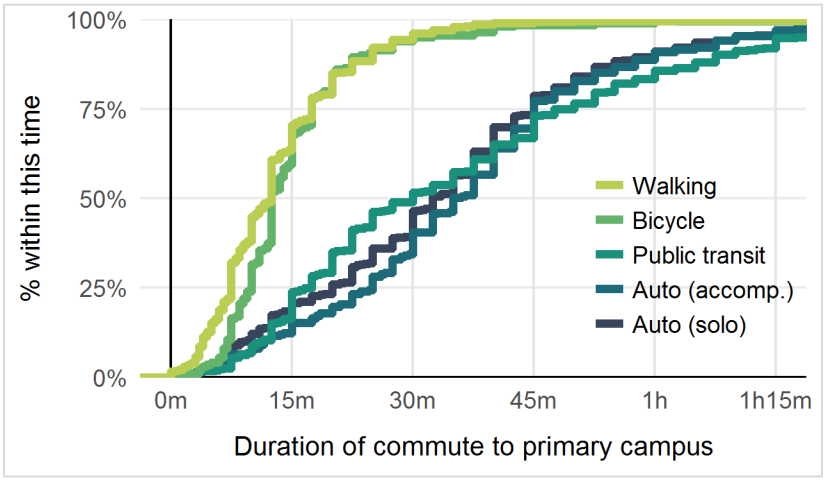
Respondents reported the average time it takes them to commute to their primary campus. The median respondent commutes for 18 minutes. Unsurprisingly, the patterns for commute duration are similar to those of commute distance, as seen in Figure 3-8. Students have the shortest commutes, with a median time of 15 min. Faculty have a median commute of 22 min, and the median staff member commutes for 35 min.

Figure 3-8: Commute duration by role



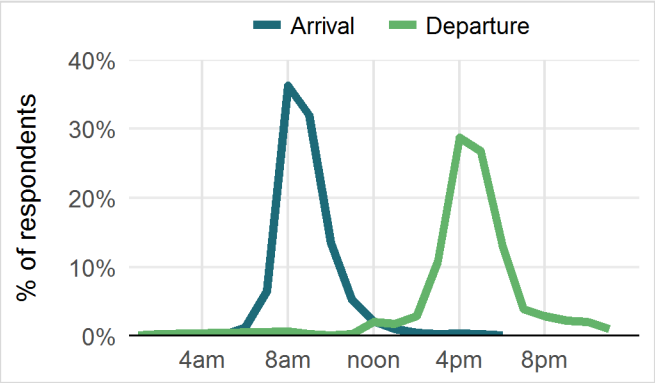
Most respondents who live within a roughly 20-minute walk of their campus tend to use active transportation, as shown in Figure 3-9. More than half of all active commutes are less than 15 minutes, and few people are willing to walk or cycle over half an hour. On the other hand, respondents are willing to spend more time getting to campus in a vehicle. Over half of vehicle commutes are over half an hour long, and a quarter are over 45 minutes.

Figure 3-9: Cumulative proportion of commute duration by mode



3.5 Arrival and Departure Time

Figure 3-10: Arrival and departure times



Most respondents arrive on campus between 8am and 10am and leave between 4pm and 6pm, spending a usual workday on campus (Figure 3-10). This pattern does not vary greatly by respondent role. Smaller proportions of respondents arrive or depart at midday, spending only half a day on campus.

3.6 Parking

Dalhousie community members who commute by auto must park their vehicle once they get to campus. Figure 3-11 shows the distributions of parking permits bought by auto commuters. Most respondents did not buy a permit. Figure 3-12 shows the locations respondents usually park in. Dalhousie lots are most popular among staff, while on-street free parking is most popular among students.

Figure 3-11: Parking permit purchases of auto commuters

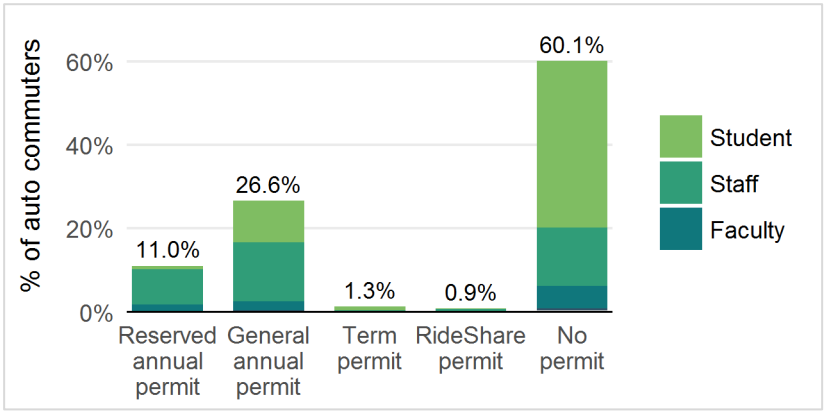
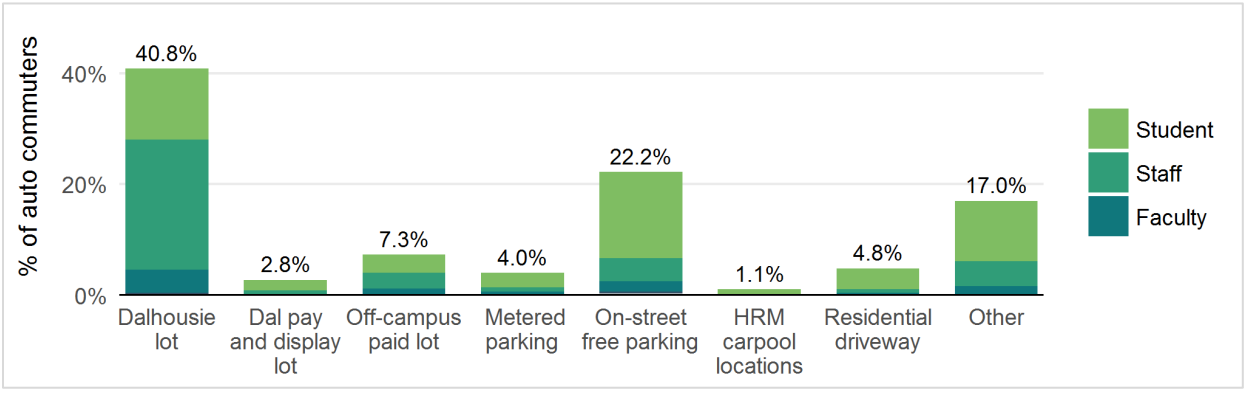


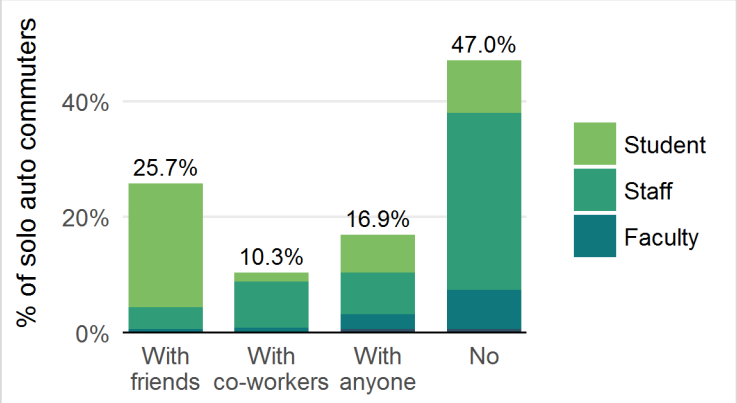
Figure 3-12: Parking locations of auto commuters



3.7 Carpooling

The survey asked respondents who usually commute by driving alone if they were interested in carpooling. Figure 3-13 shows that about half are interested. Most students would carpool with friends and some staff would carpool with co-workers. The majority of staff and faculty responded that they would not be interested in carpooling.

Figure 3-13: Interest in carpooling initiatives



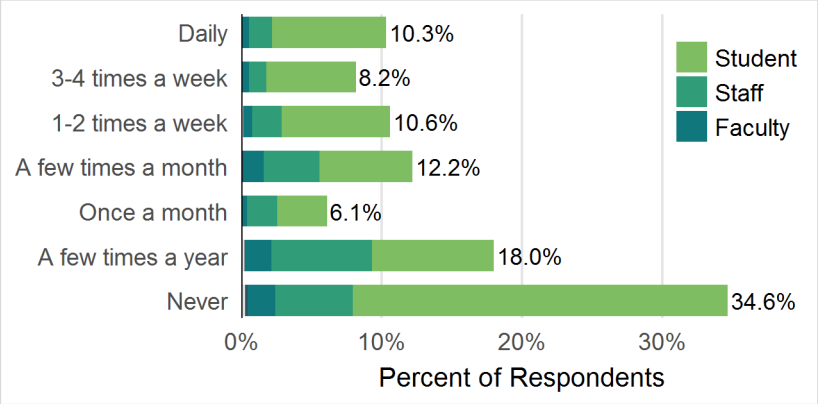
4. INTERCAMPUS TRAVEL

The Commuter Survey also asked respondents about their travel among Dalhousie campuses, breaking this down into inter-Halifax campus travel and Halifax-Truro travel.

4.1 Travel among Halifax Campuses

Most respondents travel among Halifax campuses at least occasionally, as shown in Figure 4-1. Of respondents who do travel among campuses, students are more likely to make trips on a regular basis, while staff are more likely to travel infrequently.

Figure 4-1: Travel frequency among Halifax campuses



How often people travel among campuses in Halifax differs by their primary campus (Figure 4-2). Respondents based out of Studley campus were most likely to never travel to other Halifax campuses, whereas Sexton campus respondents were most likely to make regular inter-campus trips.

Figure 4-2: Travel frequency among Halifax campuses by primary campus

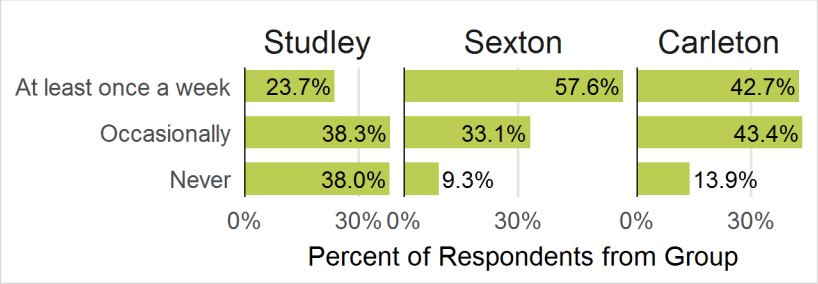
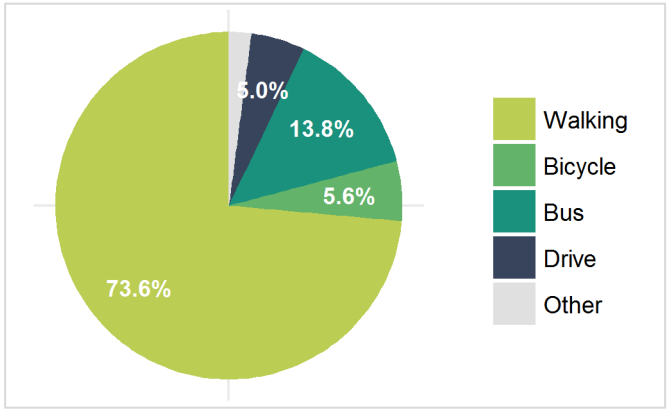


Figure 4-3: Travel mode among Halifax campuses



Since the Halifax campuses are within a few kilometers of each other, most intercampus travel is done by walking, as shown in Figure 4-3. Few people drive or take other means of transportation (e.g. taxi).

4.2 Travel between Halifax and Agricultural Campuses

Figure 4-4: Travel frequency between Halifax and Truro campuses

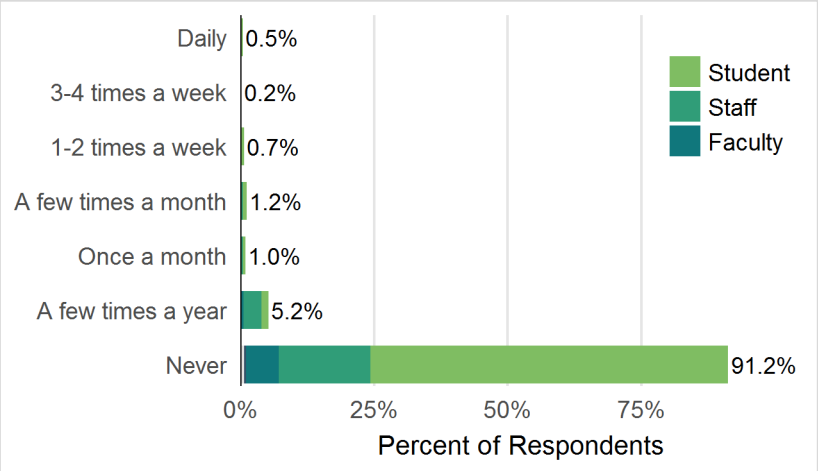
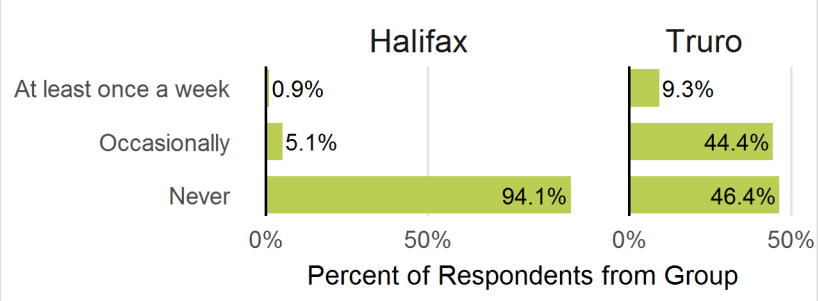


Figure 4-5: Travel frequency between Halifax and Truro campuses by city of primary campus

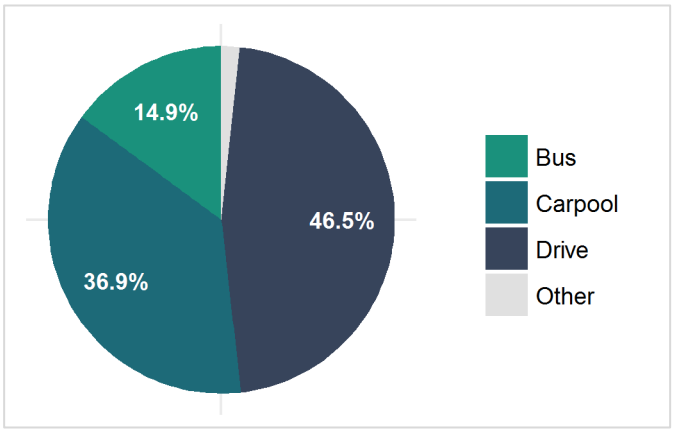


The vast majority of respondents do not travel between Dalhousie's Halifax and Truro campuses, as shown in Figure 4-4. Of those that do, most only travel a few times a year.

Figure 4-5 shows that the pattern of travel between Halifax campuses and the Agricultural campus is different for respondents from the different cities. Halifax campus respondents are very likely to never travel to the Agricultural campus, while those from Truro are more likely than not to visit the Halifax campuses at least occasionally.

Dalhousie's Halifax and Truro campuses are around 100 km apart, which impacts how people choose to travel between them, shown in Figure 4-6. Around half of all respondents drive, though some choose to carpool or take an intercity bus to make the Halifax-Truro trip.

Figure 4-6: Travel mode between Halifax and Truro campuses



5. COMPARISON BY CAMPUS

Dalhousie's four campuses and off-campus health facilities have geographic and demographic differences which are reflected in the commuting habits of people from those campuses. This section breaks down commuting characteristics (mode, distance, duration and timing) and vehicle and bicycle access by campus. The three Halifax campuses are most similar but have some differences which will be explored below. The Agricultural campus and the university's health facilities display divergent commuting patterns.

5.1 Vehicle and Bicycle Access

Levels of vehicle access and ownership vary widely across Dalhousie campuses, as shown in Figure 5-1. Studley and Sexton campuses show similar patterns of car access, though slightly fewer respondents from Sexton campus had access to a car. While Carleton campus is located next to Studley, many more of respondents from that campus own vehicles. The Agricultural campus has an even higher rate of vehicle ownership, likely due to its location in a small town with no transit system. However, Dalhousie's health facilities have the highest rate of car ownership and access, potentially due to their substantially older student body. Rates of bicycle access and ownership vary less among campuses (Figure 5-2).

Figure 5-1: Vehicle access by campus

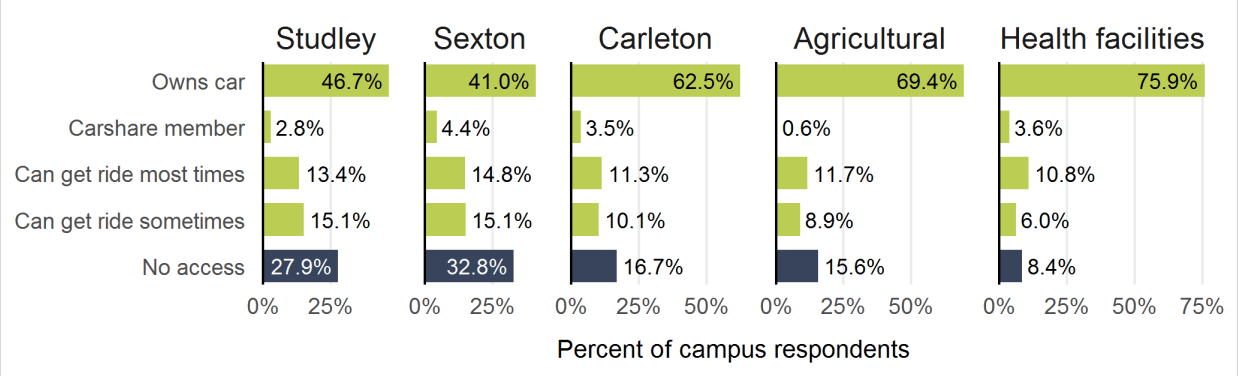
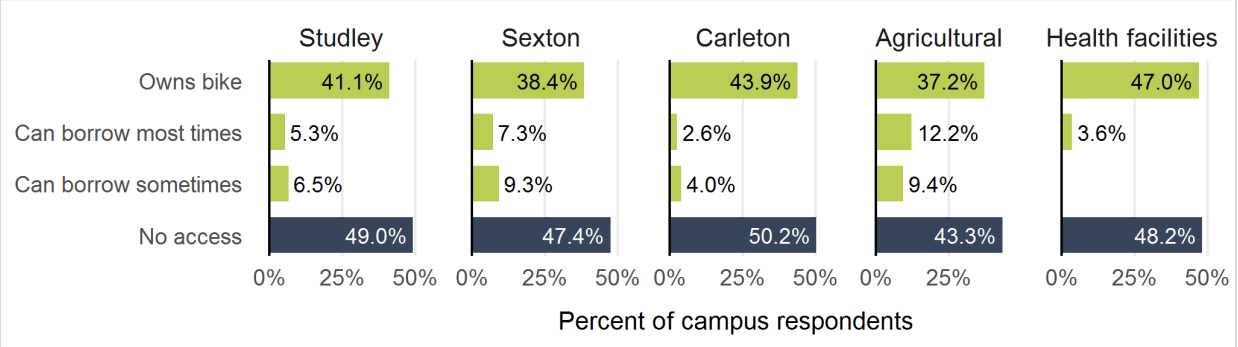


Figure 5-2: Bicycle access by campus



5.2 Commute Mode

The three Halifax campuses have a similar distribution of commuting modes, as shown in Figure 5-3 and Figure 5-4. Sexton campus has the highest proportion of transit users, perhaps due to its convenient access to downtown transit routes. This high usage of transit may also be a factor in the lower levels of vehicle ownership among Sexton respondents. Respondents from Dalhousie's health facilities were more likely to drive and less likely to take transit than those from Halifax campuses, again corresponding to the high rates of car ownership among those respondents.

The Town of Truro, where Dalhousie's Agricultural campus is located, is a relatively small town with no local transit system. Agricultural campus respondents thus have a correspondingly higher rate of commuting by auto. However, more respondents from Truro choose to walk to the Agricultural campus than at any other campus.

Figure 5-3: Primary commute mode by campus

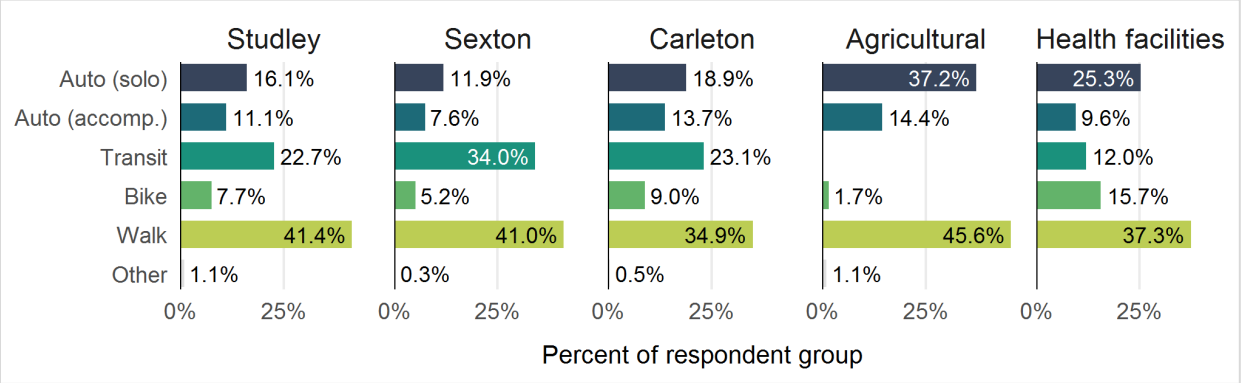
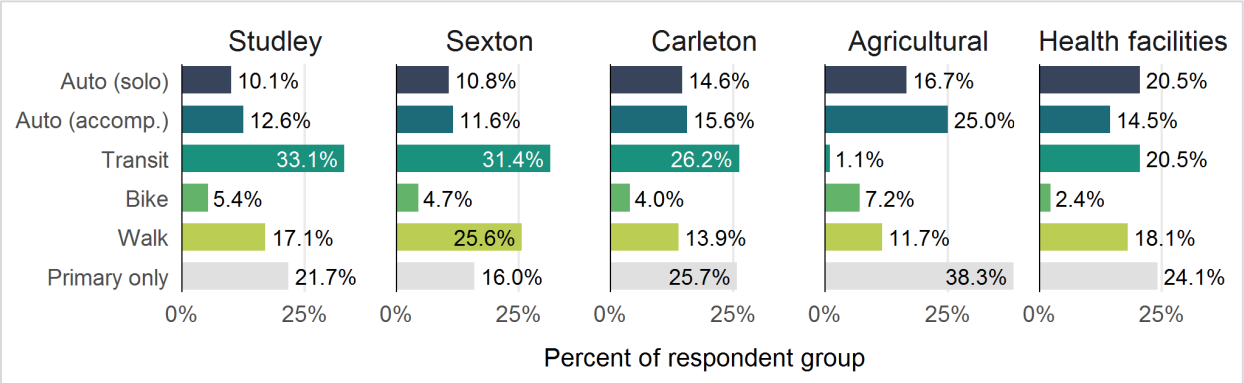


Figure 5-4: Secondary commute mode by campus



5.3 Commute Distance and Duration

Respondents' commuting distances and durations vary by campus as shown in Figure 5-5 and Figure 5-6. Respondents from Sexton campus tend to live closer to their campus than those from Studley or Carleton. The median commute to the Sexton campus is 2.1 km and 18 min, while the median commute to Studley is 3.2 km and 20 min, and the median commute to Carleton is 3.4 km and 25 min. The Agricultural campus has slightly longer median commutes than Sexton, at 2.2 km, but since more of these are done by vehicle the median commute time is significantly reduced, at 9 minutes. The Agricultural campus also has a higher proportion of outlier commute distances over 100 kilometres.

Figure 5-5: Commute distance by campus

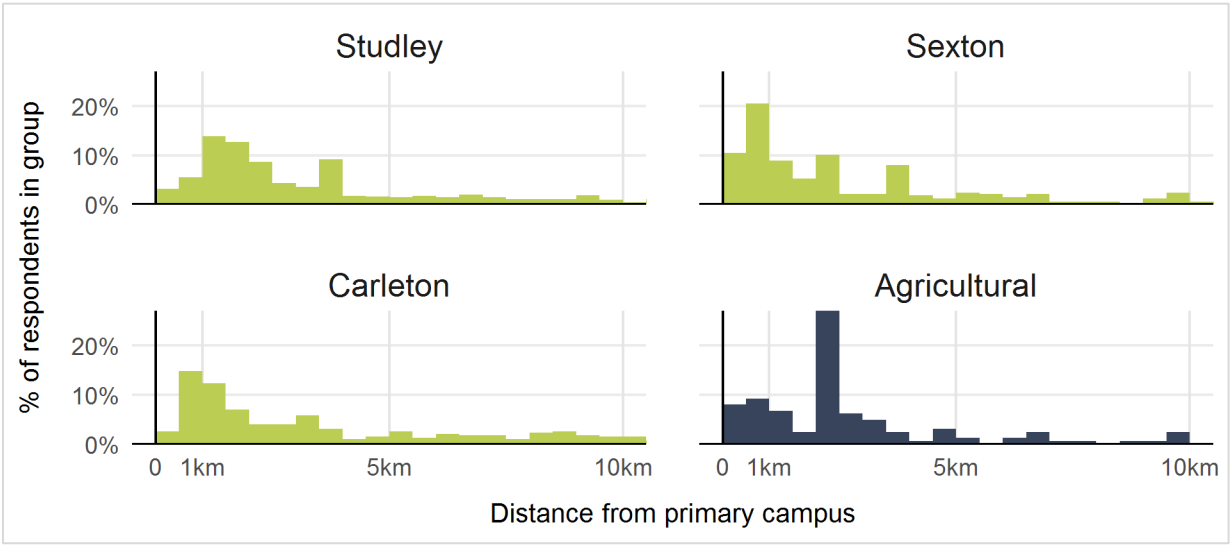
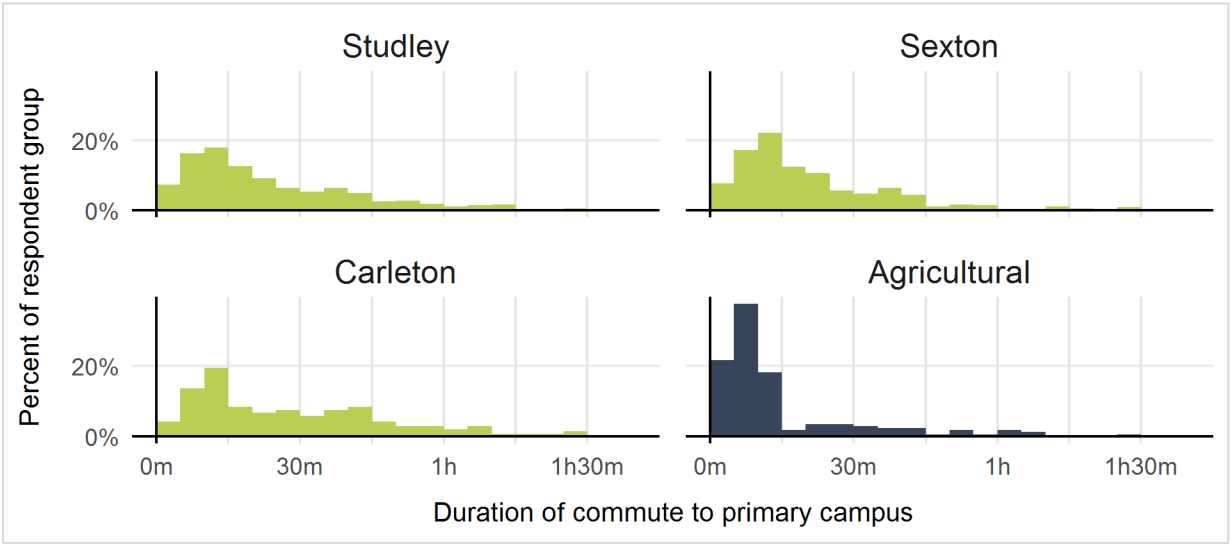


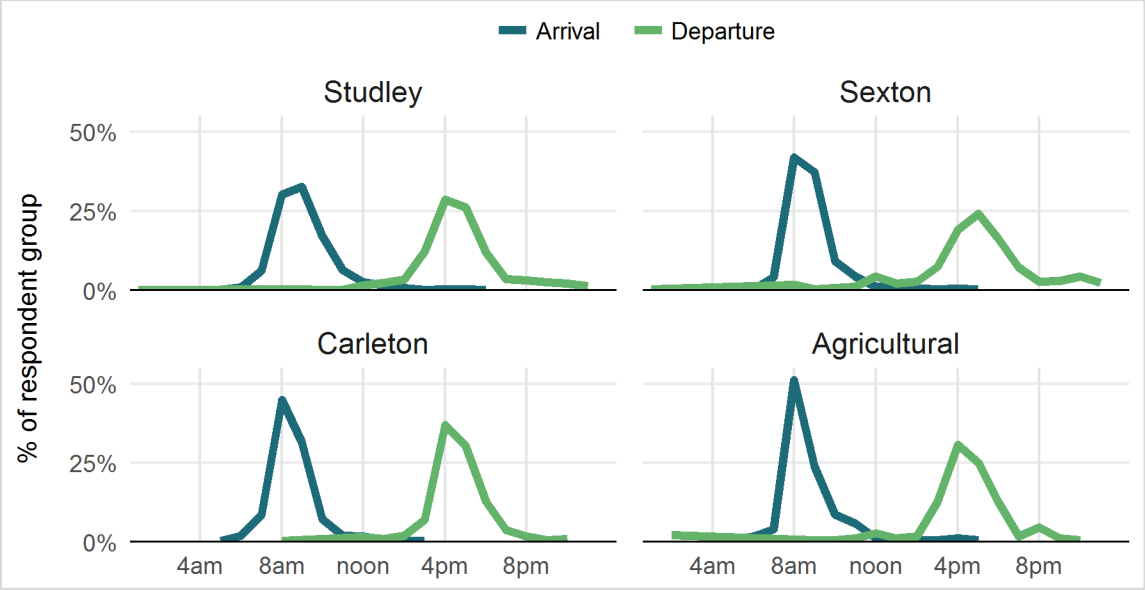
Figure 5-6: Commute duration by campus



5.4 Arrival and Departure Time

Most respondents from all campuses spend a full working day on campus, arriving between 8am and 10am and leaving between 4pm and 6pm. However, there are small differences among campuses, shown in Figure 5-7. Studley campus respondents tend to arrive slightly later, with a peak at 9am-10am instead of the earlier hour. Those from Sexton campus tend to stay on campus later, with a departure peak at 5pm-6pm and more students who stay on campus into the evening.

Figure 5-7: Arrival and departure times by campus



6. COMPARISON BY YEAR

Dalhousie has conducted its Commuter Survey each academic year since 2009. This section observes the trends in commuter behaviour over that time. In this section, 2012 refers to the survey for the 2012-13 academic year. Since the survey is not a random sample and the relative proportions of different groups changes from year to year, some variation may be due to sample composition rather than an underlying trend among Dalhousie community members. Small subsamples (e.g. respondents from campuses other than Studley) likely have greater sample variation. The 2010 sample was significantly smaller than usual, which may explain the inconsistent results from that year.

6.1 Commute Mode

Commuter survey respondents' mode choices have remained fairly stable over time, as shown in Figure 6-1 and Figure 6-2. The increase in walking is due to the increasing proportion of student respondents over the last few years, as students predominantly walk to campus.

Figure 6-1: Primary mode (2009–2017)

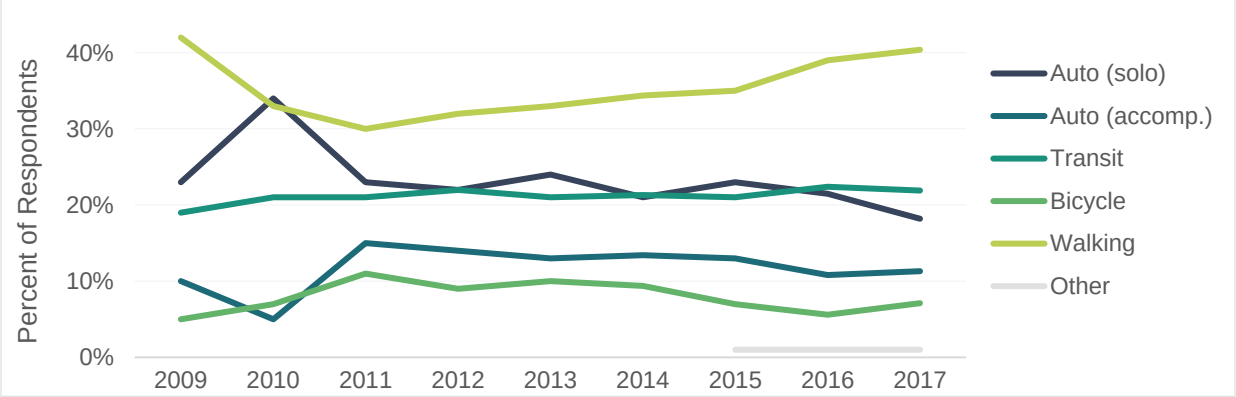
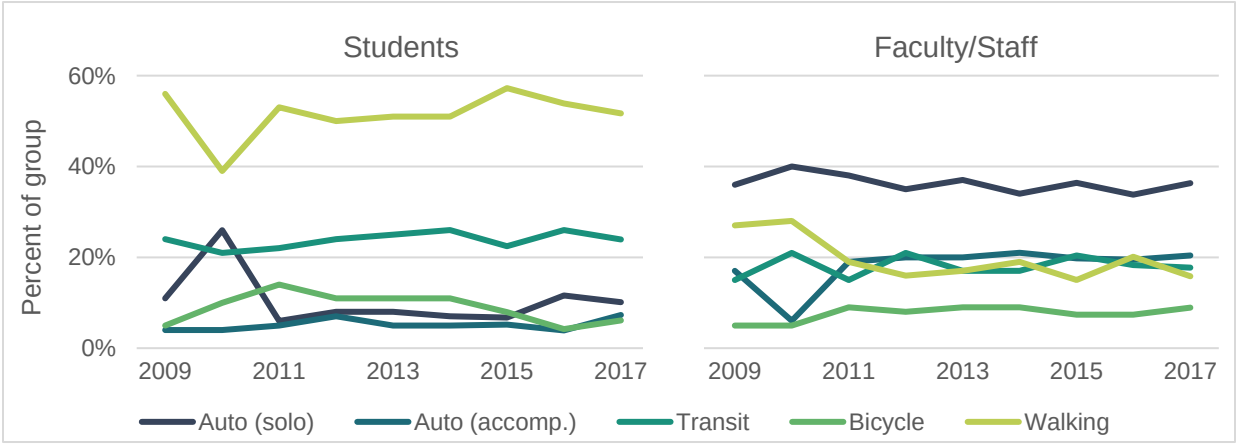


Figure 6-2: Primary mode of students and faculty/staff (2009–2017)



6.2 Commute Distance and Duration

Survey respondents' commute distances and durations have also remained stable over the last decade, as shown in Figure 6-3 and Figure 6-4. As mentioned above, differences in commute duration are likely due to the changing proportions of students, faculty and staff in the sample each year. The average commute distance for each role is also rising slowly, potentially due to growth in Halifax's outer suburbs and more students choosing to commute in instead of living on the peninsula.

Figure 6-3: Commute duration (2009–2017)

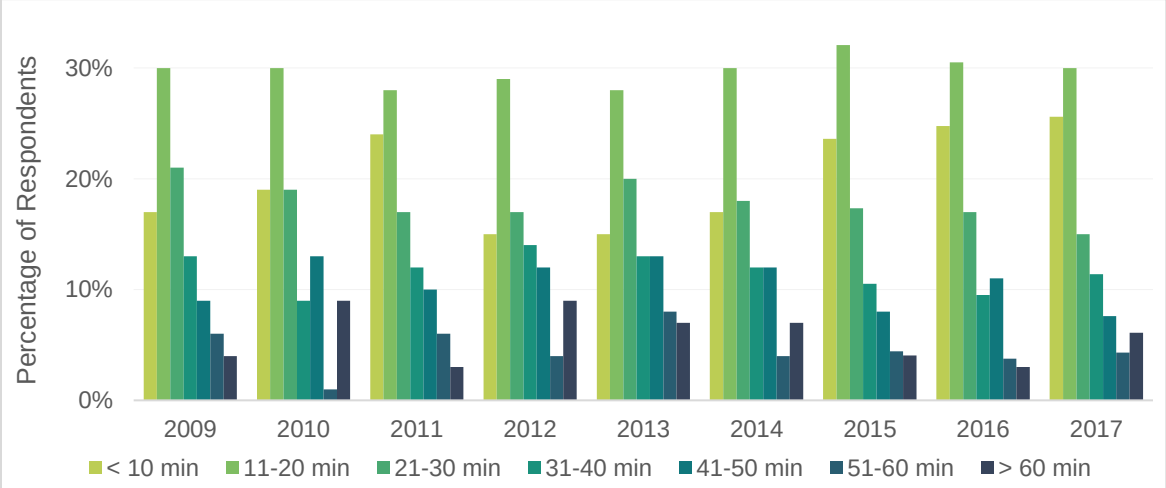
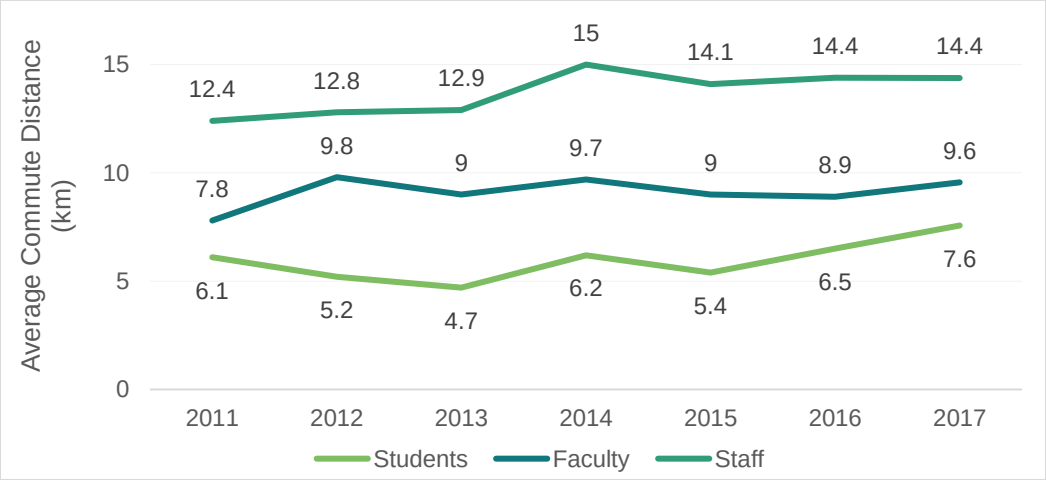


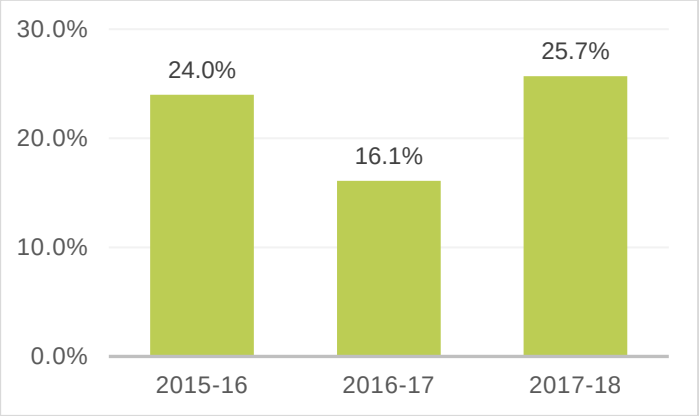
Figure 6-4: Average commute distance by role (2011–2017)



6.3 Share the Road Campaign

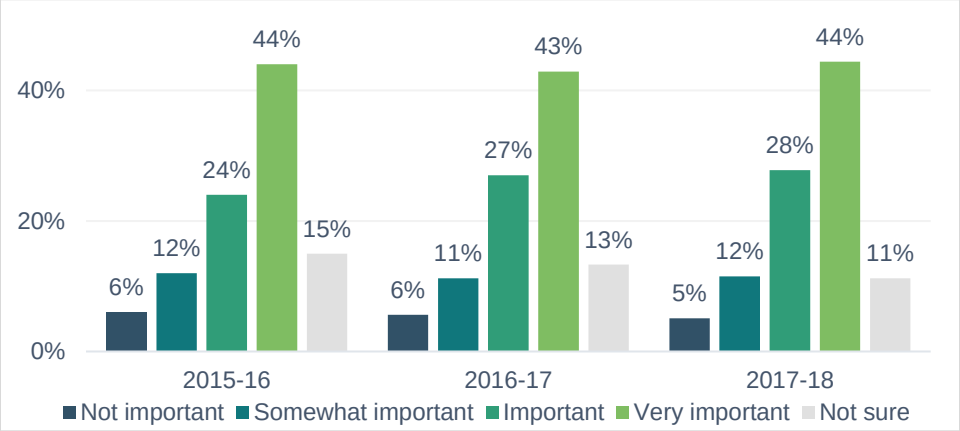
The survey asked respondents about their awareness of the "Share the Road" campaign run by DalTRAC, which promotes the use of roads for multiple modes of transportation, such as cycling. Awareness of the campaign appears to correspond to how recently a campaign has been conducted (Figure 6-5). The most recent campaign was conducted in spring 2017, just after the 2016-17 survey but before the 2017-18 survey, resulting in a jump in awareness.

Figure 6-5: "Share the Road" awareness (2015–17)



Most survey respondents feel that it is important to share the road (Figure 6-6), and these proportions have not changed substantially over the three years the survey has asked about sharing the road. The "Share the Road" campaign is establishing itself in the public consciousness and may struggle to reach those opposed to sharing the road. It is likely that the impacts of the campaign on public opinion will be seen over the long-term.

Figure 6-6: Importance of sharing the road (2015–17)



7. CONCLUSION

The 2017-18 Dalhousie Commuter survey, conducted in fall 2017, was the largest commuter survey the university has conducted, reaching over 3000 students, staff and faculty across Dalhousie's four campuses and off-campus health facilities. This year's survey improved greatly on the representation of students, bringing the proportion of student respondents in line with the Dalhousie community as a whole.

Key takeaways from the Commuter Survey include:

- Most Dalhousie community members use active transportation or public transit to commute to campus.
- All commuting characteristics (e.g. access to vehicles, mode choice, distance from campus, parking choice) depend strongly on one's role at the university. Students have less access to vehicles, live closer to campus, and walk and take public transit more than faculty or staff.
- Public transit is an important way in which people get to Dalhousie's Halifax campuses, especially as a secondary travel mode. However, those who drive themselves to campus are less likely to rely on transit or other modes as backups.
- Dalhousie community members may be willing to use active commuting modes if they live within a roughly 20-minute walk or bike ride of campus. Few people use active transportation to commute for longer than half an hour, while half of auto commutes are over half an hour long.
- Most Halifax-based respondents make some trips among the Halifax campuses, with those from Sexton campus most likely to make trips and those from Studley least likely. Trips between Halifax and Agricultural campuses are infrequent and usually made by those from Truro.
- Due to its location in Truro and lack of a transit option, the Agricultural campus has different commuting patterns than the Halifax campuses. Respondents there are more likely to own a car and to drive to campus, but also more likely to live close to campus and walk.
- Commuting patterns have remained fairly stable over the last several years. An apparent increase in walking mode share is due to the increasing proportion of student responses.

The commuter survey is a key part of Dalhousie's efforts to monitor its sustainability process. It is an annual checkup to explore the choices the university community is making around transportation, and it provides evidence to inform future plans and policies. While there is room to improve, the University has seen success in offering more sustainable transportation alternatives.

8. APPENDICES

8.1 Comparison of Secondary and Combined Modes by Year

Figure 8-1: Secondary mode (2009–2017)

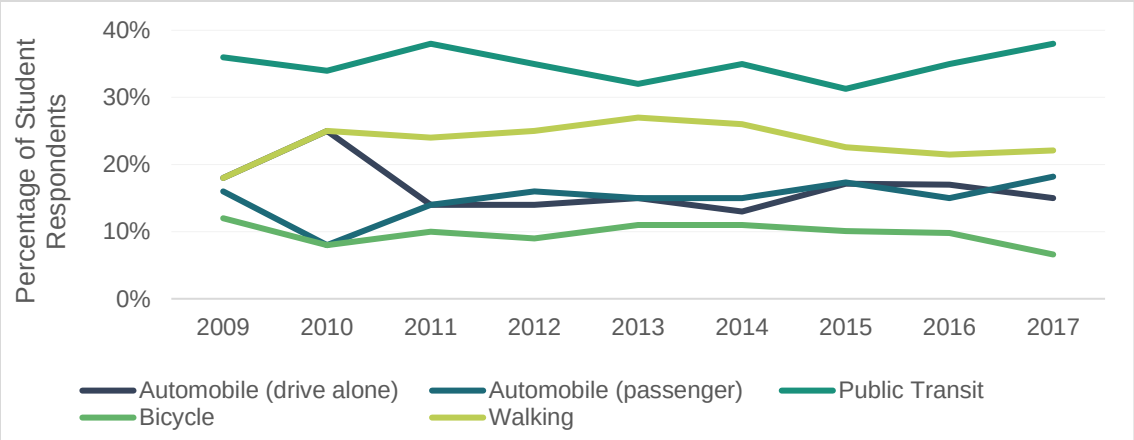


Figure 8-2: Secondary mode of students (2009–2017)

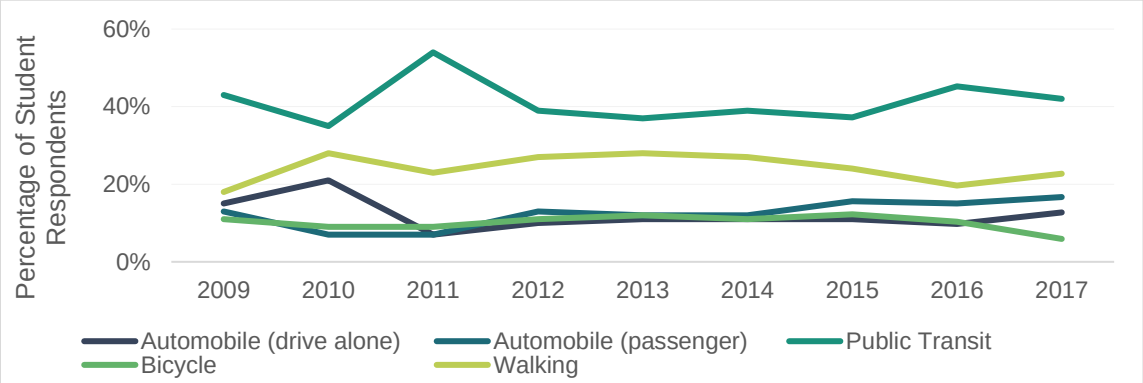


Figure 8-3: Secondary mode of faculty and staff (2009–2017)

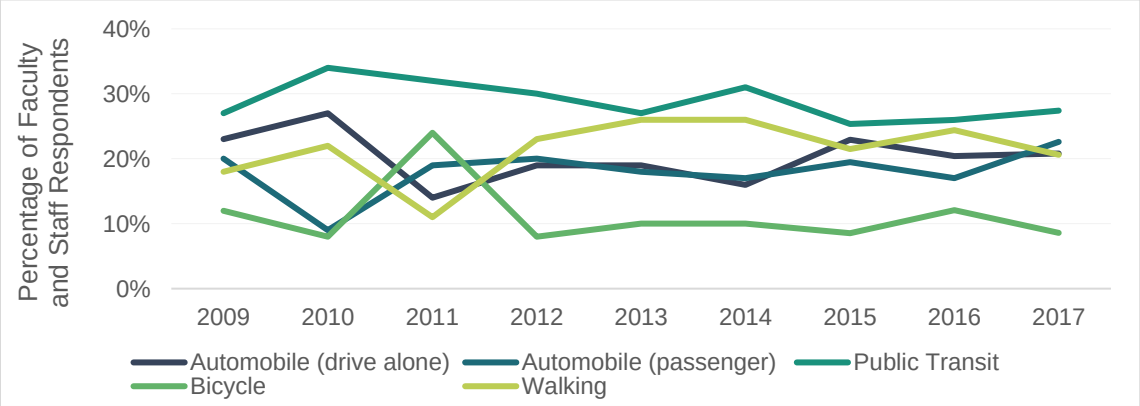


Figure 8-4: Combined mode of Halifax campuses (2009–2017)

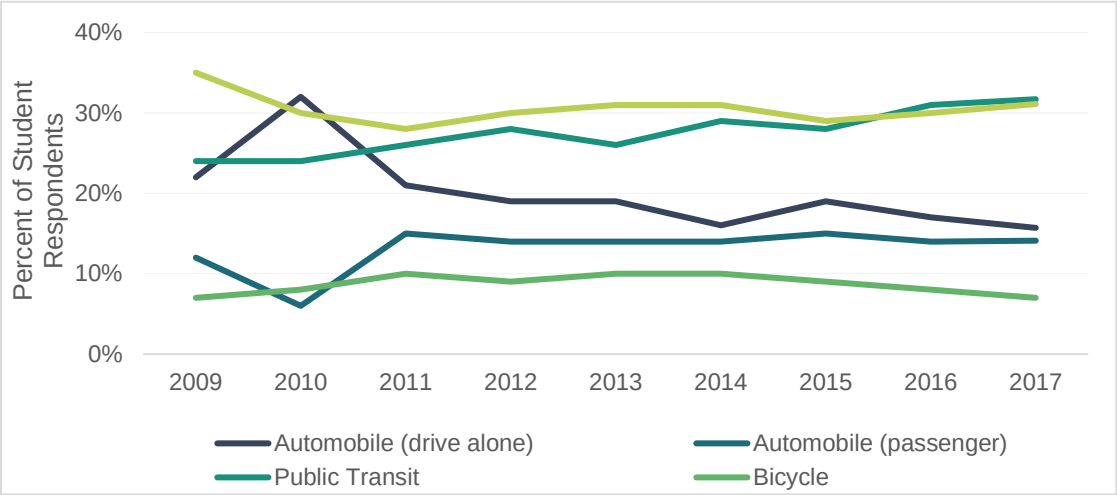
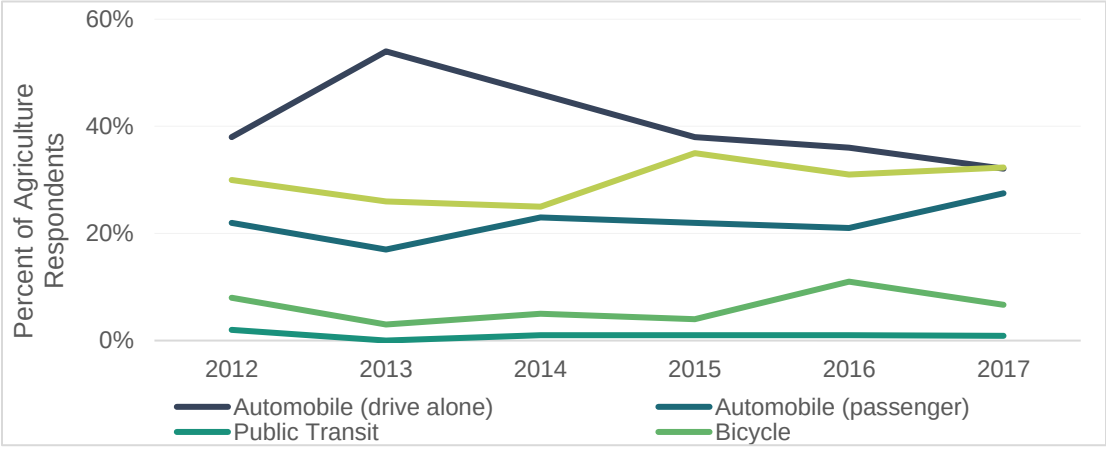


Figure 8-5: Combined mode of Agriculture Campus (2012–2017)



8.2 Summary of 2017 Survey Data

Option	n (total 3137)	% of total
What is your age?		
15 – 19	388	12.37
20 – 24	939	29.93
25 – 34	651	20.75
35 – 44	263	8.38
45 – 54	249	7.94
55 – 64	196	6.25
65 and above	22	0.70
Total	**2708**	**86.32**
Not Answered	429	13.68
What is your gender?		
Female	1852	59.04
Male	811	25.85
Non-binary/Third Gender	15	0.48
Prefer to self-describe	8	0.26
Total	**2686**	**85.62**
Not Answered	451	14.38
What is your annual household income?		
Less than $19,999	746	23.78
$20,000 - $39,999	306	9.75
$40,000 - $59,999	258	8.22
$60,000 - $79,999	227	7.24
$80,000 - $99,999	173	5.51
Above $100,000	490	15.62
Total	**2200**	**70.13**
Not Answered	937	29.87
What is your primary campus?		
Studley	1605	51.16
Carleton	424	13.52
Sexton	344	10.97
Agriculture	180	5.74
Health Facilities (off campus)	83	2.65
Other	91	2.90
Total	**2727**	**86.93**
Not Answered	410	13.07
Which of these groups do you currently belong to?		
Students	1975	62.96
Faculty	204	6.50
Staff	668	21.29
Alumni	15	0.48
Other	26	0.83
Total	**2888**	**92.06**
Not Answered	249	7.94
Are you a full-time or part-time staff, faculty, or student?		
Full-time	2553	81.38
Part-time	126	4.02
Other (please specify)	48	1.53
Total	**2727**	**86.93**
Not Answered	410	13.07

Option	n (total 3137)	% of total
What is your primary department and/or faculty?		
Ancillary Services	24	0.77
Athletics and Recreational Services	11	0.35
College of Continuing Education	16	0.51
College of Sustainability	24	0.77
Communications and Marketing	7	0.22
Dalhousie Arts Centre & Art Gallery	13	0.41
Dalhousie Libraries	33	1.05
Environmental Health and Safety	4	0.13
Facilities Management	68	2.17
Faculty of Agriculture	134	4.27
Faculty of Architecture and Planning	50	1.59
Faculty of Arts and Social Sciences	248	7.91
Faculty of Computer Science	123	3.92
Faculty of Dentistry	48	1.53
Faculty of Engineering	267	8.51
Faculty of Graduate Studies	99	3.16
Faculty of Health	305	9.72
Faculty of Law	100	3.19
Faculty of Management	142	4.53
Faculty of Medicine	216	6.89
Faculty of Science	509	16.23
Financial Services	36	1.15
Human Resources	20	0.64
Information Technology Services	42	1.34
Legal & Internal Audit Services	4	0.13
Office of Advancement	19	0.61
President's & Provost's Offices	11	0.35
Registrar's Office	25	0.80
Research Services	14	0.45
Student Services	25	0.80
Other	84	2.68
Total	**2721**	**86.74**
Not Answered	416	13.26
Do you own or have access to a car? (Choose all that apply)		
I own a car	1411	44.98
I am a member of a car sharing service	82	2.61
I can borrow a car or get a ride most times I need it	358	11.41
I can borrow a car or get a ride some of the time	366	11.67
I do not own or have access to a car	703	22.41
Answered	**2757**	**87.89**
Not Answered	380	12.11
Do you own or have access to a bicycle? (Choose all that apply)		
I own a bicycle	1126	35.89
I can use or borrow a bicycle most times I need it	147	4.69
I can use or borrow a bicycle some of the times that I need it	180	5.74
I do not own or have access to a bicycle	1353	43.13
Answered	**2751**	**87.70**
Not Answered	386	12.30

Option	n (total 3137)	% of total
How much on average (in Canadian dollars) do you spend out-of-pocket on a monthly basis for transportation purposes (for gas, parking, etc.)? Costs of ownership or vehicle maintenance should not be included. Please enter a number only.		
$0 - $50	747	23.81
$51 - $100	543	17.31
$101 - $150	224	7.14
$151 - $200	189	6.02
$201 - $250	104	3.32
Above $250	195	6.22
Total	**2002**	**63.82**
Not Answered	1135	36.18
What is your primary mode of transportation (70% of the time or more) for your daily commute to campus throughout the year?		
Automobile – Drive Alone	517	16.48
Automobile – Passenger (including carpooling)	319	10.17
Public transit (including ferry services)	622	19.83
Van pool	6	0.19
Bicycle	202	6.44
Walking	1146	36.53
Skateboard/Longboard	5	0.16
Other (e.g. Motorcycle, Electric Scooter)	15	0.48
Total	**2832**	**90.28**
Not Answered	305	9.72
What is your secondary mode of transportation (less than 30% of the time) for your daily commute to campus?		
Automobile – Drive Alone	397	12.66
Automobile – Passenger (including carpooling)	411	13.1
Public transit (including ferry services)	845	26.94
Van pool	6	0.19
Bicycle	146	4.65
Walking	539	17.18
Skateboard/Longboard	11	0.35
Not applicable – always use the primary mode	455	14.5
Other (e.g. Motorcycle, Electric Scooter)	20	0.64
Total	**2830**	**90.21**
Not Answered	307	9.79
Considering all parts of your commute (from the time you leave your home until you arrive on campus) which of the following combination of modes do you use during a typical commute? (select all that apply)		
Automobile – Drive Alone	723	23.05
Automobile – Passenger (including carpooling)	510	16.26
Public transit (Ferry, Bus)	973	31.02
Van pool	8	0.26
Bicycle	285	9.09
Walking (more than 10 minutes)	1614	51.45
Skateboard/Longboard	16	0.51
Other	119	3.79
Answered	**2807**	**89.48**
Not Answered	330	10.52
What season(s) do you cycle in? (Choose all that apply)		
Spring	319	10.17
Summer	334	10.65
Fall	327	10.42
Winter	106	3.38
Answered	**345**	**11.00**
Not Answered	2792	89.00

Option	n (total 3137)	% of total
Do you use a different primary commute mode this year (in comparison to your primary commute mode in 2016-2017)?		
Yes	444	14.15
No	1958	62.42
Not applicable (first year on campus)	428	13.64
Total	**2830**	**90.21**
Not Answered	307	9.79
How many minutes, on average, does it take to get from your home to Dalhousie when you use your primary mode of transportation? Please enter number only. Minimum:		
0-14	1355	43.19
15-29	834	26.59
30-44	364	11.6
45-59	116	3.7
60-74	67	2.14
75-89	14	0.45
90-104	6	0.19
120-134	1	0.03
135-149	1	0.03
Total	**2758**	**87.92**
Not Answered	379	12.08
How many minutes, on average, does it take to get from your home to Dalhousie when you use your primary mode of transportation? Please enter number only. Maximum:		
0-23	1364	43.48
24-47	759	24.2
48-71	409	13.04
72-95	154	4.91
96-119	12	0.38
120-143	44	1.4
144-167	3	0.1
168-191	1	0.03
216-239	3	0.1
Total	**2749**	**87.63**
Not Answered	388	12.37
What kind of Dalhousie parking permit did you purchase this year?		
Reserved Annual Permit	148	4.72
General Annual Permit	357	11.38
RideShare Permit	12	0.38
Term Permit	18	0.57
Did not purchase any permit	805	25.66
Total	**1340**	**42.72**
Not Answered	1797	57.28
Where do you generally park your car?		
Parking in Dalhousie Lots	530	16.9
Parking in a Dalhousie Pay and Display Lot	36	1.15
Using Metered Parking	52	1.66
Using On-street Free Parking	288	9.18
Parking in Halifax Regional Municipality Carpool Locations	14	0.45
Parking Spot in a Residential Driveway	63	2.01
Paid Parking in an Off-campus Parking Lot	95	3.03
Other	221	7.04
Total	**1299**	**41.41**
Not Answered	1838	58.59

Option	n (total 3137)	% of total
At what time, on average, do you arrive at Dalhousie?		
01:00am	4	0.13
02:00am	1	0.03
03:00am	1	0.03
04:00am	0	0.00
05:00am	5	0.16
06:00am	34	1.08
07:00am	171	5.45
08:00am	949	30.25
09:00am	849	27.06
10:00am	358	11.41
11:00am	139	4.43
12:00pm	58	1.85
01:00pm	30	0.96
02:00pm	14	0.45
03:00pm	8	0.26
04:00pm	11	0.35
05:00pm	9	0.29
06:00pm	2	0.06
07:00pm	8	0.26
08:00pm	49	1.56
09:00pm	35	1.12
10:00pm	11	0.35
11:00pm	6	0.19
12:00am	2	0.06
Total	**2754**	**87.79**
Not Answered	383	12.21
At what time, on average, do you leave Dalhousie? Please identify the time to the nearest hour.		
01:00am	4	0.13
02:00am	7	0.22
03:00am	29	0.92
04:00am	108	3.44
05:00am	65	2.07
06:00am	29	0.92
07:00am	6	0.19
08:00am	17	0.54
09:00am	9	0.29
10:00am	3	0.1
11:00am	8	0.26
12:00pm	35	1.12
01:00pm	49	1.56
02:00pm	78	2.49
03:00pm	267	8.51
04:00pm	671	21.39
05:00pm	663	21.13
06:00pm	326	10.39
07:00pm	100	3.19
08:00pm	79	2.52
09:00pm	62	1.98
10:00pm	55	1.75
11:00pm	29	0.92
12:00am	20	0.64
Total	**2719**	**86.68**
Not Answered	418	13.32

Option	n (total 3137)	% of total
If you drive alone, would you be interested in a carpooling initiative?		
Yes – with my friends	317	10.11
Yes – with my co-worker	91	2.9
Yes - with anyone	156	4.97
No	350	11.16
Not applicable	416	13.26
Total	**1330**	**42.4**
Not Answered	1807	57.6
How often do you travel between the Halifax campuses? (Carleton, Sexton and Studley)		
Daily	285	9.09
3 – 4 times a week	226	7.2
1 – 2 times a week	293	9.34
A few times a month	337	10.74
Once a month	169	5.39
A few times a year	497	15.84
Never	957	30.51
Total	**2764**	**88.11**
Not Answered	373	11.89
What is your primary means of travel between Halifax campuses?		
Walking	1418	45.2
Bicycle	107	3.41
Bus	266	8.48
Private Car	96	3.06
Taxi	21	0.67
Not applicable	835	26.62
Other	19	0.61
Total	**2762**	**88.05**
Not Answered	375	11.95
How often do you travel between the Halifax and Agricultural campuses?		
Daily	12	0.38
3 – 4 times a week	5	0.16
1 -2 times a week	17	0.54
A few times a month	31	0.99
Once a month	25	0.8
A few times a year	131	4.18
Rarely	262	8.35
Never	2284	72.81
Total	**2767**	**88.21**
Not Answered	370	11.79
What is your primary means of travel between the Halifax and Agricultural campuses?		
Bus	70	2.23
Carpool	165	5.26
Drive alone	218	6.95
Van Pool	8	0.26
Train	3	0.1
Taxi	5	0.16
Not applicable	2294	73.13
Total	**2763**	**88.08**
Not Answered	374	11.92

Option	n (total 3137)	% of total
Are you aware of the Share the Road – Thumbs Up! Campaign, which is running at Dalhousie?		
Yes	706	22.51
No	2042	65.09
Total	**2748**	**87.6**
Not Answered	389	12.4
How important is sharing the road to you?		
Not important	139	4.43
Somewhat important	316	10.07
Important	763	24.32
Very important	1219	38.86
Not sure	308	9.82
Total	**2745**	**87.5**
Not Answered	392	12.5
How important was sharing the road to you six months ago?		
Not important	220	7.01
Somewhat important	358	11.41
Important	760	24.23
Very important	1014	32.32
Not sure	372	11.86
Total	**2724**	**86.83**
Not Answered	413	13.17
Environmental Sustainability should be a campus-wide goal.		
Strongly disagree	116	3.7
Somewhat disagree	40	1.28
Unsure	51	1.63
Somewhat agree	591	18.84
Strongly agree	2082	66.37
Total	**2880**	**91.81**
Not Answered	257	8.19
How do you manage your batteries at the end of their useful life?		
Disposed of in garbage	709	22.6
Drop off at hazardous waste depot	481	15.33
Drop off in battery boxes at Dalhousie University	891	28.4
Return to store	83	2.65
I'm holding on to them	586	18.68
Other	133	4.24
Total	**2883**	**91.9**
Not Answered	254	8.1
How do you manage your personal used/unwanted electronics including cellular phones, computers, televisions, and radios?		
Dispose of in garbage	92	2.93
Pass on to someone who may need it	819	26.11
Return to store	104	3.32
Drop off at Enviro Depot	928	29.58
I'm holding on to them	847	27
Other	92	2.93
Total	**2882**	**91.87**
Not Answered	255	8.13

Option	n (total 3137)	% of total
What strategies do you believe would help to reduce coffee cups being disposed of in the garbage? Rank your responses in order of preference: 20¢ discount on disposable coffee cups to create recycling programs		
First Choice	1612	51.39
Second Choice	759	24.20
Third Choice	381	12.15
Fourth Choice	105	3.35
Total	**2857**	**91.07**
Not Answered	280	8.93
What strategies do you believe would help to reduce coffee cups being disposed of in the garbage? Rank your responses in order of preference: 10¢ discount on coffee if using a travel mug		
First Choice	302	9.63
Second Choice	912	29.07
Third Choice	1083	34.52
Fourth Choice	529	16.86
Total	**2826**	**90.09**
Not Answered	311	9.91
What strategies do you believe would help to reduce coffee cups being disposed of in the garbage? Rank your responses in order of preference: Ban on disposable coffee cups		
First Choice	618	19.70
Second Choice	289	9.21
Third Choice	487	15.52
Fourth Choice	1420	45.27
Total	**2814**	**89.70**
Not Answered	323	10.30
What strategies do you believe would help to reduce coffee cups being disposed of in the garbage? Rank your responses in order of preference: More promotional "Take Your Own Mug Campaigns"		
First Choice	344	10.97
Second Choice	889	28.34
Third Choice	863	27.51
Fourth Choice	729	23.24
Total	**2825**	**90.05**
Not Answered	312	9.95
Please rate the following strategies on how effective they would be in encouraging waste sorting within the Dalhousie community: Provide Information at the beginning of lectures		
1 - Not effective	818	26.08
2	583	18.58
3	684	21.8
4	428	13.64
5 - Highly effective	327	10.42
Total	**2840**	**90.53**
Not Answered	297	9.47
Please rate the following strategies on how effective they would be in encouraging waste sorting within the Dalhousie community: Run videos on campus public screens showing appropriate waste sorting		
1 - Not effective	397	12.66
2	600	19.13
3	804	25.63
4	679	21.64
5 - Highly effective	369	11.76
Total	**2849**	**90.82**
Not Answered	288	9.18

Option	n (total 3137)	% of total
Please rate the following strategies on how effective they would be in encouraging waste sorting within the Dalhousie community: Displaying waste sorting infographics as screen saver on classroom monitors		
1 - Not effective	319	10.17
2	481	15.33
3	836	26.65
4	813	25.92
5 - Highly effective	399	12.72
Total	**2848**	**90.79**
Not Answered	289	9.21
Please rate the following strategies on how effective they would be in encouraging waste sorting within the Dalhousie community: Place waste sorting infographics at strategic locations on campus (e.g. food courts, libraries, etc.)		
1 - Not effective	76	2.42
2	143	4.56
3	436	13.9
4	970	30.92
5 - Highly effective	1226	39.08
Total	**2851**	**90.88**
Not Answered	286	9.12
Please rate the following strategies on how effective they would be in encouraging waste sorting within the Dalhousie community: Periodic in-person demonstrations of appropriate waste sorting		
1 - Not effective	525	16.74
2	721	22.98
3	716	22.82
4	511	16.29
5 - Highly effective	369	11.76
Total	**2842**	**90.6**
Not Answered	295	9.4
Which of the following packaging materials do you classify as a recyclable? (choose all that apply)		
Plastic film (example: plastic bags, Saran wrap)	1930	61.52
Aluminum foil	1341	42.75
EPS (example: Styrofoam)	663	21.13
Cardboard	2718	86.64
Answered	**2871**	**91.52**
Not Answered	266	8.48
How did you hear about this survey? (choose all that apply)		
Faculty/departmental administrator	88	2.81
Office of sustainability website	18	0.57
LCD screen	7	0.22
Word of mouth	13	0.41
Direct email	2360	75.23
“Today at Dal”	134	4.27
“My Dal announcement”	99	3.16
Student society	13	0.41
Departmental newsletter	33	1.05
Facebook	7	0.22
Twitter	9	0.29
Other	33	1.05
Answered	**2725**	**86.87**
Not Answered	412	13.13