

**National Capital Region
Special Generator Survey**

Public Post-Secondary Students

December 2016

Prepared for:

TRANS Committee

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1. Introduction

1.1. Project Overview

The Special Generator Survey (SGS) project has the following objectives:

- collect comprehensive data on the travel patterns of non-permanent residents of the National Capital Region (NCR);
- collect data on the trips to and from 'special generators' in the NCR; and
- supplement data from the 2011 origin-destination survey, the household travel survey which is a core component of the region's transportation model.

Four types of special generators are included in the SGS: post-secondary institutions; transportation terminals (air, rail, intercity bus); major hotels; and major sporting, entertainment, and event venues.

The focus of this report is on the surveys that were conducted at the following six post-secondary institutions:

- University of Ottawa
- Carleton University
- Algonquin College
- La Cité collégiale
- Université du Québec en Outaouais
- Cégep de l'Outaouais

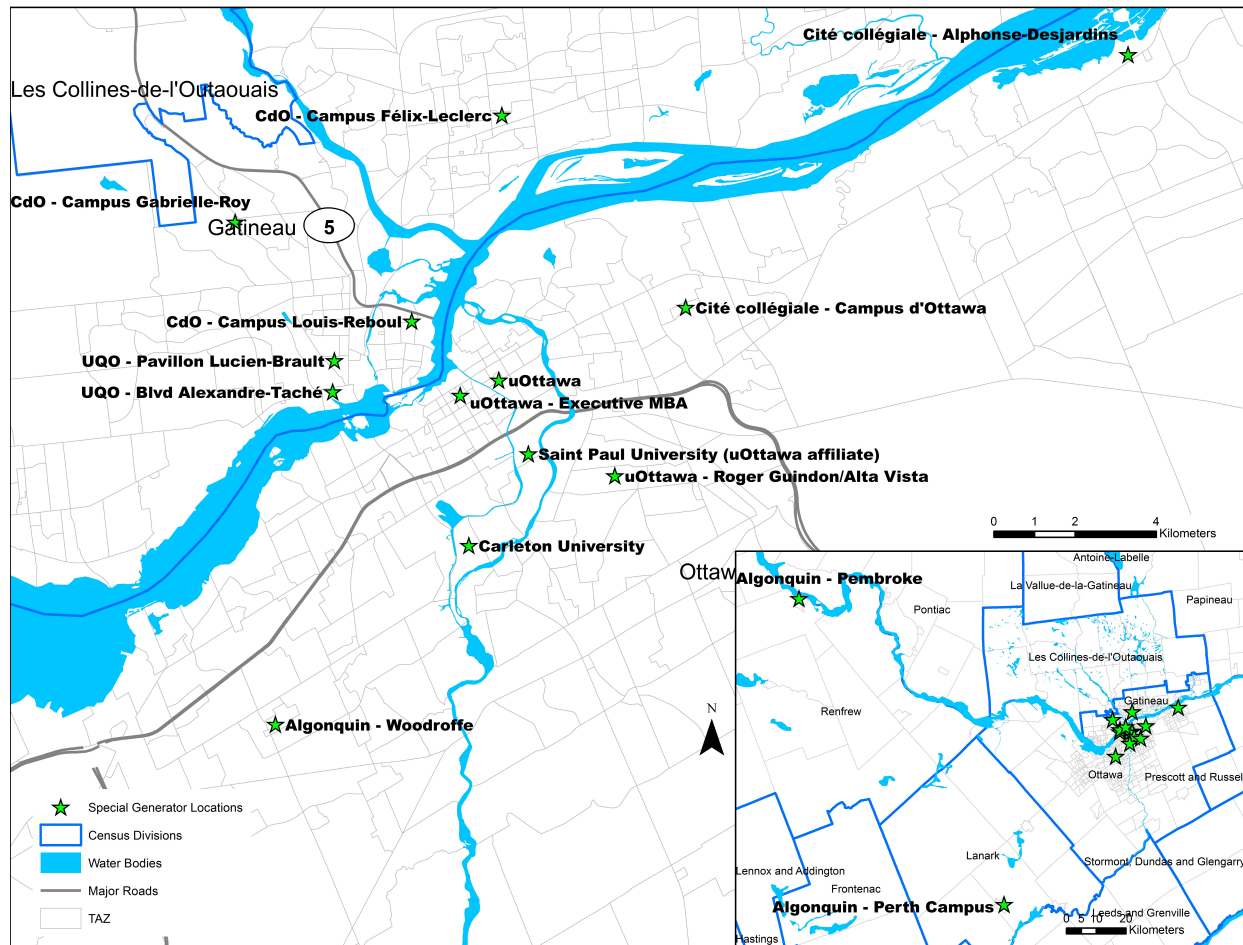
These six institutions are the largest post-secondary institutions in the NCR. The list of institutions was determined by the TRANS Committee. Note that some smaller post-secondary institutions were not included, in order to concentrate the available resources.

The locations of the campuses of these institutions are illustrated in the map in Exhibit 1-1 on the following page. Algonquin College's Perth and Pembroke campuses, which are located outside the NCR, are illustrated on the inset map. Although all Algonquin College students surveyed attend classes at Woodroffe campus in Ottawa, some cited Perth or Pembroke as a second campus at which they attend classes. It may be noted that Université du Québec en Outaouais has amongst its campuses a satellite campus in Saint-Jérôme, Québec (not illustrated on the map). Students from the Saint-Jérôme campus were not surveyed as part of this study.

The SGS project was conducted by R.A. Malatest and Associates Ltd. (Malatest) in association with David Kriger Consultants Inc. and Resource Systems Group Inc.

In total, over, 5,306 students completed the entire survey. After geocoding, data cleaning, and data validation, the dataset includes 4,793 useable surveys, for a relatively robust 4.6% sampling rate when compared to the total student population of 103,941 full-time and part-time students.

Exhibit 1-1 Post-Secondary Special Generators – Campus Locations



uOttawa = University of Ottawa, UQO = Université du Québec en Outaouais, Cdo = Cégep de l'Outaouais

1.2. Report Contents

The preliminary report presents key survey results after the completion of geocoding, data cleaning, and data validation. These results are based on weighted survey data, expanded to represent total student populations in the 2013-14 school year. The remainder of the report is organized into the following sections:

Section 2: Survey Methodology

Section 3: Post-Secondary Student Profile

Section 4: Travel Patterns

Appendix A details the data weights applied.

Appendices B and C, included under a separate cover, include maps illustrating the distributions of student home locations by traffic zone by institution attended, and the distributions of off-campus trip origins/destinations for campus-based trips (trips to and from each campus) by campus.

1.3. Acknowledgements

The project team would like to acknowledge the support of the TRANS Committee, in particular the client project team lead, Jennifer M. Armstrong of the City of Ottawa and Ahmad Subhani, formerly with the City and now with the Regional Municipality of York. We would also like to acknowledge the management and administrative staff associated with the various special generators surveyed who provided access to the facilities surveyed. Finally, we would like to acknowledge and thank all who graciously agreed to answer questions about their travel habits.

2. Survey Methodology

2.1. Survey Design

The post-secondary student survey was designed as an online survey to better understand the students' daily travel behaviour in the NCR by capturing their trips in a travel diary. It collected information about all trips made by the student on a specific day (as randomly assigned to ensure sufficient representation of each weekday). It also collected demographic and housing information. Exhibit 2-1 below provides an overview of the data collected for this survey. The full survey questionnaire is provided under separate cover. Readers should be aware that the focus of the survey was on student trips that impacted the transportation network, and therefore the survey excludes trips made entirely on campus (e.g., travel between buildings on campus).

Exhibit 2-1: Post-Secondary Student Survey Design – Data Points

| Survey Focus | Data Collected |
|-------------------------------------------|---------------------------------------------------------------------------|
| Student's Household | Campus or off-campus residency (with address confirmation) |
| | Dwelling type |
| | Number and type co-habitants (roommates, parents, spouse or family, etc.) |
| | Land line, cell phone, or both |
| | Other residence – permanent (with address confirmation) |
| Student's Personal Characteristics | Student status (f/t, p/t) |
| | Gender |
| | Age range |
| | Has driver's license |
| | Vehicle availability (and # vehicles available) |
| | Transit pass and type |
| | Campus location (for classes attended) |
| | Number of jobs (on or off campus) and hours worked per week |
| | Workplace location |
| | Number of days of week on campus for class, work, or other activities |
| | Frequency of commuting to campus |
| | Number of trips made on designated travel day (excluding trips on-campus) |
| Student's Trips | Depart/arrival times |
| | Purpose |
| | Origin/destination locations |
| | Modes of transportation |
| | Urban transit route(s) and transfer locations |
| | Auto occupancy (if auto driver or passenger) and relationship to driver |
| | Type of parking location and parking costs |

2.2. Sample Frame

The sample frame for this study included all public post-secondary students who were attending any of the six following institutions within the National Capital Region: University of Ottawa (uOttawa), Carleton University (Carleton), Algonquin College (Algonquin), La Cité collégiale, Université du Québec en Outaouais (UQO), and Cégep de l'Outaouais. While the sample frame originally was not supposed to include students at St. Paul University, an institution affiliated with the University of Ottawa, some students who resided at and/or attended classes at this university campus received survey invitations and completed the survey. It is not known whether all students at St. Paul University received the invitation, or only those who were attending classes jointly at the University of Ottawa and at St. Paul University.

2.3. Sampling Plan

The proposed initial sampling approach for the post-secondary student survey was designed to ensure a maximum sampling error of 4.9 (+/-%) for each institution and assumed an average response rate of 10%.

Exhibit 2-2: Post-Secondary Student Survey Design – Sampling Characteristics

| Institution | Student Population | Survey Completion Target | Target Proportion (Sampling Rate) | Est. Sampling Error (+/-%) | Contact List Sample | Maximum desired sampling error for each institution (+/-%) | Minimum sample size for desired maximum sampling error |
|-----------------------------------|--------------------|--------------------------|-----------------------------------|----------------------------|---------------------|------------------------------------------------------------|--------------------------------------------------------|
| University of Ottawa | 37,813* | 2,000 | 5.3% | 2.1% | 10,000 | 4.9% | 396 |
| Carleton University | 27,824 | 1,200 | 4.3% | 2.8% | 12,000 | 4.9% | 394 |
| Algonquin College | 17,803 | 800 | 4.5% | 3.4% | 8,000 | 4.9% | 391 |
| La Cité Collégiale | 5,660 | 600 | 10.6% | 3.8% | 5,660 | 4.9% | 374 |
| Université du Québec en Outaouais | 4,832* | 600 | 12.4% | 3.7% | 4,832 | 4.9% | 369 |
| Cégep de l'Outaouais | 4,541* | 600 | 13.2% | 3.7% | 4,541 | 4.9% | 368 |
| TOTAL | 98,473 | 5,800 | 5.9% | 1.2% | 45,033 | 1.4% | 2,292 |

*Average enrolment accounting for varying student populations for each academic term included in the data collection, as at the time of the project planning phase (Fall 2013)

The proposed initial approach was to obtain a sample or a full list (depending on the institution and whether a sampling or a census approach was planned) of student emails to which invitations to complete the survey would be sent. The email lists would be divided in batches. On each day of the week (Tuesday through Saturday) one batch of email addresses would be sent the survey invitation, asking students to report on trips made the previous day. This approach enabled the development of balanced survey proportions for each weekday.

The actual approach used varied depending on the post-secondary institution's capacity to directly solicit participation from their student body. Some institutions were unable to release student email addresses or send out survey invitations directly. In these cases, a varied approach, detailed in Section

2.4 was used. Also, some institutions may not have been able to send emails staggered across Tuesday through Saturday, but instead only sent one mass email. To ensure that a sufficient number of surveys were completed for each day of the week, the survey software randomly assigned a travel day to the student, based on the day they accessed the survey. If the randomly assigned weekday fell on one of the two days previous to the date the survey respondent logged in, when recall of trips would still be fresh, the survey could to be filled out immediately. Otherwise, the respondent was assigned their weekday as a future date, with instructions to log in again the day after their assigned travel date to fill in their survey. Respondents were also given the option to choose a different travel date should it be inconvenient for them to fill out the survey on their assigned date or if it would make a difference in their participation.

2.4. Survey Administration

The post-secondary student survey was designed to capture a full day diary of the trips students make. While the survey was administered online, there were a number of challenges in attracting students to participate, resulting in a variety of approaches to data collection as well as extended data collection periods.

As previously noted, the proposed approach was to email survey invitations directly, either to the entire student body, or to a sample, depending on institution size. Limitations due to institutional policies, as well as varying degrees of engagement from the institutions, resulted in the need to allow for flexibility and to develop other approaches to data collection.

All of the approaches and methods used to achieve survey completions are outlined in Exhibit 2-3 below, along with the time period of the related activities:

Exhibit 2-3: Approach and Data Collection Strategies by Institution

| Post Secondary Institution | Approach | Circumstances/Challenges | Corresponding Data Collection Strategy | Time Period |
|-----------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| University of Ottawa | Sample | <ul style="list-style-type: none"> Due to competing research priorities, UofO could only release smaller samples during specific periods | <ul style="list-style-type: none"> Staggered emails using sample, sent by Malatest Two data collection periods were used (lasting about two weeks each) | Fall 2013 Fall 2014 |
| Carleton University | Sample | <ul style="list-style-type: none"> Could not release student emails to Malatest | <ul style="list-style-type: none"> With support from Malatest, Carleton sent staggered emails (daily batch approach) to sample | Fall 2013 |
| Algonquin College | Sample | <ul style="list-style-type: none"> Lengthy approval process to approve study and release sample resulted in later survey administration | <ul style="list-style-type: none"> Staggered emails using sample, sent by Malatest | Spring 2014 |
| La Cité Collégiale | Census | <ul style="list-style-type: none"> Could not release email addresses to Malatest | <ul style="list-style-type: none"> Mass email by school to known email addresses | Spring 2014 Fall 2014 |
| Université du Québec en Outaouais | Census | <ul style="list-style-type: none"> School administration could not provide student emails or send out email invitations | <ul style="list-style-type: none"> Distribution of hard copy invitations by survey team on site Information and survey link posted on school intranet dashboard | Fall 2013 |
| | | <ul style="list-style-type: none"> An agreement with the student body council would have them send out the invitation to known student | <ul style="list-style-type: none"> Mass email by student body council to known email addresses | Spring 2014 |

| Post Secondary Institution | Approach | Circumstances/Challenges | Corresponding Data Collection Strategy | Time Period |
|----------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| | | email addresses | | |
| | | <ul style="list-style-type: none"> Minimal student response to online survey | <ul style="list-style-type: none"> On site intercept survey (over two days) | Fall 2014 |
| Cégep de l'Outaouais | Census | <ul style="list-style-type: none"> School administration could not provide student emails or send out email invitations | <ul style="list-style-type: none"> Distribution of hard copy invitations by survey team on site Information and survey link posted on school intranet dashboard | Fall 2013 Spring 2014 |

Exhibit 2-4 below outlines the email schedule for the institutions that did (or had the Consultant) send emails to their students. Students who did not access the survey immediately upon receipt were still asked to recall trips made on the date according to their batch, but, as noted earlier, they also had the option to select another date on which to report trips (with a small proportion electing to choose a different travel date). It may be noted that a number of students were assigned a future travel date, but did not follow through to complete the survey after that date.

Exhibit 2-4: Email batches sent to post-secondary school students

| Generator | Day | | | | | Total Sample Emailed | Survey Target |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|---------------|
| | Tue | Wed | Thu | Fri | Sat | | |
| Algonquin College | 1,600 | 1,600 | 1,600 | 1,600 | 1,600 | 8,000 | 800 |
| Carleton University | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 12,000 | 1,200 |
| University of Ottawa (Fall 2013) | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 5,000* | 1,000* |
| University of Ottawa (Spring 2014) | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 5,000* | 1,000* |
| Total | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 | 30,000 | 4,000 |

*Originally, the University of Ottawa was asked to provide a sample of 20,000. However, institutional priorities and limitations only allowed two samples of 5,000 each for data collection in autumn 2013 and in autumn 2014.

It may be noted that a total of 7,761 students at some point logged on to the survey. Of these, 1,357 students (17.5%) did not proceed beyond the introduction or more than the first few questions. Another 1,098 students (14%) completed the demographics section of the survey but did not follow through to complete the full trip diary portion of the survey. Overall, 68% of those who started the survey completed their entire survey including the trip diary for their travel day, for 5,306 full survey completions. These survey attrition rates are somewhat higher than the norm for similar such surveys conducted over the phone, but are in keeping with expectations for an online trip diary survey. Some respondents who logged on to the survey on a Sunday or Monday (more than one day out since the last full weekday), as well as those who did not have good recollection of the previous weekday, may have scheduled to complete the survey on a future day, but then did not carry forward to complete the full survey. A number of respondents commented on the length of the survey, and it may be noted that younger population demographics are usually not as inclined to participate in surveys as compared to the general population.

2.5. Data Processing

In order to be considered a valid, useable survey, the survey had to include reasonably good information on key household and demographic characteristics, as well as essential trip information (departure time, origin, destination, trip purpose, and modes of travel). Survey response data were reviewed to ensure that all data fields contained values where expected. Outstanding geocoding issues were resolved to the extent possible. Treatments were applied to certain kinds of geocoded locations, such as offsets for locations coded to the nearest intersection and imputations of locations coded to a street only without a civic address. Once the geocoding was finalized, the data were also subjected to a number of standard trip logic tests (such as testing the distance between origin and destination for reasonableness with respect to the mode of travel used) and other validation tests. Finally, the person and trip records were screened against data acceptance criteria, and respondents with insufficient or poor information were rejected.

A total of 5,306 students completed the entire survey, although almost 513 had their surveys rejected due to trip chains that either could not be fully geocoded or that failed trip logic / validation tests, yielding a final survey dataset of 4,793 useable records with a total of 11,445 reported trips.

Exhibit 2-5: Surveys Completed

| Special Generator | Completed Surveys | Unusable Surveys | Valid Surveys (n) | Valid Trip Records |
|-----------------------------------|--------------------------|-------------------------|--------------------------|---------------------------|
| University of Ottawa | 1,866 | 189 | 1,677 | 4,176 |
| Carleton University | 1,697 | 142 | 1,555 | 3,487 |
| Algonquin College | 963 | 114 | 849 | 1,966 |
| La Cité collégiale | 145 | 19 | 126 | 289 |
| Université du Québec en Outaouais | 171 | 9 | 162 | 466 |
| Cégep de l'Outaouais | 464 | 40 | 424 | 1,061 |
| Grand Total | 5,306 | 513 | 4,793 | 11,445 |

2.6. Data Weighting

2.6.1. Approach to Data Weighting for Each Institution

Weighting of the student survey data was undertaken through a multi-stage weighting process.

First, base expansion weights were assigned to reflect the total population of students at each institution. For institutions with campus residences (University of Ottawa, Carleton University, La Cité collégiale, Algonquin College, and Université du Québec en Outaouais), the base expansion weights assigned to survey respondents who lived on- and off-campus were based on the populations in residence at each campus and the populations of all other students who live off-campus. Second, adjustments were made for various controls from administrative data, as follows for each institution (with numbers in brackets indicating the number of strata for each variable):

- University of Ottawa**
- weighted by **program type (2)** and **sex (2)**,
 - weighted separately by **program type (2)** and **enrolment**

| | |
|------------------------------------------|----------------------------------------------------------------------------------------|
| | status (2). |
| Carleton University | ➤ weighted by program type (2), enrolment status (2), sex, and age group (2). |
| Algonquin College | ➤ weighted by sex (2) only. ¹ |
| La Cité collégiale | ➤ weighted by enrolment status (2) and sex (2). ² |
| Université du Québec en Outaouais | ➤ weighted by enrolment status (2) only. |
| Cégep de l'Outaouais | ➤ weighted by sex (2), ➤ weighted separately by enrolment status (2). |

As applicable to each institution, the stratification categories for this stage of the weighting were as follows:

- program type: graduate, undergraduate (with the latter including any of cégep, college degree, university undergraduate, certificate program, continuing education, adult basic education, or other);
- enrolment status group: full-time, part-time (with the latter also including any who reported distance education);
- sex: male, female; and
- age group: under 25, over 25.

Third, an adjustment was made to compensate for poor trip chains and respondents who completed the demographics but failed to finish the survey. This was done because respondents who travelled were more likely than those who did not travel to either abandon the survey before it was complete due to survey fatigue or have their trip chains rejected during the data validation and data quality assessment due to poor or illogical data. Factoring in the rejection of incomplete surveys and poor quality trip chains ensures that the incidence of students who reported not travelling on their survey day was not artificially inflated.

For this weighting stage, stratification was as follows:

- institution,
- campus of residence (if applicable),
- enrolment status (2), and
- age group (2).

¹ Note that quite a few Algonquin College students indicated their program was a graduate degree, however it is likely they confused their program, as Algonquin does not appear to offer graduate degrees. No attempt has been made to correct these answers, as it is uncertain what kind of program they might have confused a graduate degree with.

² Note that La Cité collégiale has a small number of respondents who reported themselves as graduate students, which are likely valid answers (as it appears the college may make arrangements with other universities for such programs), however administrative data on numbers of graduate vs. undergraduate students were not provided.

For this weighting stage, whether respondents live on or off campus was deemed important to the incidence of travel, as students who live on campus were less likely to report trips off campus. Users of the data are reminded that trips entirely on-campus were, as a general rule, excluded from the survey.

After the adjustment for poor trip chains and incomplete surveys, incomplete and poor survey cases could be removed from the trip analysis dataset. This includes 1,098 cases from respondents who indicated that they travelled but did not complete the survey, and 513 cases from survey completers who did not provide good trip information. The proportion of survey completers rejected (9.7% of all survey completions) is in keeping with similar online travel surveys with post-secondary students.

Fourth, an adjustment was made to include trip correction factors for the day of the week that the travel occurred (i.e., to balance the total population reporting for each day of the week), with stratification as follows:

Larger institutions (University of Ottawa, Carleton University, Algonquin College) were stratified by

- institution,
- day of week (5 days), and
- whether the student lived on or off campus (2 categories).

Smaller institutions (La Cité collégiale, Université du Québec en Outaouais, Cégep de l'Outaouais) were stratified by:

- institution and
- day of week group (3 groups: Monday, Tuesday-to-Thursday, Friday).

As sample sizes were much smaller for the smaller institutions, fewer strata were used.

After each of the four stages above, high weights were limited to no more than 10 times the lowest weight observed for any case for that institution.

At every stage, after this above-noted limiting of exceptionally high weights, the weights were then recalibrated by institution by total population living on each campus and off campus. This was to ensure that any slight deviations from the total population controls introduced during weighting procedures (either due to missing samples in certain cells or due to limiting very high weights) were compensated for.

2.6.2. Weighting Controls

The following tables highlight the weighting controls used for the various weighting stages.

Exhibit 2-6: Total Population by Institution and Campus
(used in first weighting stage and in recalibration after every subsequent stage)

| Institution | Campus (if applicable) | Students |
|-----------------------------|----------------------------------------------------------|----------------|
| GRAND TOTAL | | 104,067 |
| University of Ottawa | Total | 42,672 |
| | University of Ottawa - 75 Laurier Ave East, Ottawa | 2,897 |
| | Saint Paul University (Affiliated) (223 Main St, Ottawa) | 186 |
| | Off-campus | 39,589 |
| Carleton University | Total | 28,289 |

| Institution | Campus (if applicable) | Students |
|------------------------------------------|-----------------------------------------------------------------------------|-----------------|
| | Carleton University - 1129 Colonel By Drive, Ottawa | 3,598 |
| | Off-campus | 24,691 |
| | Total | 5,660 |
| La Cité collégiale | La Cité collégiale - Campus d'Ottawa (801, promenade de l'Aviation, Ottawa) | 251 |
| | Off-campus | 5,409 |
| Algonquin College | Total | 17,803 |
| | Woodroffe (Ottawa) campus (1385 Woodroffe Ave, Ottawa) | 1,050 |
| | Off-campus | 16,753 |
| Université du Québec en Outaouais | Total | 4,947 |
| | Les Residences Taché (283 Boulevard Alexandre-Taché, Gatineau) | 92 |
| | Maisons de ville de l'UQO | 126 |
| | Off-campus | 4,729 |
| Cégep de l'Outaouais | | 4,696 |

Exhibit 2-7: Carleton University Enrolments by Program, Enrolment Status, Age, and Gender (second weighting stage)

| Program Group | Enrolment Status Group | Age | Sex | Students |
|---------------|------------------------|------------|--------|----------|
| Undergraduate | Full-Time | Under 25 | Male | 9,622 |
| Undergraduate | Full-Time | Under 25 | Female | 9,252 |
| Undergraduate | Full-Time | 25 or over | Male | 807 |
| Undergraduate | Full-Time | 25 or over | Female | 611 |
| Undergraduate | Part-Time | Under 25 | Male | 1,794 |
| Undergraduate | Part-Time | Under 25 | Female | 1,117 |
| Undergraduate | Part-Time | 25 or over | Male | 697 |
| Undergraduate | Part-Time | 25 or over | Female | 654 |
| Graduate | Full-Time | Under 25 | Male | 523 |
| Graduate | Full-Time | Under 25 | Female | 573 |
| Graduate | Full-Time | 25 or over | Male | 1,088 |
| Graduate | Full-Time | 25 or over | Female | 931 |
| Graduate | Part-Time | Under 25 | Male | 34 |
| Graduate | Part-Time | Under 25 | Female | 40 |
| Graduate | Part-Time | 25 or over | Male | 297 |
| Graduate | Part-Time | 25 or over | Female | 249 |

Exhibit 2-8: Other Institutions – Enrolments by Program, Enrolment Status, and/or Gender, as Available (second weighting stage)

| Institution | Program Group | Enrolment Status Group | Sex | Students |
|--------------------------------------------------------------|----------------------|-------------------------------|------------|-----------------|
| University of Ottawa 1 program by gender | Grad | - | Female | 3,603 |
| | Grad | - | Male | 3,001 |
| | Undergrad | - | Female | 21,419 |
| | Undergrad | - | Male | 14,649 |
| University of Ottawa 2 program by Enrolment status | Grad | Full-time | - | 5,327 |
| | Grad | Part-time | - | 1,277 |
| | Undergrad | Full-time | - | 30,130 |
| | Undergrad | Part-time | - | 5,938 |
| Algonquin College | - | - | Female | 8,304 |
| | - | - | Male | 9,499 |
| La Cité collégiale | - | Full-time | Female | 2,101 |
| | - | Full-time | Male | 2,288 |
| | - | Part-time | Female | 745 |
| | - | Part-time | Male | 526 |
| Université du Québec en Outaouais | - | Full-time | - | 2,871 |
| | - | Part-time | - | 2,076 |
| Cégep de l'Outaouais 1 Enrolment status | - | Full-time | - | 4,319 |
| | - | Part-time | - | 164 |
| Cégep de l'Outaouais 2 gender | - | - | Female | 2,503 |
| | - | - | Male | 1,981 |

2.6.3. Full Table of Weights Assigned

Appendix A details the array of weights assigned to the survey data by sample strata.

2.7. Presentation of the Survey Results

The survey results presented in the following section are based on weighted data, expanded to represent the total size of the student population at the public post-secondary institutions included in the study.

The following general approach has been taken to present the results:

- The survey results are presented overall and by institution.
- Selected results are presented for students who live on campus versus students who live off-campus.
- Survey results pertaining to trip patterns are presented for all trips, regardless of origin or destination, made by the student body for the entire 24-hour day surveyed.
- Selected results pertaining to trip patterns are presented for only campus-based trips, i.e., those trips made to/from campus at the institution attended by the respondent, filtering out trips that involve travel entirely external to the campuses of the institution attended by the student.
- Some of the results for trips to/from campus may be cross-tabulated by the origin/destination campus, where sample sizes warrant it.
- Trips made entirely on campus were not captured by the survey, and are not reported on.
- Where relevant, survey averages from TRANS' 2011 Household Origin-Destination Survey are presented for reference.

For each table or chart, survey samples sizes (n) are based on the total survey sample, unless otherwise noted in a footnote to the chart or table.

Readers are advised that survey samples for La Cité collégiale and the Université du Québec en Outaouais (UQO) are relatively modest (n=126 and n=162 respectively) compared to other institutions. For these institutions, cross-tabulations by strata of interest may have some cell sizes that are quite small, and some results that appear to differ notably from the survey average should be interpreted with caution. By institution, sample sizes for students living on-campus at Algonquin, La Cité collégiale, and UQO are very small and results for this subset of students are never reported individually. It may also be noted that, as the survey did not obtain any responses from residents of the UQO Maisons de Ville residence (even though they theoretically would have been included in both the mass email and intercept recruitment methods), which has a maximum occupancy of 126 residents, these students are not represented in the survey results.

For questions with a small proportion of respondents who declined to answer, or who did not know the answer, the proportions who answered decline/don't know are usually reported, and the base for percentages reported is total students. In selected instances where the proportion of those with answers of decline/don't know could skew the understanding of the responses, the weighted survey results may be reported on the distribution of only known answers, i.e., excluding the answers of decline/don't know; In such instances, the valid sample size is noted in a footnote to the table or chart.

Exhibit 2-9 outlines the sample sizes for each institution, including those for off-campus and on-campus residents, and indicating sampling errors for each group. Overall, the survey results are subject to an estimated sampling error of $\pm 1.4\%$ at a 95% confidence level, although results for subsets and individual sample cells within cross-tabulations may be based on small sample sizes and subject to much higher levels of sampling error.

Exhibit 2-9: Sample Sizes and Expanded Weights

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Total |
|----------------------------------------------------------------------------------------------|---------|----------|-----------|-----------------------|--------|-------------------------|---------|
| Overall Results | | | | | | | |
| Sample size | n=1,677 | n=1,555 | n=849 | n=126 | n=162 | n=424 | n=4,793 |
| Population represented (expanded weight) | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Sampling rate (% of population surveyed) | 3.9% | 5.5% | 4.8% | 2.2% | 3.4% | 9.0% | 4.6% |
| Sampling error | ±2.3% | ±2.4% | ±3.3% | ±8.6% | ±7.6% | ±4.5% | ±1.4% |
| Subset: students living off- campus | | | | | | | |
| Sample size | n=1,594 | n=1,369 | n=836 | n=118 | n=148 | n=424 | n=4,489 |
| Population represented (expanded weight) | 39,589 | 24,691 | 16,753 | 5,409 | 4,729 | 4,696 | 95,867 |
| Sampling rate (% of population surveyed) | 4.0% | 5.5% | 5.0% | 2.2% | 3.1% | 9.0% | 4.7% |
| Sampling error | ±2.4% | ±2.6% | ±3.3% | ±8.9% | ±7.9% | ±4.5% | ±1.4% |
| Subset: students living on campus in a designated student residence/dormitory | | | | | | | |
| Sample size | n=83 | n=186 | n=13* | n=8* | n=14* | n/a | n=304 |
| Population represented (expanded weight) | 3,083 | 3,598 | 1,050 | 16,753 | 92** | n/a | 8,074 |
| Sampling rate (% of population surveyed) | 2.7% | 5.2% | 1.2% | 0.05% | 15.2% | n/a | 3.8% |
| Sampling error | ±10.6% | ±7.0% | ±27.0% | ±34.6% | ±24.2% | n/a | ±5.5% |

Estimated sampling error at a 95% confidence interval (19 times out of 20) (estimates only: not adjusted for the effects of data weighting).

*Survey results based on very small sample sizes are not reported

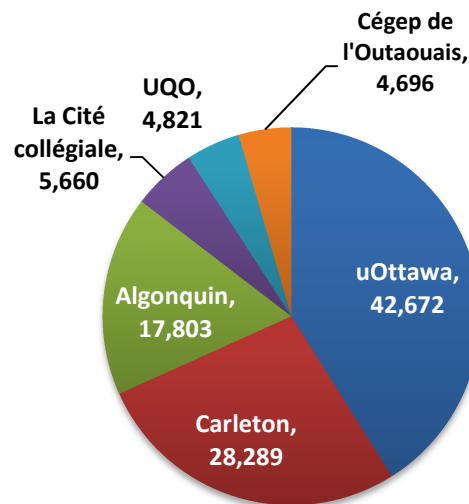
** Residents of UQO's Residences Taché. As none of those surveyed indicated that they live at Les Maisons de ville de l'UQO, the survey results do not represent UQO students from this residence (capacity 126 students)

3. Profile of Post-Secondary Students Surveyed

3.1. Demographics

Overall, the data gathered in the post-secondary student survey represent almost 104,000 students at the 6 institutions surveyed. The distribution by institution is illustrated in the chart below.

Exhibit 3-1: Student Populations Surveyed



The following table (Exhibit 3-2) outlines the demographics of the respondents surveyed at each institution. 2011 Census distributions for the Ottawa-Gatineau Census Metropolitan Area (CMA) are included for reference. Exhibit 3-3 provides the distributions as percentages of the total. These figures represent the weighted and expanded counts in the survey data. For certain institutions, reference data were not available for the distributions of populations by age and gender, so the distributions may be affected by survey non-response bias. Readers are referred to the section of this report on data weighting for details on the reference information used for data weighting controls.

In total, the 2013-2014 student body for the public post-secondary institutions surveyed represents about 8% of the total population enumerated in the 2011 Census (i.e., 103,941 students, compared with a total NCR population of 1,236,320), and a very high proportion of youth living in the area (e.g., the public post-secondary student body represents 60% of all population aged 20 to 24 in the NCR). Readers should keep in mind that a portion of this student body may not have been enumerated as part of the population of the CMA (i.e., may have been considered to reside elsewhere), given the federal census' timing in May of the census year after many students end winter post-secondary school terms, and that the years of the measurements differ. Nevertheless, the comparison illustrates that this student population is an important segment of the population living in the National Capital Region.

Exhibit 3-2: Demographics of Public Post-Secondary Students in the NCR – Expanded Counts v. NCR General Population

| Sex | Age | 0-15 | 15-19 | 20-24 | 25-29 | 30-34 | 35-44 | 45-54 | 55-64 | 65+ | Sex Total |
|---------------------------------------------------------------------------------------------------------|-----|----------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|------------------|
| 2011 Census – Ottawa Gatineau CMA – Total Population (Including Both Students and Non-Students)* | | | | | | | | | | | |
| Male | | 107,300 | 42,030 | 44,500 | 41,305 | 39,520 | 84,760 | 99,135 | 74,355 | 68,350 | 601,255 |
| Female | | 104,135 | 40,590 | 44,290 | 42,645 | 42,545 | 90,445 | 103,580 | 78,300 | 88,535 | 635,065 |
| Age Group Total | | 211,435 | 82,620 | 88,795 | 83,955 | 82,070 | 175,205 | 202,715 | 152,650 | 156,875 | 1,236,320 |
| Survey Total (Public Post-Secondary Students) | | | | | | | | | | | |
| Male | | - | 10,029 | 24,332 | 6,803 | 2,795 | 2,424 | 963 | 201 | 134 | 47,682 |
| Female | | - | 14,286 | 29,249 | 6,100 | 2,820 | 2,146 | 1,433 | 215 | 10 | 56,259 |
| Age Group Total | | - | 24,315 | 53,582 | 12,904 | 5,615 | 4,570 | 2,396 | 416 | 144 | 103,941 |
| uOttawa | | | | | | | | | | | |
| Male | | - | 4,021 | 8,792 | 2,316 | 1,003 | 876 | 314 | 19 | 83 | 17,425 |
| Female | | - | 6,508 | 13,633 | 2,402 | 1,156 | 859 | 632 | 47 | 10 | 25,247 |
| Age Group Total | | - | 10,529 | 22,425 | 4,717 | 2,159 | 1,735 | 946 | 67 | 94 | 42,672 |
| Carleton | | | | | | | | | | | |
| Male | | - | 3,820 | 8,099 | 1,467 | 585 | 549 | 87 | 146 | 51 | 14,802 |
| Female | | - | 3,964 | 7,065 | 1,298 | 437 | 430 | 205 | 87 | - | 13,487 |
| Age Group Total | | - | 7,785 | 15,164 | 2,764 | 1,022 | 979 | 292 | 233 | 51 | 28,289 |
| Algonquin | | | | | | | | | | | |
| Male | | - | 402 | 5,186 | 2,285 | 790 | 352 | 299 | 36 | - | 9,351 |
| Female | | - | 721 | 5,030 | 1,485 | 428 | 486 | 291 | 12 | - | 8,452 |
| Age Group Total | | - | 1,123 | 10,216 | 3,770 | 1,218 | 838 | 590 | 48 | - | 17,803 |
| La Cité collégiale | | | | | | | | | | | |
| Male | | - | 549 | 1,415 | 381 | 167 | 135 | 156 | - | - | 2,804 |
| Female | | - | 1,088 | 1,342 | 124 | 151 | 16 | 135 | - | - | 2,856 |
| Age Group Total | | - | 1,637 | 2,758 | 505 | 318 | 151 | 291 | - | - | 5,660 |
| UQO | | | | | | | | | | | |
| Male | | - | 54 | 324 | 204 | 241 | 437 | 57 | - | - | 1,317 |
| Female | | - | 55 | 1,681 | 634 | 609 | 300 | 170 | 55 | - | 3,504 |
| Age Group Total | | - | 109 | 2,005 | 838 | 850 | 737 | 227 | 55 | - | 4,821 |
| Cégep de l'Outaouais | | | | | | | | | | | |
| Male | | - | 1,182 | 517 | 151 | 8 | 76 | 49 | - | - | 1,983 |
| Female | | - | 1,950 | 497 | 158 | 39 | 55 | - | 13 | - | 2,713 |
| Age Group Total | | - | 3,132 | 1,014 | 309 | 47 | 130 | 49 | 13 | - | 4,696 |

n=4,793 (uOttawa n=1,662, Carleton n=1,555, Algonquin n=849, La Cité collégiale n=126, UQO n=162, Cégep de l'Outaouais n=424)

*Source: Statistics Canada 2011 Census

Exhibit 3-3: Demographics of Public Post-Secondary Students in the NCR - % Distributions v. NCR General Population

| Sex | Age | 0-15 | 15-19 | 20-24 | 25-30 | 30-34 | 35-44 | 45-54 | 55-64 | 65+ | Sex Total |
|---------------------------------------------------------------------------------------------------------|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 2011 Census – Ottawa Gatineau CMA – Total Population (Including Both Students and Non-Students)* | | | | | | | | | | | |
| Male | | 8.7% | 3.4% | 3.6% | 3.3% | 3.2% | 6.9% | 8.0% | 6.0% | 5.5% | 48.6% |
| Female | | 8.4% | 3.3% | 3.6% | 3.4% | 3.4% | 7.3% | 8.4% | 6.3% | 7.2% | 51.4% |
| Age Group Total | | 17.1% | 6.7% | 7.2% | 6.8% | 6.6% | 14.2% | 16.4% | 12.3% | 12.7% | 100.0% |
| Survey Total (Public Post-Secondary Students) | | | | | | | | | | | |
| Male | | - | 9.6% | 23.4% | 6.5% | 2.7% | 2.3% | 0.9% | 0.2% | 0.1% | 45.9% |
| Female | | - | 13.7% | 28.1% | 5.9% | 2.7% | 2.1% | 1.4% | 0.2% | 0.0% | 54.1% |
| Age Group Total | | - | 23.4% | 51.6% | 12.4% | 5.4% | 4.4% | 2.3% | 0.4% | 0.1% | 100.0% |
| uOttawa | | | | | | | | | | | |
| Male | | - | 9.4% | 20.6% | 5.4% | 2.4% | 2.1% | 0.7% | 0.0% | 0.2% | 40.8% |
| Female | | - | 15.3% | 31.9% | 5.6% | 2.7% | 2.0% | 1.5% | 0.1% | 0.0% | 59.2% |
| Age Group Total | | - | 24.7% | 52.6% | 11.1% | 5.1% | 4.1% | 2.2% | 0.2% | 0.2% | 100.0% |
| Carleton | | | | | | | | | | | |
| Male | | - | 13.5% | 28.6% | 5.2% | 2.1% | 1.9% | 0.3% | 0.5% | 0.2% | 52.3% |
| Female | | - | 14.0% | 25.0% | 4.6% | 1.5% | 1.5% | 0.7% | 0.3% | - | 47.7% |
| Age Group Total | | - | 27.5% | 53.6% | 9.8% | 3.6% | 3.5% | 1.0% | 0.8% | 0.2% | 100.0% |
| Algonquin | | | | | | | | | | | |
| Male | | - | 2.3% | 29.1% | 12.8% | 4.4% | 2.0% | 1.7% | 0.2% | - | 52.5% |
| Female | | - | 4.0% | 28.3% | 8.3% | 2.4% | 2.7% | 1.6% | 0.1% | - | 47.5% |
| Age Group Total | | - | 6.3% | 57.4% | 21.2% | 6.8% | 4.7% | 3.3% | 0.3% | - | 100.0% |
| La Cité collégiale | | | | | | | | | | | |
| Male | | - | 9.7% | 25.0% | 6.7% | 3.0% | 2.4% | 2.8% | - | - | 49.5% |
| Female | | - | 19.2% | 23.7% | 2.2% | 2.7% | 0.3% | 2.4% | - | - | 50.5% |
| Age Group Total | | - | 28.9% | 48.7% | 8.9% | 5.6% | 2.7% | 5.1% | - | - | 100.0% |
| UQO | | | | | | | | | | | |
| Male | | - | 1.1% | 6.7% | 4.2% | 5.0% | 9.1% | 1.2% | - | - | 27.3% |
| Female | | - | 1.1% | 34.9% | 13.2% | 12.6% | 6.2% | 3.5% | 1.1% | - | 72.7% |
| Age Group Total | | - | 2.3% | 41.6% | 17.4% | 17.6% | 15.3% | 4.7% | 1.1% | - | 100.0% |
| Cégep de l'Outaouais | | | | | | | | | | | |
| Male | | - | 25.2% | 11.0% | 3.2% | 0.2% | 1.6% | 1.1% | - | - | 42.2% |
| Female | | - | 41.5% | 10.6% | 3.4% | 0.8% | 1.2% | - | 0.3% | - | 57.8% |
| Age Group Total | | - | 66.7% | 21.6% | 6.6% | 1.0% | 2.8% | 1.1% | 0.3% | - | 100.0% |

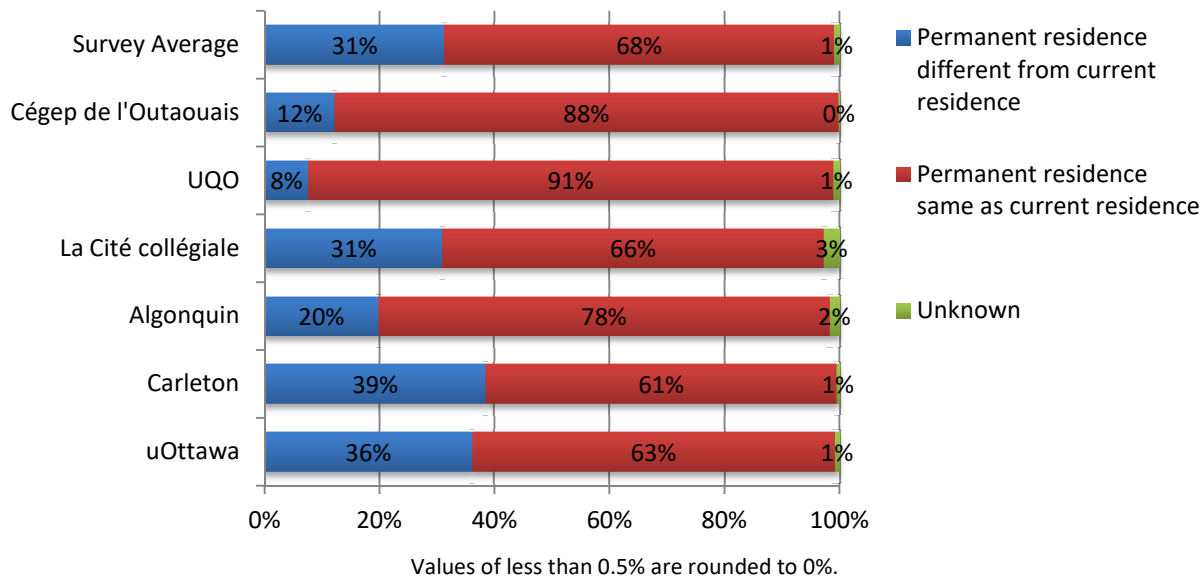
n=4,793 (uOttawa n=1,662, Carleton n=1,555, Algonquin n=849, La Cité collégiale n=126, UQO n=162, Cégep de l'Outaouais n=424)

*Source: Statistics Canada 2011 Census

3.2. Permanent Residence

Survey respondents were asked if, when not enrolled in school, they had a permanent residence other than their current residence while attending school. Overall, 31% have a permanent residence different from where they currently live. For the majority (68%), their current residence is their permanent residence. As illustrated in Exhibit 3-4, this proportion varies by institution, with some institutions attracting more students from outside the local area who move away from their permanent residence in order to attend school.

Exhibit 3-4: Permanent Residence Other than Current Residence



The following chart (Exhibit 3-5) illustrates the location of students' permanent residences by institution, while Exhibit 3-6 provides the expanded counts for each institution. Examination of the data provides the following observations:

- Overall, 68% of students surveyed permanently reside in the NCR. Of these, 50% live in the Ottawa NCR, 14% in the Québec NCR, 3% are from nearby communities within a 90 minute drive of the NCR (2.7% in Ontario and 0.3% in Québec), and 0.5% live in communities beyond a 90 minute drive (0.4% in Ontario and 0.1% in Québec).
- Of the 31% whose current residence is not the same as their permanent residence, one-quarter (23%) have permanent residences in Ontario (22%, 15% of whose permanent residence is beyond a 90 drive from the NCR) or Québec (0.4% and 0.3% respectively), and another 5% are from elsewhere in Canada or from another country.
- Carleton, Algonquin, UQO and Cégep de l'Outaouais students who indicated that they resided at their permanent residence while attending school predominantly live in the same province as the institution they attend. The same is true of University of Ottawa and La Cité collégiale (both located in Ontario), although the trend is not as pronounced: of students who live at their

permanent NCR residence, 18% of those attending uOttawa and 36% of those attending Cité collégiale commute to school from Québec. This may be related to the availability of unique French-language programmes at these two institutions that are not offered at UQO or in the Cégep de l'Outaouais.

- Of note, a small percentage (4.4%) of those whose permanent residence is within the NCR live in a different residence while attending school. Presumably this may be either for the experience of living away from home and/or to shorten their school commute.
- The data show that some people (3.6%) live outside the NCR and commute to school each day. The proportion decreases as the distance from the NCR increases, with 3.0% living within a 90-minute drive and 0.3% living beyond a 90-minute drive. This could impact travel behaviour and mode choice for these individuals, although it is possible that some of their characteristics (such as the weekly frequency of trips to the campus and the possibility of conducting other activities in the NCR, such as a job) also could influence their behaviour and mode choice between the NCR and their remote place of residence.

Exhibit 3-5: Location of Permanent Residence

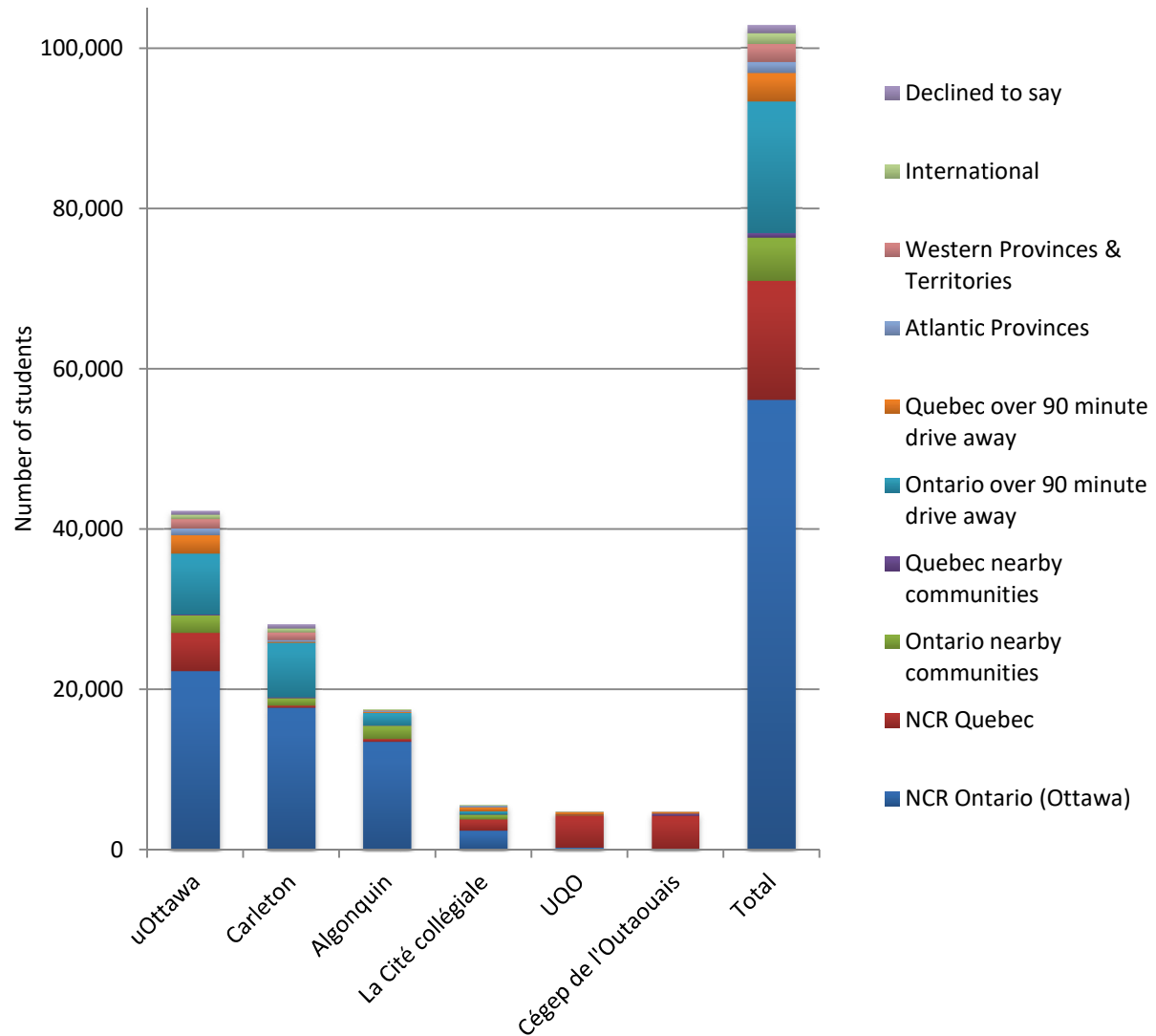


Exhibit 3-6: Location of Permanent Residence – Expanded Counts

| Current vs. Permanent Residence | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Total |
|------------------------------------------------------|----------------|-----------------|------------------|---------------------------|--------------|-----------------------------|----------------|
| Permanent residence is the same as current residence | 26,837 | 17,221 | 13,953 | 3,745 | 4,396 | 4,111 | 70,263 |
| Permanent residence differs from current residence | 15,449 | 10,896 | 3,525 | 1,754 | 367 | 571 | 32,562 |
| Unknown | 385 | 172 | 325 | 161 | 58 | 14 | 1,116 |
| Grand Total | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Location of Permanent Residence | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Total |
| NCR Ontario (Ottawa) | | | | | | | |
| same as current residence | 20,829 | 16,470 | 12,456 | 2,134 | 245 | 46 | 52,179 |
| differs from current residence | 1,456 | 1,229 | 972 | 189 | 26 | 24 | 3,896 |
| NCR Quebec | | | | | | | |
| same as current residence | 4,617 | 196 | 339 | 1,180 | 3,986 | 3,959 | 14,277 |
| differs from current residence | 152 | 67 | 19 | 197 | | 166 | 602 |
| ON nearby communities | | | | | | | |
| same as current residence | 1,117 | 459 | 875 | 363 | 57 | | 2,871 |
| differs from current residence | 1,076 | 476 | 758 | 198 | | | 2,508 |
| QC nearby communities | | | | | | | |
| same as current residence | 40 | 61 | 20 | 67 | 21 | 106 | 315 |
| differs from current residence | 40 | 39 | | | | 175 | 253 |
| ON over 90 min. drive away | | | | | | | |
| same as current residence | 143 | 35 | 241 | | | | 419 |
| differs from current residence | 7,475 | 6,777 | 1,336 | 374 | | | 15,962 |
| QC over 90 min. drive away | | | | | | | |
| same as current residence | 93 | | 22 | | 86 | | 201 |
| differs from current residence | 2,206 | 111 | 78 | 485 | 277 | 189 | 3,346 |
| Atlantic Provinces | 833 | 221 | 118 | 194 | 27 | | 1,393 |
| Western Provinces & Territories | 1,185 | 955 | 85 | | | 11 | 2,236 |
| International | 513 | 505 | 159 | 117 | 37 | 5 | 1,337 |
| Declined to provide location | 513 | 517 | | | | | 1,030 |
| Grand Total | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |

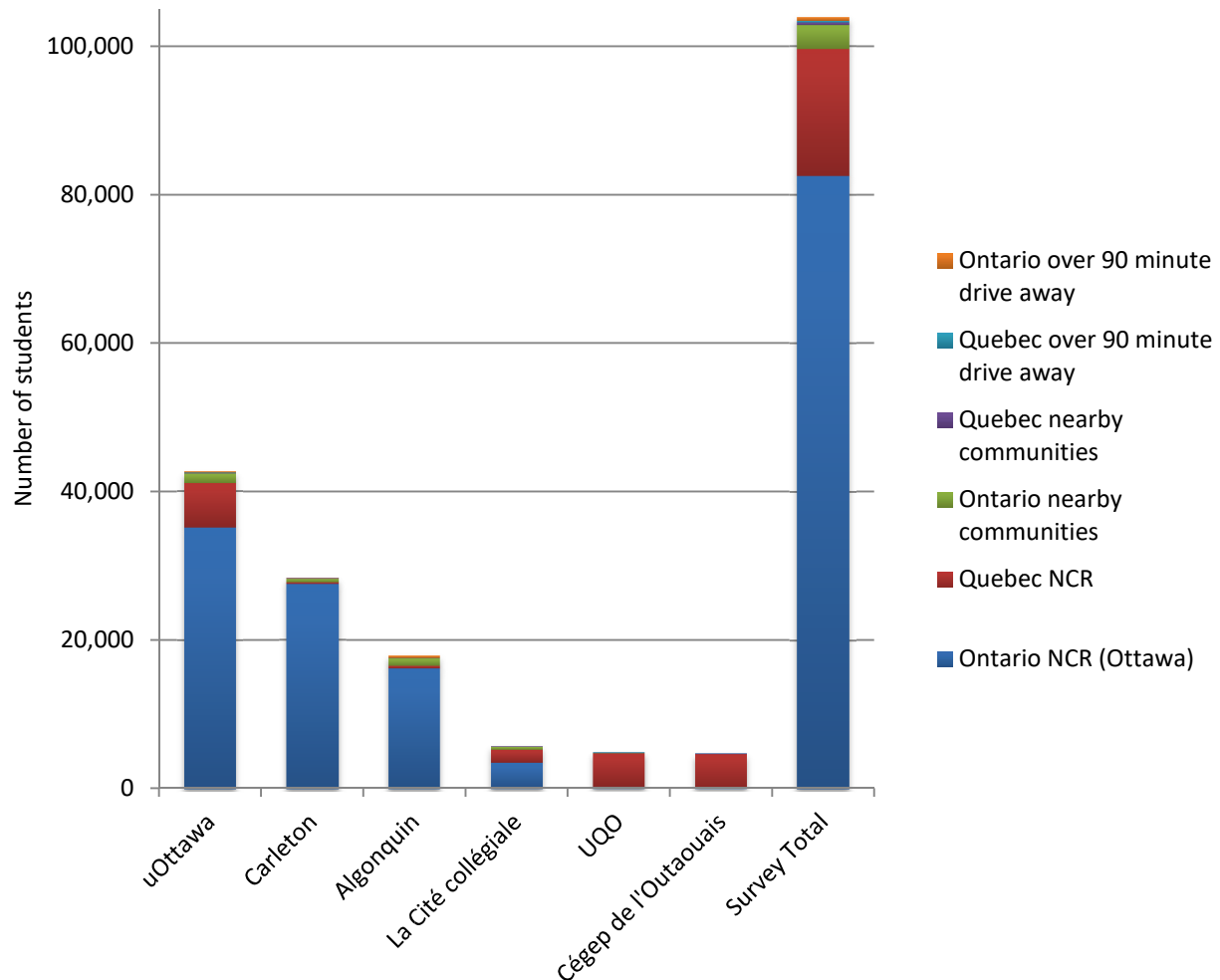
Survey respondents were asked if they had a permanent residence other than their current residence. Those who said yes or declined were asked separately the city, province and country of their permanent residence. Each question had different levels of non-response (e.g., a respondent may have provided the city of their permanent residence as within the NCR but declined to say whether their current residence differed from their permanent residence, or a respondent may have answered the question on current vs. permanent residence but declined to say where their permanent residence was located).

3.3. Current Residence (while Attending School)

3.3.1. Location of Current Residence (while Attending School)

The following chart summarizes where students live while attending school, by institution. The following tables provide the expanded counts and percentage distributions, by institution.

Exhibit 3-7: Location of Current Residence



Of note from Exhibit 3-8 and Exhibit 3-9, the large majority of students at all schools live within urban Ottawa or urban Québec. The significance is that these students generally have access to transit. In contrast, relatively few students live in the rural NCR or outside the NCR, with three exceptions: 18% of students who attend the UQO (15% of whom live in the rural Quebec NCR), 25% of students who attend the Cégep de L'Outaouais (22% of whom live in the rural Quebec NCR), and 13% of students who attend Algonquin College (which has campuses outside the NCR in Perth and Pembroke, Ontario; with 8% of students who attend class at the main Ottawa campus living outside the NCR) fall in these categories – meaning that they are likely to be captive to the auto, at least for much of their commute to school.

Exhibit 3-8: Location of Current Residence by TRANS District – Expanded Counts

| | | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total |
|-----------------------------|--------------------------|---------------|---------------|---------------|-----------------------|--------------|-------------------------|-----------------|
| Ottawa NCR Residents | | 35,145 | 27,477 | 16,083 | 3,484 | 298 | 45 | 82,533 |
| Urban Ottawa NCR | | 34,413 | 26,737 | 15,494 | 3,377 | 298 | 45 | 80,364 |
| 1 | Ottawa Centre | 1,286 | 268 | 183 | | | | 1,738 |
| 50 | Ottawa Inner Area | 13,693 | 8,443 | 1,305 | 166 | 57 | | 23,663 |
| 100 | Ottawa East | 2,247 | 669 | 589 | 575 | 106 | 10 | 4,196 |
| 120 | Beacon Hill | 1,037 | 292 | 179 | 605 | | | 2,114 |
| 140 | Alta Vista | 3,535 | 3,098 | 1,170 | 664 | 27 | | 8,494 |
| 180 | Hunt Club | 1,651 | 2,513 | 898 | 252 | 27 | | 5,341 |
| 200 | Merivale | 1,386 | 4,063 | 3,949 | | | | 9,399 |
| 240 | Ottawa West | 630 | 1,099 | 823 | 129 | 27 | | 2,708 |
| 260 | Bayshore/Cedarview | 1,679 | 1,368 | 1,674 | 24 | 27 | | 4,771 |
| 300 | Orleans | 3,624 | 1,391 | 1,225 | 857 | 27 | 35 | 7,159 |
| 400 | S. Gloucester / Leirtrim | 459 | 373 | 147 | | | | 979 |
| 425 | South Nepean | 1,660 | 1,574 | 1,443 | 81 | | | 4,758 |
| 500 | Kanata – Stittsville | 1,526 | 1,586 | 1,909 | 24 | | | 5,044 |
| Rural Ottawa NCR | | 732 | 740 | 589 | 107 | 0 | 0 | 2,169 |
| 350 | Rural East | 234 | | 88 | 40 | | | 362 |
| 360 | Rural Southeast | 226 | 286 | 118 | | | | 630 |
| 450 | Rural Southwest | 146 | 161 | 206 | | | | 513 |
| 560 | Rural West | 126 | 293 | 177 | 67 | | | 664 |
| Québec NCR Residents | | 5,947 | 234 | 371 | 1,693 | 4,358 | 4,519 | 17,121 |
| Urban Québec NCR | | 5,416 | 184 | 320 | 1,472 | 3,690 | 3,477 | 14,558 |
| 600 | Île de Hull | 739 | 24 | 58 | 24 | 244 | 82 | 1,171 |
| 625 | Hull Périphérie | 1,378 | 13 | 100 | 378 | 1,074 | 796 | 3,738 |
| 650 | Plateau | 747 | 12 | 83 | 168 | 649 | 353 | 2,012 |
| 700 | Aylmer | 640 | 72 | 27 | 164 | 610 | 476 | 1,989 |
| 800 | Pointe Gatineau | 1,108 | 63 | 14 | 322 | 682 | 929 | 3,119 |
| 820 | Gatineau Est | 804 | | 38 | 416 | 431 | 841 | 2,529 |
| Rural Québec NCR | | 531 | 50 | 51 | 221 | 668 | 1,042 | 2,563 |
| 750 | Rural Northwest | 87 | | 32 | | 75 | 203 | 397 |
| 840 | Rural Northeast | 287 | 50 | 19 | 141 | 328 | 511 | 1,335 |
| 845 | Masson-Angers | 157 | | | 80 | 265 | 328 | 831 |
| Non-NCR Residents | | 1,582 | 578 | 1,346 | 484 | 164 | 131 | 4,286 |
| Ontario nearby communities | | 1,286 | 472 | 968 | 417 | 57 | | 3,200 |
| Ontario over 90 min. | | 143 | 35 | 336 | | | | 514 |
| Quebec nearby communities | | 60 | 61 | 20 | 67 | 21 | 106 | 336 |
| Quebec over 90 min. drive | | 93 | 10 | 22 | | 86 | 25 | 236 |
| Grand Total | | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |

Exhibit 3-9: Location of Current Residence by TRANS District – % Distributions

| | | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total |
|-----------------------------|-------------------------|-------------|-------------|-------------|-----------------------|-------------|-------------------------|-----------------|
| Ottawa NCR Residents | | 81% | 98% | 90% | 60% | 8% | 1% | 81% |
| Urban Ottawa NCR | | 79% | 95% | 87% | 58% | 8% | 1% | 79% |
| 1 | Ottawa Centre | 3% | 1% | 1% | | | | 2% |
| 50 | Ottawa Inner Area | 32% | 30% | 7% | 3% | 1% | | 23% |
| 100 | Ottawa East | 5% | 2% | 3% | 10% | 2% | 0% | 4% |
| 120 | Beacon Hill | 2% | 1% | 1% | 11% | | | 2% |
| 140 | Alta Vista | 8% | 11% | 7% | 12% | 1% | | 8% |
| 180 | Hunt Club | 4% | 9% | 5% | 4% | 1% | | 5% |
| 200 | Merivale | 3% | 14% | 22% | | | | 9% |
| 240 | Ottawa West | 1% | 4% | 5% | 2% | 1% | | 3% |
| 260 | Bayshore/Cedarview | 4% | 5% | 9% | 0% | 1% | | 5% |
| 300 | Orleans | 8% | 5% | 7% | 15% | 1% | 1% | 7% |
| 400 | S. Gloucester / Leitrim | 1% | 1% | 1% | | | | 1% |
| 425 | South Nepean | 4% | 6% | 8% | 1% | | | 5% |
| 500 | Kanata - Stittsville | 4% | 6% | 11% | 0% | | | 5% |
| Rural Ottawa NCR | | 2% | 3% | 3% | 2% | 0% | 0% | 2% |
| 350 | Rural East | 1% | | 0% | 1% | | | 0% |
| 360 | Rural Southeast | 1% | 1% | 1% | | | | 1% |
| 450 | Rural Southwest | 0% | 1% | 1% | | | | 0% |
| 560 | Rural West | 0% | 1% | 1% | 1% | | | 1% |
| Québec NCR Residents | | 14% | 0% | 1% | 29% | 91% | 97% | 16% |
| Urban Québec NCR | | 13% | 0% | 1% | 26% | 76% | 75% | 14% |
| 600 | Île de Hull | 2% | 0% | 0% | 0% | 5% | 2% | 1% |
| 625 | Hull Périphérie | 3% | 0% | 1% | 7% | 22% | 17% | 4% |
| 650 | Plateau | 2% | 0% | 0% | 3% | 13% | 8% | 2% |
| 700 | Aylmer | 1% | 0% | 0% | 3% | 13% | 10% | 2% |
| 800 | Pointe Gatineau | 3% | 0% | 0% | 6% | 14% | 20% | 3% |
| 820 | Gatineau Est | 2% | | 0% | 7% | 9% | 18% | 2% |
| Rural Québec NCR | | 1% | 0% | 0% | 3% | 15% | 22% | 2% |
| 750 | Rural Northwest | 0% | | 0% | | 2% | 4% | 0% |
| 840 | Rural Northeast | 1% | 0% | 0% | 2% | 7% | 11% | 1% |
| 845 | Masson-Angers | 0% | | | 1% | 6% | 7% | 1% |
| Non-NCR Residents | | 3% | 2% | 7% | 8% | 3% | 3% | 3% |
| Ontario nearby communities | | 3% | 2% | 5% | 7% | 1% | | 3% |
| Ontario over 90 min. | | 0% | 0% | 2% | | | | 0% |
| Quebec nearby communities | | 0% | 0% | 0% | 1% | 0% | 2% | 0% |
| Quebec over 90 min. drive | | 0% | 0% | 0% | | 2% | 1% | 0% |
| Grand Total | | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

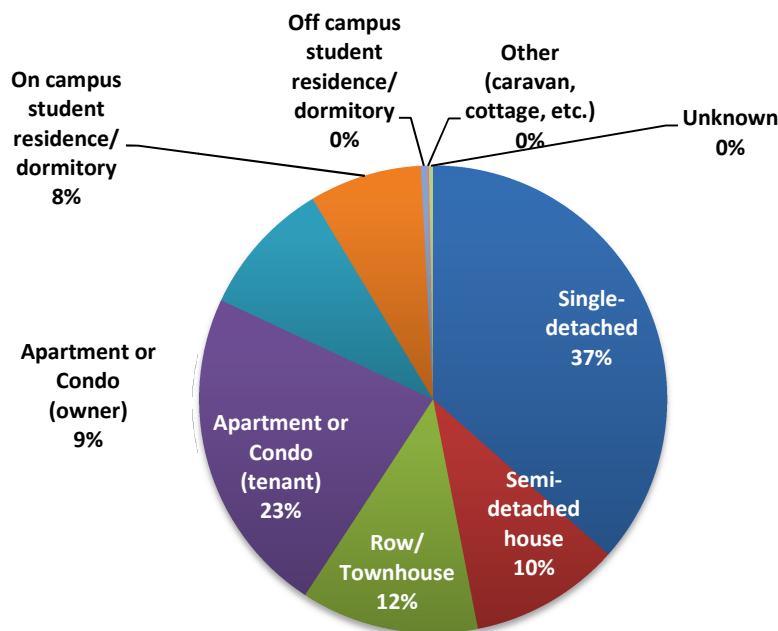
Values of less than 0.5% are rounded to 0%.

3.3.2. Dwelling Type

The following chart illustrates the type of dwellings in which public post-secondary students in the region live while attending school. The table following provides distributions by institution. It should be noted that the data represent the distributions of individuals by the type of their dwelling, and not the distributions of student households by dwelling type. Some households may include more than one student, therefore, these data are not directly comparable to Census data on households by dwelling type. The figures presented below are for all students surveyed, including those living outside the NCR (who represent 4% of all students).

Close to six in ten students (59%) live in ground-oriented dwellings (single-detached, semi-detached, or row/townhouse), while 31% live in apartments or condos, and 8% live in designated student residences on campus. Of interest, 13% of Carleton respondents live on campus: the significance is that on-campus residency impacts the students' travel patterns.

Exhibit 3-10: Dwelling Type



Values of less than 0.5% are rounded to 0%.

Exhibit 3-11: Dwelling Type by Institution

| Dwelling Type | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|-----------------------------------|-------------|-------------|-------------|--------------------|-------------|----------------------|----------------|
| Single-detached | 36% | 33% | 36% | 42% | 37% | 58% | 37% |
| Semi-detached house | 9% | 11% | 10% | 7% | 15% | 20% | 10% |
| Row/ Townhouse | 11% | 13% | 20% | 11% | 4% | 3% | 12% |
| Apartment or Condo (tenant) | 25% | 27% | 26% | 5% | 7% | 2% | 23% |
| Apartment or Condo (owner) | 11% | 2% | 1% | 31% | 34% | 16% | 9% |
| On campus student residence/dorm | 7% | 13% | 6% | 4% | 2% | 0% | 8% |
| Off campus student residence/dorm | 1% | 0% | 0% | 0% | 0% | 1% | 0% |
| Other (caravan, cottage, etc.) | 0% | 0% | 0% | 0% | 1% | 0% | 0% |
| Unknown | 0% | 1% | 0% | 0% | 0% | 0% | 0% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Values of less than 0.5% are rounded to 0%.

Note that among apartment or condo residents, there are differences in occupancy by institution (tenant versus owner). However, the reasons for these differences are not apparent.

3.3.3. Household Size

The table below highlights the distribution of students by household size. As illustrated, only a very small proportion of all students live alone, although the answers vary by institution.

It should be noted that the data represent the distributions of individuals by the size of the household they live in, and not the distribution of student households by size. Some households may include more than one student, therefore, these data are not directly comparable to Census data on households by household size.

Exhibit 3-12: Household Size by Institution

| Respondent's Household Size | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|------------------------------|-------------|-------------|-------------|--------------------|-------------|----------------------|----------------|
| Designated student dormitory | 8% | 13% | 6% | 4% | 2% | 1% | 8% |
| 1 person | 8% | 6% | 5% | 5% | 10% | 2% | 7% |
| 2 persons | 24% | 18% | 25% | 27% | 33% | 19% | 23% |
| 3 persons | 23% | 21% | 25% | 22% | 21% | 27% | 23% |
| 4 persons | 21% | 22% | 24% | 25% | 22% | 31% | 22% |
| 5 persons | 10% | 12% | 10% | 12% | 11% | 17% | 11% |
| 6+ persons | 6% | 7% | 5% | 4% | 2% | 4% | 6% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

n=4,670. An additional 123 survey respondents refused to answer, and their answers are excluded from the table.

Values of less than 0.5% are rounded to 0%.

3.3.4. Living Arrangements / Cohabitants

As illustrated in Exhibit 3-13, only 7% of students live alone, and another 9% live in designated student residences or dormitories. Fully 85% of students live with other cohabitants (outside of designated student residences/dormitories). The most common living arrangements are living with one's parents and no other types of cohabitants, with one third (34%) of all students doing so, and living with roommates and no other types of cohabitants, with 29% of all students doing so.

The table following the chart provides a more detailed breakdown by institution, and provides subtotals by type of cohabitant. Overall, 34% of students live with parents, 29% live with roommates, 17% live with a partner or spouse, and a total of 9% live with children (whether with or without a spouse or extended family), with there being some overlap between these categories.

Exhibit 3-13: Living Arrangements

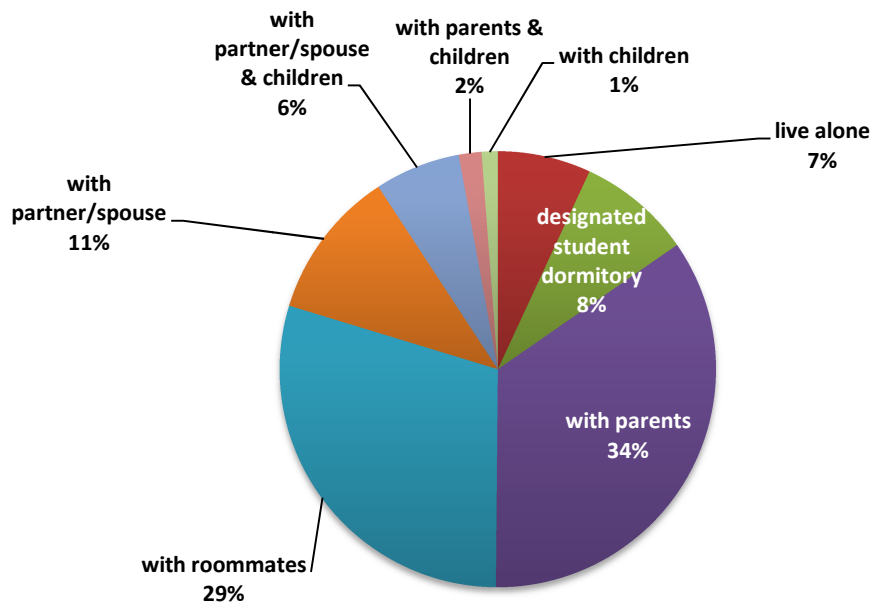


Exhibit 3-14: Living Arrangements by Institution

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|-------------------------------------------------|-------------|-------------|-------------|-----------------------|-------------|-------------------------|-------------------|
| Live alone | 8% | 6% | 5% | 6% | 10% | 2% | 7% |
| Live in designated student dormitory | 8% | 13% | 6% | 4% | 2% | 1% | 8% |
| Live with... | | | | | | | |
| Parents | 33% | 29% | 36% | 38% | 23% | 69% | 34% |
| Roommates | 31% | 35% | 25% | 21% | 11% | 8% | 29% |
| Partner/spouse | 10% | 9% | 14% | 13% | 21% | 8% | 11% |
| Partner/spouse & children | 6% | 4% | 6% | 10% | 24% | 3% | 6% |
| Parents & children | 1% | 1% | 2% | 2% | | 4% | 2% |
| Children | 1% | 0% | 1% | 1% | 5% | 1% | 1% |
| Partner/spouse & roommates | 1% | 1% | 1% | 2% | 2% | 1% | 1% |
| Parents & partner/spouse | 0% | 0% | 1% | 1% | 1% | 2% | 1% |
| Parents & roommates | 0% | 0% | 1% | 2% | 1% | 1% | 1% |
| Other configurations | 0% | 0% | 2% | | | 0% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Across living configurations:* | | | | | | | |
| Live alone | 8% | 6% | 5% | 6% | 10% | 2% | 7% |
| Live in designated student dormitory | 8% | 13% | 6% | 4% | 2% | 1% | 8% |
| Subtotal with Parents | 35% | 31% | 40% | 43% | 25% | 76% | 36% |
| Subtotal with Roommates | 33% | 37% | 27% | 23% | 13% | 9% | 30% |
| Subtotal with Partner/Spouse | 17% | 15% | 23% | 26% | 48% | 15% | 19% |
| Subtotal with Children | 7% | 6% | 10% | 12% | 24% | 8% | 8% |

n=4,573. Excludes 200 respondents who refused either household size, or cohabitants question.

*Subtotals across living configurations will sum to >100% due to multiple responses (e.g., live with both partner and child)

Values of less than 0.5% are rounded to 0%.

3.3.5. Telecommunications

The students surveyed were asked to identify which telecommunications options applied to them and to their current residence. Exhibit 3-15 summarizes the findings.

As indicated, fully 58% of all public post-secondary students have only a cell phone with no access to landlines, while 5% have a cell phone and an unlisted landline. Almost one third (32%) have a cell phone and a listed landline (which is consistent with many survey respondents still living with their parents), and only 3% have a listed land line only.

These survey findings are important for future surveys. They suggest that traditional telephone surveys of the general population using only listed landlines may fail to obtain representative survey samples. As the 2011 household travel survey for the region was conducted with a combination of listed and unlisted landlines, but only a small cell phone based sample, these findings provide a good rationale for the conduct of the current study via other contact methods (most successfully via e-mail invitations sent by the institutions or on their behalf, as discussed in the methodology section of this report).

More broadly, the high use of cell phones is also consistent with the use by younger populations of social media and other forms of electronic communications, which might in turn impact the propensity to travel and travel characteristics generally. More research is required on this subject; however, the implications could be important for the planning of future transportation demands.

Exhibit 3-15: Telecommunications Options by Institution

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|---------------------------------|-------------|-------------|-------------|-----------------------|-------------|-------------------------|-------------------|
| Cell phone only | 61% | 62% | 56% | 55% | 42% | 27% | 58% |
| Cell phone & listed land line | 30% | 28% | 33% | 37% | 44% | 57% | 32% |
| Cell phone & unlisted land line | 5% | 7% | 6% | 1% | 4% | 3% | 5% |
| Listed land line only | 2% | 1% | 2% | 5% | 8% | 11% | 3% |
| Unlisted land line only | 1% | 0% | 1% | 0% | 2% | 0% | 1% |
| No phone | 1% | 1% | 1% | 1% | 0% | 0% | 1% |
| Unknown | 1% | 1% | 1% | 1% | 0% | 1% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Values of less than 0.5% are rounded to 0%.

3.4. Enrolment Status, Program Type and Campus Attended

The following section outlines respondents' enrolment status, program characteristics and the campus(es) they attended for classes at each institution. Readers are advised that the figures presented below are based on the answers of survey respondents, with data weighting applied, and may differ from administrative data.

3.4.1. Enrolment Status and Program Type

As indicated in the table below, the survey results suggest that fully 87% of students attend courses full-time. The mix of full-time and part-time status and program type vary by institution. Respondents were asked to select from a list of program types: Note that some respondents may have confused the level or credential of their program, hence there may be some responses for programs not offered at certain institutions. Administrative data were not matched to surveys and respondents were not asked to record their specific program name or credential title, so there is no definitive basis for changing answers that are incongruous with the type of institution. Also, some respondents may legitimately have joint enrolment at two institutions and selected the highest level being pursued.

Exhibit 3-16: Enrolment Status and Program Type

| Enrolment Status / Program | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|---------------------------------|---------------|---------------|---------------|--------------------|---------------|----------------------|----------------|
| Total Full-time | 86.1% | 83.4% | 95.1% | 95.2% | 65.7% | 96.4% | 86.9% |
| Total Part-time | 13.6% | 16.4% | 4.1% | 4.8% | 34.3% | 3.5% | 12.7% |
| Total Distance Learning | 0.3% | 0.2% | 0.8% | 0.0% | 0.0% | 0.2% | 0.3% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Cégep or college degree | | | | | | | |
| Full-time | <0.1% | | 60.5% | 79.1% | | 93.5% | 18.9% |
| Part-time | | | 2.1% | 1.2% | | 2.9% | 0.5% |
| Distance learning | | | 0.5% | | | 0.2% | 0.1% |
| University undergraduate | | | | | | | |
| Full-time | 71.9% | 71.6% | 2.7% | 7.8% | 52.1% | | 52.3% |
| Part-time | 9.8% | 13.5% | 0.2% | | 16.6% | | 8.5% |
| Distance learning | 0.2% | 0.2% | | | | | 0.1% |
| Graduate degree | | | | | | | |
| Full-time | 13.3% | 11.2% | 7.3% | 1.9% | 12.2% | | 10.4% |
| Part-time | 3.2% | 1.9% | 0.1% | 2.4% | 8.3% | | 2.4% |
| Distance learning | 0.1% | 0.1% | | | | | 0.1% |
| Certificate program | | | | | | | |
| Full-time | 0.5% | 0.2% | 20.6% | 6.0% | 1.5% | | 4.2% |
| Part-time | 0.4% | 0.1% | 1.6% | 1.2% | 9.4% | | 1.0% |
| Distance learning | | | 0.3% | | | | 0.1% |
| Continuing education | | | | | | | |
| Full-time | | 0.1% | 1.1% | | | 1.8% | 0.3% |
| Part-time | 0.2% | 0.5% | | | | 0.5% | 0.2% |
| Adult Basic Education | | | | | | | |
| Full-time | 0.1% | | | | | 0.3% | 0.1% |
| Part-time | | | | | | 0.2% | 0.0% |
| Other | | | | | | | |
| Full-time | 0.3% | 0.1% | 0.2% | | | 0.7% | 0.2% |
| Part-time | | 0.5% | | | | | 0.1% |
| Unknown, Full-time | 0.1% | 0.1% | 2.7% | 0.4% | | 0.1% | 0.5% |

3.4.2. Campuses Attended

The table below highlights the number of students who reported attending classes at the different campuses at each institution. A small proportion of all students attend multiple campuses, however, it is worth noting that the survey results suggest that over 1,000 University of Ottawa students attend both Roger Guindon/Alta Vista and the university's main campus, and over 800 UQO students attend both Pavillon Lucien-Brault and the university's main campus. These survey results have not been validated against administrative data from institutions. However, the Roger Guindon campus is uOttawa's health sciences complex, adjacent to two major hospitals, which would explain the high multi-campus attendance.

Exhibit 3-17: Campuses Attended for Classes

| Campuses Attended by Students Surveyed | Expanded Count | % of Inst. | % of Total |
|-------------------------------------------------------------------------------------------------------------------------|----------------|------------|---------------|
| uOttawa | | | |
| Main Campus (75 Laurier Ave East, Ottawa) | 38,846 | 91.0% | 37.4% |
| Roger Guindon/Alta Vista (451 Smyth Rd, Ottawa) | 2,231 | 5.2% | 2.1% |
| Executive MBA (Albert & O'Connor St, Ottawa) | 174 | 0.4% | 0.2% |
| Saint Paul University (223 Main St, Ottawa) | 41 | 0.1% | 0.0% |
| Both Roger Guindon/Alta Vista and Main Campus | 1,047 | 2.5% | 1.0% |
| Both Saint Paul University + Main Campus | 239 | 0.6% | 0.2% |
| Both Executive MBA + Main Campus | 23 | 0.1% | 0.0% |
| All of Roger Guindon/Alta Vista + Executive MBA + Main Campus | 52 | 0.1% | 0.0% |
| All of Roger Guindon/Alta Vista + Saint Paul University + Main Campus | 18 | 0.0% | 0.0% |
| Carleton | | | |
| Carleton University (1129 Colonel By Drive, Ottawa) | 28,289 | 100.0% | 27.2% |
| Algonquin | | | |
| Woodroffe Campus (1385 Woodroffe Ave, Ottawa) | 17,316 | 97.3% | 16.7% |
| Both Pembroke + Woodroffe campuses | 294 | 1.7% | 0.3% |
| Both Perth + Woodroffe campuses | 174 | 1.0% | 0.2% |
| All of Pembroke + Perth + Woodroffe campuses | 19 | 0.1% | 0.0% |
| La Cité collégiale | | | |
| Campus d'Ottawa | 5,526 | 97.6% | 5.3% |
| Both Campus d'Ottawa (801 Aviation Parkway, Ottawa) + Campus Alphonse-Desjardin (8700, boul. Jeanne-d'Arc nord, Ottawa) | 134 | 2.4% | 0.1% |
| UQO | | | |
| Main Campus (283 Boulevard Alexandre-Taché, Gatineau) | 2,624 | 54.4% | 2.5% |
| Pavillon Lucien-Brault (101, rue Saint-Jean-Bosco, Gatineau) | 1,337 | 27.7% | 1.3% |
| Both Main Campus + Pavillon Lucien-Brault | 860 | 17.8% | 0.8% |
| Cégep de l'Outaouais | | | |
| Campus Félix-Leclerc (820, boul. De la Gappe, Gatineau) | 1,555 | 33.1% | 1.5% |
| Campus Gabrielle-Roy (333, boul. De la la Cité-des-Jeunes, Gatineau) | 2,880 | 61.3% | 2.8% |
| Campus Louis-Reboul (125, boul. Sacré-Coeur, Gatineau) | 119 | 2.5% | 0.1% |
| Both Félix-Leclerc + Gabrielle-Roy | 93 | 2.0% | 0.1% |
| Both Gabrielle-Roy + Louis-Reboul | 30 | 0.6% | 0.0% |
| Both Louis-Reboul + Félix-Leclerc | 13 | 0.3% | 0.0% |
| All of Félix-Leclerc + Gabrielle-Roy + Louis-Reboul | 6 | 0.1% | 0.0% |
| Grand Total | 103,941 | n/a | 100.0% |

Values of less than 0.05% are rounded to 0%.

3.5. Employment

Overall, just over half of all students surveyed (53%) were employed while pursuing their education. Of note, 21% of those with jobs (11% of all students) have more than one job. Less than one-fifth of those with jobs have on-campus work opportunities (17% of workers or 9% of all students). The majority of those with jobs work off-campus (83% of workers or 44% of all students).

Examining students work commitments, the survey results suggest that, of all public post-secondary students in the NCR: 54% are not employed or work fewer than 10 hours per week, 20% work between 10 and 20 hours per week, 12% work between 20 and 30 hours, and 13% work 30 hours or more.

All of these data suggest that work commutes have an important influence on travel patterns and mode choices of over half of all post-secondary students in the NCR, particularly for those who work off campus.

Exhibit 3-18: Incidence of Employment, Employment on Campus, and Hours Worked

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|------------------------------|-------------|-------------|-------------|-----------------------|-------------|-------------------------|-------------------|
| Employment Status | | | | | | | |
| Not Employed | 50% | 50% | 47% | 43% | 23% | 32% | 47% |
| Employed | 50% | 50% | 53% | 57% | 77% | 68% | 53% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Number of Jobs | | | | | | | |
| Not employed | 50% | 50% | 47% | 43% | 23% | 32% | 47% |
| 1 job | 39% | 38% | 40% | 47% | 61% | 58% | 41% |
| 2 jobs | 9% | 11% | 11% | 8% | 14% | 9% | 10% |
| 3 jobs | 1% | 1% | 1% | 1% | 1% | 2% | 1% |
| 4 or more jobs | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Unknown # jobs | 1% | 1% | 1% | 0% | 0% | 0% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Employment Location | | | | | | | |
| Not Employed | 50% | 50% | 47% | 43% | 23% | 32% | 47% |
| Main job is on campus | 10% | 13% | 3% | 12% | 7% | 2% | 9% |
| Main job is elsewhere | 41% | 38% | 50% | 45% | 70% | 66% | 44% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Hours worked per week | | | | | | | |
| Not employed | 50% | 50% | 47% | 43% | 23% | 32% | 47% |
| 1 to <10 hours | 7% | 7% | 6% | 8% | 8% | 11% | 7% |
| 10 to <20 hours | 21% | 18% | 17% | 30% | 22% | 35% | 20% |
| 20 to <30 hours | 11% | 11% | 16% | 11% | 16% | 17% | 12% |
| 30 to <40 hours | 5% | 7% | 7% | 3% | 19% | 2% | 6% |
| 40 to <50 hours | 3% | 5% | 4% | 2% | 10% | 0% | 4% |
| 50+ hours | 1% | 1% | 1% | 1% | 1% | 0% | 1% |
| Unknown hours | 3% | 2% | 2% | 2% | 1% | 2% | 2% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Values of less than 0.5% are rounded to 0%.

The following table presents the same information on hours worked per week, broken out by enrolment status (full-time or part-time). Consistent with expectations, a greater percentage of part-time students was employed (78% compared with 49% of full time students), and part-time students generally worked more hours per week than full time students. Of note, fully 19% of all full-time-enrolled students surveyed were employed for 20 or more hours per week, of whom 7% of all full-time students reporting that they were employed full-time (30 or more hours per week) while attending school.

Exhibit 3-19: Hours Worked by Enrolment Status

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|----------------------------------------------------------|---------------|---------------|---------------|-----------------------|--------------|-------------------------|-------------------|
| Full-time students | | | | | | | |
| Expanded Count | 36,743 | 23,589 | 16,940 | 5,390 | 3,168 | 4,525 | 90,356 |
| Not employed | 54% | 55% | 48% | 43% | 31% | 32% | 51% |
| 1 to <10 hours | 8% | 7% | 6% | 9% | 12% | 11% | 8% |
| 10 to <20 hours | 22% | 19% | 17% | 31% | 31% | 36% | 22% |
| 20 to <30 hours | 10% | 10% | 16% | 11% | 21% | 16% | 12% |
| 30 to <40 hours | 2% | 4% | 7% | 3% | 2% | 2% | 4% |
| 40 to <50 hours | 1% | 2% | 4% | 0% | 1% | 0% | 2% |
| 50+ hours | 1% | 0% | 1% | 1% | 0% | 0% | 1% |
| Unknown hours | 3% | 3% | 2% | 2% | 2% | 2% | 2% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Part-time students and distance learning students | | | | | | | |
| Expanded Count | 5,929 | 4,700 | 863 | 270 | 1,653 | 171 | 13,585 |
| Not employed | 24% | 22% | 22% | 50% | 7% | 20% | 22% |
| 1 to <10 hours | 2% | 5% | 7% | 0% | 0% | 12% | 3% |
| 10 to <20 hours | 15% | 13% | 11% | 0% | 3% | 16% | 12% |
| 20 to <30 hours | 17% | 14% | 19% | 25% | 7% | 34% | 15% |
| 30 to <40 hours | 22% | 20% | 13% | 0% | 52% | 12% | 24% |
| 40 to <50 hours | 14% | 21% | 17% | 25% | 28% | 7% | 18% |
| 50+ hours | 4% | 3% | 9% | 0% | 3% | 0% | 4% |
| Unknown hours | 2% | 2% | 2% | 0% | 0% | 0% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Values of less than 0.5% are rounded to 0%.

3.6. Regular Activities on Campus

3.6.1. On Campus Activities by Day of Week

The students surveyed were asked to report which days of the week they had regularly scheduled activities on campus. The results are summarized in Exhibit 3-20 and in Exhibit 3-21. Note that the question regarding 'regularly scheduled activities' was meant to provide a context for when students actually were travelling, and should not be confused with students' logs of actual trips, which they recorded separately. It should be noted that the information in the chart and tables below is not derived from analysis of the trips reported in the survey.

Overall, from Monday to Thursday, 85% - 86% of students have regularly scheduled reasons to be on campus, dropping off on Fridays, to 77%.

Weekend activities on campus also figure significantly, with 24% of all students having regular activities on campus on Saturdays, and 19% on Sundays. Compared with the proportions of students who live on campus (8%, per Exhibit 3-11), these numbers suggest that there is still some significant commuting to and from the campus on weekends.

As indicated, in the chart below, the regularity with which students are scheduled to be on campus varies by institution.

Exhibit 3-20: Regularly Scheduled Activities on Campus by Day of Week - % of Students

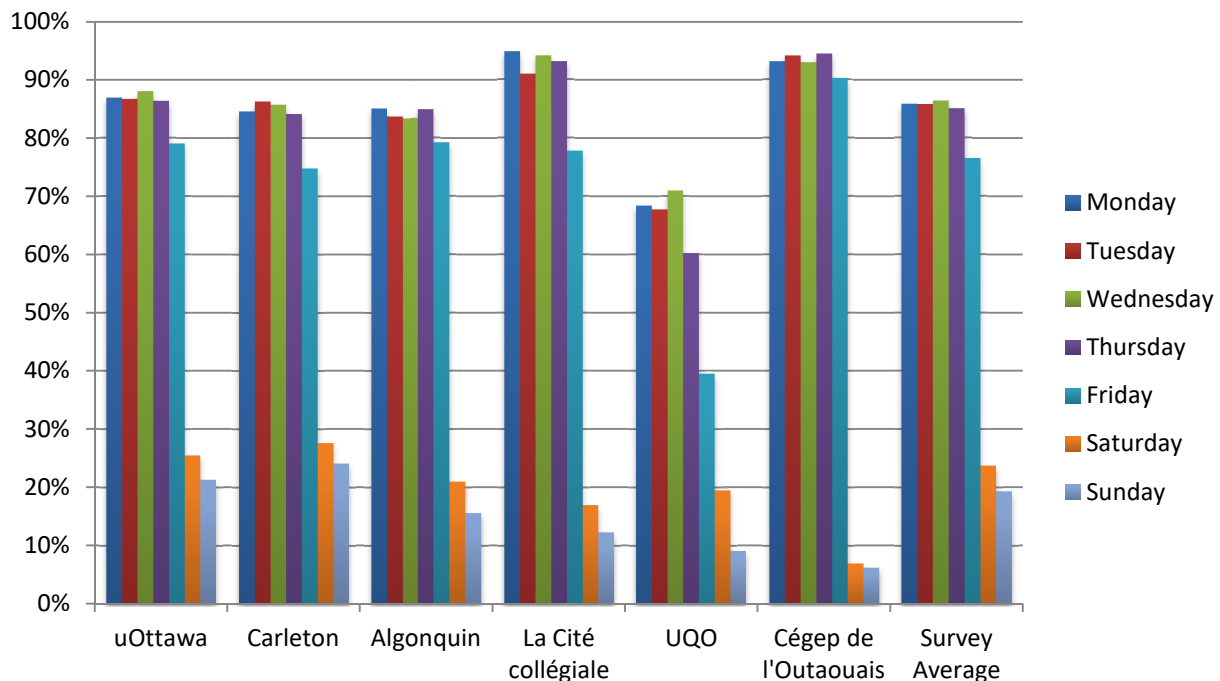


Exhibit 3-21: Regularly Scheduled Activities on Campus on Each Day of the Week

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|----------------------------------|---------------|---------------|---------------|-----------------------|--------------|-------------------------|-------------------|
| Total Students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Monday | | | | | | | |
| Total on campus * | 87% | 85% | 85% | 95% | 68% | 93% | 86% |
| ...for class | 79% | 75% | 79% | 92% | 60% | 92% | 78% |
| ...for work | 5% | 7% | 2% | 9% | 3% | 0% | 5% |
| ...for other activities | 19% | 21% | 18% | 14% | 19% | 12% | 19% |
| Tuesday | | | | | | | |
| Total on campus * | 87% | 86% | 84% | 91% | 68% | 94% | 86% |
| ...for class | 78% | 78% | 77% | 84% | 55% | 92% | 78% |
| ...for work | 5% | 7% | 2% | 8% | 3% | 1% | 5% |
| ...for other activities | 20% | 20% | 17% | 15% | 22% | 13% | 19% |
| Wednesday | | | | | | | |
| Total on campus * | 88% | 86% | 83% | 94% | 71% | 93% | 86% |
| ...for class | 80% | 76% | 78% | 90% | 61% | 91% | 79% |
| ...for work | 6% | 7% | 2% | 10% | 4% | 1% | 5% |
| ...for other activities | 21% | 22% | 17% | 15% | 16% | 15% | 20% |
| Thursday | | | | | | | |
| Total on campus * | 86% | 84% | 85% | 93% | 60% | 94% | 85% |
| ...for class | 77% | 75% | 79% | 88% | 50% | 92% | 77% |
| ...for work | 6% | 7% | 1% | 7% | 4% | 0% | 5% |
| ...for other activities | 20% | 20% | 18% | 12% | 16% | 13% | 19% |
| Friday | | | | | | | |
| Total on campus * | 79% | 75% | 79% | 78% | 40% | 90% | 77% |
| ...for class | 68% | 59% | 70% | 71% | 28% | 89% | 65% |
| ...for work | 6% | 7% | 2% | 9% | 3% | 1% | 5% |
| ...for other activities | 20% | 23% | 16% | 13% | 15% | 9% | 19% |
| Saturday | | | | | | | |
| Total on campus * | 26% | 28% | 21% | 17% | 20% | 7% | 24% |
| ...for class | 3% | 2% | 5% | 5% | 6% | 3% | 3% |
| ...for work | 2% | 2% | 1% | 0% | 3% | 1% | 2% |
| ...for other activities | 22% | 25% | 17% | 13% | 13% | 4% | 20% |
| Sunday | | | | | | | |
| Total on campus * | 21% | 24% | 16% | 12% | 9% | 6% | 19% |
| ...for class | 2% | 2% | 4% | 4% | 2% | 2% | 2% |
| ...for work | 1% | 2% | 1% | 0% | 3% | 1% | 1% |
| ...for other activities | 19% | 22% | 12% | 9% | 5% | 4% | 17% |
| Average # of Weekdays | 4.27 | 4.16 | 4.16 | 4.51 | 3.07 | 4.65 | 4.19 |
| Average # of Weekend Days | 0.47 | 0.52 | 0.37 | 0.29 | 0.29 | 0.13 | 0.43 |

* Note that the results in each column for each day do not necessarily sum to 100%, due to multiple responses. Values of less than 0.5% are rounded to 0%.

Examination of the data confirmed the expected result that students who live on campus (who are more likely to be full-time students) generally had more frequent regular activities on campus, including on weekends. Between 93%-97% of them had regularly scheduled on-campus activities Mondays through Thursdays, 87% on Fridays, 40% on Saturdays and 38% on Sundays. The exception to this is that Algonquin College students who live on campus were *less likely* than their off-campus counterparts to have scheduled activities on campus on weekend, with only 7% reporting regularly scheduled on-campus activities on either Saturdays or Sundays (compared with the school average of 21% on Saturdays and 16% on Sundays for all students at the institution).

It may be noted that the data in the table above cannot easily be broken out by individual campus attended for classes and/or activities. At many of the institutions, students may attend multiple campuses, and this set of questions was asked generally, not with respect to each campus attended. Any results by campus attended could only be presented for the subset of students who attend classes at only one campus.

3.6.2. Regular Work days

Examination of the survey responses on regularly scheduled activities also revealed that on any given day of the week, at least one-fifth of all students work at their main job, whether located off-campus or on-campus, with fully 29% working at their main job on a Friday, which is also the weekday on which the fewest students have regularly scheduled on-campus classes and activities. These results are presented by institution in Exhibit 3-22 below.

It may be noted that the survey only asked employed students (who represent 53% of all students surveyed) how often they work at their main job; thus the survey did not necessarily capture all days of regularly scheduled work for the 11% of all students who reported having two or more jobs.

Exhibit 3-22: Days of the Week with Regularly Scheduled Work at Main Job (Incl. Off-Campus)

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|-------------------------------------------------|---------------|---------------|---------------|-----------------------|--------------|-------------------------|-------------------|
| Total Students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Regularly Scheduled Work at Main Job | | | | | | | |
| Monday | 21% | 23% | 22% | 18% | 42% | 12% | 22% |
| Tuesday | 22% | 23% | 23% | 22% | 39% | 19% | 23% |
| Wednesday | 22% | 22% | 22% | 18% | 46% | 18% | 23% |
| Thursday | 24% | 25% | 22% | 20% | 47% | 16% | 24% |
| Friday | 26% | 28% | 29% | 28% | 50% | 30% | 29% |
| Saturday | 21% | 22% | 33% | 31% | 23% | 51% | 25% |
| Sunday | 15% | 17% | 27% | 26% | 19% | 44% | 20% |

3.7. Student Access to Modes of Transportation

3.7.1. Transit Pass Use

Overall, three-quarters of (76%) of post-secondary students surveyed reported currently using a Transit Pass, with 57% of them using U-Pass or Cam-Puce. It may be noted that at the time of the survey, Cité collégiale and Algonquin College students were not eligible for a U-Pass through enrolment at their institution, so the small percentage of students at these institutions with U-Passes was likely due to simultaneous enrolment at another institution or reporting error by survey respondents (e.g., the respondent confused their student pass for youth 19 and under with a U-Pass, or they bought their regular pass at a campus outlet and so confused this with a U-Pass). There may have been other changes to the U-Pass or Cam-Puce eligibility since the survey was administered, therefore results should be interpreted with caution. The choice of pass might also reflect:

- Some U-Passes are available only to full-time students, whether undergraduate and graduate.
- The institution's demographic profile (e.g., mature part-time students who already have a Regular or Express transit pass).

Exhibit 3-23: Proportion of Students Using Transit Passes by Institution

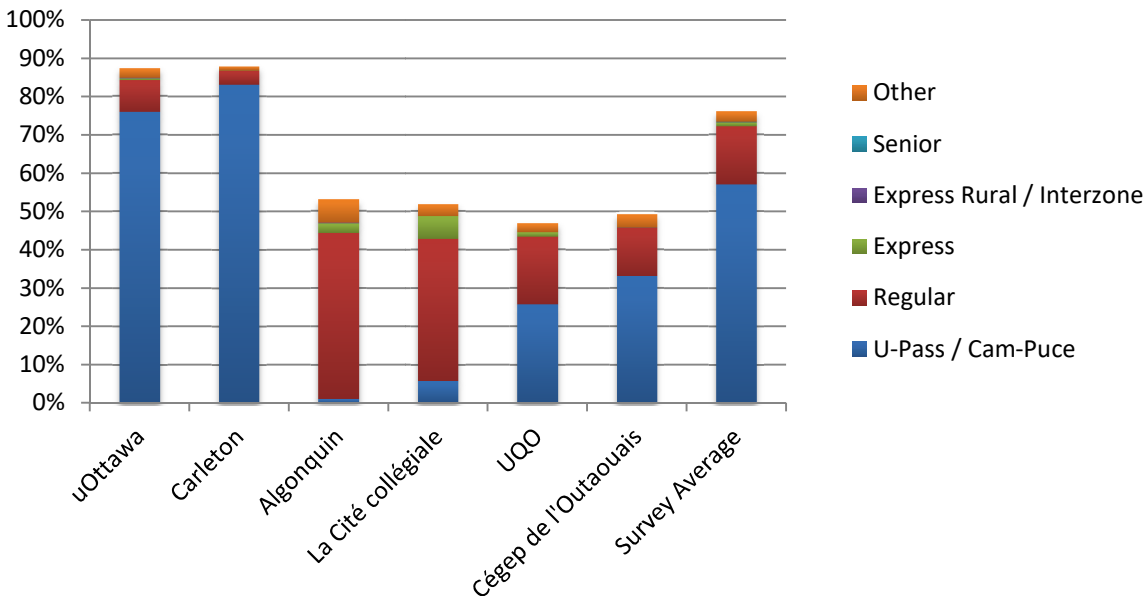


Exhibit 3-24: Type of Transit Pass Used

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average | 2011 NCR General Population 16+* |
|--------------------------------------------|---------------|---------------|---------------|-----------------------|--------------|-------------------------|-------------------|-------------------------------------------|
| Total Students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 | |
| Total with Transit Pass | 87.2% | 87.8% | 53.0% | 51.8% | 46.8% | 49.1% | 76.0% | 18.0% |
| U-Pass / Cam-Puce | 75.9% | 83.0% | 1.1% | 5.8% | 25.7% | 33.1% | 57.0% | 3.3% |
| Regular | 8.2% | 3.7% | 43.2% | 36.9% | 17.6% | 12.5% | 15.2% | 10.2% |
| Express | 0.5% | 0.1% | 2.4% | 5.9% | 1.2% | 0.0% | 1.0% | 2.9% |
| Express Rural / Interzone | 0.1% | 0.0% | 0.2% | 0.0% | 0.0% | 0.1% | 0.1% | 0.3% |
| Senior | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.2% |
| Other** | 2.5% | 1.0% | 6.1% | 3.1% | 2.3% | 3.5% | 2.8% | 1.6% |
| Do not currently use a transit pass | 12.8% | 11.7% | 46.5% | 48.2% | 53.2% | 50.9% | 23.8% | 80.1% |
| Decline / don't know | 0.0% | 0.5% | 0.5% | 0.0% | 0.0% | 0.0% | 0.2% | 0.4% |

* Percentage of population 16 years of age and older. Source: 2011 NCR Household Origin-Destination Survey, January 2013

** Respondents could select 'Other' but were not required to specify what type of other pass. Other types of passes could include discounted passes for youth 19 years of age or under, discounted passes for those with disabilities, other types of monthly pass not listed above, or some respondents may even have considered occasional or regular use of a day pass as qualifying. It may be noted that respondents were asked if they use a valid transit pass, rather than if they have a transit pass. Values of less than 0.05% are rounded to 0%.

3.7.2. Bicycles

Overall, half (50%) of public post-secondary students in the NCR have a bicycle available to them at the place they currently live while attending school. However, only 18% of those living in designated student residences/dormitories on campus have a bicycle.

Exhibit 3-25: Bicycle Availability at Current Residence

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|-------------------------------|---------|----------|-----------|-----------------------|-------|-------------------------|-------------------|
| Survey Average (all students) | 48.6% | 47.5% | 49.7% | 45.8% | 59.4% | 67.5% | 49.7% |
| Live on campus | 22.4% | 11.2% | n/r | n/r | n/r | n/a | 17.9% |
| Live off campus | 50.7% | 52.8% | 51.3% | 46.4% | 60.2% | n/a | 52.4% |

n/a = not applicable: no designated campus residences

n/r = not reported: not reported due to very small survey sample (n) of students living on campus

3.7.3. Drivers Licenses

Overall, 83% of public post-secondary students in the NCR have a driver's license, which is close to and slightly under the overall 2011 NCR average of 85% (among people of eligible licensing age). For those living in designated student residences/dormitories on campus, the proportion is moderately less, at 77%.

Exhibit 3-26: Have Driver's License

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average | 2011 NCR General Population Aged 16+* |
|----------------------------------|---------|----------|-----------|-----------------------|-------|-------------------------|-------------------|------------------------------------------------|
| Survey Average (all students) | 84.9% | 82.3% | 79.8% | 79.9% | 89.5% | 73.8% | 82.8% | 85.1% |
| Live on campus | 72.7% | 78.4% | n/r | n/r | n/r | n/a | 76.6% | n/a |
| Live off campus | 85.9% | 82.9% | 80.0% | 78.8% | 89.8% | 73.8 | 83.3% | n/a |

n/a = not applicable: no designated campus residences

n/r = not reported: not reported due to very small survey sample (n) of students living on campus

*Percentage of population 16 years of age and older. Source: 2011 NCR Household Origin-Destination Survey, January 2013

3.7.4. Household Vehicles Available

Overall, 68% of students live in a household with a licensed (insured) motor vehicle available, including cars, light trucks and vans (but excluding motorcycles, scooters and recreational vehicles). Examination of the data for those who live on campus revealed that, overall, only 33% of students who live in a designated student residence or dormitory have access to a vehicle. It should be noted that the survey asked how many vehicles are available to members of the household, but did not ask specifically whether the student was able to use the vehicles available in the household, which can be an important determinant of mode choice. Some students in such households might not have a driver's license themselves, or might have a license but might not have access or permission to use household vehicles. Of interest, the proportions of University of Ottawa and Carleton students who have access to a vehicle, live in a household that has vehicles and have a driver's license are lower than those of the other four institutions, with the Cégep de l'Outaouais having the highest vehicle availability. The two universities have the highest percentages of students living on campus as well as high percentages of students living away from their permanent residence while attending school (see Exhibit 3-6). These students will not likely have access to a family vehicle and, even if they own a car, they may choose to leave it at their permanent residence in order to avoid parking costs and so on.

The final row in the table below highlights the proportion of students with driver's licenses who live in a household with vehicles (59% of all students): The observation that roughly 17% of students lack a driver's license (compared with 15% of the population aged 16+ as a whole) is generally consistent with emerging trends in regional household origin-destination surveys, which suggest that younger populations are delaying getting their driver's licenses.

Exhibit 3-27: Live in Household with Vehicles Available

| Vehicles Available | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|--------------------------------------------------------------------------------|----------------|-----------------|------------------|-------------------------------|---------------|---------------------------------|---------------------------|
| None | 36.6% | 40.8% | 23.3% | 24.2% | 14.4% | 8.2% | 32.4% |
| 1 vehicle | 26.4% | 23.9% | 32.0% | 24.4% | 41.1% | 25.9% | 27.2% |
| 2 vehicles | 24.3% | 23.3% | 27.4% | 27.5% | 26.5% | 35.5% | 25.3% |
| 3 vehicles | 9.1% | 8.0% | 12.4% | 15.0% | 11.5% | 18.1% | 10.2% |
| 4 or more vehicles | 3.7% | 4.0% | 5.0% | 9.0% | 6.4% | 12.3% | 4.8% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Avg. # vehicles available | 0.88 | 0.80 | 1.18 | 1.34 | 1.36 | 1.90 | 0.99 |
| % in a household with vehicles | 63.4% | 59.2% | 76.7% | 75.8% | 85.6% | 91.8% | 67.6% |
| % who live in a household with vehicles AND have a driver's license | 56.7% | 52.5% | 65.8% | 63.7% | 79.1% | 70.5% | 59.2% |

n=4,680. Excludes 113 responses of don't know / no response.

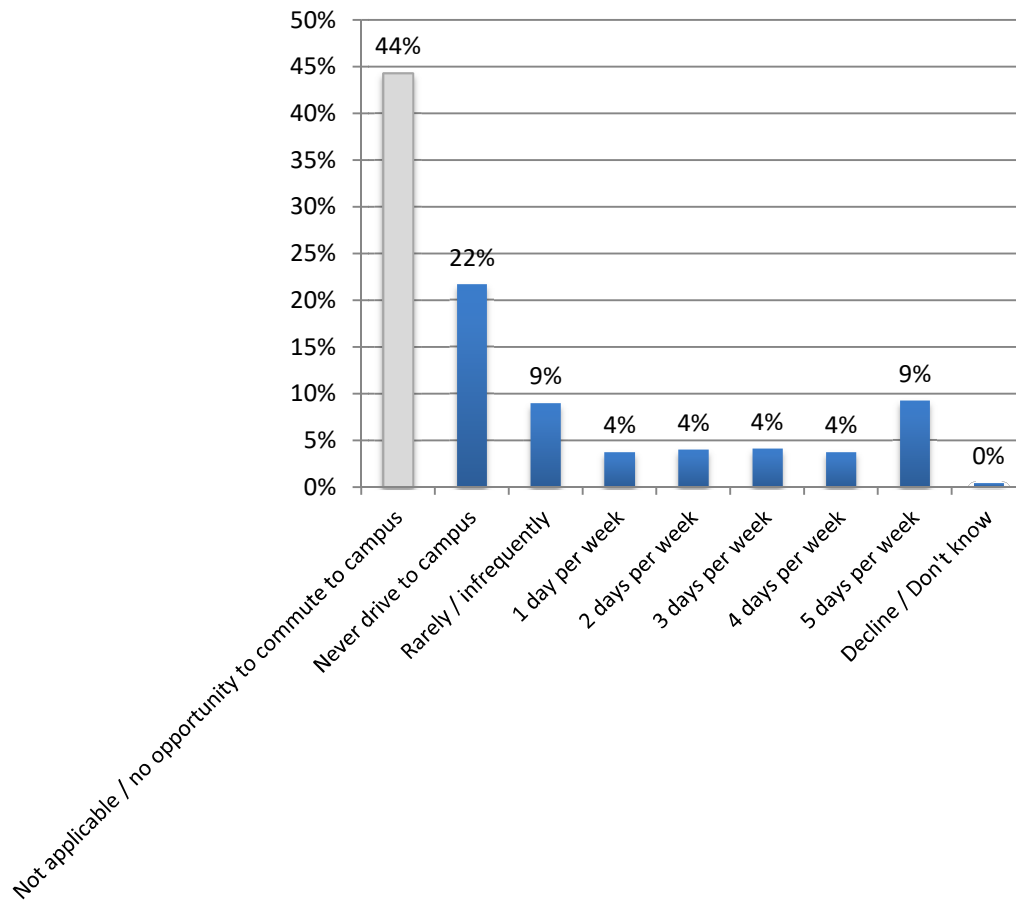
3.7.5. Number of Weekdays Driving to/from Campus

If students who lived off campus had a driver's license and lived in a household with access to a vehicle, they were asked how many weekdays (Monday through Friday) they usually drive to/from campus.

Exhibit 3-28 highlights the frequency with which all students drive to or from campus. Even though the question was only asked of a subset of all students (56% qualified for this question), in order to provide the broader perspective, the percentages are expressed as a proportion of *total students* (including those without drivers licenses, those without access to a vehicle, and those who live on campus). It should be noted that the information in this section is not derived from analysis of the trips reported in the survey, but is based on self-reporting on the frequency of driving to campus.

Overall, one-quarter (25%) of all students drive to campus at least once per week. Nine percent (9%) of all students drive to campus every day (five days per week), double the rates of 1- to 4-day frequencies, which suggests that regular commuters have a greater vehicle availability than others who commute less frequently. Almost one-third (31%) of all students have a license and access to a vehicle but never or rarely drive to campus, while for another 44%, driving to campus is not an option due to lack of a license or access to a vehicle, or not applicable because they live on campus.

Exhibit 3-28: Frequency of Driving to Campus - % of All Students



Not applicable / no opportunity to commute to campus = no driver's license, no access to vehicle, or live on campus.
Values of less than 0.5% are rounded to 0%.

It may be noted that these data cannot easily be broken out by individual campus attended for classes and/or activities. At many of the institutions, students may attend multiple campuses, and this set of questions was asked generally, not with respect to each campus attended. Any results by campus attended could only be presented for the subset of students who attend classes at only one campus. Exhibit 3-29 and Values of less than 0.05% are rounded to 0%.

Exhibit 3-30 present the information on driving frequency by institution and also by where students live, respectively. As might be expected, those who live in the rural areas of the NCR and those outside the NCR are more likely (69% to 74% depending on the region) to report driving to campus at least one day per week, with 28% to 35% reporting driving to campus every weekday. This stands to reason, as those living in the urban area have more transit options and often shorter distances to travel.

Exhibit 3-29: Self-reported Frequency of Driving to Campus – by Institution

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total |
|---------------------------------------------------------------------------|---------------|---------------|---------------|-----------------------|---------------|-------------------------|-----------------|
| Students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Not applicable / no opportunity to commute to campus by driving | | | | | | | |
| Live on campus | 7.2% | 12.7% | 5.9% | 4.4% | 1.9% | 0.0% | 7.8% |
| Live off campus, do not have a driver's license (or unknown) | 13.1% | 14.9% | 18.9% | 19.8% | 10.0% | 26.2% | 15.4% |
| Live off campus, have drivers license, but no access to vehicle | 25.8% | 24.3% | 14.2% | 14.9% | 11.1% | 4.1% | 21.1% |
| Live off campus, have driver's license, and have access to vehicle | | | | | | | |
| Never drive to campus | 27.8% | 17.1% | 19.3% | 14.1% | 15.8% | 17.2% | 21.7% |
| Rarely / infrequently | 9.1% | 9.6% | 9.8% | 4.8% | 9.5% | 5.9% | 9.0% |
| 1 day per week | 3.3% | 4.5% | 2.0% | 1.3% | 11.6% | 3.8% | 3.7% |
| 2 days per week | 3.0% | 5.1% | 4.0% | 0.5% | 9.6% | 4.1% | 4.0% |
| 3 days per week | 2.8% | 3.9% | 4.2% | 5.5% | 13.1% | 4.8% | 4.1% |
| 4 days per week | 1.6% | 2.4% | 7.9% | 7.5% | 8.0% | 6.2% | 3.7% |
| 5 days per week | 5.8% | 5.2% | 13.4% | 27.2% | 8.8% | 26.7% | 9.2% |
| Decline / don't know | 0.5% | 0.3% | 0.3% | 0.0% | 0.6% | 1.1% | 0.4% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Subtotal: Drive to campus at least one day per week | 16.6% | 21.1% | 31.6% | 42.1% | 51.1% | 45.5% | 24.7% |
| Number who drive at least 1 day/week | 7,081 | 5,974 | 5,620 | 2,380 | 2,463 | 2,138 | 25,656 |

Values of less than 0.05% are rounded to 0%.

Exhibit 3-30: Self-reported Frequency of Driving to Campus – by Place of Residence

| | Live on Campus | Urban Ottawa NCR | Rural Ottawa NCR | Urban Québec NCR | Rural Québec NCR | Non- NCR Residents | Survey Total |
|----------------------------------------------------------------|-------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|-----------------|
| Students | 8,074 | 72,382 | 2,169 | 14,467 | 2,563 | 4,286 | 103,941 |
| Live on campus / no driver's license / no access to vehicle | 100.0% | 46.0% | 7.3% | 25.8% | 14.2% | 9.1% | 44.3% |
| Never | | 25.9% | 12.0% | 19.3% | 10.4% | 10.8% | 21.7% |
| Rarely / infrequently | | 10.2% | 11.0% | 10.2% | 1.8% | 4.7% | 9.0% |
| 1 day per week | | 3.4% | 2.7% | 7.0% | 4.9% | 4.2% | 3.7% |
| 2 days per week | | 3.5% | 8.3% | 5.7% | 10.5% | 8.3% | 4.0% |
| 3 days per week | | 2.6% | 9.1% | 9.1% | 6.7% | 15.6% | 4.1% |
| 4 days per week | | 2.5% | 21.1% | 4.9% | 17.1% | 11.2% | 3.7% |
| 5 days per week | | 5.6% | 27.5% | 17.7% | 33.3% | 35.0% | 9.2% |
| Decline / Don't know | | 0.4% | 1.0% | 0.3% | 1.0% | 1.1% | 0.4% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Subtotal: Drive to campus at least one day per week (%) | 0% | 17.6% | 68.6% | 44.4% | 72.6% | 74.3% | 24.7% |
| Number who drive at least 1 day/week | - | 12,708 | 1,489 | 6,417 | 1,860 | 3,183 | 25,656 |

4. Travel Patterns of Post-Secondary Students

4.1. Incidence of Travel

This section reports the incidence of all travel made by students exclusive of within-campus travel such as walking from one building to another on campus. Note that this section is based on actual student trips, as recorded in the survey, and not on self-reported 'typical' behaviour.

The survey results suggest that, on an average weekday, almost 95,900 public-post secondary students in the NCR, or 92% of all such students, travel somewhere in the NCR, whereas 8% did not report any trips. The percentage of students travelling is higher for those who live off campus (95%) than for those who live on campus (only 59%), which is within expectations. These results suggest that even on-campus residents have reason to travel outside the campus. In interpreting the figure for on-campus residents, it should be noted that only 14% of those who live on campus definitively reported they did not leave their residence, i.e., the remainder either attended classes, travelled on campus for work or other activities, or did not report whether they left their residence.

Of note, for those who travelled, 6.0% of all students started from an origin other than their home, either because they stayed over at a friend's house, studied all night, or worked all night, and did not return home prior to the start of the travel day (beginning at 4:00 a.m.).

Also of note, the uOttawa on-campus residents had a higher rate of off-campus trips than their Carleton counterparts (62% v. 56%, respectively): this might relate to the fact that the uOttawa campus is located within a short walk of downtown Ottawa and several shopping and recreational venues, whereas Carleton's campus is a little more isolated from its surroundings.

Finally, it is interesting to note that the off campus residents of the two Québec institutions both had higher trip occurrences (99%, i.e., virtually all off campus residents at both institutions) than the four Ontario campuses (94.6%), which may be a function of the program requirements at the institutions, or the type of students enrolled (although given the modest sample sizes for these institutions, this kind of conclusion should be approached cautiously).

This information is detailed by institution in Exhibit 4-1.

Exhibit 4-1: Incidence of Travel to Campus – by Institution

| | uOttawa | Carleton | Algonquin | La Cité collégiale | UQO | Cégep de l'Outaouais | Survey Average |
|-----------------------------------------------------------------------------------|---------------|---------------|---------------|-----------------------|--------------|-------------------------|-------------------|
| Total students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Total who took trips | 39,896 | 24,955 | 16,282 | 5,336 | 4,768 | 4,641 | 95,878 |
| % who took trips | 93.5% | 88.2% | 91.5% | 94.3% | 98.9% | 98.8% | 92.2% |
| % who started their first trip from an origin other than home | 5.4% | 6.6% | 6.2% | 8.2% | 3.6% | 6.5% | 6.0% |
| % who did not take trips | 6.5% | 11.8% | 8.5% | 5.7% | 1.1% | 1.2% | 7.8% |
| Total students living on campus | 3,083 | 3,598 | n/r * | n/r | n/r | n/a * | 8,074 |
| Total who took trips off campus | 1,919 | 2,013 | n/r | n/r | n/r | n/a | 4,765 |
| % who took trips off campus | 62.2% | 56.0% | n/r | n/r | n/r | n/a | 59.0% |
| % who did not leave campus | 37.8% | 44.0% | n/r | n/r | n/r | n/a | 41.0% |
| ...travelled within the campus (work on campus, attend classes, other activities) | 19.9% | 29.8% | n/r | n/r | n/r | n/a | 21.9% |
| ...studied from home | 6.8% | 6.8% | n/r | n/r | n/r | n/a | 9.5% |
| ...not scheduled for classes or work, so stayed home | 0.9% | 3.2% | n/r | n/r | n/r | n/a | 2.9% |
| ...other reasons for staying home | 0.6% | 2.4% | n/r | n/r | n/r | n/a | 1.3% |
| ...unknown whether took trips on campus | 9.5% | 1.9% | n/r | n/r | n/r | n/a | 5.3% |
| Total students living off campus | 39,589 | 24,691 | 16,753 | 5,409 | 4,729 | 4,696 | 95,867 |
| Total who took trips | 37,978 | 22,942 | 15,677 | 5,191 | 4,684 | 4,641 | 91,112 |
| % who took trips | 95.9% | 92.9% | 93.6% | 96.0% | 99.0% | 98.8% | 95.0% |
| % who did not leave home | 4.1% | 7.1% | 6.4% | 4.0% | 1.0% | 1.2% | 5.0% |
| ...studied from home | 2.2% | 2.5% | 2.7% | 1.2% | 0.5% | 0.6% | 2.1% |
| ...not scheduled for classes or work, so stayed home | 1.1% | 3.0% | 1.9% | 1.5% | 0.5% | 0.1% | 1.7% |
| ...other reasons (worked from home, sick, care duties, other) | 0.8% | 1.5% | 1.8% | 1.2% | 0.0% | 0.5% | 1.1% |

* n/r = not reported. n/a = not applicable.

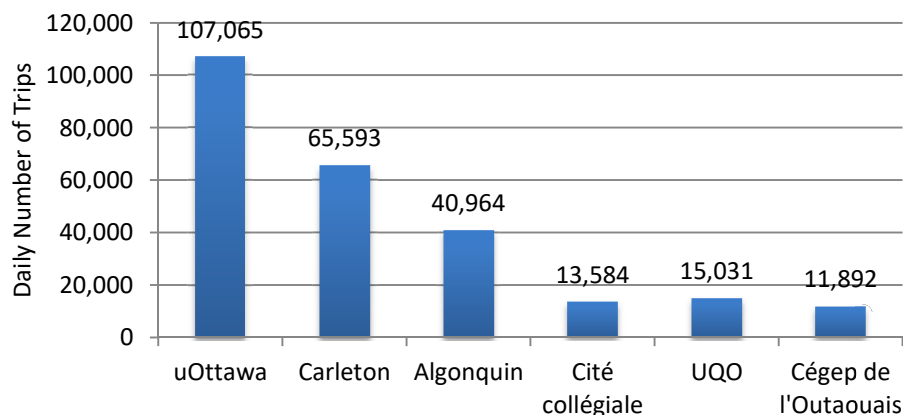
4.2. Trip Generation Rates

4.2.1. Average Daily Trip Rates – All Travel

The survey results suggest that public post-secondary students in the NCR take an average of 254,130 trips each weekday. This includes trips to/from campus as well as trips with origins and destinations that are both off campus. Exhibit 4-2 compares the total daily trips by institution, and Exhibit 4-3 details the estimated number of trips and the trip rates by institution.

The following provides additional details on the total number of trips and average daily trips per person for all trips taken. The trips reported by public post-secondary students at the time of the survey represent approximately 8.2% of all weekday trips made by residents of the NCR in 2011. The student population appears to generate somewhat fewer trips per person compared with the population average, at 2.44 daily trips per person, compared to 2.67 for the general population. This is reasonable, given that each campus is a multi-faceted activity centre, where people can shop and eat without having to leave the campus; moreover, students are likely to have fewer types of certain trips that figure with the rest of the population, such as serving a passenger (e.g., taking a young child to daycare). Since the trip rate excludes trips made entirely within the campus, the combined on-campus and off campus trip rates might be closer to that of the general population. Of note, the UQO trip rate is one-quarter (23% - 24%) higher than the next highest rates, at uOttawa and Cégep de l'Outaouais (3.12 and 2.51 and 2.53 trips per day, respectively).³ Moreover, the uOttawa and Carleton trip rates also include the lower activity rate of on-campus residents, only 59% of whom reported any travel off campus, as noted in the preceding section.

Exhibit 4-2: Total Daily Trips by Institution



³ Note that other institutions also have on-campus residents. However, their numbers (and impacts) are proportionally smaller.

Exhibit 4-3: Average Daily Trips and Daily Trip Rates

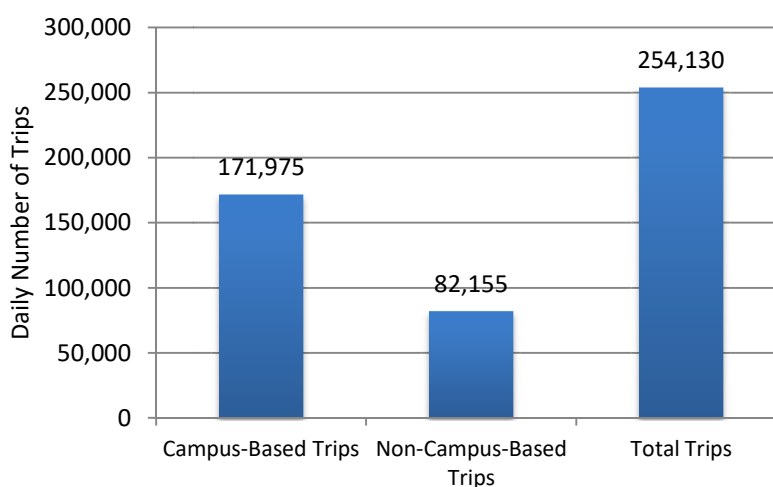
| | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total | NCR General Population (2011)* |
|-------------------------------|---------|----------|-----------|-----------------|--------|----------------------|----------------|--------------------------------|
| Total Students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 | n/a |
| Total Daily Trips | 107,065 | 65,593 | 40,964 | 13,584 | 15,031 | 11,892 | 254,130 | 3,110,200 |
| Average Daily Trips / Student | 2.51 | 2.32 | 2.30 | 2.40 | 3.12 | 2.53 | 2.44 | 2.67 |

* 2011 NCR Household Origin Destination Survey – Summary of Results, January 2013 (pop. 5+ years of age)

4.2.2. Average Daily Trips to/from Campus

In analysing the survey data, it is of interest to examine campus-based trips, i.e., those trips that either are destined to a campus of the student's institution or that leave a campus of the student's institution to travel elsewhere.⁴ From Exhibit 4-4, it can be determined that approximately two-thirds (67%) of all trips made by post-secondary students are to or from campus, while the remaining one-third are trips that do not involve the campus as either an origin or a destination. Readers are reminded that the survey does not include very short trips made entirely on campus (e.g., between campus buildings).

Exhibit 4-4: Average Daily Campus-Based Trips



Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

⁴ Trips were only identified as campus-based trips if they were to or from a campus of the institution attended by the student. Trips to the campus of a different institution than that attended by the student—for example, to visit a friend, conduct research, use recreational facilities, attend classes (in the case of enrolment at multiple institutions), or otherwise visit the campus—were not counted as campus-based trips.

Exhibit 4-5 outlines the total number of trips and average daily trips per student for campus-based trips by institution. Note that the lower activity rate of on campus residents at uOttawa and Carleton might mask the higher campus-based trip rates of off campus residents, which in turn suggests that the usage of the off campus transportation system similarly might be masked.

Exhibit 4-5: Average Daily Campus-Based Trips by Institution

| | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total |
|------------------------------------------|---------|----------|-----------|-----------------|-------|----------------------|----------------|
| Total Students | 42,672 | 28,289 | 17,803 | 5,660 | 4,821 | 4,696 | 103,941 |
| Total Daily Campus-Based Trips | 73,907 | 44,337 | 27,613 | 9,705 | 7,328 | 9,085 | 171,975 |
| Average Daily Campus-Based Trips/Student | 1.73 | 1.57 | 1.55 | 1.71 | 1.52 | 1.93 | 1.65 |

Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

As indicated in Exhibit 4-6, average daily trips to/from campus tend to drop off from about 1.7 trips to/from campus per student in the first three days of the week to 1.6 on Thursdays and 1.5 on Fridays. For all institutions and days for which data were available, Friday consistently had the lowest trip rate, except for Algonquin College, for which Wednesday had the lowest rate and Cégep de l'Outaouais, for which Monday had the lowest rate. The differences between the highest and lowest days were within 15-20%, except for UQO, whose Friday rate of 1.01 daily campus-based trips per person was 43% below the Tuesday maximum of 1.78 daily trips.

Exhibit 4-6: Avg. Daily Campus-Based Trips Per Student – by Day of Week and Institution

| Day of Week | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total |
|-------------|---------|----------|-----------|-----------------|------|----------------------|--------------|
| Monday | 1.82 | 1.63 | 1.59 | 1.70 | n/r | 1.81 | 1.71 |
| Tuesday | 1.68 | 1.68 | 1.65 | n/r | 1.78 | 1.97 | 1.70 |
| Wednesday | 1.82 | 1.66 | 1.42 | n/r | 1.74 | 2.16 | 1.72 |
| Thursday | 1.71 | 1.49 | 1.58 | n/r | n/r | 1.90 | 1.62 |
| Friday | 1.64 | 1.38 | 1.52 | 1.41 | 1.01 | 1.85 | 1.51 |

Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

n/r = not reported: not reported due to very small survey sample (n<30)

Exhibit 4-7 breaks down the campus-based daily trip rate by place of residence. Note that on campus residents at the two Ottawa universities had the lowest average trip rates, at 1.16 and 1.08 trips per day for uOttawa and Carleton, respectively. This is consistent with expectations of the activity of on campus residents, who obviously have less 'reason to leave' the campus than their off campus counterparts. The highest daily trip rates for off-campus residents can be found at uOttawa (for the Ottawa NCR) and the Cégep de l'Outaouais (for the Quebec NCR). In the case of the former: this likely reflects the very close proximity of uOttawa's main campus to downtown activity centres. Note that uOttawa's rural Ottawa

NCR rate, of 2.03 trips per person, is higher than that of the institution's urban Ottawa NCR rate of 1.80; however, the reverse is true of Carleton and Algonquin: the reasons for either of these tendencies are not apparent. Finally, note that the low rate for non-NCR residents – an average of 1.46 campus-based trips per day – could reflect the desire for remote residents to avoid multiple trips to and from the campus each day, electing (or having no practical option but) to stay on the campus for the entire day.

Exhibit 4-7: Average Daily Campus-Based Trips – by Student's Institution and Place of Residence

| Place of Residence | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Survey Total |
|------------------------------|---------|----------|-----------|-----------------|-------|----------------------|----------------|
| Total Trips | | | | | | | |
| Students Living on Campus | 3,572 | 3,878 | 1,289 | 217 | 152 | n/a | 9,108 |
| Urban Ottawa NCR | 56,426 | 38,181 | 22,918 | 5,354 | 483 | 86 | 123,449 |
| Rural Ottawa NCR | 1,483 | 1,152 | 822 | 216 | - | - | 3,672 |
| Urban Québec NCR | 9,361 | 267 | 501 | 2,739 | 5,348 | 6,745 | 24,960 |
| Rural Québec NCR | 916 | 79 | 64 | 341 | 1,141 | 2,007 | 4,548 |
| Non- NCR Residents | 2,148 | 781 | 2,019 | 839 | 204 | 248 | 6,238 |
| Avg. Daily Trip Rates | | | | | | | |
| Students Living on Campus | 1.16 | 1.08 | n/r | n/r | n/r | n/a | 1.13 |
| Urban Ottawa NCR | 1.80 | 1.65 | 1.59 | 1.71 | 1.62 | n/r | 1.71 |
| Rural Ottawa NCR | 2.03 | 1.56 | 1.39 | n/r | - | - | 1.69 |
| Urban Québec NCR | 1.73 | n/r | n/r | 1.86 | 1.49 | 1.94 | 1.73 |
| Rural Québec NCR | 1.73 | n/r | n/r | n/r | n/r | 1.93 | 1.77 |
| Non- NCR Residents | 1.36 | 1.35 | 1.50 | n/r | n/r | n/r | 1.46 |

Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

n/a = not applicable: no designated campus residences

n/r = not reported: not reported due to very small survey sample (n<30)

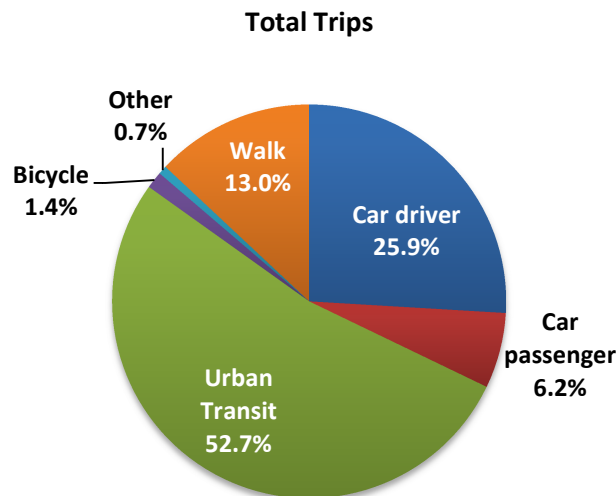
4.3. Travel Mode

4.3.1. Travel Mode – All Trips

Exhibit 4-8 shows the daily mode share for *all* off-campus trips (i.e., for trips to and from the campus, as well as other trips made over the course of the day elsewhere), based on primary travel mode.⁵ It can be seen that public transit dominates, at just over half of all trips (52.7%). Car drivers represent just over one-quarter of all trips (25.9%) and, together with car passengers (6.2%), the auto share is about one-third. Walking comprises another 13.0%, while the bicycle share is 1.4%.

Note that these average shares contrast with those of the overall population as a whole, as estimated from the 2011 NCR household travel survey results, which are shown in Exhibit 4-9. In the region-wide survey, car drivers are dominant, at 54.7% of all trips. Including car passengers, 70.1% of all trips are by car. The transit share is 12.8% and walking is at 10.4% (lower than the student share – but not by much). The lower student car share is consistent with the low combined licensing and vehicle availability rate of students (see Exhibit 3-27), the likely desire of students living away from home to find housing that is close to school or easily accessible by non-auto modes, and, likely, the lesser ability to purchase a vehicle and/or cover parking and other operating costs while on a student budget.

Exhibit 4-8: Mode Shares – All Trips



⁵ In the case of multiple modes of travel used in a trip, the primary mode is assigned according to a hierarchy of modes, and reflects the mode most likely to represent the longest segment of the trip. For example, in the case of a park & ride trip, where the travellers drive to a parking lot and then transfers to transit, transit is considered the primary mode. In the hierarchy, transit supersedes all other modes, followed by auto driver, auto passenger, and so on, with walk being at the bottom of the hierarchy.

Exhibit 4-9 breaks down the modal shares by institution. The transit share is highest at Carleton (61.4%) and lowest at UQO (29.2%). Carleton's high share might reflect the available transit level of service as well as its slightly more remote distance from the adjoining communities (which is reflected in its relatively low walking share of 7.5%). Algonquin (50.7%) is located close to a major Transitway terminal (in fact, a new campus building is integrated into the Baseline station), and uOttawa (55.8%) is similarly well served by the Transitway and the downtown transit network of both OC Transpo and the STO.

UQO had the highest car driver share (53.5%), followed by La Cité collégiale (46.4%) and the Cégep de l'Outaouais (43.2%) – i.e., all three had car driver shares approximating half of all trips. These might be explained by the location of the respective campuses relative to the major transit routes and facilities and/or by the availability and cost of parking. The variation in the car driver shares among the six institutions might also reflect the need for students in some programs to have access to a vehicle, for example to meet apprenticeship requirements.

uOttawa had the highest walking share, at 18.6%, followed by Algonquin at 11.8%: both are consistent with the nearby location of off campus residences.

It may be noted that the modes shares may have been influenced by when the surveys were conducted at each institution, particularly the bicycle mode share, which, of all the modes, may be most influenced by the presence of snow on the ground. Due to delays in obtaining permissions and logistical support for each institution, it was not possible to coordinate the survey to take place uniformly at the same time for all institutions. The student survey results below will be reflective of survey conducted in November 2013 and November 2014 for uOttawa, November 2013 at Carleton, April 2014 and November 2014 at Cité collégiale, March 2014 at Cégep de l'Outaouais, and April 2014 for both Algonquin College and UQO. The statistics for the NCR general population compared to in the table below were collected between mid-September and mid-December 2011. From the available data it is not possible to quantify the effect seasonality might have on reported mode shares. Nevertheless, despite this caveat, the comparisons in the table have differences broad enough to reveal useful information about students' mode choices relative to the general population, as well as differences between students at different institutions that likely go well beyond seasonal influence for different survey time periods.

Exhibit 4-9: Mode Shares – All Trips – by Student's Institution

| | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Student Survey Average | NCR General Population (2011)* |
|-------------------------|----------------|---------------|---------------|-----------------|---------------|----------------------|------------------------|--------------------------------|
| Total Trips Made | 107,065 | 65,593 | 40,964 | 13,584 | 15,031 | 11,892 | 254,130 | 3,110,200 |
| Car driver | 17.9% | 21.7% | 31.7% | 46.4% | 53.5% | 43.2% | 25.9% | 54.7% |
| Car passenger | 5.1% | 6.7% | 5.2% | 6.9% | 8.7% | 13.1% | 6.2% | 15.4% |
| Urban Transit | 55.8% | 61.4% | 50.7% | 34.8% | 29.2% | 34.4% | 52.7% | 12.8% |
| Bicycle | 1.8% | 2.0% | 0.0% | 1.8% | 0.0% | 1.1% | 1.4% | 1.7% |
| Other | 0.7% | 0.8% | 0.7% | 0.9% | 0.0% | 0.7% | 0.7% | 5.0% |
| Walk | 18.6% | 7.5% | 11.8% | 9.1% | 8.5% | 7.5% | 13.0% | 10.4% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

* 2011 NCR Household Origin Destination Survey – Summary of Results, January 2013 (pop. 5+ years of age)
Values of less than 0.05% are rounded to 0%.

Exhibit 4-10 presents the mode shares by the students' place of residence. The highest car driver shares are found for those who live in rural parts of the NCR or outside the NCR, with rural Québec NCR residents having the highest share, at 67.6%. These residents also have the highest car passenger share, at 11.6%, followed by non-NCR residents at 10.9%. In other words, the propensity to share rides is higher for students whose residence is at a distance from campus, who do not have as high a level of transit service as their urban counterparts, and who might have to rely on others who are travelling into the urban area for a ride (e.g., with a parent who is travelling to work).

On the other hand, the rural and non-NCR transit shares are 33.4% for rural Ottawa NCR residents, 19.0% for rural Québec NCR residents and 21.4% for non-NCR residents: these rates are not insignificant and could correspond to students who drive themselves or get a drive with someone else to a transit station, or the desire (or ability) to time their travel to the available rural transit service. The transit shares are highest, and car shares are lowest, for on campus residents, with a 62.6% transit share. Urban Ottawa NCR residents have a 58.7% transit share, with the urban Québec NCR share being 38.5%: these shares are consistent with, though certainly higher than, the shares exhibited by the general populations of these two areas respectively.

Finally, the walk share is highest for on campus residents, at 25.6%, followed by those of urban Ottawa NCR residents, at 15.0%. These shares are consistent with expectations. The respective cycling shares are 0.3% and 1.8%, which again are consistent with expectations (i.e., on campus residents are less likely to have a bicycle in their residence as highlighted in Exhibit 4-10).

Exhibit 4-10: Mode Shares – All Trips – by Student's Place of Residence

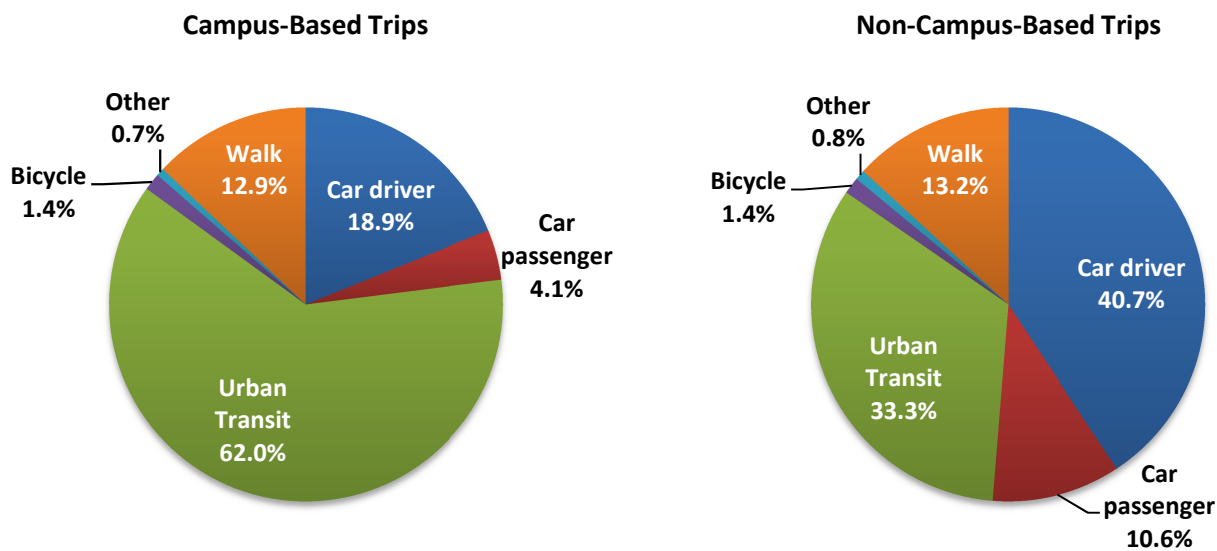
| | Live on Campus | Urban Ottawa NCR | Rural Ottawa NCR | Urban Québec NCR | Rural Québec NCR | Non- NCR Residents | Student Survey Average |
|--------------------|-------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|------------------------------|
| Total Trips | 9,741 | 184,183 | 5,156 | 37,849 | 6,638 | 10,563 | 254,130 |
| Car driver | 3.8% | 18.5% | 59.5% | 45.2% | 67.6% | 63.9% | 25.9% |
| Car passenger | 4.4% | 5.3% | 6.5% | 8.7% | 11.6% | 10.9% | 6.2% |
| Urban Transit | 62.6% | 58.7% | 33.4% | 38.5% | 19.0% | 21.4% | 52.7% |
| Bicycle | 0.3% | 1.8% | 0.0% | 0.6% | 0.0% | 0.3% | 1.4% |
| Other | 3.2% | 0.7% | 0.0% | 0.6% | 0.2% | 0.0% | 0.7% |
| Walk | 25.6% | 15.0% | 0.6% | 6.4% | 1.5% | 3.5% | 13.0% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Values of less than 0.05% are rounded to 0%.

4.3.2. Travel Mode for Trips to/from Campus

Exhibit 4-11 compares mode shares for campus-based trips and non-campus-based trips (that is, trips made outside the campus but neither to nor from the campus). It can be seen that the shares are of the same order, with transit dominating in both cases, followed by car driver. However, the transit share is highest for the trips to and from campus, at almost two-thirds (62.0%), while for other non-campus trips, the transit share drops to 33.3% - still strong relative to mode shares for the general population, but most of the reduction has been taken up by the car driver and car passenger shares. The walk share is consistent, at 13.2%. Note that the non-campus trips represent only one-third of total activity, as detailed in Exhibit 4-12.

Exhibit 4-11: Mode Shares – Campus-Based and Non-Campus-Based Trips



Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

Exhibit 4-12: Total Trips by Mode – Campus-Based and Non-Campus-Based Trips

| | Sample Size (n Trip Records) | Total Expanded Trips | Mode of Travel | | | | | |
|------------------------|------------------------------------|----------------------------|----------------|------------------|------------------|---------|-------|--------|
| | | | Car driver | Car passenger | Urban Transit | Bicycle | Other | Walk |
| Total Trips | | | | | | | | |
| Trips by Mode | 11,445 | 254,130 | 65,932 | 15,771 | 133,986 | 3,546 | 1,806 | 33,089 |
| % Mode Share | | 100% | 25.9% | 6.2% | 52.7% | 1.4% | 0.7% | 13.0% |
| Non-Campus-Based Trips | | | | | | | | |
| Trips by Mode | 3,581 | 82,155 | 33,429 | 8,702 | 27,393 | 1,127 | 682 | 10,822 |
| % Mode Share | | 100% | 40.7% | 10.6% | 33.3% | 1.4% | 0.8% | 13.2% |
| Campus-Based Trips | | | | | | | | |
| Trips by Mode | 7,864 | 171,975 | 32,503 | 7,069 | 106,593 | 2,420 | 1,124 | 22,267 |
| % Mode Share | | 100% | 18.9% | 4.1% | 62.0% | 1.4% | 0.7% | 12.9% |

Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

4.3.3. Travel Mode by Destination Campus

Exhibit 4-13 presents mode shares by destination campus for trips travelling to campus.⁶ The highest transit share occurs for Carleton, at three-quarters of all trips (73.2%): this again likely reflects the transit level of service (including the O-Train, which runs through the campus) and the relative remoteness of the campus from the surrounding neighbourhoods. uOttawa's transit share is also high, at 67.2% for the main downtown campus; however, even, the suburban Roger Guindon / Alta Vista campus has a 54.8% transit share. Similar drop-offs in the transit share occur between the main and other campuses at UQO (by almost half) and Cégep de l'Outaouais. In most cases, the drop-off is largely taken up by car drivers, although the change in car passengers is more prominent at the Cégep de l'Outaouais. Algonquin's main campus, located at the Baseline Transitway station, has a 57.7% transit share. Of note, uOttawa and UQO's walking shares are significantly higher for the main campuses, at almost triple for uOttawa (20.5% v. 7.1%) and almost double for UQO (13.3% v. 7.4%). (Note that some students do live near the respective secondary campuses.). The high percentage of 'Other' mode (9.3%) for trips to uOttawa's Roger Guindon/Alta Vista campus may be attributed to respondents reporting travelling via 'school bus (e.g., yellow bus), likely meaning the shuttle bus between the main campus and the Roger Guindon/Alta Vista campus.

Exhibit 4-13: Mode Shares by Destination Campus

| | Sample Size (n Trip Records) | Total Expanded Trips | Mode of Travel | | | | | |
|----------------------------|------------------------------------|----------------------------|----------------|------------------|------------------|---------|---------|-------|
| | | | Car driver | Car passenger | Urban Transit | Bicycle | Other * | Walk |
| uOttawa | | | | | | | | |
| Main Campus | 1,392 | 35,614 | 8.4% | 2.0% | 67.2% | 1.5% | 0.3% | 20.5% |
| Roger Guindon/Alta Vista | 113 | 2,418 | 20.8% | 4.6% | 54.8% | 3.5% | 9.3% | 7.1% |
| Executive MBA | 4 | 114 | n/r | n/r | n/r | n/r | n/r | n/r |
| Saint Paul University | 15 | 494 | n/r | n/r | n/r | n/r | n/r | n/r |
| Carleton | | | | | | | | |
| Carleton University | 1,218 | 22,675 | 14.3% | 4.1% | 73.2% | 2.4% | 0.7% | 5.3% |
| Algonquin College | | | | | | | | |
| Woodroffe Campus | 652 | 13,836 | 27.0% | 3.4% | 57.7% | 0.0% | 0.4% | 11.5% |
| Pembroke Campus | 9 | 191 | n/r | n/r | n/r | n/r | n/r | n/r |
| Perth Campus | 5 | 101 | n/r | n/r | n/r | n/r | n/r | n/r |
| La Cité collégiale | | | | | | | | |
| Campus d'Ottawa | 103 | 4,826 | 43.2% | 4.6% | 40.6% | 0.8% | 1.0% | 9.8% |
| Campus Alphonse-Desjardins | 3 | 157 | n/r | n/r | n/r | n/r | n/r | n/r |
| UQO | | | | | | | | |
| Main Campus | 93 | 2,460 | 43.0% | 2.2% | 41.6% | 0.0% | 0.0% | 13.3% |
| Pavillon Lucien-Brault | 44 | 1,380 | 63.9% | 6.1% | 22.7% | 0.0% | 0.0% | 7.4% |
| Cégep de l'Outaouais | | | | | | | | |
| Campus Gabrielle-Roy | 257 | 2,972 | 37.8% | 11.3% | 44.8% | 0.5% | 1.0% | 4.6% |
| Campus Félix-Leclerc | 147 | 1,609 | 39.0% | 16.5% | 35.8% | 0.7% | 0.0% | 8.1% |
| Campus Louis-Reboul | 10 | 142 | n/r | n/r | n/r | n/r | n/r | n/r |

* Includes motorcycle, scooter, school bus, other bus or minibus, paratransit, and interurban modes (rail, air, intercity bus)
n/r = not reported: not reported due to very small survey sample (n<30). Values of less than 0.05% are rounded to 0%.

⁶ These results do not include all campus-based trips. Campus-based trips for which a student's campus is an origin are excluded, unless they are trips between campuses (i.e., also have a campus as a destination).

4.4. Auto Occupancy

Outlined in Exhibit 4-14 below is the auto occupancy for all auto-driver and auto-passenger trips, broken down by campus-based and non-campus-based travel. As indicated, campus-based trips are more likely to be single-occupant trips than non-campus based trips. This is not surprising given the commuting purpose of most campus-based trips. Overall, the average vehicle occupancy is 1.54 occupants per vehicle, with the figure being 1.45 for campus-based trips and 1.63 for non-campus-based trips. These rates are slightly to moderately higher than the average rate of 1.40 occupants per vehicle that was recorded in the 2011 NCR household survey, for all trip purposes across the NCR.

Exhibit 4-14: Vehicle Occupancy by Type of Trip

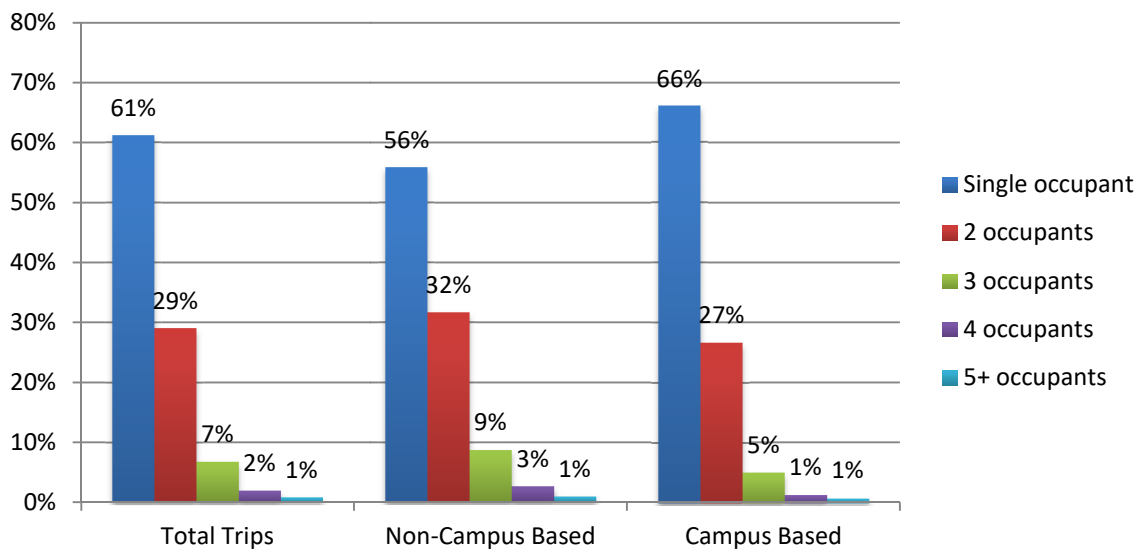


Exhibit 4-15, following, details these results by institution.

Exhibit 4-15: Vehicle Occupancy by Type of Trip and by Institution

| | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Student Survey Average |
|---------------------------------------------------------------------------|-------------|-------------|-------------|-----------------|-------------|----------------------|------------------------|
| All Trips | | | | | | | |
| % of all person-trips that are either auto driver or auto passenger trips | 29% | 31% | 40% | 55% | 66% | 59% | 36% |
| Vehicle occupancy | | | | | | | |
| 1 Occupant | 56% | 55% | 68% | 73% | 70% | 61% | 61% |
| 2 Occupants | 33% | 34% | 24% | 23% | 17% | 31% | 29% |
| 3 Occupants | 7% | 7% | 6% | 3% | 10% | 6% | 7% |
| 4 Occupants | 2% | 2% | 1% | 1% | 3% | 2% | 2% |
| 5 or More Occupants | 1% | 2% | 0% | 0% | 1% | 0% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Average Occupancy | 1.60 | 1.64 | 1.42 | 1.32 | 1.50 | 1.51 | 1.54 |
| Non-Campus-Based Trips | | | | | | | |
| % of all person-trips that are either auto driver or auto passenger trips | 49% | 50% | 50% | 65% | 71% | 75% | 53% |
| Vehicle occupancy | | | | | | | |
| 1 Occupant | 53% | 51% | 60% | 62% | 62% | 66% | 56% |
| 2 Occupants | 35% | 35% | 28% | 36% | 18% | 26% | 32% |
| 3 Occupants | 9% | 8% | 8% | 2% | 14% | 5% | 9% |
| 4 Occupants | 2% | 4% | 3% | 0% | 4% | 3% | 3% |
| 5 or More Occupants | 1% | 2% | 1% | 0% | 1% | 0% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Average Occupancy | 1.63 | 1.71 | 1.57 | 1.40 | 1.69 | 1.45 | 1.63 |
| Campus-Based Trips | | | | | | | |
| % of all person-trips that are either auto driver or auto passenger trips | 20% | 22% | 35% | 51% | 61% | 54% | 28% |
| Vehicle occupancy | | | | | | | |
| 1 Occupant | 60% | 59% | 74% | 79% | 79% | 58% | 66% |
| 2 Occupants | 31% | 32% | 21% | 16% | 16% | 33% | 27% |
| 3 Occupants | 5% | 7% | 4% | 3% | 4% | 6% | 5% |
| 4 Occupants | 2% | 1% | 0% | 2% | 0% | 2% | 1% |
| 5 or More Occupants | 1% | 2% | 0% | 0% | 0% | 0% | 1% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Average Occupancy | 1.57 | 1.56 | 1.32 | 1.28 | 1.26 | 1.54 | 1.45 |

Values of less than 0.5% are rounded to 0%.

4.5. Trip Purposes

Exhibit 4-16 presents the students' daily trips by purpose, and Exhibit 4-17 breaks down trip purpose by institution. The 'return home' trip has the highest share at 40.7%. This is virtually the same as the share for the population as a whole, from the 2011 NCR household survey; and this similarity suggests that students do not have unusually different trip chains in their daily activities than does the population as a whole. Rather, the composition of the chain varies, as can be expected, with almost one-third of the trips being for the commute to school (31.7%), followed by work related trips at 10.2% (recognizing that many students work), and restaurant, recreation or visits at 6.4%.

The proportions are reasonably consistent by institution, although the UQO proportion of school commute trips is lowest at 22.8% (compared with the average of 31.7%), the work related trip proportion is highest at 16.2%, and the return home proportion is lowest at 36.3%. These results are consistent with UQO's proportion of employed students (at 77%, the highest proportion among all six institutions – see Exhibit 3-18). The results suggest that many of these work trips take place after school (with no return home trip in between). In contrast, the Cégep de l'Outaouais had only a 6.3% share of work related trips, the lowest among the six institutions, and lower than its 68% rate of employed students (next highest after the UQO) might otherwise suggest. However, the UQO also had the highest proportions of students who had more than one job (15%), who worked the most hours per week, and who were in full-time employment (more than 30 hours per week); see Exhibit 3-18. Note also that 80% of employed part-time UQO students were in full-time employment (see Exhibit 3-19). All of this is consistent with the increased likelihood of UQO students including a work trip within the school trip chain, while other students are able to separate the two commutes (for example, the Cégep de l'Outaouais had the highest rate of school commute trips, at 39.7%).

UQO also has the highest proportion of pick up / drop off trips, at 7.9%, which suggests that students are sharing a vehicle or perhaps are responsible for escorting others on their way to or from school. (Note that UQO's Lucien-Brault campus has the highest car driver share, at 63.9% of all trips to campus – see Exhibit 4-13.) Carleton's share of school commute trips also is lower than the average, at 28.2%; however, the difference is distributed among the other trip purposes.

By comparison, 17.4% of the 2011 NCR-wide trips are work related (going to work or to a business meeting), with only 7.6% of trips being the commute to school.

Exhibit 4-16: Trip Purposes

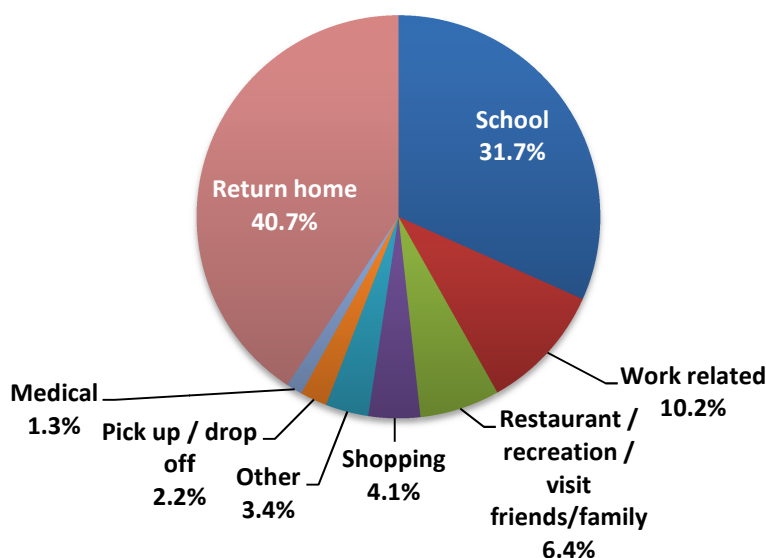


Exhibit 4-17: Trip Purposes by Student's Institution

| | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Student Survey Average | NCR General Population (2011)* |
|------------------------------------------------|----------------|---------------|---------------|-----------------|---------------|----------------------|------------------------|--------------------------------|
| Total Trips | 107,065 | 65,593 | 40,964 | 13,584 | 15,031 | 11,892 | 254,130 | 3,110,200 |
| School | 32.7% | 28.2% | 34.0% | 36.5% | 22.8% | 39.7% | 31.7% | 7.6% |
| Work related | 9.3% | 10.4% | 11.2% | 9.8% | 16.2% | 6.3% | 10.2% | 17.4% |
| Restaurant / recreation / visit friends/family | 6.8% | 7.3% | 5.1% | 3.2% | 6.7% | 6.1% | 6.4% | 9.6% |
| Shopping | 3.8% | 6.0% | 3.2% | 2.8% | 4.0% | 1.9% | 4.1% | 11.5% |
| Other | 3.6% | 3.2% | 3.5% | 4.2% | 3.4% | 2.2% | 3.4% | 4.1% |
| Pick up / drop off | 1.7% | 1.9% | 1.4% | 3.1% | 7.9% | 2.4% | 2.2% | 7.0% |
| Medical | 1.5% | 0.9% | 1.3% | 0.8% | 2.6% | 0.6% | 1.3% | 2.1% |
| Return home | 40.7% | 42.2% | 40.3% | 39.6% | 36.3% | 40.9% | 40.7% | 40.8% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

* 2011 NCR Household Origin Destination Survey – Summary of Results, January 2013 (pop. 5+ years of age)

4.6. Trip Time of Day

4.6.1. Trip Distribution by Time of Day

The first chart below illustrates the distribution of trip departure times throughout the course of the 24-hour travel day. The second chart breaks this out for campus-based trips and non-campus based trips. As these exhibits show, travel to and from school has very defined AM and PM peaks. The non-campus-based trips also exhibit AM and PM peaks, but the transitions are less pronounced.

Exhibit 4-18: Time of Day of Trips made by Post-Secondary Students

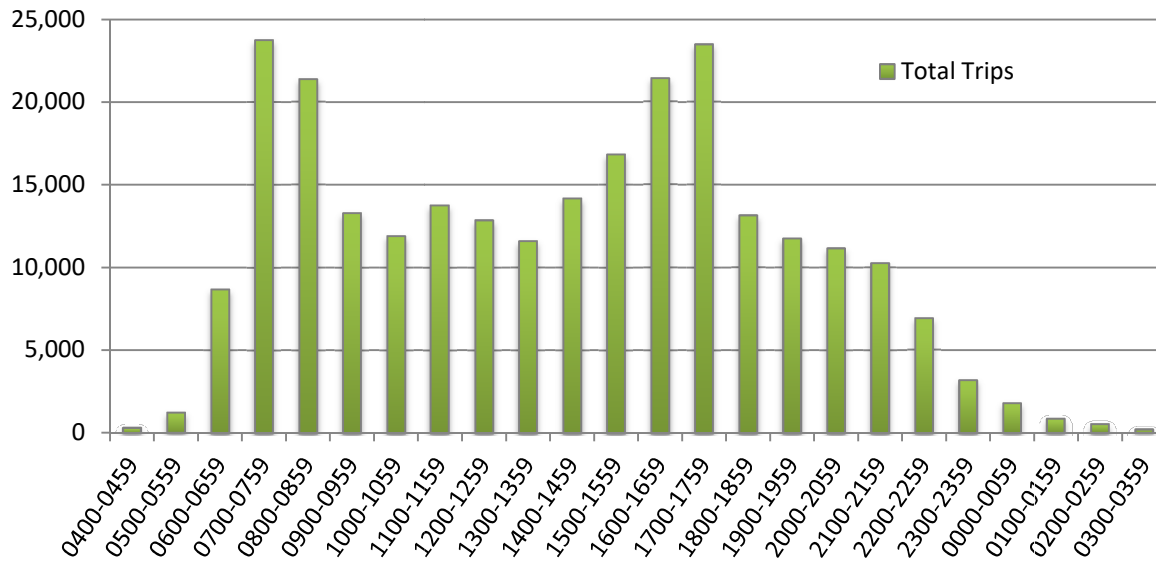
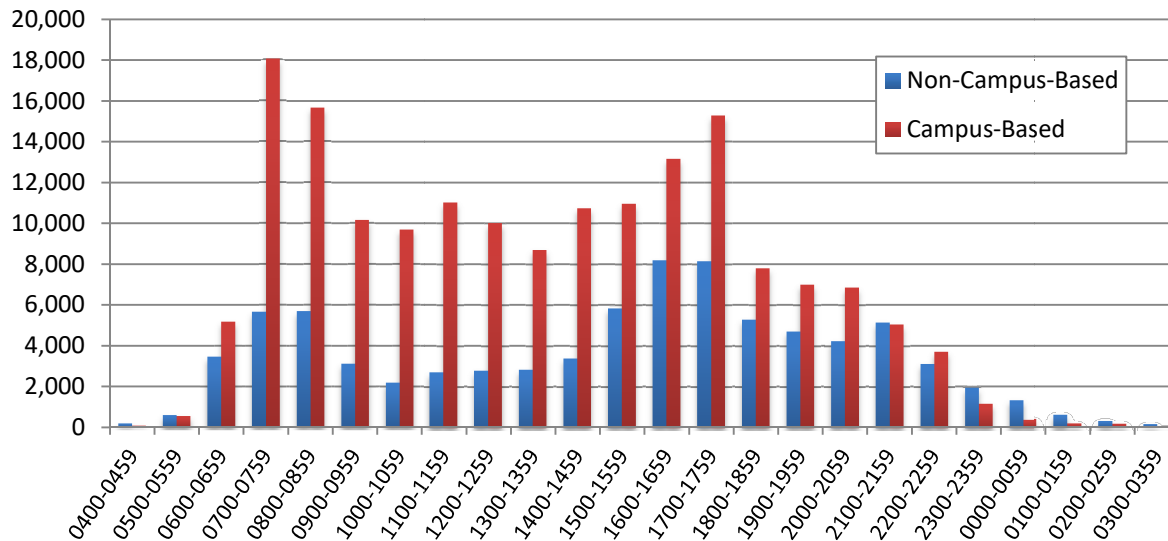


Exhibit 4-19: Time of Day of Campus-Based and Non-Campus-Based Trips



Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

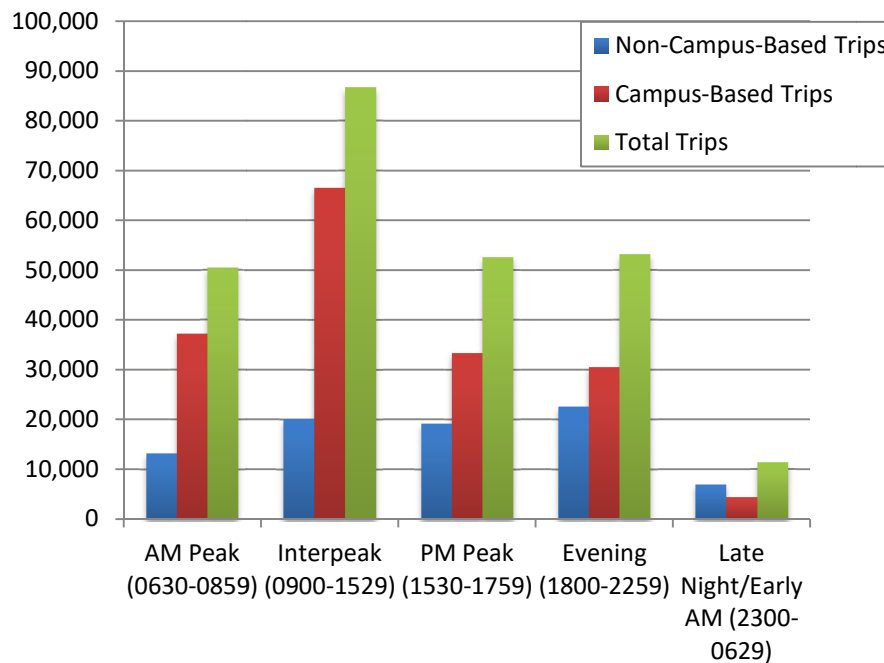
4.6.2. Distribution of Trips by Time Period

The data on time of day have been grouped into time periods for analysis, with these times generally reflecting peak periods of usage of the transportation network with their corresponding variations in levels of availability/frequency of transit services. The AM Peak and PM Peak periods are two-and-one-half-hour time periods that have been used for a number of years in the NCR to define the morning and afternoon peak periods.

Exhibit 4-20 highlights the overall survey results, while Exhibit 4-21, following, details the results by institution. Campus-based trips generally dominate for all time periods, except the late night and early morning. Of note, the AM Peak period, while similar to the PM Peak in terms of magnitude, has a greater dominance of campus-based trips than the PM Peak.

In examining the results for other time periods, readers should keep in mind that the periods below do not have equivalent durations. For example, while the Evening period has relatively similar numbers of trips as the PM Peak period, the trips in the evening period are spread out over twice the interval (five hours).

Exhibit 4-20: Trips made by Post-Secondary Students by Time Period



Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

Exhibit 4-21: Trips made by Post-Secondary Students by Time Period and by Institution

| | uOttawa | Carleton | Algonquin | Cité collégiale | UQO | Cégep de l'Outaouais | Student Survey Average |
|---------------------------------|---------|----------|-----------|--------------------|-------|-------------------------|------------------------------|
| Total Trips | | | | | | | |
| AM Peak (0630-0859) | 20,751 | 11,041 | 8,389 | 3,628 | 3,292 | 3,354 | 50,455 |
| Interpeak (0900-1529) | 36,900 | 24,410 | 14,959 | 3,778 | 3,225 | 3,397 | 86,670 |
| PM Peak (1530-1759) | 21,652 | 13,807 | 7,990 | 2,265 | 4,296 | 2,539 | 52,547 |
| Evening (1800-2259) | 23,199 | 13,809 | 7,372 | 3,144 | 3,502 | 2,110 | 53,136 |
| Late Night/Early AM (2300-0629) | 4,563 | 2,527 | 2,254 | 769 | 717 | 493 | 11,323 |
| Campus-Based Trips | | | | | | | |
| AM Peak (0630-0859) | 15,129 | 7,977 | 6,278 | 3,020 | 1,723 | 3,080 | 37,207 |
| Interpeak (0900-1529) | 29,123 | 18,460 | 11,276 | 3,038 | 1,849 | 2,749 | 66,495 |
| PM Peak (1530-1759) | 14,107 | 9,085 | 5,247 | 1,237 | 1,736 | 1,915 | 33,326 |
| Evening (1800-2259) | 13,962 | 7,761 | 3,919 | 1,880 | 1,885 | 1,125 | 30,532 |
| Late Night/Early AM (2300-0629) | 1,586 | 1,054 | 893 | 531 | 136 | 216 | 4,415 |
| Non-Campus-Based Trips | | | | | | | |
| AM Peak (0630-0859) | 5,622 | 3,064 | 2,111 | 608 | 1,569 | 273 | 13,248 |
| Interpeak (0900-1529) | 7,778 | 5,950 | 3,683 | 740 | 1,376 | 648 | 20,175 |
| PM Peak (1530-1759) | 7,545 | 4,721 | 2,743 | 1,029 | 2,560 | 624 | 19,221 |
| Evening (1800-2259) | 9,237 | 6,048 | 3,453 | 1,264 | 1,616 | 985 | 22,603 |
| Late Night/Early AM (2300-0629) | 2,977 | 1,473 | 1,360 | 238 | 582 | 277 | 6,907 |

Campus-based trips have one trip end (either the origin or the destination) as a campus at the student's institution.

4.6.3. Trips by Travel Mode in Each Time Period

Exhibit 4-22 and Exhibit 4-23 highlight variations in volumes of trips made by each mode of travel by time period, for all trips as well as for campus-based trips. Exhibit 4-24 presents this same information in terms of mode shares within each time period. The following observations can be made:

- Transit is the dominant mode for all time periods except the late night / early morning, when automobile trips dominate. These findings underline the importance of transit as the preferred mode choice among students for the school commute.
- The transit share drops as the day progresses, although it represents more than half of all trips through the PM peak period. The drop in transit mode share from the AM Peak to the Evening for non-campus based trips (42% to 30%) is greater than the drop over the same time frame for campus-based trips (64% to 59%), again reinforcing the primacy of transit for school commutes during usual transit service hours.
- In the evening and late night / early morning, car trips are more important. This is consistent with the generally lower levels of transit services at those times, the possible availability of a household vehicle at those times, and perceptions of convenience and personal security (and parking might be readily available at little or no cost).
- Similarly, the car passenger share increases as the day progresses, especially for non-campus-based trips (which is consistent with students ridesharing with others for off-campus socializing/recreation, grocery shopping, or other purposes in their personal time after classes end; and increased availability of friends or family to provide rides).
- The car driver share increases significantly in the late night / early morning for the small number of campus-based trips that occur during this period (which is consistent with a small portion of students studying, working or socializing late at night on campus).
- The walk share is highest during the interpeak and late night / early morning periods, which might reflect the lower levels of transit services at those times (but note that in absolute terms, the late night / early morning trips are of the order of 10-15% of those in any other time period).

Readers are reminded that the survey excluded trips that were entirely on-campus (e.g., short trips between buildings), and does not capture on-campus residents' trips within the campus.

Exhibit 4-22: Trips by Mode by Time Period – All Trips

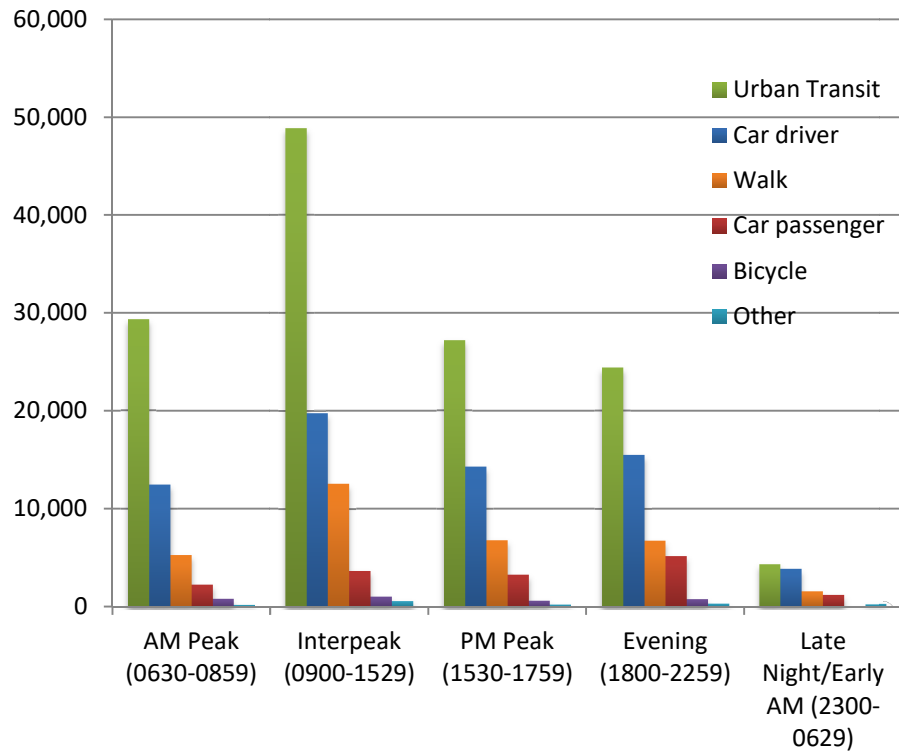


Exhibit 4-23: Trips by Mode by Time Period – Campus-Based Trips

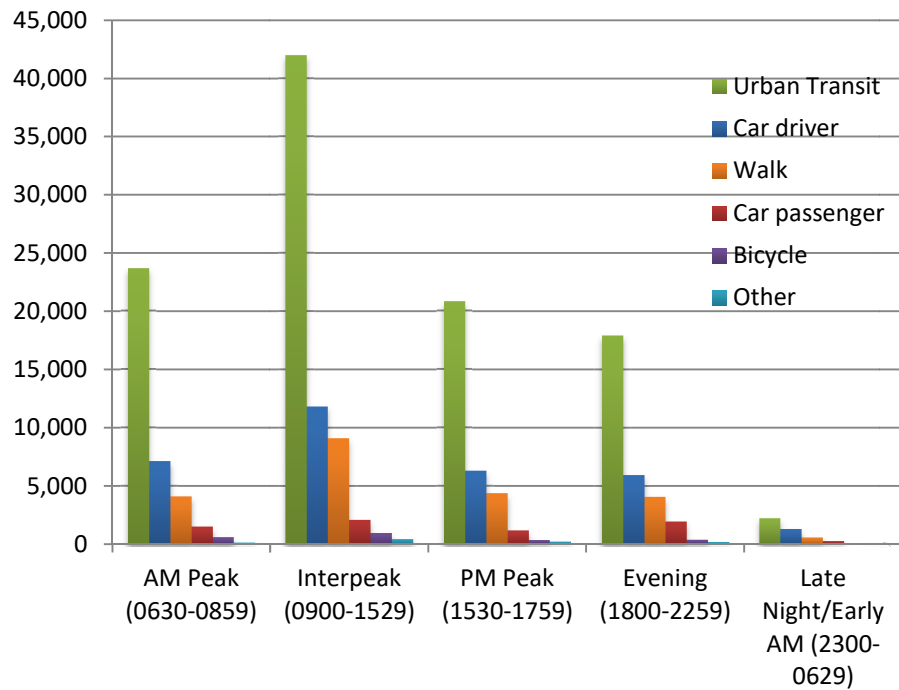


Exhibit 4-24: Trips by Mode by Time Period – Campus-Based and Non-Campus Based Trips

| | Sample Size (n Trip Records) | Total Expanded Trips | Mode of Travel | | | | | |
|---------------------------------|------------------------------------|----------------------------|----------------|------------------|------------------|---------|-------|------|
| | | | Car driver | Car passenger | Urban Transit | Bicycle | Other | Walk |
| Total Trips | | | | | | | | |
| AM Peak (0630-0859) | 2,281 | 50,455 | 25% | 5% | 58% | 2% | 0% | 11% |
| Interpeak (0900-1529) | 3,985 | 86,670 | 23% | 4% | 56% | 1% | 1% | 15% |
| PM Peak (1530-1759) | 2,310 | 52,548 | 27% | 6% | 52% | 1% | 1% | 13% |
| Evening (1800-2259) | 2,388 | 53,136 | 29% | 10% | 46% | 2% | 1% | 13% |
| Late Night/Early AM (2300-0629) | 481 | 11,322 | 34% | 11% | 38% | 1% | 2% | 14% |
| Campus-Based Trips | | | | | | | | |
| AM Peak (0630-0859) | 1,744 | 37,207 | 19% | 4% | 64% | 2% | 0% | 11% |
| Interpeak (0900-1529) | 3,069 | 66,495 | 18% | 3% | 63% | 1% | 1% | 14% |
| PM Peak (1530-1759) | 1,502 | 33,326 | 19% | 4% | 62% | 1% | 1% | 13% |
| Evening (1800-2259) | 1,359 | 30,532 | 19% | 6% | 59% | 1% | 1% | 13% |
| Late Night/Early AM (2300-0629) | 190 | 4,415 | 29% | 6% | 50% | 1% | 1% | 13% |
| Non- Campus-Based Trips | | | | | | | | |
| AM Peak (0630-0859) | 537 | 13,248 | 40% | 6% | 42% | 2% | 1% | 9% |
| Interpeak (0900-1529) | 916 | 20,175 | 39% | 8% | 34% | 1% | 1% | 17% |
| PM Peak (1530-1759) | 808 | 19,221 | 42% | 11% | 33% | 1% | 0% | 13% |
| Evening (1800-2259) | 1,029 | 22,603 | 42% | 14% | 29% | 2% | 1% | 12% |
| Late Night/Early AM (2300-0629) | 291 | 6,907 | 37% | 14% | 30% | 1% | 3% | 15% |

Values of less than 0.5% are rounded to 0%.

Appendix A: Data Weights by Sample Strata

[illegible]

TRANS Special Generator Survey: Public Post-Secondary Students

| Institution | Program Group | Enrollment Status | Live On or Off Campus | Age | Sex | Total Partial and Complete Surveys | Base Person Weight Partial Surveys | Validated Complete Surveys | Scaling Factor for Surveys with Trips* | Final Person Trip Weights | | | Average Weight by Day of Week | | | | |
|-------------|---------------|-------------------|-----------------------|-----|-----|------------------------------------|------------------------------------|----------------------------|----------------------------------------|---------------------------|--------|--------|-------------------------------|--------|--------|--------|--------|
| | | | | | | | | | | Avg. | Min. | Max. | Mon | Tue | Wed | Thu | Fri |
| uOttawa | Undergrad | P/t | Off | 25+ | F | 17 | 73.789 | 13 | 1.295 | 80.870 | 66.538 | 83.475 | 83.475 | 83.475 | 72.184 | 83.475 | 83.475 |
| uOttawa | Grad | F/t | Main | <25 | M | 4 | 20.547 | 2 | | 30.625 | 18.201 | 43.049 | | | | 43.049 | 18.201 |
| uOttawa | Grad | F/t | Main | <25 | F | 9 | 13.093 | 5 | 1.717 | 18.356 | 9.811 | 20.493 | 20.493 | 9.811 | | | |
| uOttawa | Grad | F/t | Main | 25+ | M | 3 | 17.608 | 1 | | 17.297 | 17.297 | 17.297 | | | 17.297 | | |
| uOttawa | Grad | F/t | Main | 25+ | F | 3 | 11.636 | 1 | 8.214 | 81.791 | 81.791 | 81.791 | 81.791 | | | | |
| uOttawa | Grad | F/t | Off | <25 | M | 68 | 14.098 | 53 | 1.405 | 19.459 | 12.799 | 25.739 | 19.101 | 18.445 | 17.437 | 22.125 | 23.619 |
| uOttawa | Grad | F/t | Off | <25 | F | 132 | 9.248 | 100 | 1.304 | 12.075 | 8.348 | 15.584 | 11.876 | 11.457 | 10.707 | 13.222 | 14.978 |
| uOttawa | Grad | F/t | Off | 25+ | M | 113 | 14.230 | 89 | 1.382 | 19.520 | 12.799 | 25.313 | 18.806 | 18.240 | 17.197 | 21.297 | 24.078 |
| uOttawa | Grad | F/t | Off | 25+ | F | 139 | 9.410 | 112 | 1.364 | 12.912 | 8.348 | 16.294 | 12.418 | 11.984 | 11.159 | 13.667 | 15.880 |
| uOttawa | Grad | P/t | Main | <25 | M | | | | | | | | | | | | |
| uOttawa | Grad | P/t | Main | <25 | F | | | | | | | | | | | | |
| uOttawa | Grad | P/t | Main | 25+ | M | 2 | 48.827 | 2 | | 45.179 | 44.028 | 46.330 | | | 44.028 | | 46.330 |
| uOttawa | Grad | P/t | Main | 25+ | F | | | | | | | | | | | | |
| uOttawa | Grad | P/t | Off | <25 | M | | | | | | | | | | | | |
| uOttawa | Grad | P/t | Off | <25 | F | 8 | 23.832 | 7 | 1.387 | 32.115 | 21.248 | 42.180 | 32.145 | 31.358 | 25.359 | 36.258 | 42.180 |
| uOttawa | Grad | P/t | Off | 25+ | M | 6 | 36.201 | 5 | 1.416 | 48.221 | 34.666 | 56.746 | 50.308 | 41.871 | | 56.746 | |
| uOttawa | Grad | P/t | Off | 25+ | F | 33 | 23.143 | 28 | 1.295 | 30.373 | 21.248 | 39.378 | 30.010 | 28.442 | 26.730 | 32.309 | 39.378 |
| Carleton | Undergrad | F/t | On | <25 | M | 94 | 16.626 | 63 | 2.824 | 24.992 | 13.526 | 73.347 | 28.384 | 18.459 | 31.112 | 31.898 | 20.700 |
| Carleton | Undergrad | F/t | On | <25 | F | 147 | 11.877 | 106 | 1.800 | 16.618 | 9.643 | 33.341 | 16.785 | 13.635 | 15.525 | 25.005 | 15.299 |
| Carleton | Undergrad | F/t | On | 25+ | M | 1 | 11.430 | | | | | | | | | | |
| Carleton | Undergrad | F/t | On | 25+ | F | 2 | 10.691 | 2 | | 10.883 | 9.910 | 11.857 | | | 11.857 | | 9.910 |
| Carleton | Undergrad | F/t | Off | <25 | M | 488 | 16.605 | 395 | 1.262 | 20.748 | 14.993 | 22.560 | 21.095 | 18.721 | 20.419 | 22.296 | 21.395 |
| Carleton | Undergrad | F/t | Off | <25 | F | 638 | 11.743 | 518 | 1.253 | 14.555 | 10.689 | 15.970 | 14.897 | 13.286 | 14.522 | 15.667 | 14.942 |
| Carleton | Undergrad | F/t | Off | 25+ | M | 55 | 14.306 | 46 | 1.181 | 16.837 | 13.061 | 18.403 | 17.483 | 15.262 | 16.950 | 18.403 | 17.679 |

TRANS Special Generator Survey: Public Post-Secondary Students

| Institution | Program Group | Enrollment Status | Live On or Off Campus | Age | Sex | Total Partial and Complete Surveys | Base Person Weight Partial Surveys | Validated Complete Surveys | Scaling Factor for Surveys with Trips* | Final Person Trip Weights | | | Average Weight by Day of Week | | | | |
|-------------|---------------|-------------------|-----------------------|-----|-----|------------------------------------|------------------------------------|----------------------------|----------------------------------------|---------------------------|--------|--------|-------------------------------|--------|--------|--------|--------|
| | | | | | | | | | | Avg. | Min. | Max. | Mon | Tue | Wed | Thu | Fri |
| Carleton | Undergrad | F/t | Off | 25+ | F | 51 | 11.464 | 39 | 1.233 | 13.856 | 10.450 | 15.367 | 14.139 | 12.698 | 13.485 | 15.076 | 14.298 |
| Carleton | Undergrad | P/t | On | <25 | M | | | | | | | | | | | | |
| Carleton | Undergrad | P/t | On | <25 | F | 2 | 20.368 | 1 | | 21.749 | 21.749 | 21.749 | | 21.749 | | | |
| Carleton | Undergrad | P/t | On | 25+ | M | 1 | 32.525 | | | | | | | | | | |
| Carleton | Undergrad | P/t | On | 25+ | F | | | | | | | | | | | | |
| Carleton | Undergrad | P/t | Off | <25 | M | 26 | 68.873 | 22 | 1.235 | 76.621 | 62.535 | 79.000 | 76.284 | 74.306 | 79.000 | 78.115 | 79.000 |
| Carleton | Undergrad | P/t | Off | <25 | F | 40 | 26.943 | 30 | 1.400 | 36.592 | 27.314 | 40.252 | 36.056 | 33.753 | 37.074 | 36.418 | 38.670 |
| Carleton | Undergrad | P/t | Off | 25+ | M | 16 | 40.834 | 14 | 1.204 | 49.156 | 37.167 | 53.357 | 50.692 | 42.217 | 49.145 | 53.357 | 51.260 |
| Carleton | Undergrad | P/t | Off | 25+ | F | 35 | 18.820 | 28 | 1.211 | 22.732 | 20.505 | 24.453 | 23.232 | 20.505 | 22.523 | 24.453 | 23.492 |
| Carleton | Grad | F/t | On | <25 | M | | | | | | | | | | | | |
| Carleton | Grad | F/t | On | <25 | F | 8 | 10.486 | 6 | 1.800 | 15.915 | 9.992 | 19.226 | 19.226 | | 15.323 | 15.258 | 15.035 |
| Carleton | Grad | F/t | On | 25+ | M | 8 | 11.186 | 7 | 1.757 | 16.281 | 9.269 | 31.280 | 12.461 | 12.778 | | 24.541 | 13.433 |
| Carleton | Grad | F/t | On | 25+ | F | 1 | 9.803 | 1 | | 9.032 | 9.032 | 9.032 | | | 9.032 | | |
| Carleton | Grad | F/t | Off | <25 | M | 60 | 8.679 | 43 | 1.262 | 10.773 | 7.900 | 11.887 | 11.293 | 9.490 | 10.624 | 11.887 | 11.420 |
| Carleton | Grad | F/t | Off | <25 | F | 51 | 9.852 | 41 | 1.253 | 12.066 | 9.673 | 13.157 | 12.248 | 11.032 | 11.874 | 12.892 | 12.640 |
| Carleton | Grad | F/t | Off | 25+ | M | 88 | 11.461 | 76 | 1.181 | 13.507 | 10.275 | 14.476 | 13.753 | 11.995 | 13.333 | 14.254 | 13.755 |
| Carleton | Grad | F/t | Off | 25+ | F | 105 | 8.811 | 91 | 1.233 | 10.752 | 7.960 | 11.706 | 11.122 | 9.732 | 10.782 | 11.621 | 10.496 |
| Carleton | Grad | P/t | Off | <25 | M | | | | | | | | | | | | |
| Carleton | Grad | P/t | Off | <25 | F | 3 | 13.645 | 1 | 1.400 | 19.169 | 19.169 | 19.169 | 19.169 | | | | |
| Carleton | Grad | P/t | Off | 25+ | M | 13 | 22.763 | 10 | 1.204 | 27.954 | 23.722 | 29.725 | | | 27.379 | 29.725 | 27.590 |
| Carleton | Grad | P/t | Off | 25+ | F | 16 | 15.592 | 15 | 1.211 | 18.105 | 14.104 | 20.366 | 19.349 | 15.095 | 18.758 | 20.366 | 17.295 |
| Algonquin | Undergrad | F/t | On | <25 | M | 3 | 77.633 | 3 | | 78.484 | 78.484 | 78.484 | | | | 78.484 | |
| Algonquin | Undergrad | F/t | On | <25 | F | 7 | 73.860 | 7 | | 74.670 | 58.863 | 95.746 | 95.746 | 95.746 | 95.746 | | 58.863 |
| Algonquin | Undergrad | F/t | On | 25+ | M | 2 | 100.027 | 2 | | 97.287 | 97.287 | 97.287 | 97.287 | | 97.287 | | |

TRANS Special Generator Survey: Public Post-Secondary Students

| Institution | Program Group | Enrollment Status | Live On or Off Campus | Age | Sex | Total Partial and Complete Surveys | Base Person Weight Partial Surveys | Validated Complete Surveys | Scaling Factor for Surveys with Trips* | Final Person Trip Weights | | | Average Weight by Day of Week | | | | |
|-------------|---------------|-------------------|-----------------------|-----|-----|------------------------------------|------------------------------------|----------------------------|----------------------------------------|---------------------------|--------|--------|-------------------------------|--------|--------|--------|--------|
| | | | | | | | | | | Avg. | Min. | Max. | Mon | Tue | Wed | Thu | Fri |
| Algonquin | Undergrad | F/t | On | 25+ | F | | | | | | | | | | | | |
| Algonquin | Undergrad | F/t | Off | <25 | M | 256 | 18.150 | 180 | 1.486 | 26.686 | 13.065 | 36.495 | 18.811 | 19.301 | 26.523 | 33.518 | 35.376 |
| Algonquin | Undergrad | F/t | Off | <25 | F | 372 | 12.387 | 247 | 1.548 | 18.783 | 8.677 | 26.060 | 13.125 | 13.524 | 19.422 | 24.153 | 25.431 |
| Algonquin | Undergrad | F/t | Off | 25+ | M | 197 | 15.608 | 141 | 1.426 | 21.229 | 12.661 | 35.016 | 17.779 | 17.866 | 26.741 | 33.276 | 35.016 |
| Algonquin | Undergrad | F/t | Off | 25+ | F | 205 | 11.097 | 153 | 1.370 | 14.669 | 8.677 | 23.066 | 11.751 | 12.154 | 17.106 | 20.603 | 21.966 |
| Algonquin | Undergrad | P/t | Off | <25 | M | 12 | 18.296 | 10 | 1.286 | 22.483 | 13.065 | 31.582 | | 14.931 | 24.466 | 30.012 | 28.073 |
| Algonquin | Undergrad | P/t | Off | <25 | F | 12 | 12.425 | 10 | 1.250 | 15.435 | 11.192 | 21.043 | | 11.192 | 14.671 | 19.997 | 21.043 |
| Algonquin | Undergrad | P/t | Off | 25+ | M | 19 | 13.650 | 16 | 1.200 | 15.139 | 13.065 | 15.678 | 15.193 | 15.097 | | | |
| Algonquin | Undergrad | P/t | Off | 25+ | F | 20 | 11.243 | 15 | 1.333 | 14.545 | 11.569 | 22.446 | 11.569 | 11.938 | 17.388 | | 22.446 |
| Algonquin | Grad | F/t | On | <25 | M | | | | | | | | | | | | |
| Algonquin | Grad | F/t | On | <25 | F | | | | | | | | | | | | |
| Algonquin | Grad | F/t | On | 25+ | M | 1 | 100.027 | 1 | | 97.287 | 97.287 | 97.287 | | 97.287 | | | |
| Algonquin | Grad | F/t | On | 25+ | F | | | | | | | | | | | | |
| Algonquin | Grad | F/t | Off | <25 | M | 20 | 19.026 | 11 | 1.486 | 29.508 | 18.811 | 36.495 | 18.811 | 19.410 | 28.272 | 30.902 | 36.495 |
| Algonquin | Grad | F/t | Off | <25 | F | 36 | 12.282 | 24 | 1.548 | 18.108 | 8.954 | 24.765 | 13.432 | 13.315 | 20.188 | 23.304 | |
| Algonquin | Grad | F/t | Off | 25+ | M | 15 | 14.863 | 11 | 1.426 | 19.976 | 12.661 | 33.276 | 16.253 | 18.624 | 27.126 | 33.276 | 24.564 |
| Algonquin | Grad | F/t | Off | 25+ | F | 21 | 10.877 | 16 | 1.370 | 14.389 | 11.889 | 23.066 | 11.889 | 12.268 | 17.868 | 21.919 | 19.950 |
| Algonquin | Grad | P/t | Off | <25 | M | | | | | | | | | | | | |
| Algonquin | Grad | P/t | Off | <25 | F | | | | | | | | | | | | |
| Algonquin | Grad | P/t | Off | 25+ | M | 1 | 13.160 | 1 | 1.200 | 15.193 | 15.193 | 15.193 | 15.193 | | | | |
| Algonquin | Grad | P/t | Off | 25+ | F | 1 | 9.019 | 1 | | 8.677 | 8.677 | 8.677 | 8.677 | | | | |

TRANS Special Generator Survey: Public Post-Secondary Students

| Institution | Program Group | Enrollment Status | Live On or Off Campus | Age | Sex | Total Partial and Complete Surveys | Base Person Weight Partial Surveys | Validated Complete Surveys | Scaling Factor for Surveys with Trips* | Final Person Trip Weights | | | Average Weight by Day of Week | | |
|-----------------|---------------|-------------------|-----------------------|-----|-----|------------------------------------|------------------------------------|----------------------------|----------------------------------------|---------------------------|--------|--------|-------------------------------|--------------------------|--------|
| | | | | | | | | | | Avg. | Min. | Max. | Mon | Tue - Wed - Thu combined | Fri |
| Cité collégiale | Undergrad | F/t | On | <25 | M | 8 | 12.806 | 3 | 6.000 | 37.156 | 11.988 | 72.244 | 11.988 | 27.236 | 72.244 |
| Cité collégiale | Undergrad | F/t | On | <25 | F | 11 | 10.166 | 3 | 9.000 | 31.961 | 7.224 | 72.244 | 7.224 | 44.329 | |
| Cité collégiale | Undergrad | F/t | On | 25+ | M | 1 | 22.914 | 1 | | 27.236 | 27.236 | 27.236 | | 27.236 | |
| Cité collégiale | Undergrad | F/t | On | 25+ | F | 1 | 13.809 | 1 | | 16.413 | 16.413 | 16.413 | | 16.413 | |
| Cité collégiale | Undergrad | F/t | Off | <25 | M | 52 | 35.044 | 33 | 1.559 | 52.887 | 40.355 | 67.469 | 40.355 | 67.469 | 50.536 |
| Cité collégiale | Undergrad | F/t | Off | <25 | F | 93 | 22.294 | 63 | 1.508 | 37.049 | 15.601 | 53.465 | 22.873 | 52.178 | 29.470 |
| Cité collégiale | Undergrad | F/t | Off | 25+ | M | 19 | 34.502 | 10 | 1.900 | 61.028 | 32.419 | 67.469 | | 67.469 | 56.733 |
| Cité collégiale | Undergrad | F/t | Off | 25+ | F | 19 | 23.727 | 6 | 3.600 | 56.940 | 15.601 | 67.469 | 35.882 | 67.469 | |
| Cité collégiale | Undergrad | P/t | Off | <25 | M | | | | | | | | | | |
| Cité collégiale | Undergrad | P/t | Off | <25 | F | | | | | | | | | | |
| Cité collégiale | Undergrad | P/t | Off | 25+ | M | 2 | 55.294 | 1 | 1.500 | 67.469 | 67.469 | 67.469 | | | 67.469 |
| Cité collégiale | Undergrad | P/t | Off | 25+ | F | 2 | 55.145 | 1 | 2.000 | 67.469 | 67.469 | 67.469 | 67.469 | | |
| Cité collégiale | Grad | F/t | On | <25 | M | | | | | | | | | | |
| Cité collégiale | Grad | F/t | On | <25 | F | | | | | | | | | | |
| Cité collégiale | Grad | F/t | On | 25+ | M | | | | | | | | | | |
| Cité collégiale | Grad | F/t | On | 25+ | F | | | | | | | | | | |
| Cité collégiale | Grad | F/t | Off | <25 | M | 1 | 20.496 | 1 | 1.559 | 40.355 | 40.355 | 40.355 | 40.355 | | |
| Cité collégiale | Grad | F/t | Off | <25 | F | | | | | | | | | | |
| Cité collégiale | Grad | F/t | Off | 25+ | M | 1 | 55.055 | 1 | 1.900 | 67.469 | 67.469 | 67.469 | | 67.469 | |
| Cité collégiale | Grad | F/t | Off | 25+ | F | | | | | | | | | | |
| Cité collégiale | Grad | P/t | Off | <25 | M | 1 | 55.294 | 1 | | 67.469 | 67.469 | 67.469 | | | 67.469 |
| Cité collégiale | Grad | P/t | Off | <25 | F | | | | | | | | | | |

TRANS Special Generator Survey: Public Post-Secondary Students

| Institution | Program Group | Enrollment Status | Live On or Off Campus | Age | Sex | Total Partial and Complete Surveys | Base Person Weight Partial Surveys | Validated Complete Surveys | Scaling Factor for Surveys with Trips* | Final Person Trip Weights | | | Average Weight by Day of Week | | |
|-----------------|---------------|-------------------|-----------------------|-----|-----|------------------------------------|------------------------------------|----------------------------|----------------------------------------|---------------------------|--------|--------|-------------------------------|--------------------------|--------|
| | | | | | | | | | | Avg. | Min. | Max. | Mon | Tue - Wed - Thu combined | Fri |
| Cité collégiale | Grad | P/t | Off | 25+ | M | 1 | 55.294 | 1 | 1.500 | 67.469 | 67.469 | 67.469 | | | 67.469 |
| Cité collégiale | Grad | P/t | Off | 25+ | F | | | | | | | | | | |
| UQO | Undergrad | F/t | On | <25 | M | 3 | 6.772 | 3 | | 6.942 | 5.481 | 8.240 | 8.240 | 7.106 | 5.481 |
| UQO | Undergrad | F/t | On | <25 | F | 8 | 6.579 | 8 | | 6.638 | 5.481 | 8.240 | 8.240 | 7.106 | 5.481 |
| UQO | Undergrad | F/t | On | 25+ | M | | | | | | | | | | |
| UQO | Undergrad | F/t | On | 25+ | F | 2 | 6.214 | 2 | | 5.481 | 5.481 | 5.481 | | | 5.481 |
| UQO | Undergrad | F/t | Off | <25 | M | 18 | 16.754 | 13 | 1.385 | 27.450 | 20.771 | 31.228 | 31.228 | 26.932 | 20.771 |
| UQO | Undergrad | F/t | Off | <25 | F | 69 | 16.398 | 49 | 1.386 | 25.635 | 20.791 | 31.258 | 31.258 | 26.959 | 20.791 |
| UQO | Undergrad | F/t | Off | 25+ | M | 16 | 16.613 | 11 | 1.357 | 24.784 | 20.359 | 30.608 | 26.581 | 26.398 | 20.359 |
| UQO | Undergrad | F/t | Off | 25+ | F | 31 | 16.553 | 23 | 1.394 | 26.589 | 20.911 | 31.438 | 29.661 | 27.114 | 20.911 |
| UQO | Undergrad | P/t | Off | <25 | M | | | | | | | | | | |
| UQO | Undergrad | P/t | Off | <25 | F | 7 | 50.972 | 3 | 2.250 | 57.296 | 57.296 | 57.296 | 57.296 | 57.296 | |
| UQO | Undergrad | P/t | Off | 25+ | M | 9 | 51.493 | 6 | 1.300 | 57.296 | 57.296 | 57.296 | 57.296 | 57.296 | 57.296 |
| UQO | Undergrad | P/t | Off | 25+ | F | 16 | 50.280 | 13 | 1.200 | 56.628 | 55.125 | 57.296 | 57.296 | 57.296 | 55.125 |
| UQO | Grad | F/t | On | <25 | M | | | | | | | | | | |
| UQO | Grad | F/t | On | <25 | F | | | | | | | | | | |
| UQO | Grad | F/t | On | 25+ | M | | | | | | | | | | |
| UQO | Grad | F/t | On | 25+ | F | 1 | 6.628 | 1 | | 7.106 | 7.106 | 7.106 | | 7.106 | |
| UQO | Grad | F/t | Off | <25 | M | | | | | | | | | | |
| UQO | Grad | F/t | Off | <25 | F | 10 | 16.041 | 8 | 1.386 | 24.646 | 20.791 | 26.959 | | 26.959 | 20.791 |
| UQO | Grad | F/t | Off | 25+ | M | 4 | 15.837 | 4 | 1.357 | 23.378 | 20.359 | 26.398 | | 26.398 | 20.359 |
| UQO | Grad | F/t | Off | 25+ | F | 16 | 16.547 | 11 | 1.394 | 26.208 | 20.911 | 31.438 | 31.438 | 27.114 | 20.911 |
| UQO | Grad | P/t | Off | <25 | M | | | | | | | | | | |

TRANS Special Generator Survey: Public Post-Secondary Students

| Institution | Program Group | Enrollment Status | Live On or Off Campus | Age | Sex | Total Partial and Complete Surveys | Base Person Weight Partial Surveys | Validated Complete Surveys | Scaling Factor for Surveys with Trips* | Final Person Trip Weights | | | Average Weight by Day of Week | | |
|-----------------|---------------|-------------------|-----------------------|-----|-----|------------------------------------|------------------------------------|----------------------------|----------------------------------------|---------------------------|--------|--------|-------------------------------|--------------------------|--------|
| | | | | | | | | | | Avg. | Min. | Max. | Mon | Tue - Wed - Thu combined | Fri |
| UQO | Grad | P/t | Off | <25 | F | 2 | 48.498 | 1 | 2.250 | 57.296 | 57.296 | 57.296 | | | 57.296 |
| UQO | Grad | P/t | Off | 25+ | M | 4 | 51.656 | 4 | 1.300 | 57.296 | 57.296 | 57.296 | 57.296 | 57.296 | |
| UQO | Grad | P/t | Off | 25+ | F | 2 | 50.060 | 2 | 1.200 | 57.296 | 57.296 | 57.296 | | 57.296 | |
| Cégep Outaouais | Undergrad | F/t | Off | <25 | M | 160 | 10.247 | 113 | 1.420 | 14.594 | 6.372 | 25.120 | 11.078 | 25.120 | 8.986 |
| Cégep Outaouais | Undergrad | F/t | Off | <25 | F | 360 | 6.496 | 248 | 1.465 | 9.465 | 3.691 | 15.013 | 6.590 | 14.915 | 5.321 |
| Cégep Outaouais | Undergrad | F/t | Off | 25+ | M | 22 | 12.801 | 17 | 1.294 | 16.330 | 8.246 | 22.899 | 10.098 | 22.899 | 8.246 |
| Cégep Outaouais | Undergrad | F/t | Off | 25+ | F | 36 | 7.068 | 29 | 1.259 | 8.665 | 4.520 | 12.907 | 5.479 | 12.907 | 4.648 |
| Cégep Outaouais | Undergrad | P/t | Off | <25 | M | 5 | 9.903 | 5 | | 9.878 | 7.054 | 19.590 | 8.639 | 19.590 | 7.054 |
| Cégep Outaouais | Undergrad | P/t | Off | <25 | F | 11 | 9.518 | 9 | 1.222 | 11.160 | 4.994 | 13.869 | 6.116 | 13.869 | 4.994 |
| Cégep Outaouais | Undergrad | P/t | Off | 25+ | M | 1 | 7.140 | 1 | | 7.054 | 7.054 | 7.054 | | | 7.054 |
| Cégep Outaouais | Undergrad | P/t | Off | 25+ | F | 3 | 6.803 | 2 | 1.500 | 6.818 | 6.129 | 7.506 | 7.506 | | 6.129 |

Appendix B: Maps of Student Places of Residence by Institution

Appendices with maps are provided under a separate cover.

Appendix C: Maps of Off-Campus Origins/Destinations for Campus-Based Trips, by Campus

Appendices with maps are provided under a separate cover.