



University of Manitoba

Campus Commute Survey

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Submitted by:



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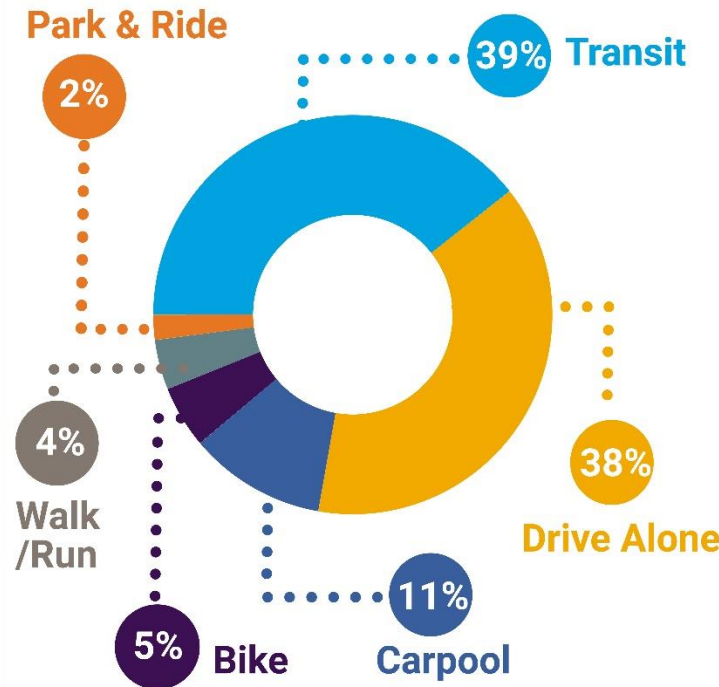
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Executive Summary

FORT GARRY CAMPUS HIGHLIGHTS

CURRENT TRAVEL

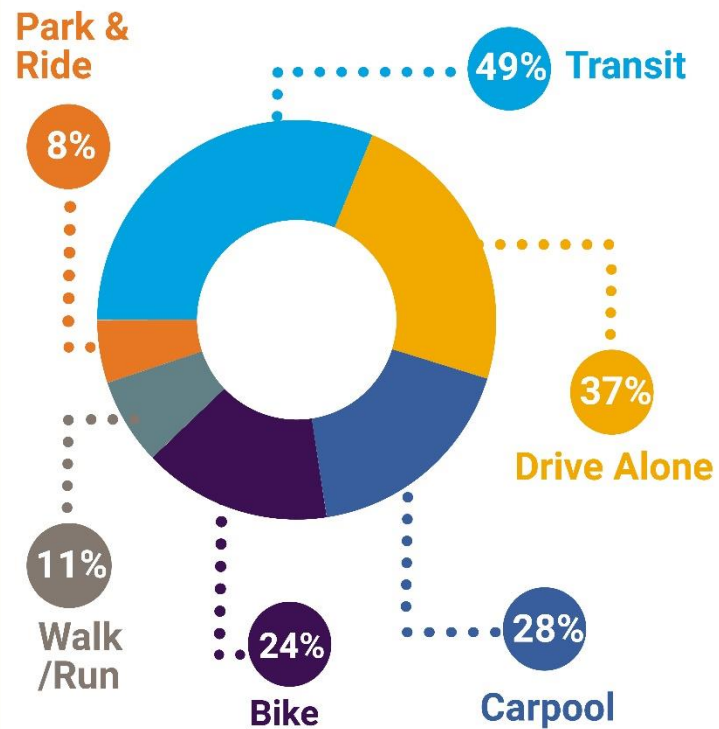
This is how students, faculty and staff currently commute to and from Fort Garry campus.



IDEAL TRAVEL

This is how you would prefer to commute to Fort Garry campus.

(Percentages do not total 100 as respondents picked their top 2 choices)



FORT GARRY HIGHLIGHTS



Bike Fleet

30% of Staff &
24% of Faculty
members would like
a University-owned
bike in their building



Campus Shuttle Bus

Suggested improvements:
more promotion, more
reliable schedule,
increased frequency
& stops, real-time updates



Parking Pass Flexibility

Undergraduates primarily prefer a
M/W/F or T/Th pass (40%),
Graduate students prefer a parkade
flex pass (28%), Faculty (35%) and
Staff (63%) prefer a monthly pass



Carpool Matching

88% are not aware of the
University's subscription to
GoManitoba.ca, a tool to
match carpool partners

86%

**INCREASED FREQUENCY AND
SPACE ON BUSES**

**MORE DIRECT BUS ROUTES
TO AND FROM CAMPUS**

80%

73%

**IMPROVED WALKING
INFRASTRUCTURE**

**AFFORDABLE STUDENT
HOUSING NEAR CAMPUS**

73%

67%

**IMPROVED CYCLING
INFRASTRUCTURE**

FLEXIBLE PARKING PERMIT

64%

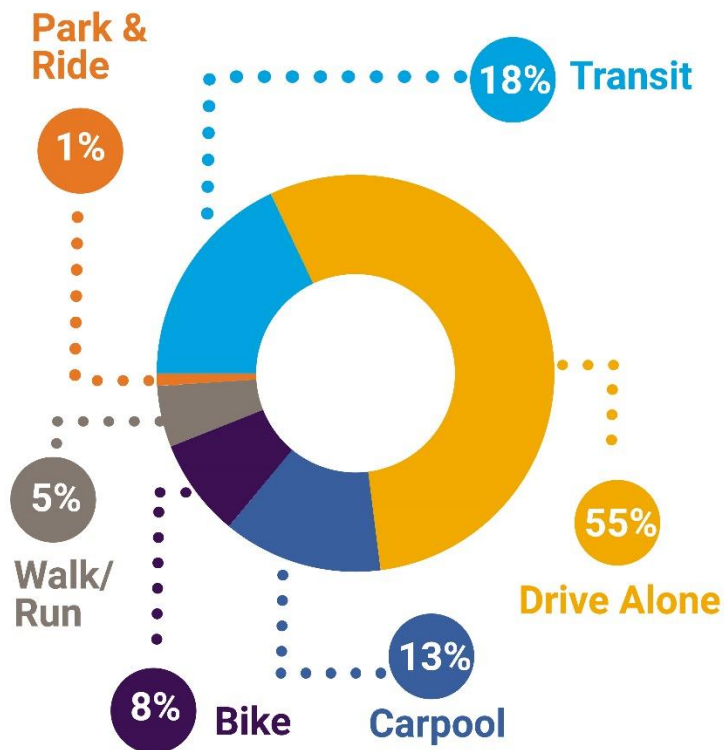
WHAT WOULD INFLUENCE YOUR COMMUTE

These are the top
influences you told
us are Extremely
or Very Important
when deciding
how to commute
to Fort Garry.

BANNATYNE CAMPUS HIGHLIGHTS

CURRENT TRAVEL

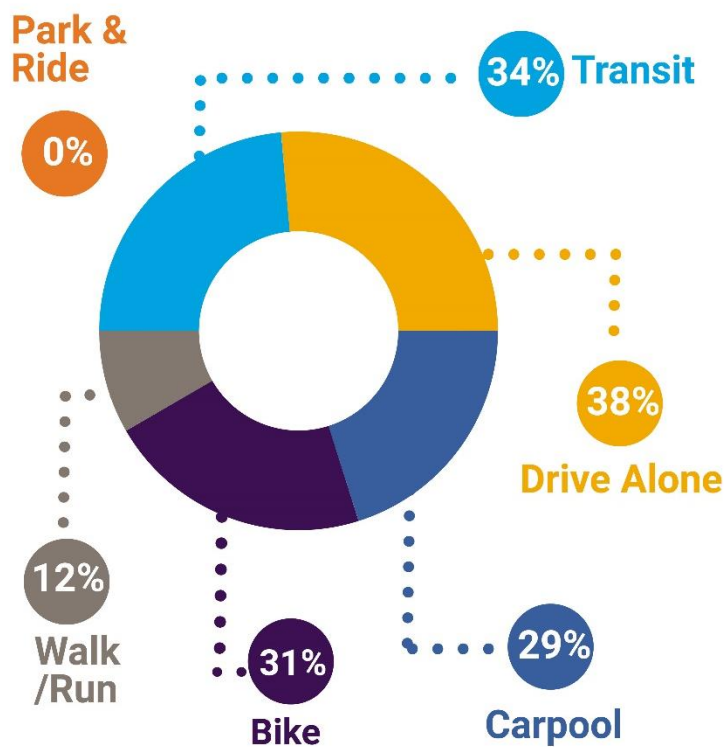
This is how students, faculty and staff currently commute to and from Bannatyne campus.



IDEAL TRAVEL

This is how you would prefer to commute to Bannatyne campus.

(Percentages do not total 100 as respondents picked their top 2 choices)



BANNATYNE HIGHLIGHTS



Bike Parking

63% of those interested in cycling would like additional secure bike parking



Bus Fare - Work Trips

64% of Faculty and Staff rank bus fare for work-related trips as Extremely or Very Important



Parking Pass Flexibility

Undergraduates primarily prefer a M/W/F or T/Th pass (31%) while Graduate students (47%), Faculty (62%) and Staff (57%) prefer a monthly pass



Carpool Matching

89% are not aware of the University's subscription to GoManitoba.ca, a tool to match carpool partners

83% MORE DIRECT BUS ROUTES TO AND FROM CAMPUS

INCREASED FREQUENCY AND SPACE ON BUSES **77%**

70% IMPROVED CYCLING INFRASTRUCTURE

IMPROVED WALKING INFRASTRUCTURE **67%**

63% ADDITIONAL SECURE BIKE PARKING

FLEXIBLE PARKING PERMIT **63%**

WHAT WOULD INFLUENCE YOUR COMMUTE

These are the top influences you told us are Extremely or Very Important when deciding how to commute to Bannatyne.

CO2 EMISSIONS

Annual Average KG Per Person

2016

2018

2020



839 kg
per
person

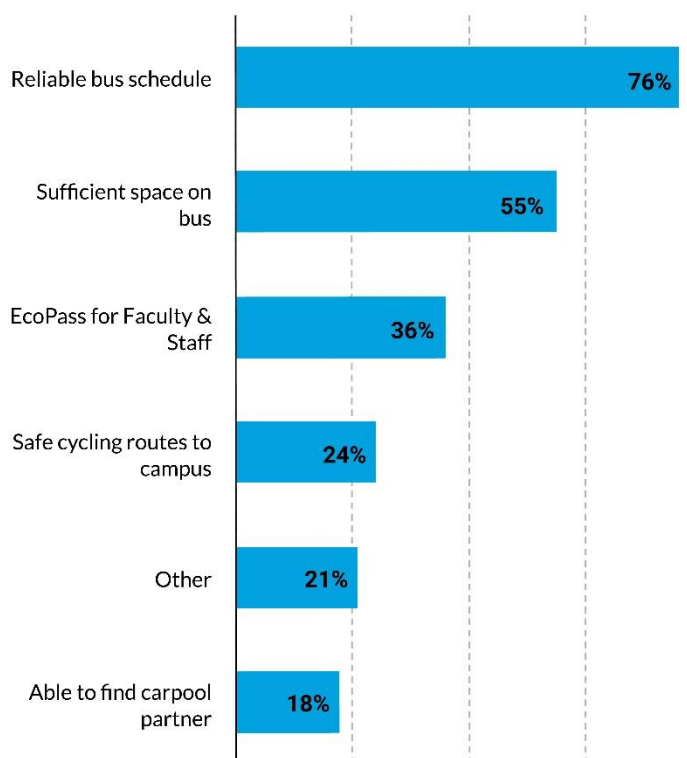
792 kg
per
person

763 kg
per
person

TOP 2 ISSUES

These are the
top two issues
you told us would
improve your
commute.

(Percentages
show how many
chose that issue
as top 1 or 2)



1. Project Overview

The Campus Commute Survey serves to establish current commuting patterns of University of Manitoba students, staff and faculty, and the associated greenhouse gas (GHG) emissions. This report outlines those results and provides a comparison with results from the 2016 and 2018 surveys. The recommendations section looks at measures that could be the most effective in supporting campus members to bike, bus, walk or carpool rather than drive alone, thereby reducing emissions and potentially providing health benefits through active and sustainable travel.

These results and recommendations can be used by the University of Manitoba to set targets and design an action plan to reach those targets, help pinpoint where to spend time, energies and available funds to achieve the biggest impact, and contribute toward sustainability and well-being goals at the University of Manitoba. The results also serve as a growing collection of data to help evaluate trends and changes in travel behaviour and associated CO2 emissions.

The online survey was conducted between **January 13-31, 2020**.

To encourage participation in the survey, a communications and outreach plan was conducted jointly through the Office of Sustainability, Marketing and Communications Office, and Green Action Centre. Students, employees, and faculty members were notified and reminded of the transportation survey through a variety of methods, including:

- Emails to University students, employees and faculty
- Stories in *UM Today*, *Student Weeklies*, and *Week at a Glance*
- Web banners and buttons on the University's main page, departmental pages and mobile app
- Social media (Facebook and Twitter)
- Printed posters
- Outdoor coroplast signage
- UMFM PSAs
- Ads in *The Manitoban*
- Distribution of 2,000 business cards with survey information and URL
- Two survey lounges on Bannatyne and Fort Garry campuses, with refreshments and opportunities to complete the survey on-site
- Office of Sustainability's eco-reps and staff champions



2. Context

The University of Manitoba offers a number of commuting-related strategies, programs and supportive infrastructure.

Existing commuting-related resources, strategies and infrastructure include:

- GoManitoba.ca subscription - free, online ride-matching service for carpooling partners, bike and transit mentor matches.
- Premium parking spots for carpoolers – approximately 40 stalls for students/staff with permits for Lots U, B, Q and E (Bannatyne).
- Parking permits that allow multiple vehicles on one permit.
- Flexible parking passes that accommodate class schedules (MWF versus TTh) and alternative transportation.
- Moped and motorized scooter designated spots.
- Secure bike parking:
 - Fort Garry Bike Station - covered and enclosed for 100 bikes with card-lock system; 18 secure, weather-protected bike lockers available for rent through Parking Services; 24/7 public bike repair station located outside of the UMCycle Bike Kiosk.
 - Bannatyne Bike Station - enclosed card access space for 84 bikes plus 24/7 public bike stand and pump outside main entrance to the Brodie Centre. Repair toolkits available for loan from Security Services and the Neil John MacLean Health Sciences Library.
- Student U-Pass that provides unlimited access to Winnipeg Transit services for full-time students.
- Shower-only access at Max Bell Centre on Fort Garry campus and Joe Doupe Centre on Bannatyne campus for faculty and staff; students receive a membership to the recreational facilities as part of their tuition.
- Additional showers exist in Physical Plant, ARTlab, and Education with varied access.
- UMCycle Bike Kiosk on Fort Garry Campus – UMSU-operated, community bike shop that provides convenient and affordable adjustments and overhauls of all systems of the bike. The shop offers community hours where UMCycle staff and volunteers teach students how to maintain their bikes.
- Fort Garry Shuttle Bus provides transit service around the campus on weekdays from September to April.
- New Transit Station on Dafoe opened December 2017.
- Safewalk Program and Security Service's Bike Unit provide a safe environment for all campus users including students, staff, faculty and visitors.
- Accessible shuttle van operated by Physical Plant and booked through Student Accessibility Services.
- Bike fleet program for University staff on Fort Garry campus.
- Online UM transportation information (<http://umanitoba.ca/visit-university-manitoba>).
- Sustainable Transportation Strategy (2017-2022)
- Pedestrian and Cycling Master Plan (2018-2033)

Pending initiatives include:

- Development of the Southwood Lands adjacent to the Fort Garry campus.
- Development of the Saunderson Street, Dysart Road and Freedman Crescent multi-use pathway and recreation corridor.

Initiatives by the City of Winnipeg that have a significant impact on travel to the campuses include the newly opened Rapid Transit line, with associated multi-use paths for pedestrians and cyclists, leading to the Fort Garry campus and the protected bike lane installed on McDermot Avenue connecting to the Bannatyne Campus.

3. Survey Responses

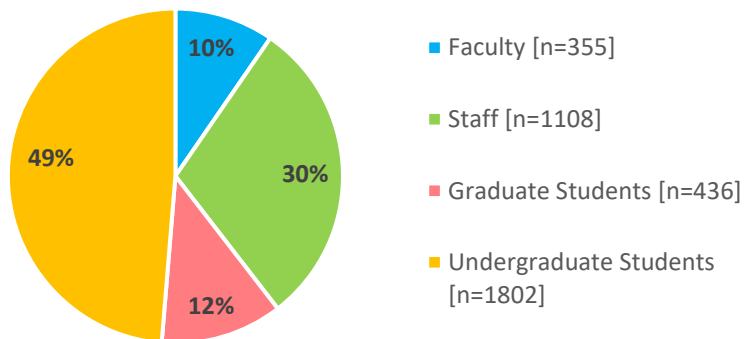
A. Response Rate

The campus population at the time of the survey was estimated at 39,234, which represents 1,868 faculty members, 7,662 staff and 29,704 students.

A total of 3,701 valid surveys were completed online, representing a 9.4% response rate. This compares with a 17% response rate in 2018 and 10% in 2016 (after excluding non-university employees).

Figure 1 shows the breakdown by affiliation for all respondents [n=3,701] and includes those who identified Smartpark, William Norrie Centre or 'Other' as their primary location. (Other locations included St. Boniface Research Centre, Ian N. Morris Research Farm, Seven Oaks General Hospital and the National Microbiology Lab). Close to half (49%) of the 2020 survey respondents represent Undergraduate Students, compared with 2018 results in which they represented 68% of 6,766 respondents.

Figure 1: All Respondents - Response Rate by Affiliation [n=3701]



Figures 2 and 3 show the breakdown of respondents by affiliation for the Fort Garry and Bannatyne campuses.

Figure 2: Fort Garry - Response Rate by Affiliation [n=3158]

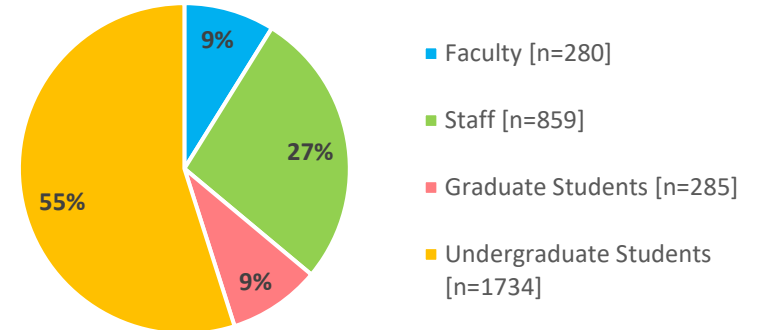
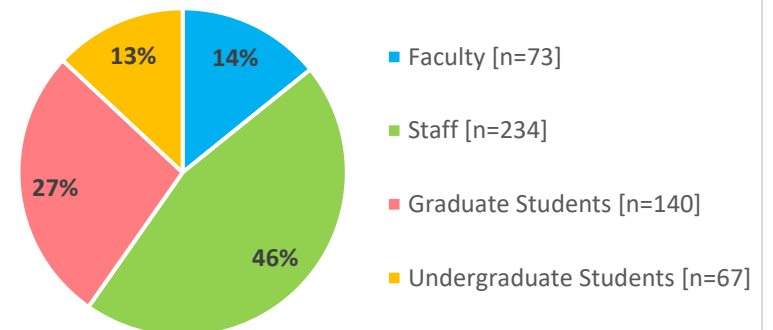
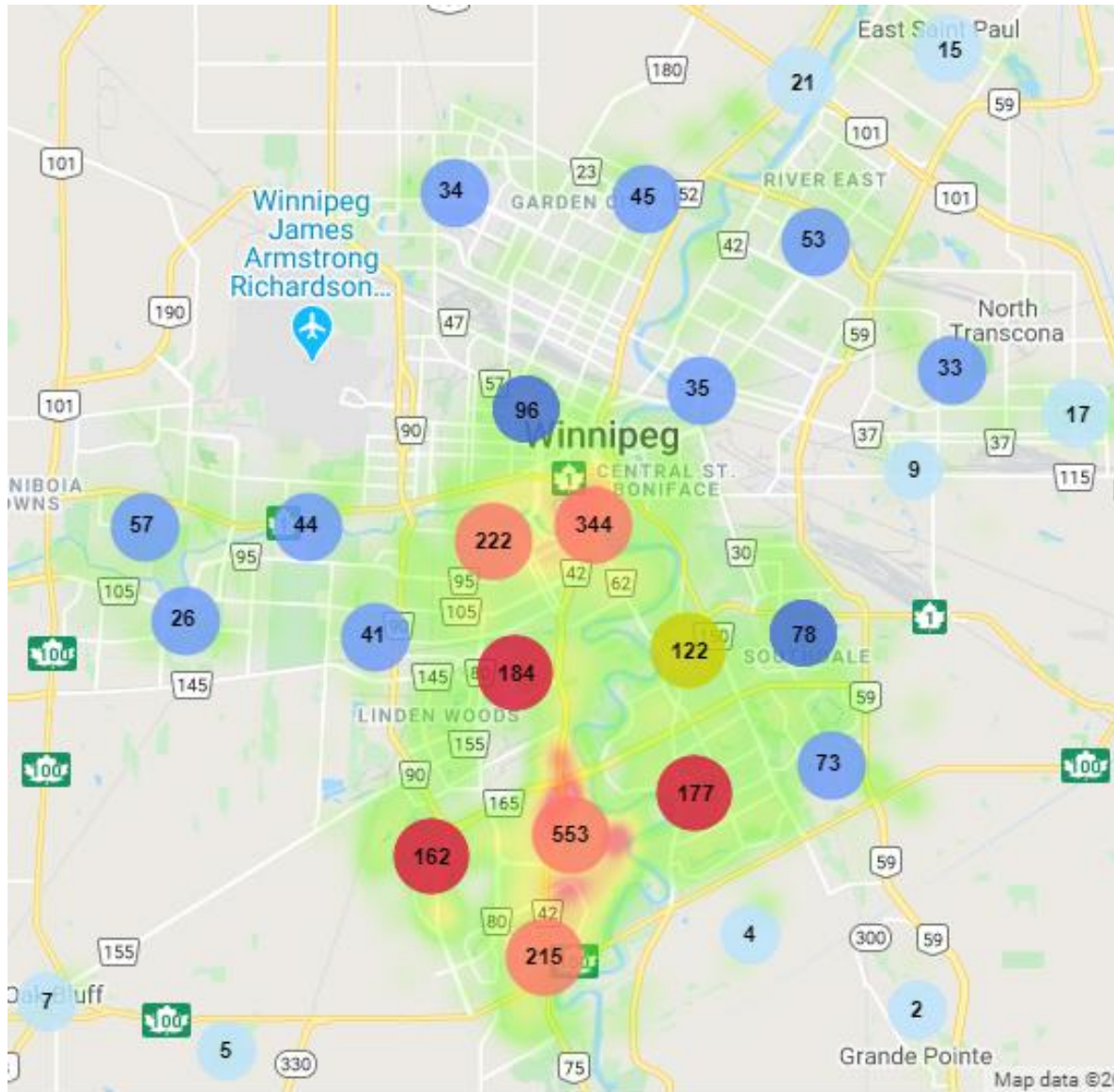


Figure 3: Bannatyne - Response Rate by Affiliation [n=514]



B. Geographic Distribution of Respondents

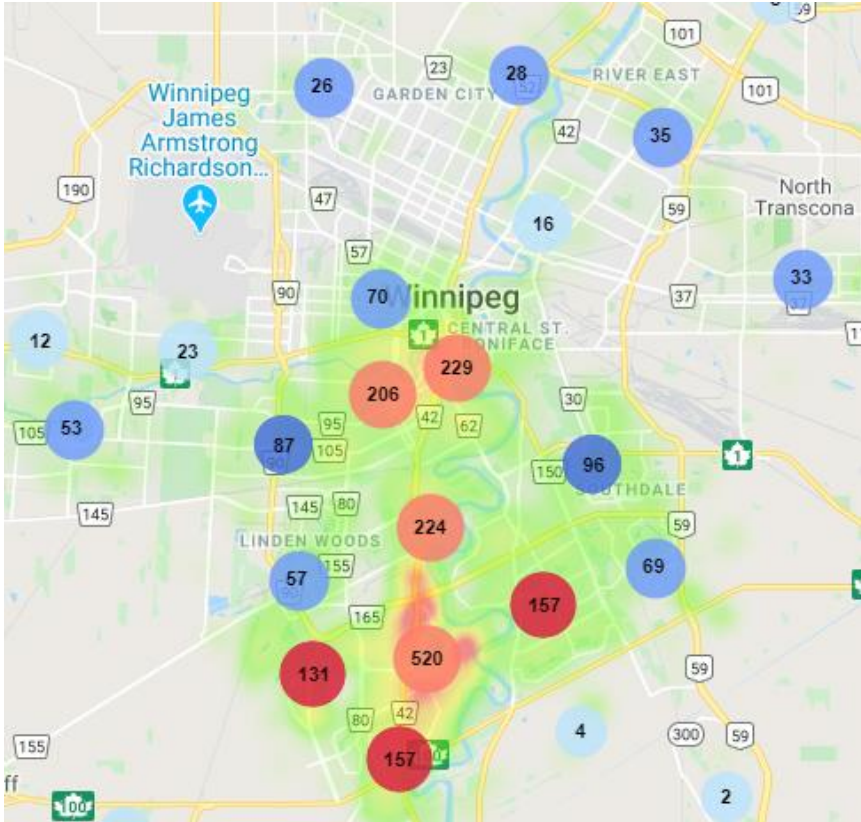


This map shows the geographic distribution of all survey respondents within Winnipeg.

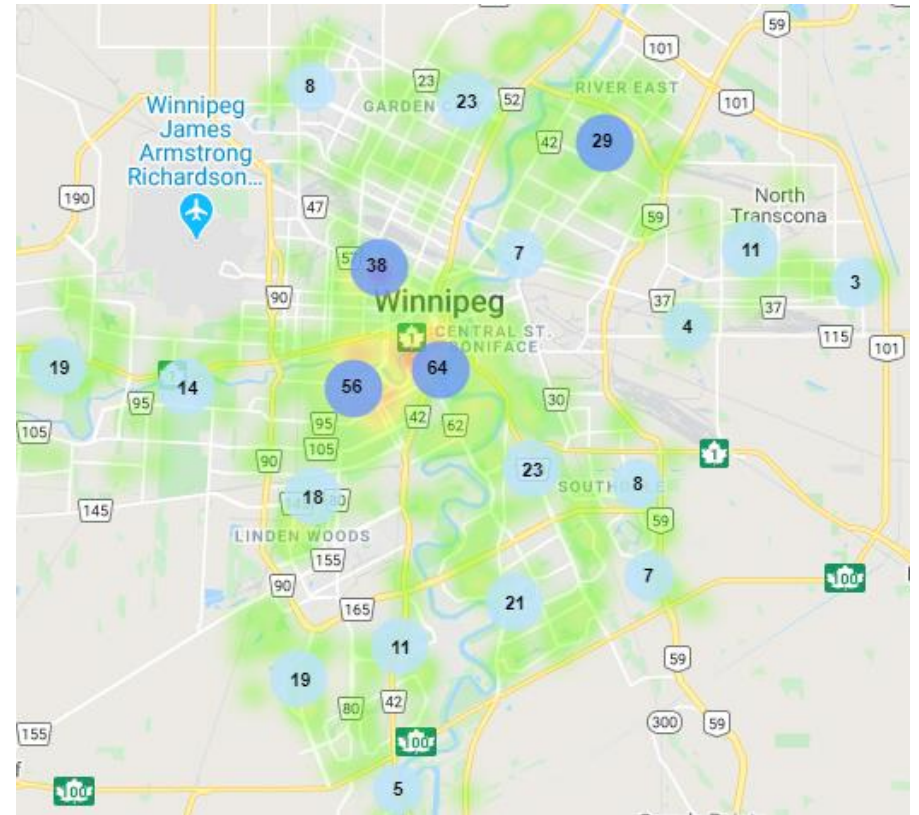
The University also draws from outside the city's perimeters with pockets of respondents in Stonewall, Selkirk and Beausejour to the north, Oak Bluff and La Salle to the south, the Winkler / Morden / Altona area to the southwest, and La Salle, Saint Adolphe and Steinbach to the southeast (see Appendix A).

The vast majority of these respondents are travelling to the Fort Garry campus. Bannatyne campus draws primarily from within Winnipeg along with the area around Stonewall and Selkirk (see Appendix A).

Fort Garry Campus Respondents



Bannatyne Campus Respondents

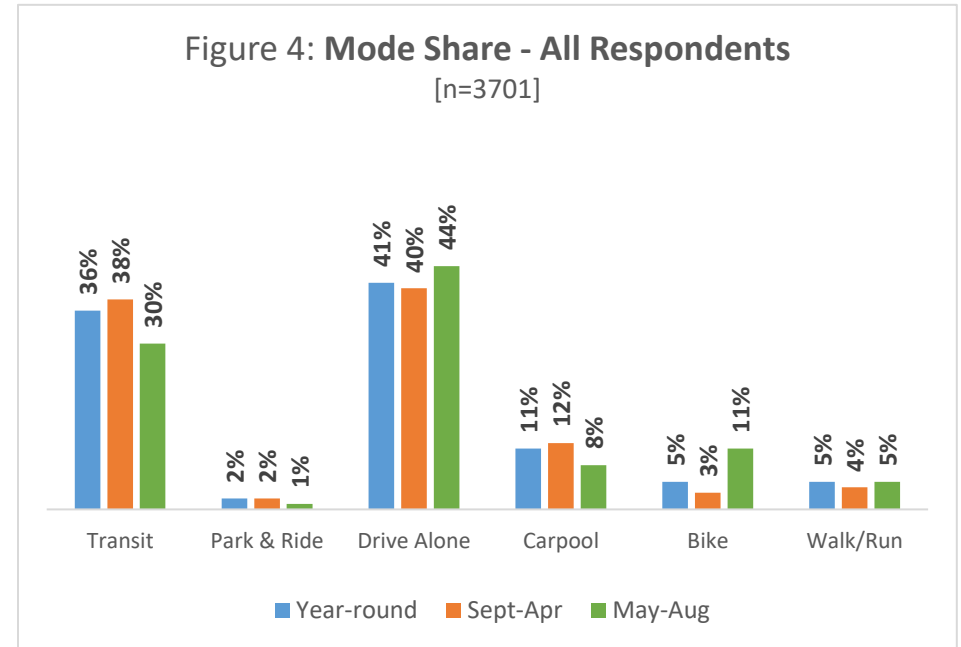


4. Mode Share

One of the main purposes of the survey is to establish how members of the University of Manitoba community—students, staff and faculty members—travel to and from their primary campus. In this section, we present aggregate data for all respondents, as well as by affiliation and by campus.

Mode share represents the percentage of trips made using a given mode and number of days the respondent travels to their primary campus. To capture multiple modes, respondents could specify within the given time frame (either September to April or May to August) what percentage of trips they typically make by each mode, e.g. 60% by Transit and 40% by Carpool, and how many days per week they travel to their primary campus. Other mode choices included Transit Plus (formerly Handi-transit), Motorcycle, Moped/Scooter, and Taxi / Ridehailing service (e.g. TappCar). These modes are not included in the figures, as they represent less than 1% of responses.

Figure 4 shows the mode share for the entire year and by season for all respondents. A decline in Transit and Carpooling is accompanied by an increase in Bike and Drive Alone, which is consistent with past survey results.



A. Mode Share by Campus

As shown in Figures 5 and 6, there is a marked difference between mode splits for the two campuses, with Fort Garry respondents reporting a much higher use of Transit, with 39% year-round mode share versus Bannatyne at 18%. The converse is reflected in the Drive Alone mode share, with 38% year-round for Fort Garry respondents versus 55% for Bannatyne.

Carpooling mode share is slightly higher for Bannatyne respondents, at 13% year-round compared with 11% for Fort Garry. Bike mode share is also higher for Bannatyne respondents, at 8% year-round compared with 5% for Fort Garry. Walk/Run mode share is similar for both campuses, at 5% for Bannatyne respondents and 4% for Fort Garry.



Figure 5: Fort Garry - Seasonal Mode Share

[n=3158]

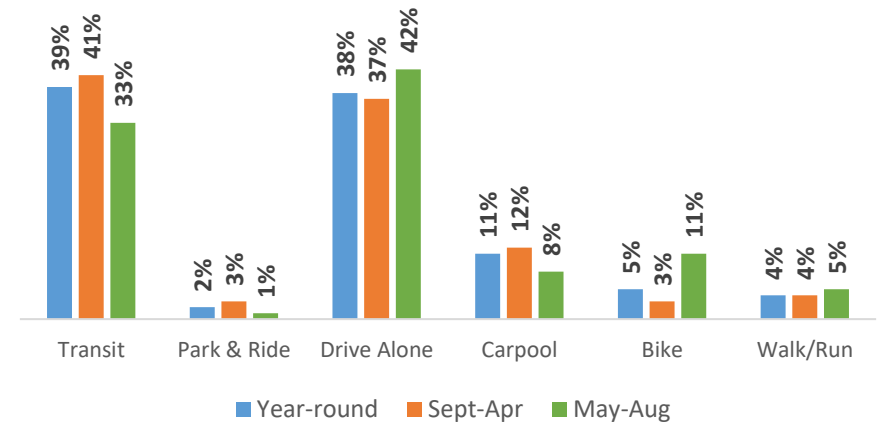
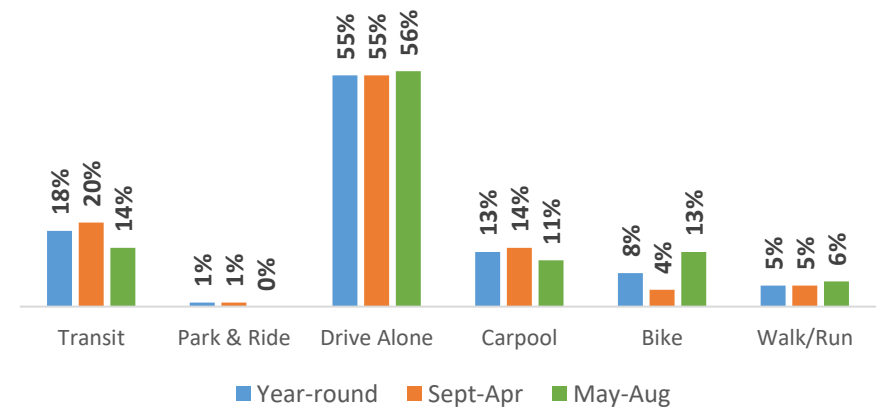


Figure 6: Bannatyne - Seasonal Mode Share

[n=514]



B. Mode Share by Campus and Affiliation

The year-round mode shares by affiliation and campus are shown in Figures 7 and 8. Undergraduate and Graduate Students at Fort Garry primarily use Transit (57% and 67% respectively) while Faculty and Staff primarily Drive Alone (65% and 63%). The primary mode for Undergraduate Students, Staff and Faculty at Bannatyne is Drive Alone (54%, 65% and 68% respectively) while Graduate Students are more evenly split between Transit and Drive Alone (31% and 30%).

Figure 7: Mode Share by Affiliation (Year-round) - Fort Garry [n=3158]

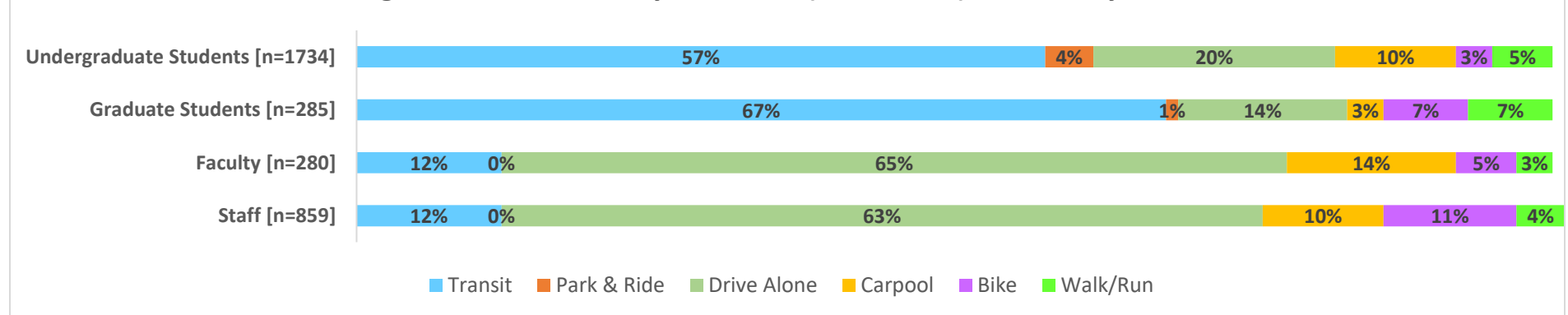
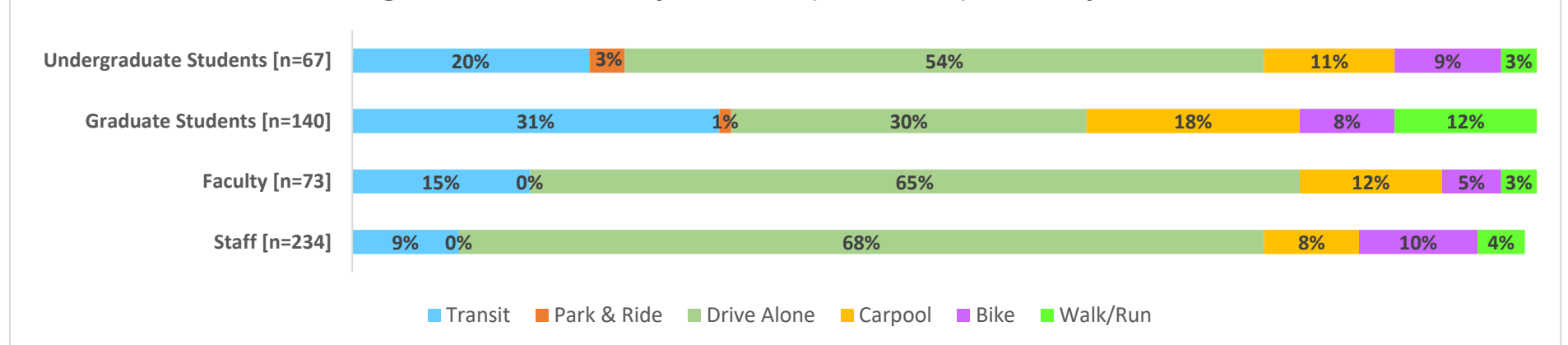


Figure 8: Mode Share by Affiliation (Year-round) - Bannatyne [n=514]



C. Mode Share by Season and Affiliation

Undergraduate students at Fort Garry primarily use transit year-round, at 58% in September-April and 56% in May-August. There is a bump in cycling from 2% to 7% in summer and in driving alone from 19% to 22%. This reflects the seasonal changes shown by all respondents, with an increase in cycling and driving alone in summer corresponding with decreases in carpooling (11% to 6%) and transit (58% to 56%). Park and Ride also shows a decline for undergraduates, dropping from 5% to 2% in summer.

Graduate students at Fort Garry also primarily use transit, to an even stronger extent, with almost three-quarters (74%) taking the bus in September-April and half (52%) in May-August. This drop in transit use in the summer corresponds with a jump in cycling from 2% to 20% and an increase in driving alone from 13% to 16%. Walking also increases from 6% to 9% in the warmer months.

Figure 9: Mode Share by Season and Affiliation – FORT GARRY

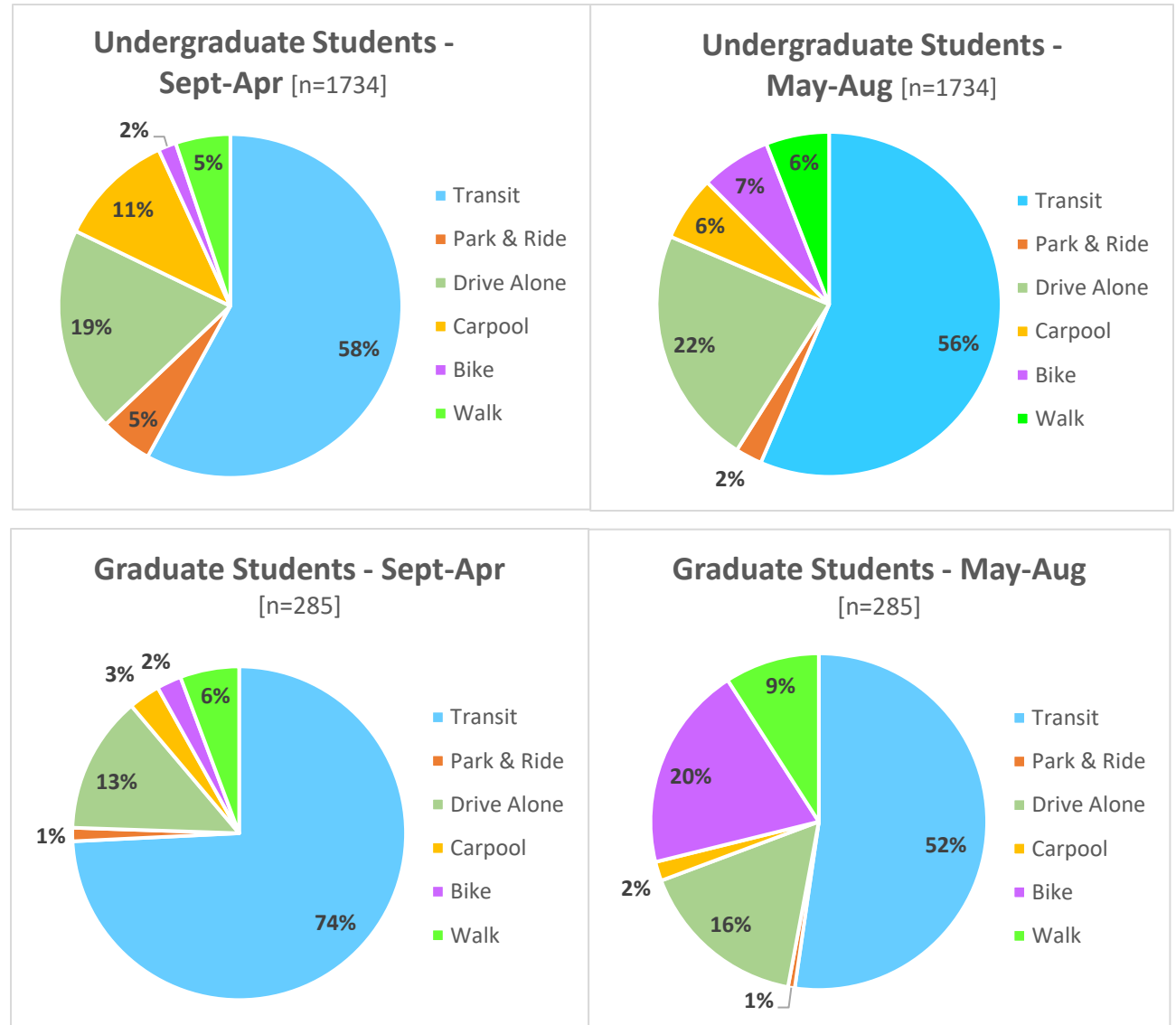


Figure 9 (cont'd): **Mode Share by Season and Affiliation – FORT GARRY**

Faculty at Fort Garry predominantly drive alone to campus, with a slight decline from 64% to 59% in the warmer months when cycling increases from 7% to 21% mode share and walking increases from 3% to 5%. There is a corresponding decline in transit use from 14% to 8% and in carpooling from 11% to 6%.

Staff respondents at Fort Garry also primarily drive alone but the mode share holds steady throughout the year, dropping only slightly from 65% to 64% in the warmer months. Carpooling dips in summer from 16% to 12% along with transit use from 13% to 10%. Cycling increases from 3% in September-April to 10% in May-August while walking holds steady at 3% more share.

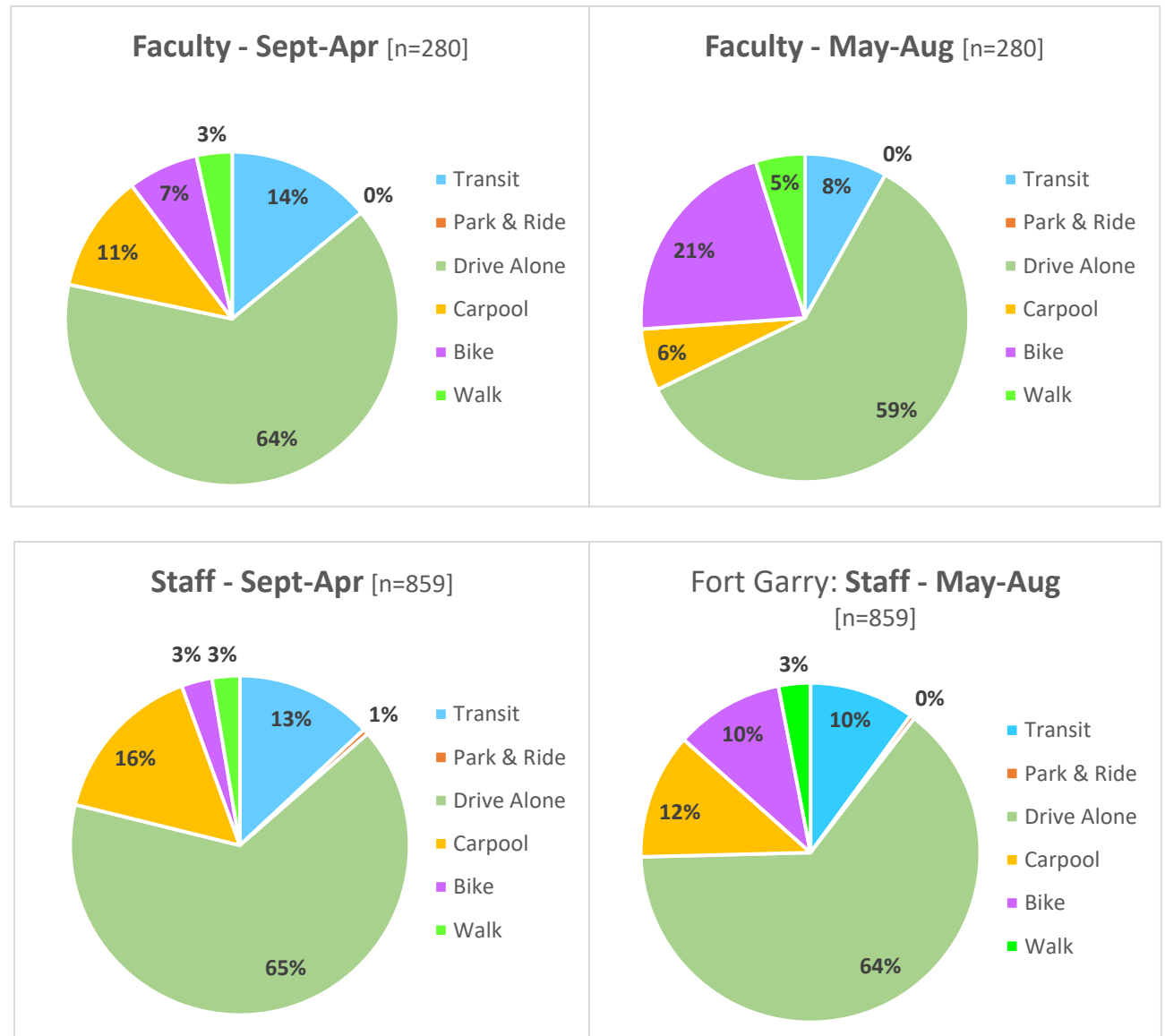


Figure 10: Mode Share by Season and Affiliation – BANNATYNE

Caution should be taken with interpreting results from Bannatyne respondents due to the small numbers.

Undergraduate students at Bannatyne primarily drive alone throughout the year, with a slight increase in summer from 53% to 56%. Similar to other affiliations, carpooling and transit decline in the warmer months while cycling increases (5% to 21%) and walking remains about the same (3% to 4%).

Graduate students at Bannatyne are more evenly split among the various modes with transit use (33%) slightly higher than driving alone (29%) in September-April and reversed in the warmer months with transit at 24% and drive alone at 33%. Similar to other affiliations, carpooling declines in the warmer months going from 21% to 12%. Cycling increases from 4% to 16% and walking grows from 11% to 15% in summer.

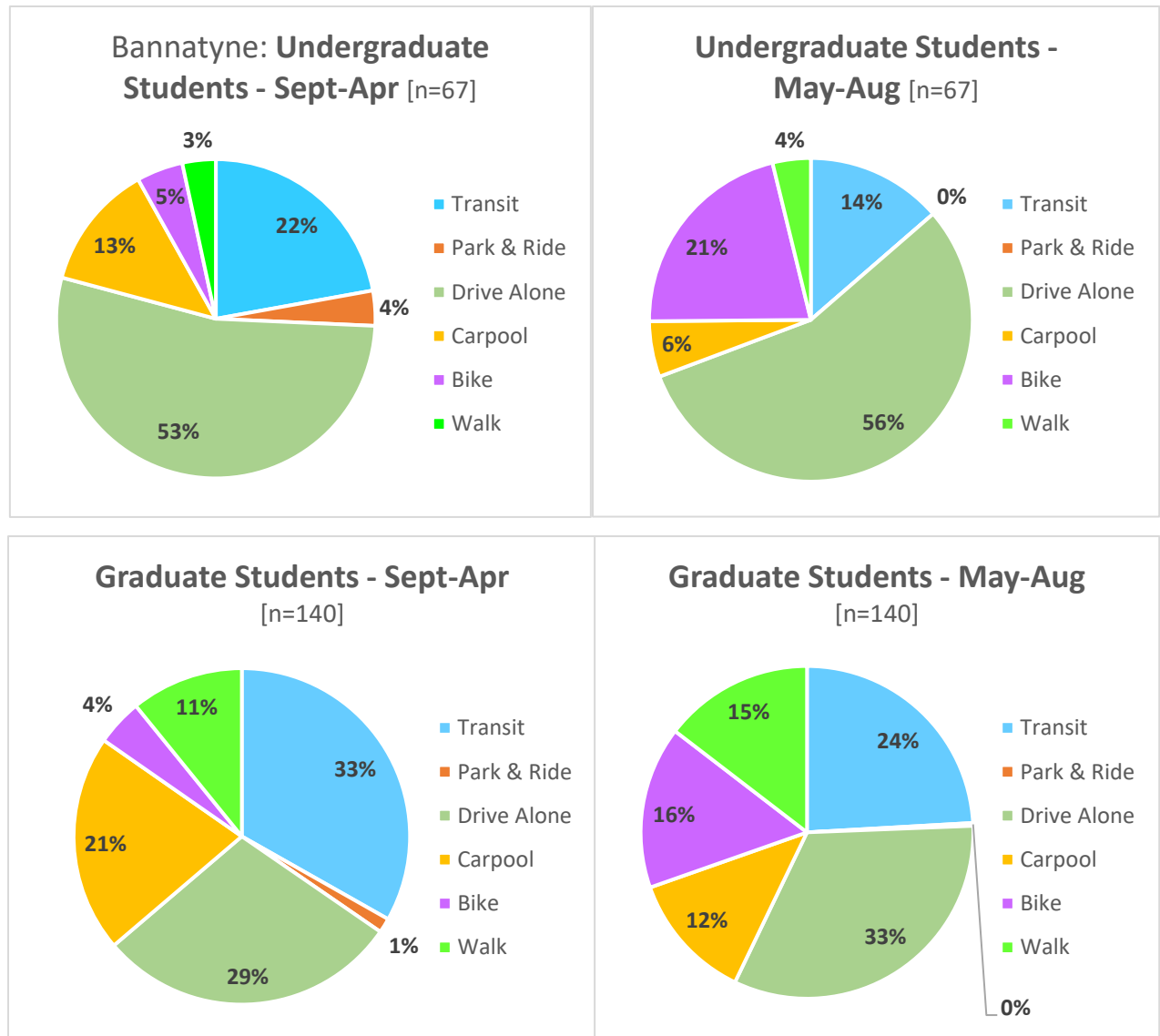
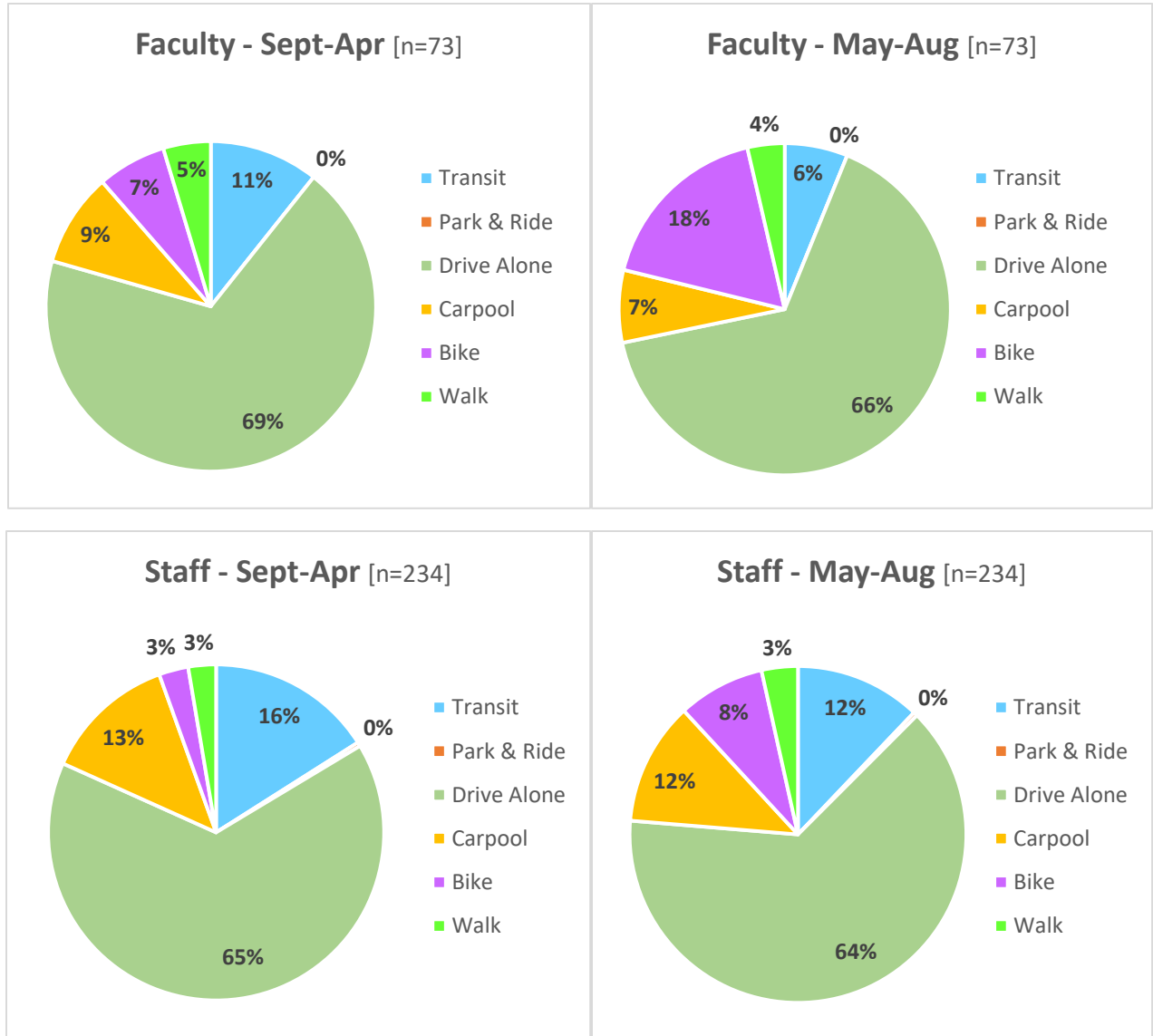


Figure 10 (cont'd): **Mode Share by Season and Affiliation – BANNATYNE**

(As noted previously, caution should be taken with interpreting results from Bannatyne respondents due to the small numbers.)

Faculty members at Bannatyne predominantly drive alone throughout the year but unlike other affiliations, this drops slightly, from 69% in September-April to 66% in May-August. Transit and carpooling also drop in the warmer months, from 9% to 7% and 11% to 6% respectively, while cycling increases from 7% to 18%. Walking remains relatively unchanged throughout the year, at 5% and 4%.

Staff at Bannatyne also primarily drive alone, with little change in modes between September-April and May-August except for cycling, which increases from 3% to 8%, and transit, which declines from 16% to 12%. Driving alone holds steady (65% and 64% respectively) along with carpooling (13% and 12%) and walking (3% year-round).



D. Mode Share Comparison with 2018 and 2016 Results

The results for each survey represent a different pool of respondents, particularly for students. However, the mode share can, in conjunction with narrative responses, aid understanding of trends and issues over time.

The year-round mode share for all respondents in Figure 11 shows a jump in Transit use from 2016 to 2018 (28% to 41%) followed by a slight decline in 2020 (36%). Conversely, Drive Alone mode share declined from 2016 to 2018 (45% to 33%) but increased to 41% in 2020. Carpool and Walk/Run have remained relatively steady while Bike mode share dropped from 8% in 2016 to 5% in both 2018 and 2020 surveys.

Figure 12 compares mode share by season for the three survey years. Similar to the year-round mode share, Transit and Drive Alone show the greatest fluctuations with gains in Transit from 2016 to 2018 slipping in 2020 while Drive Alone dropped in 2018 over 2016 but increased in 2020.

Figure 11: Mode Share Year-round - 2016-2018-2020

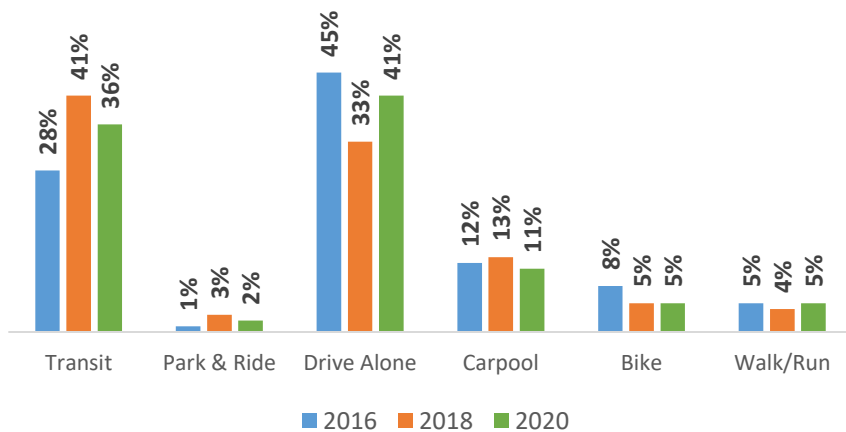
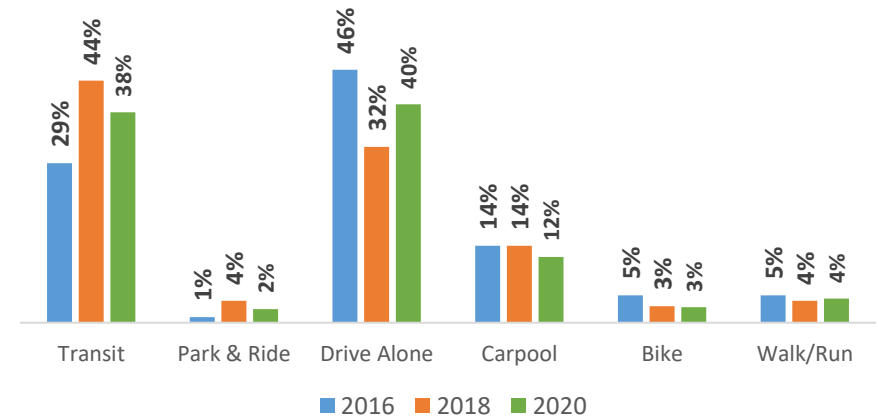
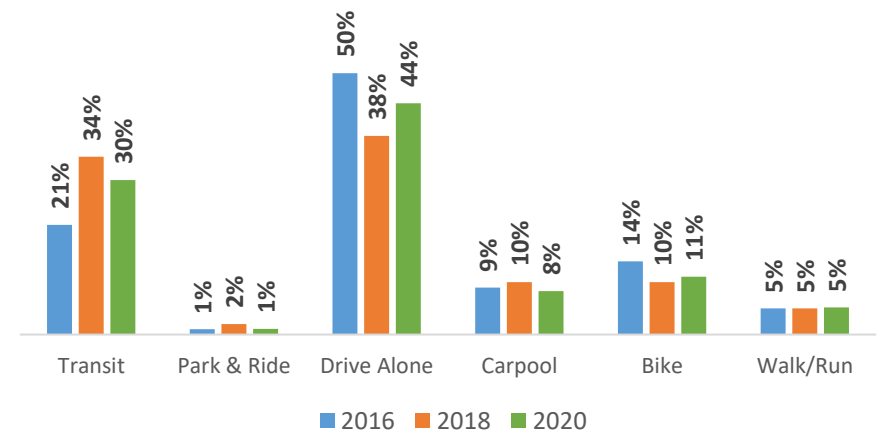


Figure 12: Mode Share Comparison by Season

Mode Share: Sept-Apr (2016-2018-2020)



Mode Share: May-Aug (2016-2018-2020)



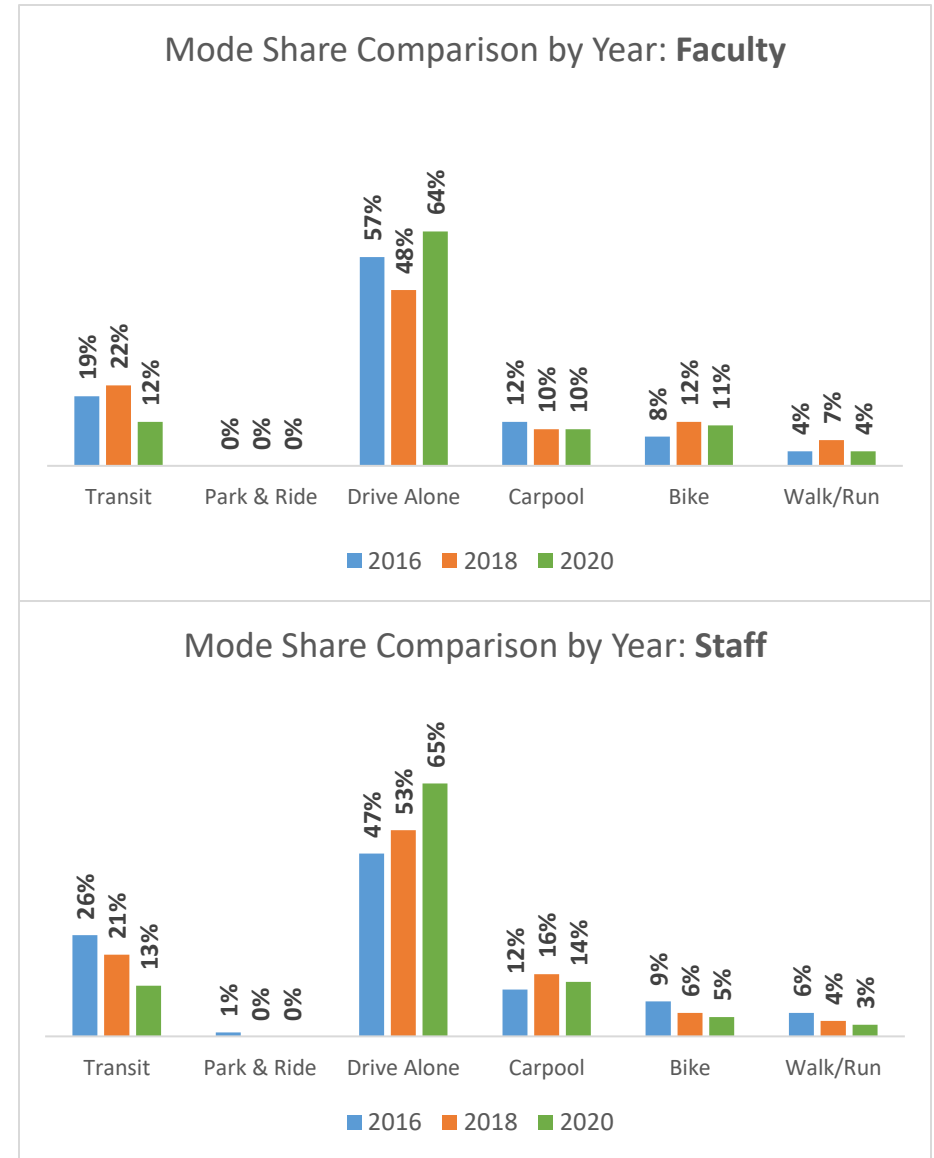
E. Mode Share Comparison by Year and Affiliation

Figure 13 illustrates differences in year-round mode share by faculty members and staff respondents for the 2016, 2018 and 2020 surveys.

Mode share for faculty members showed an initial slight increase in Transit use (19% to 22%) in 2018 over 2016 but dropped to 12% in the 2020 survey. Conversely, Drive Alone mode share declined from 57% in 2016 to 48% in 2018, then jumped to 64% in 2020. Carpooling declined slightly from 12% in 2016 to 10% in both 2018 and 2020, while Bike mode share increased from 8% to 12% before dropping slightly to 11% in 2020. Walk/Run showed a bump in mode share in 2018 (from 4% to 7%) but then returned to 4% in 2020. Park and Ride is consistently not used by faculty across the surveys.

For staff respondents, mode splits show a steady decline in the use of Transit (from 26% to 13%) while Drive Alone has increased each survey, jumping from 47% in 2016 to 65% in 2020. Carpool showed an increase from 12% to 16% in 2018 over 2016 but then a slight decline to 14% in 2020. Bike and Walk/Run also show declines, from 9% in 2016 to 5% in 2020 for Bike and from 6% to 3% for Walk/Run.

Figure 13: **Mode Share Comparison 2016-2018-2020**

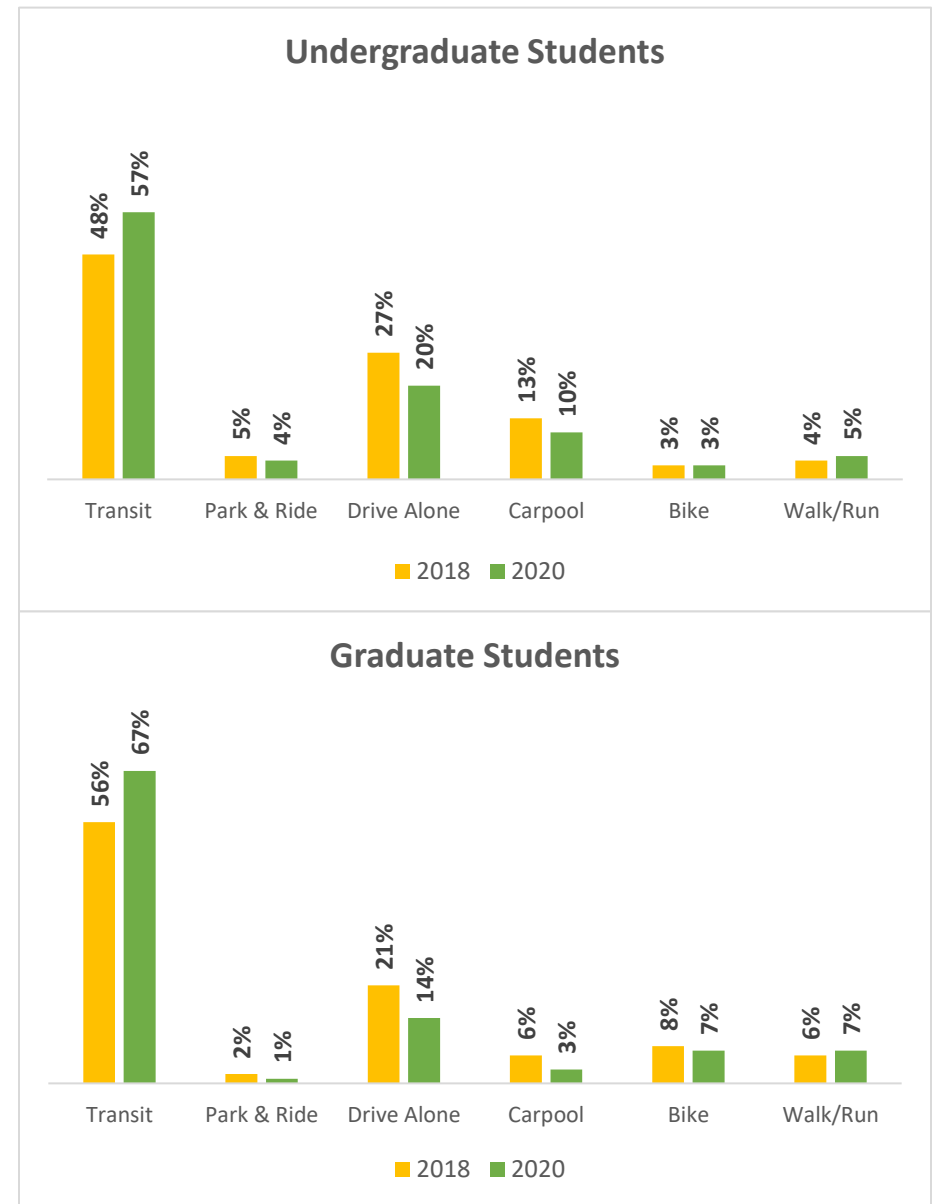


Figures 14 and 15 compare the year-round mode share for undergraduate and graduate students for the 2018 and 2020 survey results. (Results from the 2016 survey reflects all student respondents, whereas the 2018 and 2020 results break it down by campus.)

In Figure 14, undergraduate and graduate students at Fort Garry campus show a significant increase in transit mode share between 2018 and 2020 subsequent to the introduction of the Student U-Pass, growing from 48% to 57% and 57% to 67% respectively while driving alone and carpooling both declined.



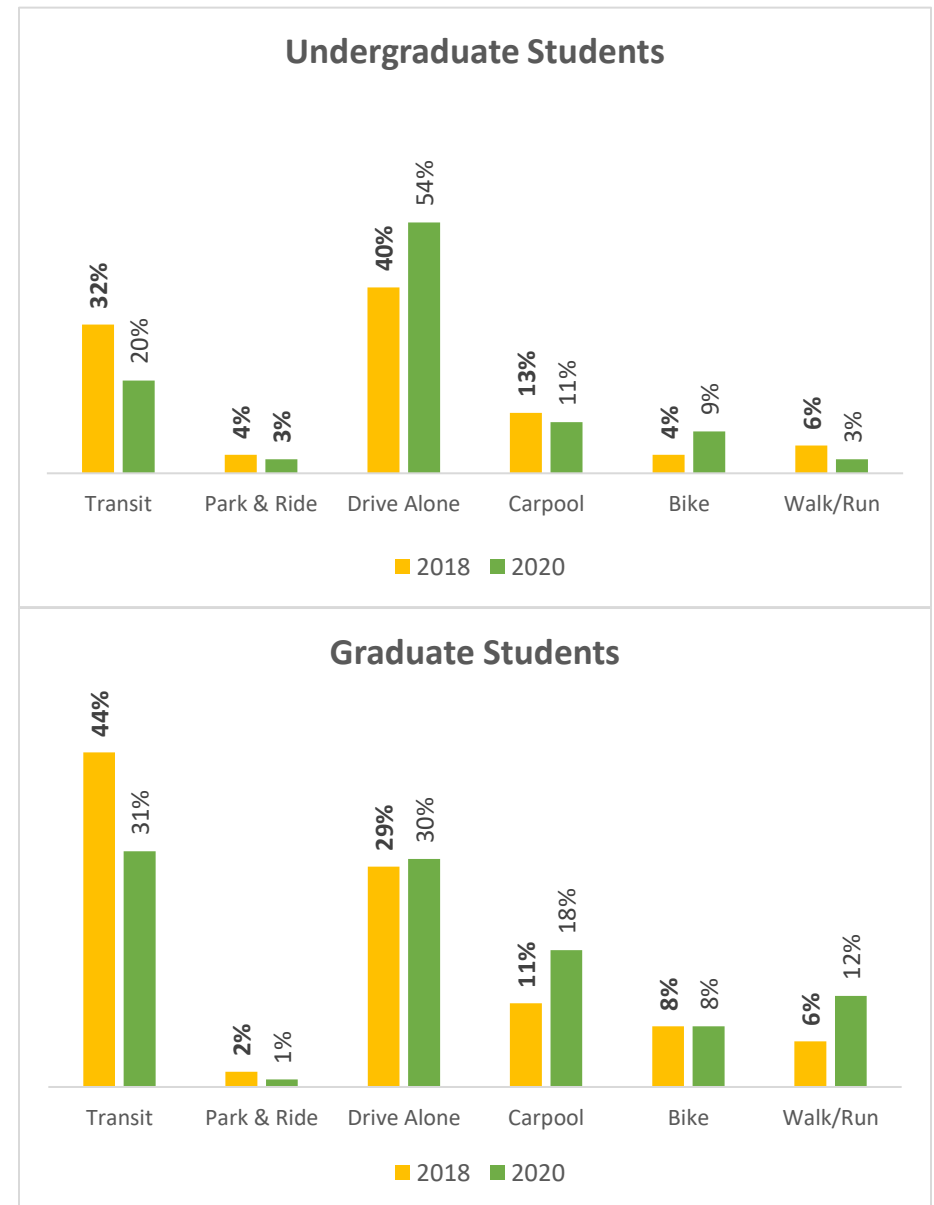
Figure 14: Mode Share 2018 vs 2020 – FORT GARRY



At Bannatyne campus, shown in Figure 15, undergraduate and graduate student respondents reported the opposite, with significant declines in transit (from 32% to 20% and 44% to 31% respectively) while driving alone increased from 40% to 54% for undergraduate students and carpooling grew for graduate students from 11% to 18% and driving alone stayed roughly the same.



Figure 15: Mode Share 2018 vs 2020 - BANNATYNE



5. CO2 Emissions

Figure 16 shows CO2 emissions by mode for all respondents while Figure 17 breaks down emissions by season – September to April and May to August.

The number of respondents [n=3185] for the calculation of commuting emissions is fewer than the number of overall survey responses [n=3701] due to incorrect or incomplete postal codes, which meant the distance of their commute could not be identified. While these survey responses could not be included in the calculation of emissions, the remainder of their data has been included in the reporting of survey results.

As shown in Figure 16, Drive Alone accounts for 41% of mode share for all respondents but accounts for the bulk of emissions (82%). Carpooling, with more than one adult travelling together by car, represents 11% of mode share and 10% of emissions. Transit represents 36% of mode share but only 5% of overall CO2 emissions. Biking and walking do not result in any emissions and represent 10% combined mode share.

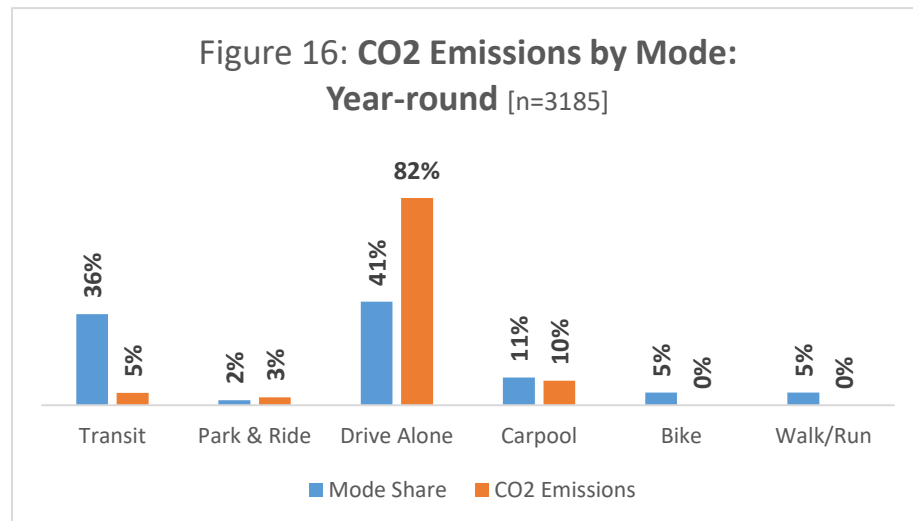
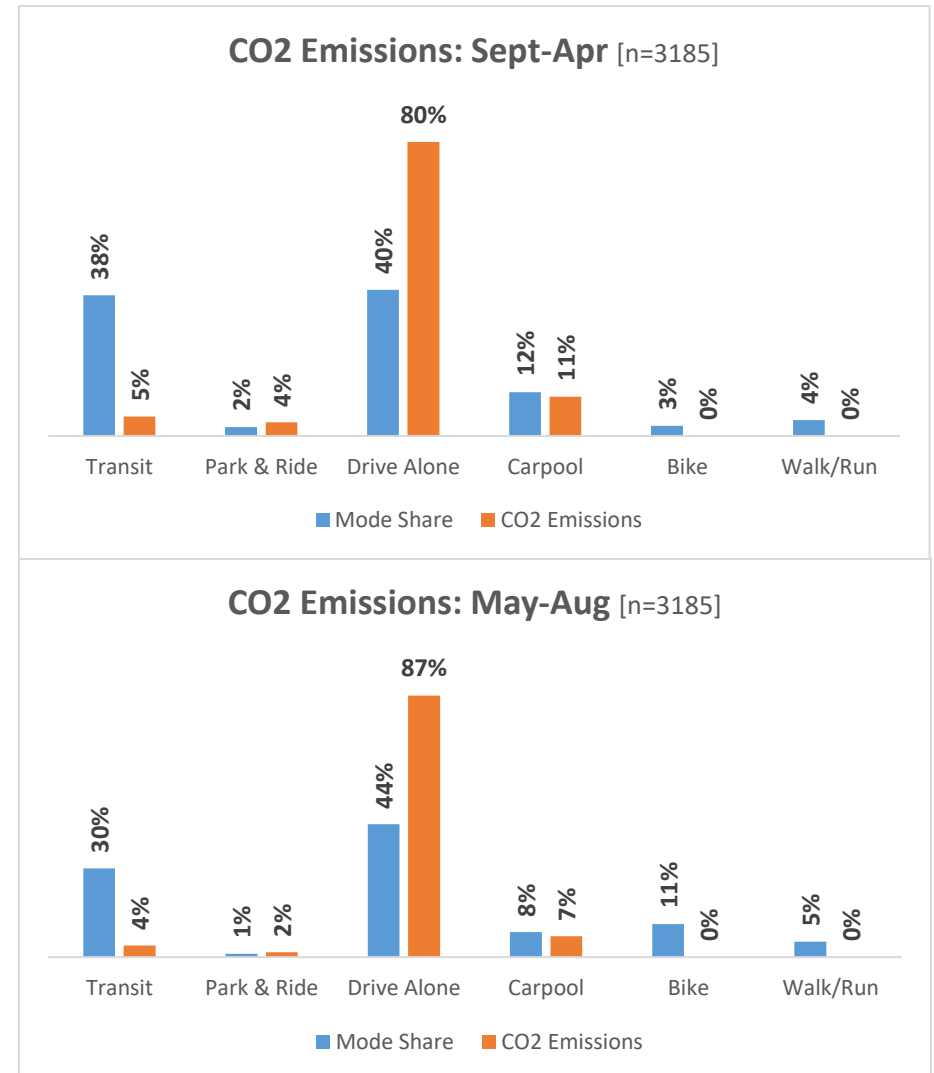


Figure 17: CO2 Emissions by Mode and Season



Per person average CO₂, CH₄ and N₂O emissions are shown in Table 1, along with their respective upper and lower confidence intervals and margin of error. Calculation of the confidence intervals can be found in Appendix A and GHG emissions factors in Appendix B.

Table 2 contains the extrapolated emissions estimate for the entire university community of 39,234 individuals. Upper and lower confidence intervals and margins of error are also shown.



A comparison of CO₂ emissions from the 2016, 2018 and 2020 surveys is outlined in the next section.

Table 1: Per Person Average Emissions

	Average # Kgs Per Person	Lower Confidence Interval	Upper Confidence Interval	Margin of Error
CO ₂	762.54	719.98	805.10	±5.6%
CH ₄	0.0448	0.0422	0.0474	±5.8%
N ₂ O	0.0100	0.0096	0.0104	±3.9%
GHG ¹	766.65	723.91	809.39	±5.6%

Note: ¹ GHG = CO₂ + (CH₄*25) + (N₂O * 298)

Table 2: Entire Campus Year-round Extrapolated Emissions

	Average # Kgs for University	Lower Confidence Interval	Upper Confidence Interval	Margin of Error
CO ₂	29,917,494	28,242,115	31,592,874	±5.6%
CH ₄	1,758	1,656	1,860	±5.8%
N ₂ O	392	377	408	±3.9%
GHG ¹	30,078,746	28,394,336	31,763,156	±5.6%

Note: ¹ GHG = CO₂ + (CH₄*25) + (N₂O * 298)

A. Comparison CO2, Trips and KM Per Person by Year

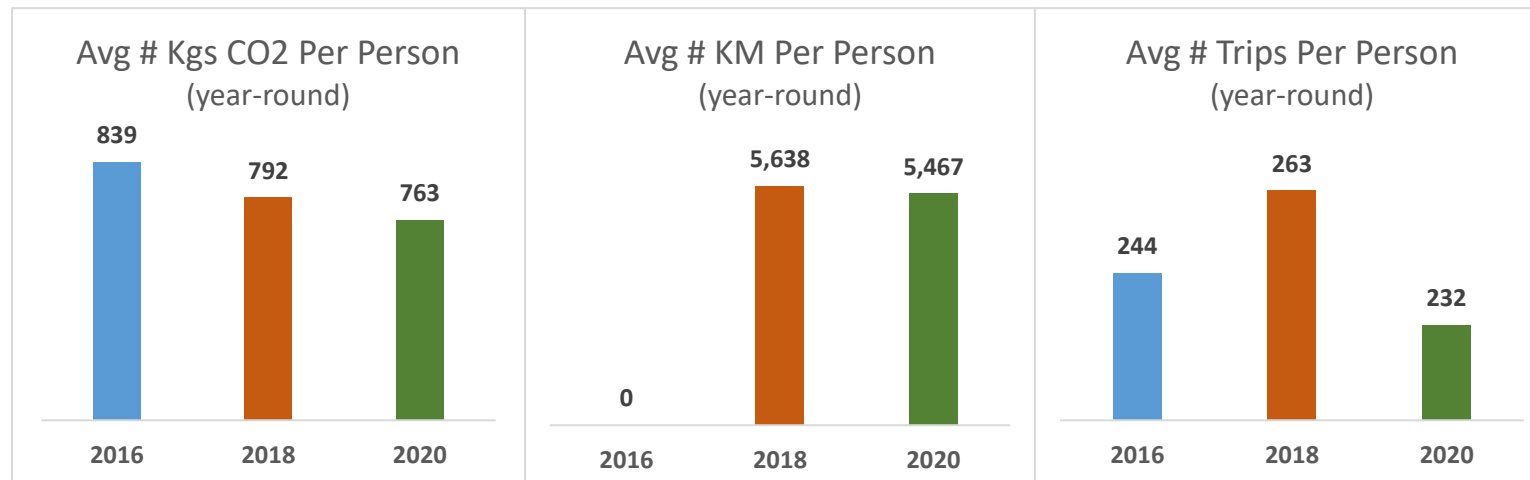
Figure 18 compares the year-round average number kilograms CO2 per person, average number kilometres travelled per person, and average number trips to and from campus per person from survey results in 2016, 2018 and 2020.

Compared to the previous two survey results, the average kg CO2 per person declined from 839 in 2016 to 763 in 2020. Extrapolated to the campus community overall, the average kg CO2 declined from 33,548,000 kg in 2016 to 31,499,087 in 2018 and 29,917,494 in 2020.

These results should be interpreted with caution, as the pool of respondents is different as well as the mix of students vs. faculty or staff members. In addition, the 2016 survey included non-University employees on campus while the 2018 and 2020 surveys included students, faculty and staff only.



Figure 18: CO2, KM and Trips Comparison: 2016-2018-2020



** Data not available for 2016*

6. Preferred or 'Ideal' Commute Mode

The survey results provide a picture of current commuting patterns among the University community members. However, how someone is currently commuting is not necessarily indicative of how they would prefer to commute. To explore the idea further, respondents were asked the following: "Under ideal circumstances, how would you *prefer* to commute to and from campus/work." Respondents were allowed to choose up to two modes, recognizing there can be seasonal differences in how people prefer to commute. As a result, the percentages will not add to 100.

Figures 19 and 20 compare current mode shares with 'ideal' or preferred mode. Again, caution should be taken in evaluating this comparison given respondents could choose up to two preferred modes as 'ideal' or preferred.

For Fort Garry respondents, transit is the preferred mode at 49% and higher than the current mode share of 39%. There is significantly more interest in carpooling (28%) compared with the existing mode share of 11%. Interest in cycling (24%) is almost 5 times the current mode share (5%) while interest in walking/running (11%) is close to triple its mode share (4%). Preference for driving alone (37%) essentially matches the existing mode share (38%). The option to park and ride is also of interest to 8% of respondents compared with the existing 2% mode share.

Bannatyne respondents' preference for transit (34%) exceeds its current mode share (18%), similar to carpooling with interest more than double (29%) its current mode share (13%). Cycling is particularly appealing, at more than four times (31%) vs. current mode share (7%). Walking/Running is also of interest, with 12% preferring these modes compared with its current mode share of 5%. Unlike Fort Garry respondents, there are more campus members driving alone (55%) than would prefer to do so (38%), representing an opportunity to switch to a more sustainable mode of commuting.

Figure 19: 'Ideal' Mode vs Current - Fort Garry
[n=3158]

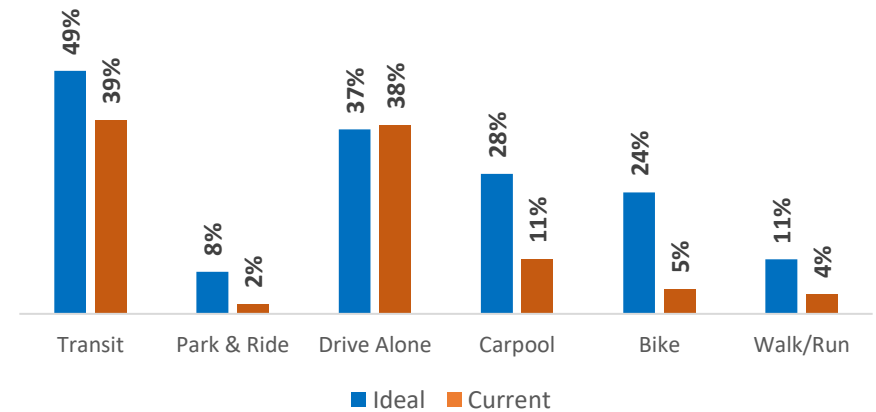
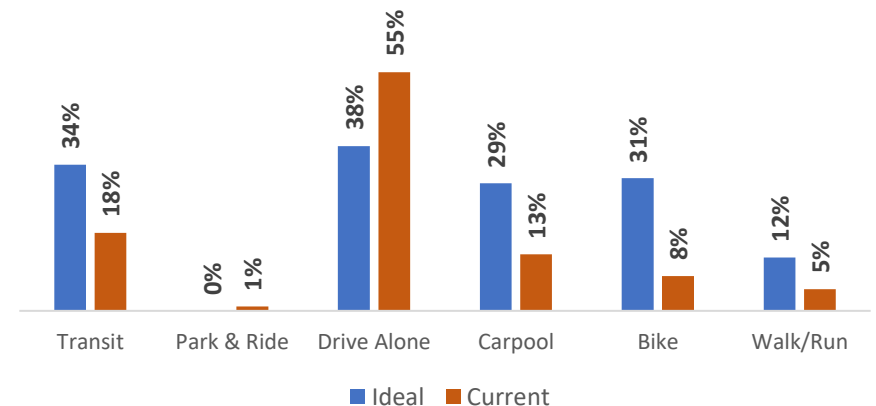


Figure 20: 'Ideal' Mode vs Current - Bannatyne
[n=514]



A. Preferred or 'Ideal' Mode vs Current – Faculty and Staff

Figures 21-24 explore 'ideal' or preferred mode choice versus current mode shares broken down by affiliation.

Figure 21 shows that while 63% of faculty respondents currently drive alone, only 38% identify it as the preferred option. This is similar to staff respondents, though slightly higher, with 45% of respondents preferring to drive alone compared with the current mode share of 64%.

More faculty members identified an interest in transit than staff, at 36% and 29% respectively compared with existing mode shares of 11% and 12%.

Carpooling is the preferred mode for twice as many faculty respondents (17%) and staff members (26%) as the current mode shares (9% and 13%).

Interest in cycling is similar for both faculty and staff, with three times as many faculty respondents (39%) and five times as many staff (31%) identifying cycling as their preferred mode compared with current mode shares of 13% and 6% respectively.

Walking/running is the preferred option for 14% of faculty respondents and 11% of staff members versus the existing mode shares of 4% and 3% respectively.

Other preferred modes included: motorcycle, scooter/moped, taxi or ridehailing services (e.g. TappCar), telecommuting, Transit Plus, roller blading, a pedestrian bridge over the Red River, and light rail.

Figure 21: 'Ideal' vs Current Mode - Faculty

[n=355]

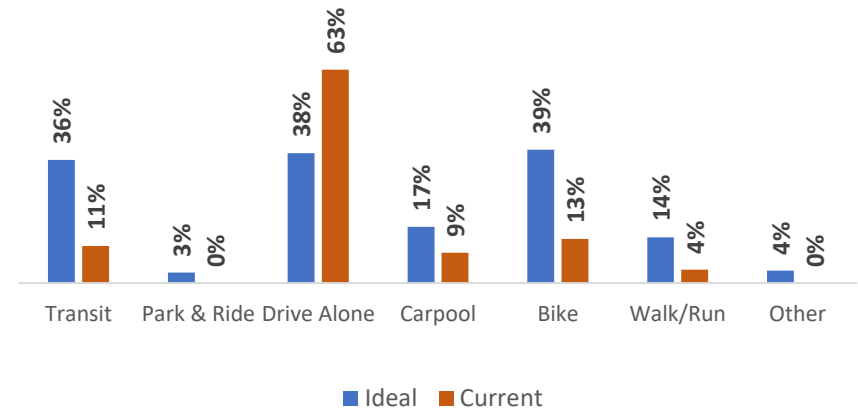
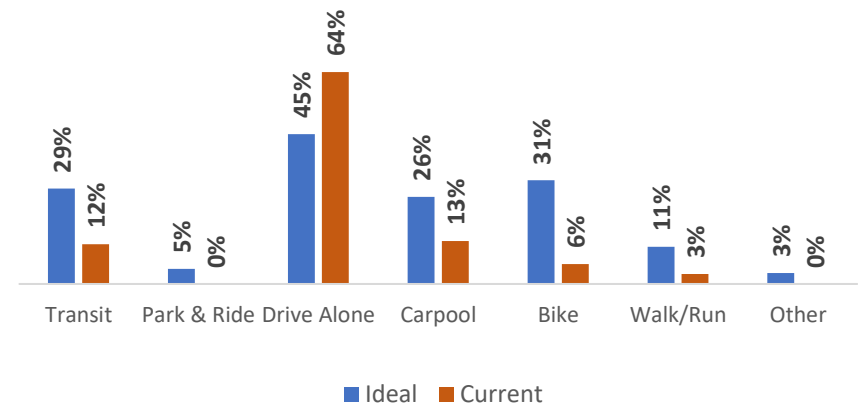


Figure 22: 'Ideal' vs Current Mode - Staff

[n=1108]



B. Preferred or 'Ideal' Mode vs Current – Students

Both graduate and undergraduate students prefer transit at 58% and 57% respectively, slightly higher than the current mode shares of 53% and 55%. They also identified a higher preference to drive alone (23% and 36%) than the existing mode shares (20% and 22%).

Carpooling is of interest to both groups, with 22% of graduate students and 33% of undergraduates identifying it as a preferred mode compared with current mode shares of 7% and 9% respectively.

Cycling is the preferred mode for 33% of graduate students and 17% of undergraduates compared with existing mode shares of 10% and 4%. Walking and running is also of interest, at 14% and 10% respectively versus the current mode share of 9% for graduate students and 5% of undergraduates.

Other preferred modes included: motorcycle, scooter/moped, taxi or ridehailing services (e.g. TappCar), Transit Plus, skateboarding, inter-community transit, and light rail.

Figure 23: 'Ideal' vs Current Mode -
Graduate Students [n=436]

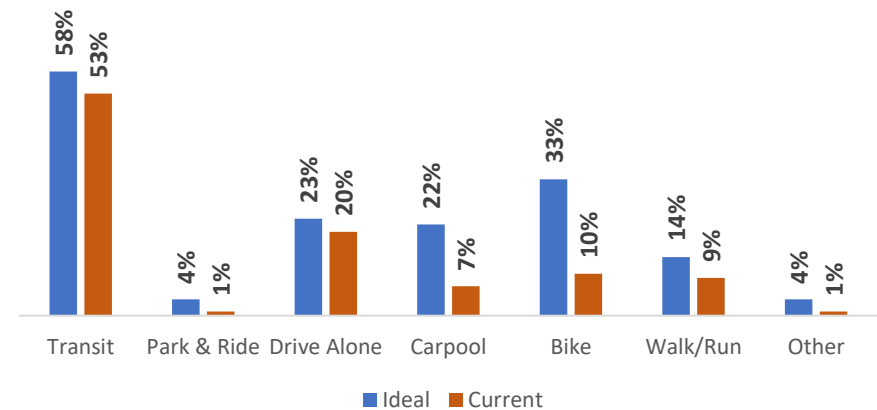
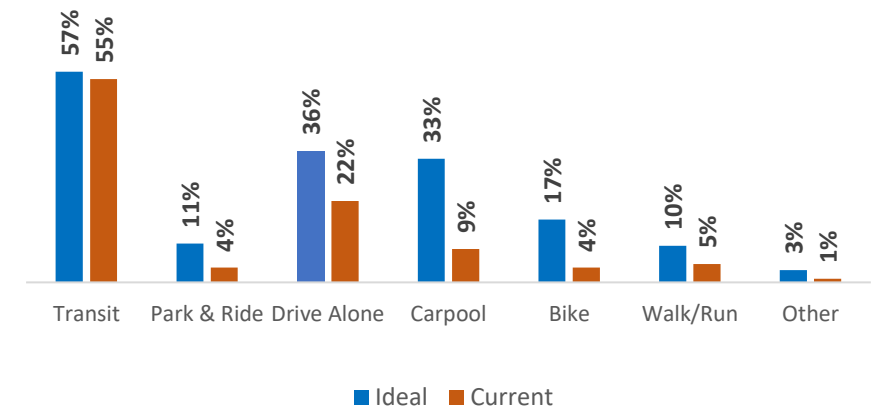


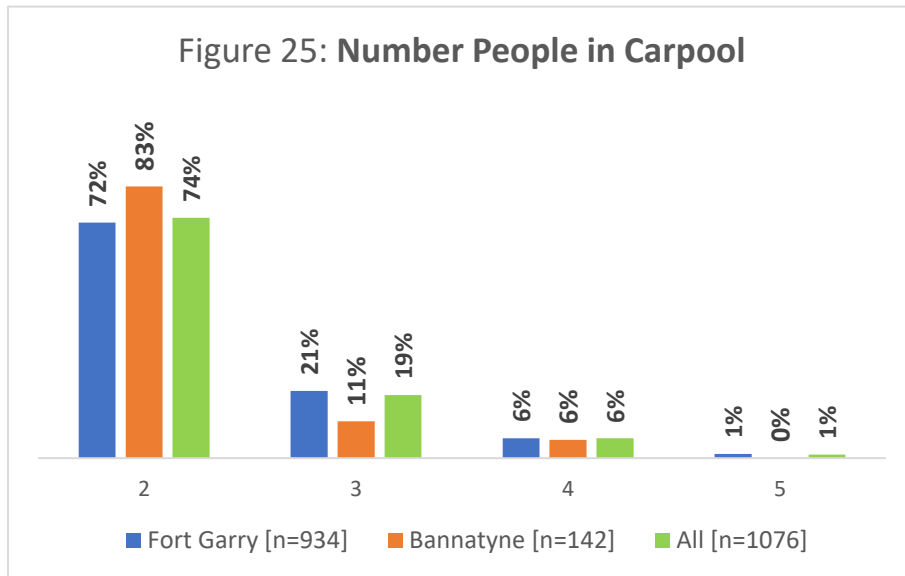
Figure 24: 'Ideal' vs Current Mode -
Undergraduate Students [n=1802]



7. Carpooling Interest and Barriers

A. Number People in Carpool

Figure 25 shows that the vast majority of carpools travelling to University of Manitoba campuses comprise 2 or 3 adults.



B. Who Respondents Carpool with by Affiliation

Respondents were also asked who they carpool with and could choose as many as apply. As a result, the percentages will not add to 100%.

Undergraduate and graduate students at both campuses primarily carpool with other students or family members not at the university (79%) and/or a family member not at the University. Faculty members are more varied though primarily carpool with other faculty members (43%), students (24%), a family member not at UM (20%), and/or a staff member (15%). Half of staff members carpool with other staff (51%), a family member not at the University (26%) and/or a student (24%).

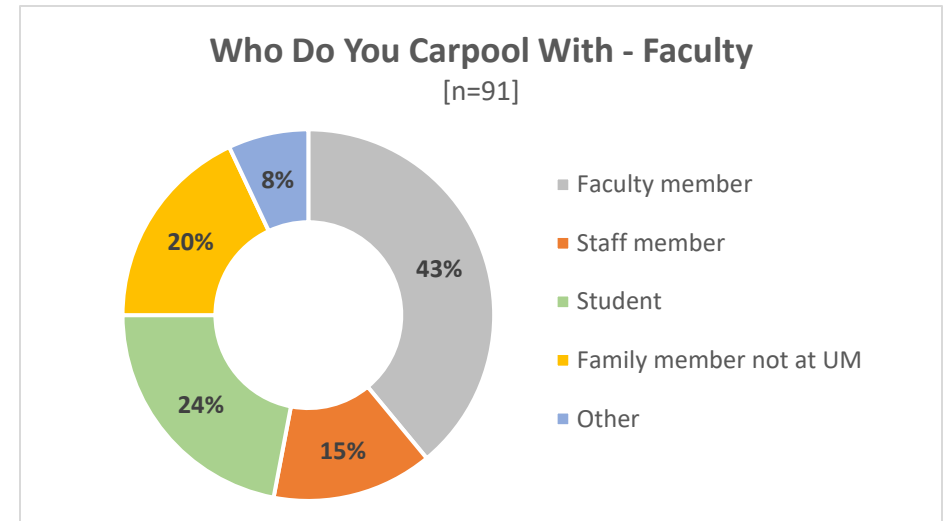
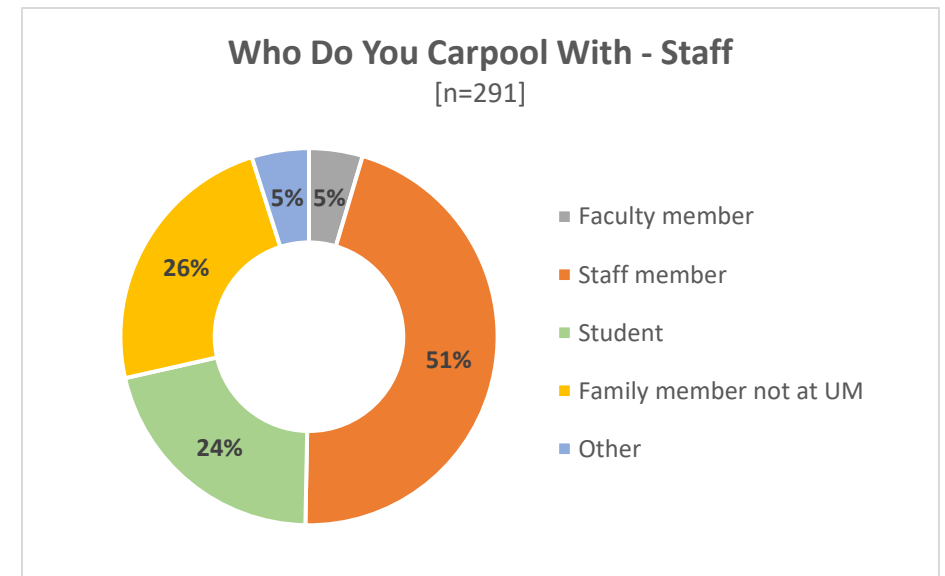
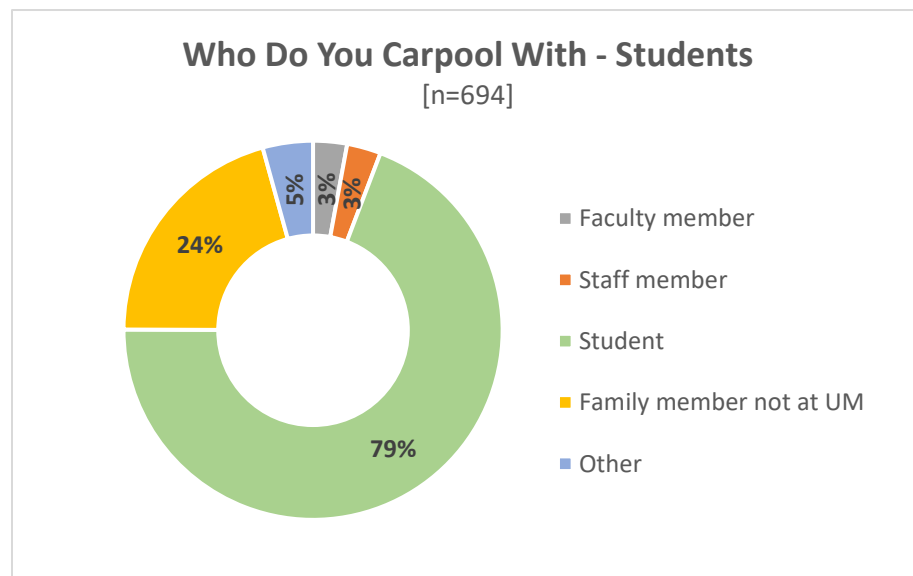


Figure 26: **Who Respondents Carpool with by Affiliation**



C. Willingness and Barriers to Carpooling

Staff and faculty members who drive (at least some of the time) were asked if they would consider using GoManitoba to find someone to share the ride. About one-third (31%) of the 970 staff respondents and one-quarter (24%) of the 319 faculty respondents indicated they would be willing to do so.

Those who were willing to consider using GoManitoba to find someone to share the ride but had not yet done so were asked what held them back.

Those who were not willing to consider using GoManitoba to find someone to share the ride were asked for the primary reason why not.

Lack of awareness is the primary reason for those respondents who are willing to use GoManitoba to find a carpool partner. This is confirmed in Section 15: Awareness of Existing Resources, with 17% of all Staff respondents and 8% of all Faculty respondents indicating they were aware of the University's subsite on GoManitoba.

Figure 27: Primary Reason Not Yet Using GoManitoba to find Carpool Partner

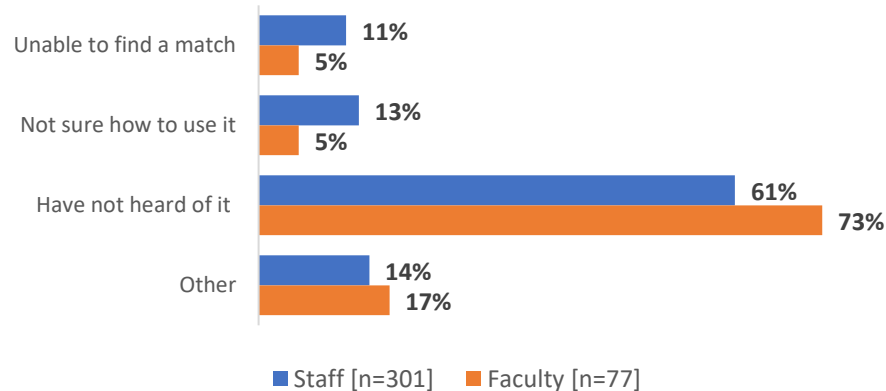
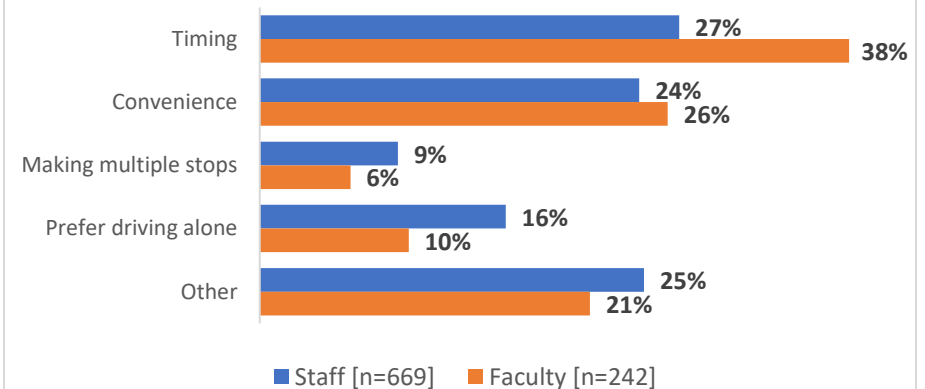


Figure 28: Primary Reason Why Not Willing to Consider Carpooling



8. Parking Pass Preferences

Similar to the 2018 survey, campus community members were asked about their preference for specific types of parking pass options. The question stems from the 2016 survey, in which survey respondents indicated an interest in more flexibility in parking passes. As shown in Tables 3 and 4, there is a notable difference in preferences both by affiliation and by campus.

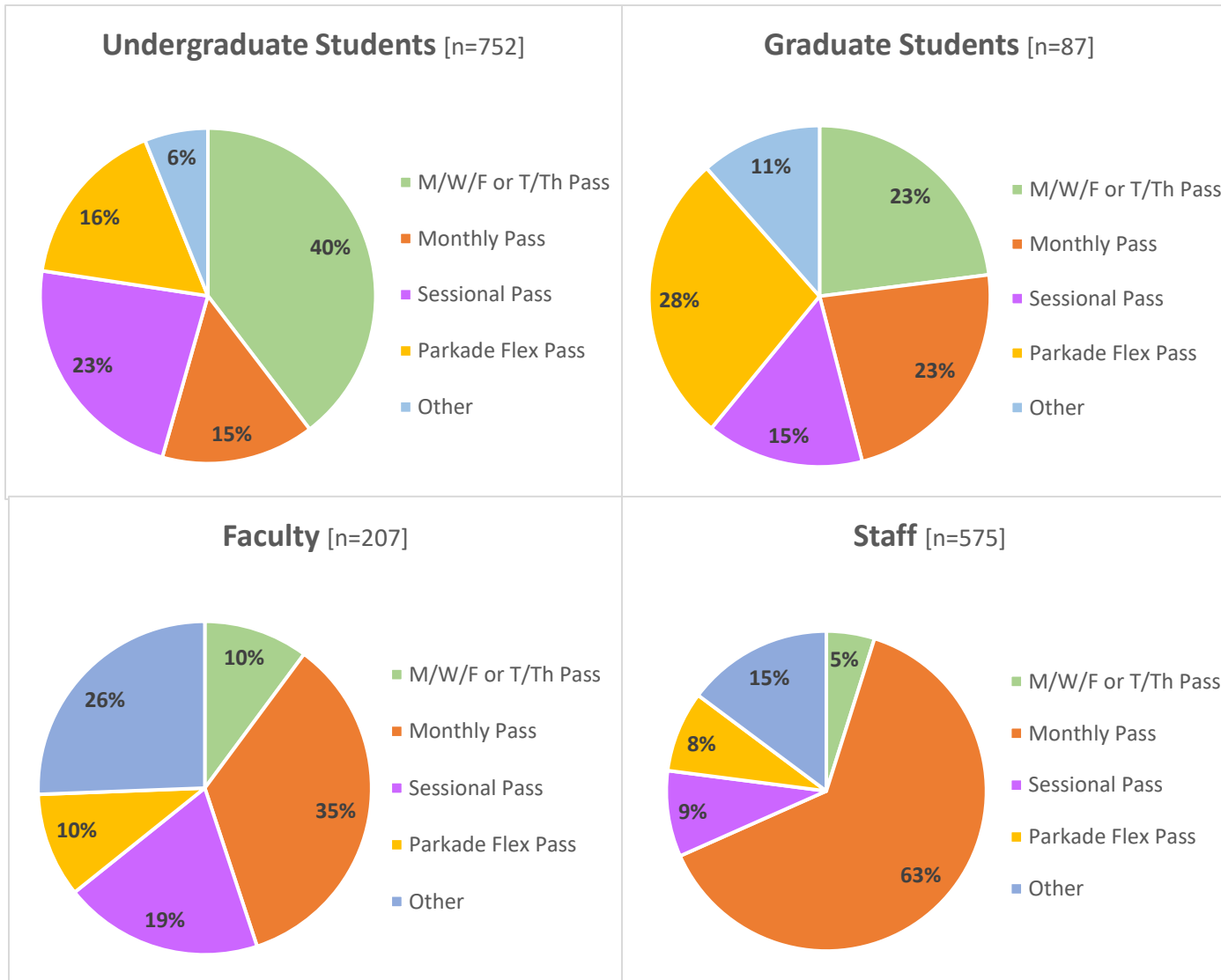
Fort Garry respondents: The preferred option (40%) for Undergraduate students is a Mon-Wed-Fri or Tues-Thu parking pass, with the remainder preferring a sessional pass (23%), parkade flex pass (16%) or monthly pass (15%). Graduate students are more diverse in their preferences, with 28% interested in a parkade flex pass (compared with 47% in 2018) and then evenly split over the remaining options. Faculty also spreads their preferences over all options with the monthly pass (35%) at the top of the list. The majority (63%) of staff respondents (compared with 51% in 2018) prefer a monthly parking pass. 'Other' was the second preferred option for both faculty and staff respondents at 26% and 15% respectively. (Details for 'Other' preferences are summarized in Appendix D.)

Figure 29 on the next page provides a visual breakdown of parking pass preferences by affiliation for Fort Garry respondents.

Table 3: Parking Pass Preferences by Affiliation - FORT GARRY [N=3158]

Undergraduate Students [n=752]	%	#	Faculty [n=207]	%	#
M/W/F or T/Th Pass	40%	298	Monthly Pass	35%	72
Sessional Pass	23%	173	Other	26%	53
Parkade Flex Pass	16%	124	Sessional Pass	19%	40
Monthly Pass	15%	111	M/W/F or T/Th Pass	10%	21
Other	6%	46	Parkade Flex Pass	10%	21
Graduate Students [n=87]	%	#	Staff [n=575]	%	#
Parkade Flex Pass	28%	24	Monthly Pass	63%	365
M/W/F or T/Th Pass	23%	20	Other	15%	85
Monthly Pass	23%	20	Sessional Pass	9%	50
Sessional Pass	15%	13	Parkade Flex Pass	8%	47
Other	11%	10	M/W/F or T/Th Pass	5%	28

Figure 29: Parking Pass Preferences by Affiliation – FORT GARRY



Bannatyne Campus Respondents: Given the small number of respondents from the Bannatyne campus for this question, it is difficult to get a clear picture and caution should be taken in drawing conclusions.

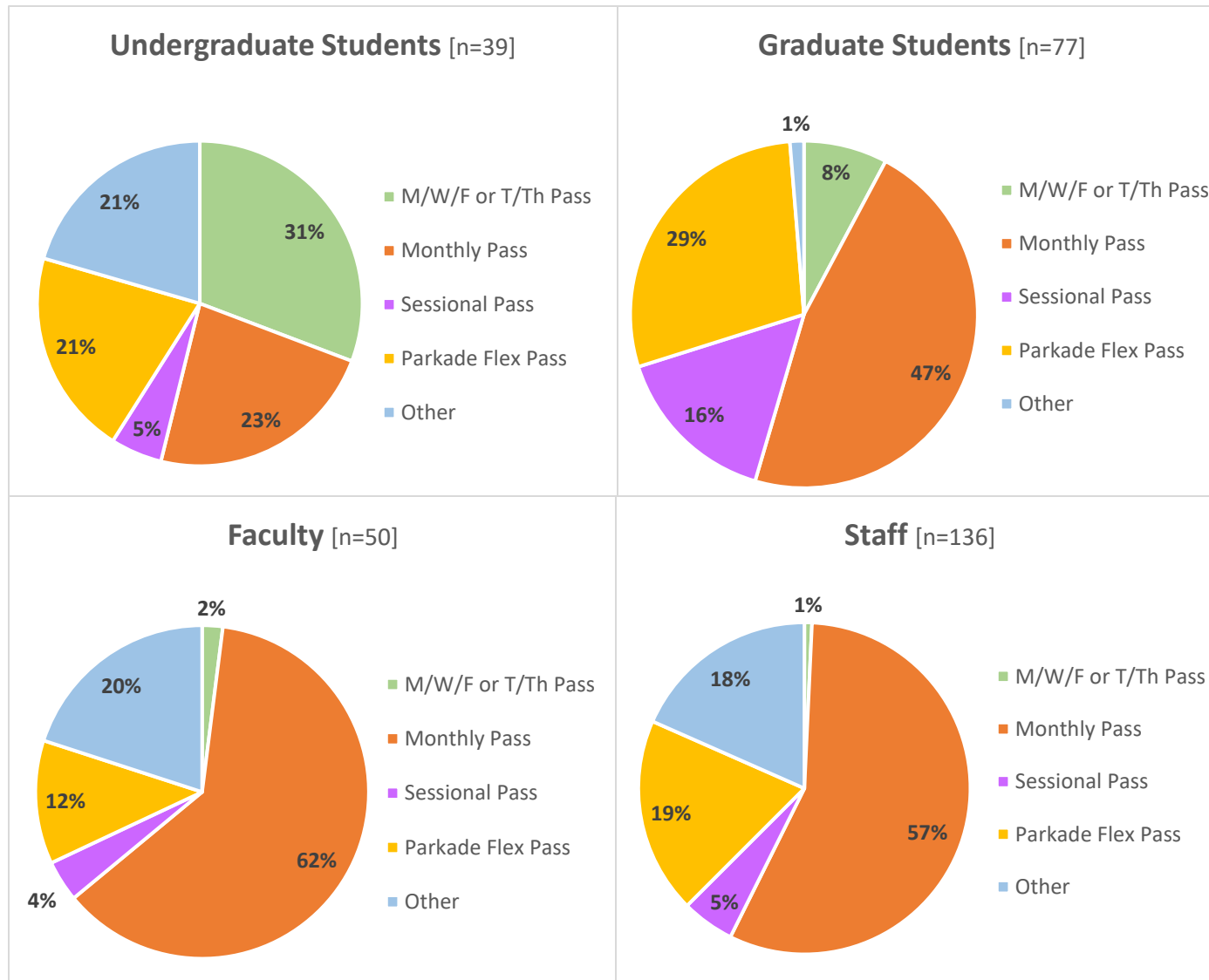
Similar to Fort Garry, the top choice for Undergraduate students at Bannatyne is a Mon-Tues-Wed or Tues-Thu pass with the remaining preferences evenly split over a monthly pass (23%) or sessional pass (21%). Graduate students are primarily interested in a monthly pass (47% compared with 23% at Fort Garry) along with a significant interest in a parkade flex pass (29%). Faculty respondents are primarily interested in a monthly pass (62%) with another 20% preferring a sessional pass (20%). Staff preferences are similar to those at Fort Garry campus, with the majority of respondents interested in a monthly (57%) or sessional pass (18%). Many respondents, including Undergraduates (21%), Faculty (12%) and Staff (19%) identified 'Other' preferred options (see Appendix D).

Figure 30 on the next page provides a visual breakdown of parking pass preferences by affiliation for Bannatyne respondents.

Table 4: Parking Pass Preferences by Affiliation - BANNATYNE [N=514]

Undergraduate Students [n=39]	%	#	Faculty [n=50]	%	#
Mon-Wed-Fri or Tues-Thur Pass	31%	12	Monthly Pass	62%	31
Monthly Pass	23%	9	Sessional Pass	20%	10
Other	21%	8	Other	12%	6
Sessional Pass	21%	8	Parkade Flex Pass	4%	2
Parkade Flex Pass	5%	2	Mon-Wed-Fri or Tues-Thur Pass	2%	1
Graduate Students [n=77]	%	#	Staff [n=136]	%	#
Monthly Pass	47%	36	Monthly Pass	57%	77
Parkade Flex Pass	29%	22	Other	19%	26
Sessional Pass	16%	12	Sessional Pass	18%	25
Mon-Wed-Fri or Tues-Thur Pass	8%	6	Parkade Flex Pass	5%	7
Other	1%	1	Mon-Wed-Fri or Tues-Thur Pass	1%	1

Figure 30: Parking Pass Preferences by Affiliation – BANNATYNE



9. Student Transit U-Pass: Frequency of Use

Students were asked how many trips per day they used their Transit U-Pass, on weekdays and on weekends.

Table 5: Frequency of Use of Student Transit U-Pass

	UNDERGRADUATE STUDENTS							GRADUATE STUDENTS					
Trips per day	Fort Garry [n=1734]		Bannatyne [n=67]		All [n=1802]*		Trips per day	Fort Garry [n=285]		Bannatyne [n=140]		All [n=436]*	
	WEEKDAY	WKND	WEEKDAY	WKND	WEEKDAY	WKND		WEEKDAY	WKND	WEEKDAY	WKND	WEEKDAY	WKND
0	379	941	35	52	414	994	0	43	101	59	95	207	106
1	78	169	6	3	84	172	1	11	39	9	13	52	20
2	618	377	12	8	631	385	2	153	95	44	24	119	202
3	152	71	2	1	154	72	3	16	5	5	1	6	21
4	216	104	3	2	219	106	4	34	24	11	5	29	45
5	93	27	2	0	95	27	5	7	4	1	0	4	9
6	48	21	0	0	48	21	6	8	14	2	1	15	11
7	11	4	0	0	11	4	7	1	0	0	0	0	1
8	23	12	0	1	23	13	8	1	1	3	0	1	4
9	4	3	0	0	4	3	9	1	0	0	0	0	1
10	112	5	7	0	119	5	10	10	2	6	1	3	16

*Includes 1 student from William Norrie Centre

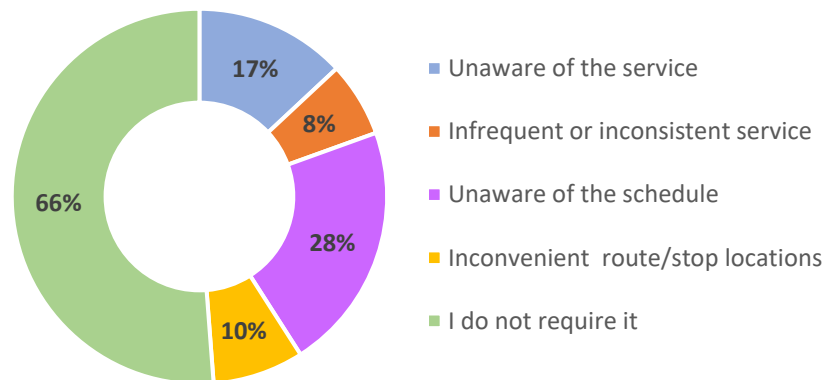
*Includes 11 students who chose 'Other' location

10. Fort Garry Campus Shuttle Bus

Respondents who identified Fort Garry as their primary campus were asked if they had used the campus shuttle bus in the last month. Only 5% had done so and the other 95% were asked their reasons for not using the bus (see Figure 31). As respondents could choose more than one response, the percentages will not total 100.

Most respondents (66% compared with 45% in 2018) indicated they do not require the shuttle bus while 28% (compared with 22% in 2018) noted they were unaware of the schedule. A further 17% were unaware of the service. Additional reasons for not using the Fort Garry shuttle bus included inconvenient route or stop locations (10%) and infrequent or inconsistent service (8%). A small number of respondents (2%) provided 'Other' reasons.

Figure 31: Reasons for Not Using Fort Garry Campus Shuttle Bus [n=2993]



Respondents who indicated they do not require the shuttle bus service primarily reflected Staff and Faculty members (81% and 87% respectively). While 57% of both Undergraduate and Graduate students also indicated they didn't require the shuttle bus, there were many who indicated they were unaware of the schedule (39% and 29% respectively) and others who were unaware of the service (22% and 23% respectively).

Of the 59 who indicated 'Other' reasons, a total of 53 respondents provided comments. The primary reasons for not using the shuttle bus included a preference to walk or that it was faster or easier to walk, the schedule not being a good fit, being unaware of the stop locations, and having a disability.

A total of 546 respondents provided suggestions on how to improve the campus shuttle bus with some offering several for a total of 618 suggestions that have been categorized in Appendix E.

Many suggestions (43%) involved increasing promotion of the service while 13% of comments focused on a set schedule that ran on time and more frequent service. Another 13% recommended technological improvements similar to Winnipeg Transit, such as an app showing stop locations, schedule and real time information. A total of 10% suggestions involved improvements to the stations/stops and route. The remainder of comments (21%) were varied, with some noting concerns with the driver not stopping at designated locations and several indicating the service is not needed as the campus is small enough to walk or bike everywhere, which are more sustainable and healthy options.

11. Bike Fleet Program – Fort Garry Campus

In Summer 2017, the Office of Sustainability operated a pilot bike fleet program, whereby staff and faculty in a select number of departments could access a University-owned bicycle for travel on Fort Garry Campus and between Fort Garry and Smartpark.

A total of 30% of staff and 24% of faculty member respondents indicated interest in accessing a fleet bike if available.

Those who expressed interest were asked to identify their building name, with 316 doing so. Table 6 represents any location with 5 or more responses and represents 76% of all respondents who identified a building.



Table 6: Bike Fleet Interest by Building

Building	# Responses
University Centre	27
Admin Bldg	26
Dafoe	19
Education	17
Physical Plant (already have 2 bikes)	17
Machray Hall	15
EITC	11
Extended Education	11
Fletcher Argue	10
B-lot trailer / Modular 56	9
Drake	9
55 Chancellor's Circle (Fitzgerald)	8
Agriculture	8
Tier	8
Buller	7
Helen Glass	7
Isbister	7
137 Innovation (already have bikes)	6
Engineering	6
Frank Kennedy	6
Wallace	6

12. Inter-campus and Off-site Commuting

Faculty and staff were asked to identify how many work-related round trips per week they make from their primary campus to other University of Manitoba campuses and off-campus sites. A total of 165 faculty and staff indicated they travel one or more times per week to other UM campuses or on work-related trips to sites off campus. Total number of round-trips per week was 282. In comparison to the 2018 survey, 173 faculty and staff reported 347 total round-trips per week.

Not shown in Figure 32 are a small number of trips (representing 10%) from Fort Garry to Glenlea Research Centre, Ian N Morrison Research Farm or William Norrie Centre and made by driving alone (81%) or carpooling (19%).

Similarly, there was an additional trip made from Bannatyne campus to William Norrie Centre not shown in Figure 33. There were also a small number of trips made (12) from Smartpark and William Norrie Centre, with Fort Garry campus as the primary destination for these trips and driving alone as the predominant mode.

When asked about improvements that would influence their travel choice to another UM campus or off-site locations, responses included: regular shuttle buses between Fort Garry and Bannatyne campuses, more flexible parking options including a reciprocal parking pass, tunnel access to Smartpark, and general improvements to Winnipeg Transit service and connections.

Figure 32: Fort Garry – Inter-campus and Off-site Trips

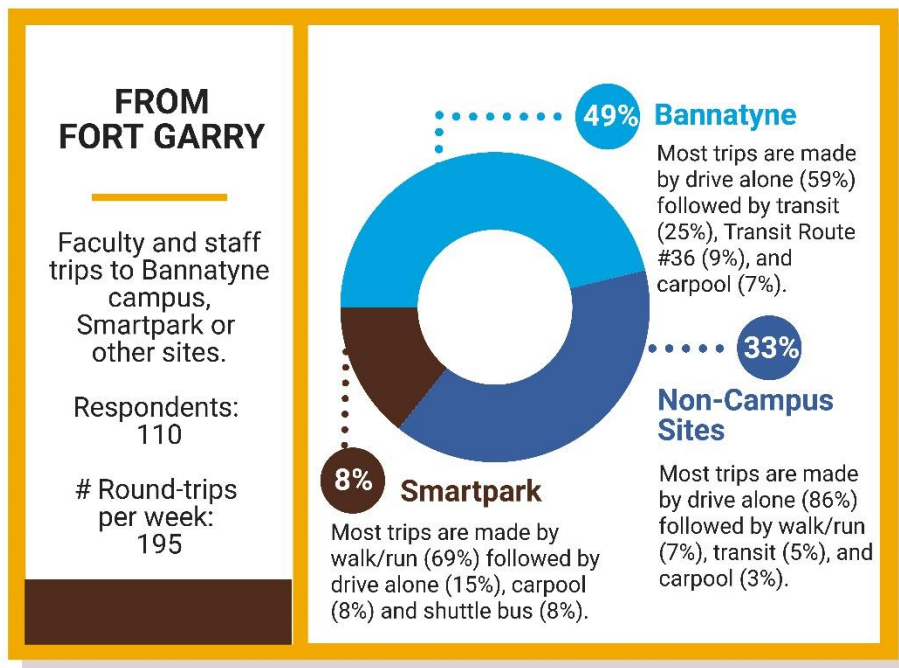
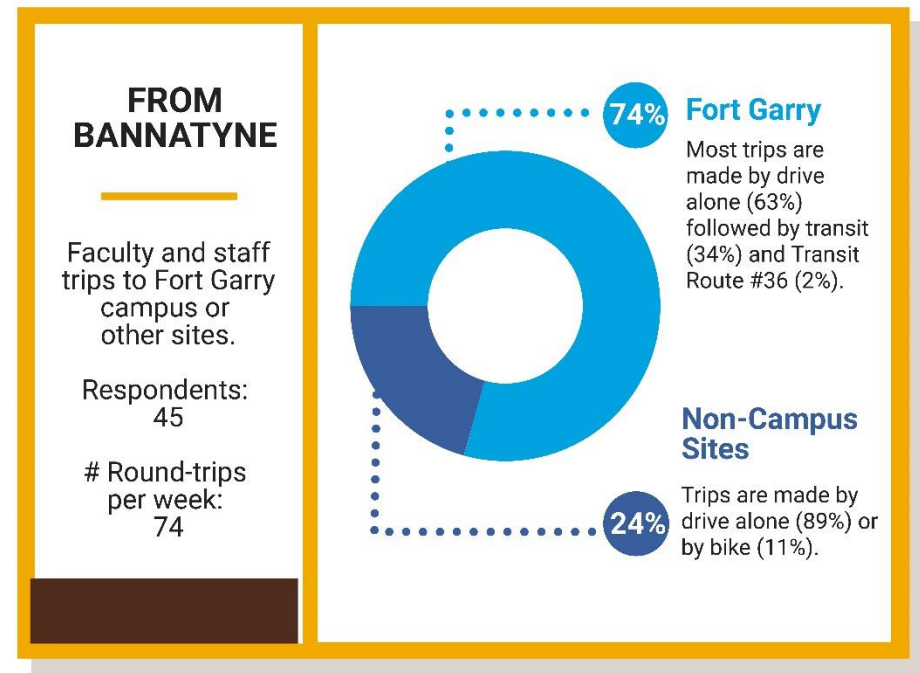


Figure 33: Bannatyne – Inter-campus and Off-site Trips



13. Influences on Commute Choice

Tables 8 and 9 explore how availability of a variety of potential options would affect respondents' decision how to travel to, within or between campuses. While not all of these options are within the purview of the University, such as improvements to walking and cycling infrastructure leading to the Fort Garry or Bannatyne campuses, there may be opportunities to explore partnerships or exert influence to create the desired change.

Figures 34 and 35 show those influences that were ranked by respondents as Very Important and Important. The top 5 included:

- Increased frequency and space on buses
- More direct transit routes to and from campus
- Improved walking and cycling infrastructure
- More flexibility in parking permits
- Additional secure bike parking

Specific to faculty members and staff, an Emergency Ride Home Program and bus fare for work-related trips as important, while students ranked affordable student housing on or close to campus as key.

Differences in influences by affiliation and campus are shown in Appendix F.



A. Fort Garry Campus

Table 8 summarizes Fort Garry campus responses on factors that might influence their commute choice. (Those who indicated a particular option was not applicable to them were removed from the calculations, resulting in a different number of respondents for each factor.)

Key areas of interest include improved walking and cycling infrastructure, additional secure bike parking, increased frequency and space on buses, more direct transit routes to and from campus, an Emergency Ride Home program, preferential parking for carpoolers, and more flexibility in parking permits. Affordable student housing close to campus is key for students while faculty and staff are interested in bus fare for work-related trips. Figure 33 on the next page charts the top influences for Fort Garry respondents.

Table 7: Influences on Commute Choice - Fort Garry

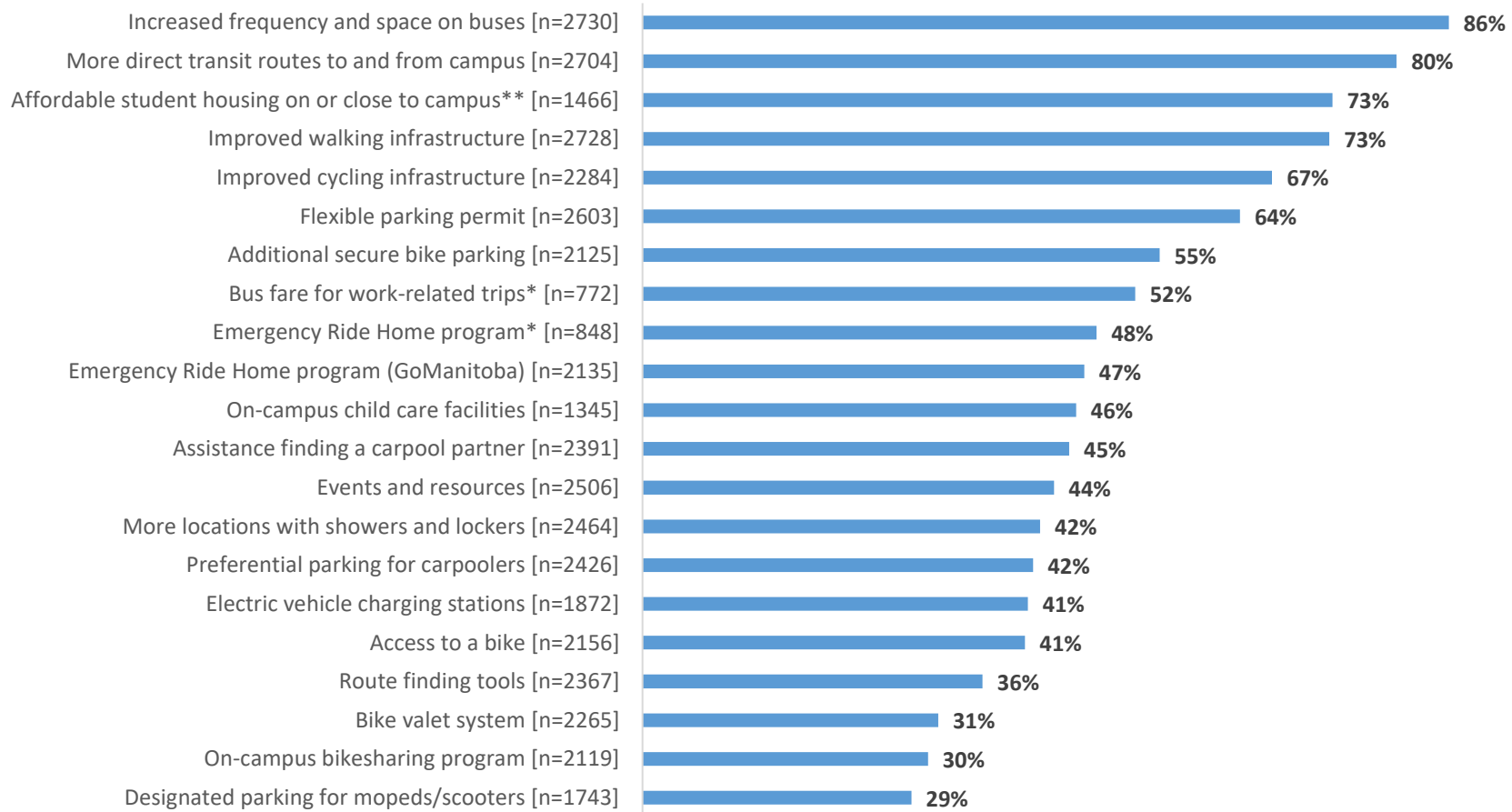
FORT GARRY (N=3173 including Smartpark)					
	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
CYCLING / WALKING					
Improved walking infrastructure	2728	44%	29%	18%	9%
Improved cycling infrastructure	2284	40%	27%	20%	13%
Additional secure bike parking	2125	29%	26%	27%	18%
More locations with showers and lockers	2464	21%	22%	32%	26%
Access to a bike	2156	18%	22%	29%	30%
Route finding tools	2367	15%	21%	31%	33%
Bike valet system	2265	14%	18%	33%	35%
On-campus bikesharing program	2119	13%	18%	32%	38%
TRANSIT					
Increased frequency and space on buses	2730	67%	19%	10%	5%
More direct routes to and from campus	2704	61%	20%	12%	6%
Bus fare for work-related trips*	772	33%	20%	23%	25%
CARPOOLING					
Faculty and Staff Emergency Ride Home program*	848	26%	23%	30%	22%
Preferential parking for carpoolers	2426	22%	26%	32%	20%
Assistance finding a carpool partner	2391	20%	25%	32%	23%

PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	2603	38%	25%	23%	14%
Electric vehicle charging stations	1872	20%	21%	28%	31%
Designated parking for mopeds/scooters	1743	13%	16%	28%	43%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Affordable student housing on or close to campus**	1466	49%	25%	16%	11%
On-campus child care facilities	1345	24%	22%	19%	35%
Events and resources	2506	20%	24%	34%	23%

*Faculty and Staff only [N=1154] **Students only [N=2019]



Figure 34: Fort Garry - Commute Choice Influences Ranked as Extremely or Very Important [N=3173]



* N=1154 (Faculty and Staff only) **N=2019 (Students only)

B. Bannatyne Campus

Table 9 summarizes Bannatyne campus responses on factors that might influence their commute choice. (Those who indicated a particular option was not applicable to them were removed from the calculations, resulting in a different number of respondents for each factor.)

Key areas of interest for Bannatyne respondents, similar to Fort Garry respondents, include improved cycling and walking infrastructure, additional secure bike parking, more direct transit routes to and from campus, increased frequency and space on buses, an Emergency Ride Home program, and more flexibility in parking passes. Affordable student housing near to campus is key for students, while faculty and staff expressed interest in bus fare for work-related trips. Figure 35 on the next page charts the top influences on commute choice for Bannatyne respondents.

Table 8: Influences on Commute Choice - Bannatyne

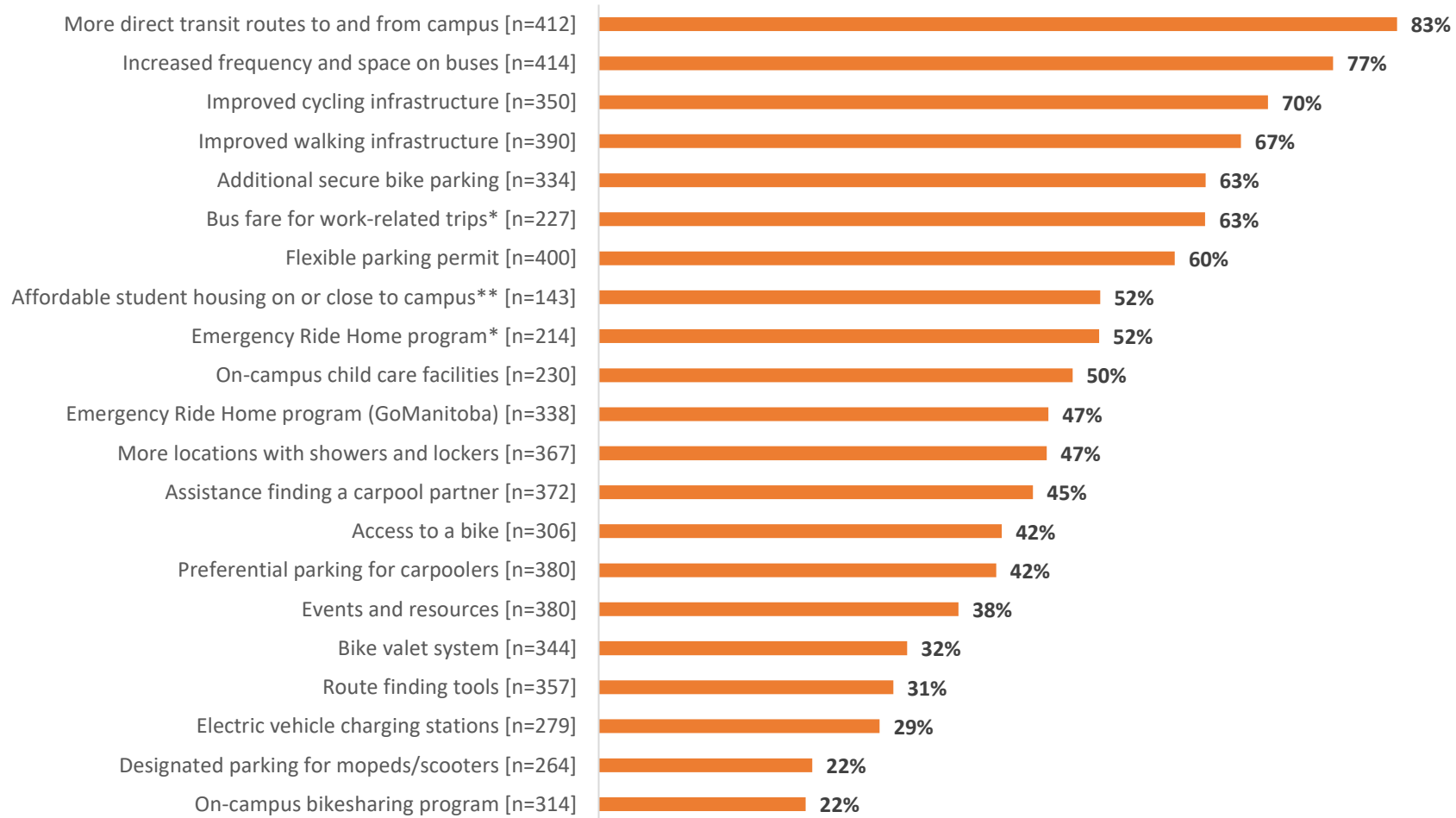
BANNATYNE (N=514)					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Improved cycling infrastructure	350	42%	28%	15%	15%
Additional secure bike parking	334	40%	24%	21%	16%
Improved walking infrastructure	390	37%	30%	19%	13%
Access to a bike	306	23%	19%	22%	36%
More locations with showers and lockers	367	21%	26%	29%	24%
Bike valet system	344	15%	17%	28%	40%
Route finding tools	357	14%	17%	31%	38%
On-campus bikesharing program	314	9%	13%	23%	55%
TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
More direct routes to and from campus	412	67%	17%	9%	8%
Increased frequency and space on buses	414	57%	20%	14%	9%
Bus fare for work-related trips*	227	38%	26%	21%	16%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Faculty and Staff Emergency Ride Home program*	214	30%	22%	29%	19%
Preferential parking for carpoolers	380	19%	22%	33%	25%
Assistance finding a carpool partner	372	19%	26%	28%	26%

PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	400	35%	25%	20%	20%
Electric vehicle charging stations	279	15%	14%	30%	41%
Designated parking for mopeds/scooters	264	8%	15%	25%	53%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Affordable student housing on or close to campus**	143	35%	17%	26%	22%
On-campus child care facilities	230	34%	15%	16%	35%
Events and resources	380	18%	20%	35%	27%

*Faculty and Staff only [N=307] **Students only [N=207]



Figure 35: Bannatyne - Commute Choice Influences Ranked as Extremely or Very Important [N=514]



* N=307 (Faculty and Staff only) **N=207 (Students only)

14. Top 2 Issues to Improve Commute

Respondents were asked to rank the top 2 issues that would improve their commute from the following list:

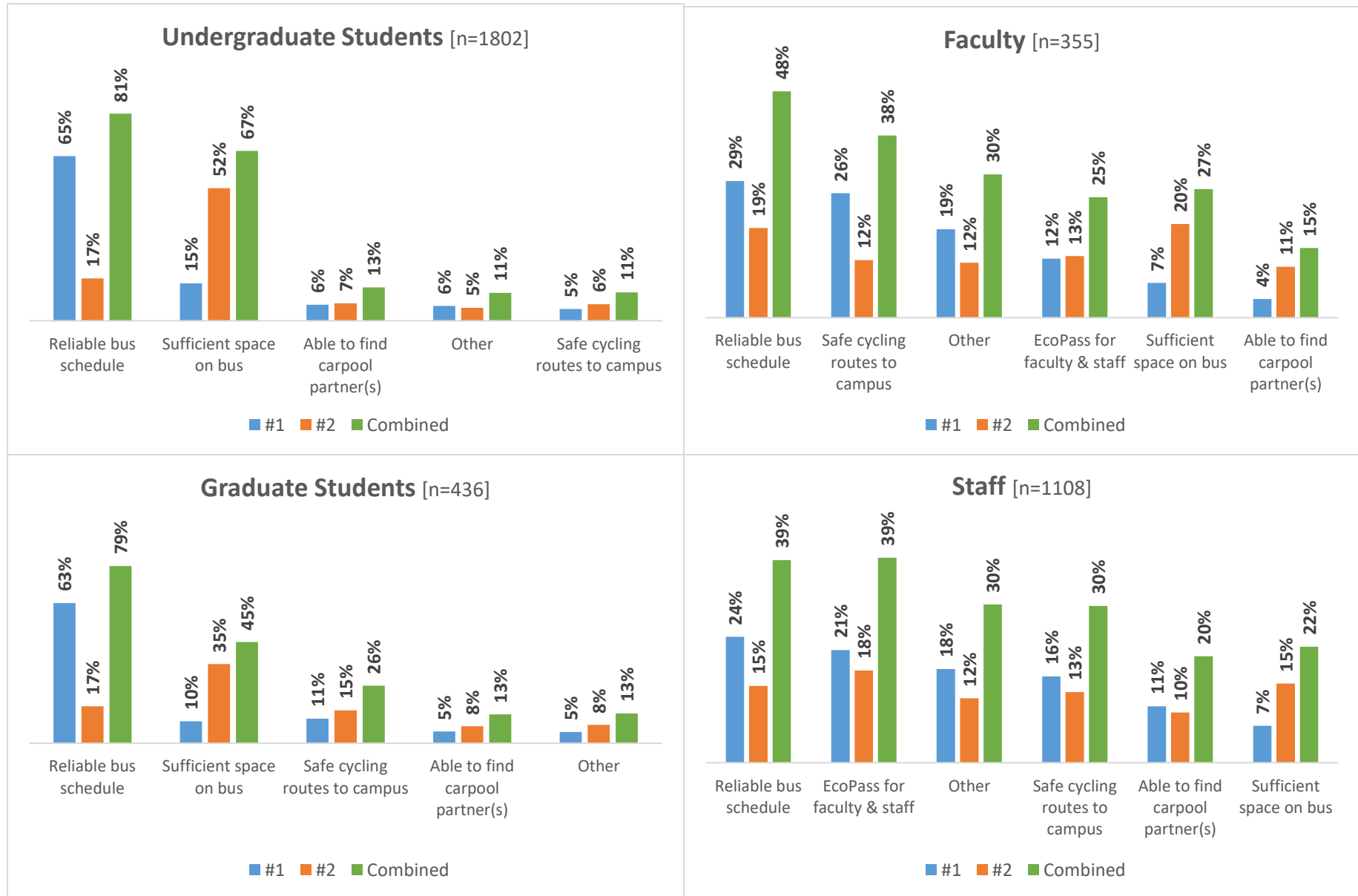
- Reliable bus schedule (arrives on time, can catch transfer)
- Sufficient space on bus (not passed by because bus is full)
- EcoPass (subsidized monthly bus pass) for faculty and staff
- Safe cycling routes to campus
- Able to find carpool partner(s)
- Other

As shown in Figure 36, undergraduate and graduate students at both Fort Garry and Bannatyne campuses clearly identified a reliable bus schedule as the top issue that would improve their commute, followed by sufficient space on the bus. Graduate students at Bannatyne varied slightly, with the second most cited factor being safe cycling routes to campus.

For faculty members and staff, the issues that could improve their commute were more evenly spread out. For faculty members, the most frequently cited issues included a reliable bus schedule and safe cycling routes to campus, whereas staff members, while also interested in a reliable bus schedule, equally identified EcoPass as a top issue.



Figure 36: Top 2 Issues to Improve Commute by Affiliation



15. Awareness of Existing Resources

All respondents were asked about their awareness of a variety of existing resources available to the campus community.

Figure 37 shows that 79% of respondents know about the Student Transit U-Pass (down from 85% in 2018) and more than half are aware of secure bike lock-up (57% compared with 51% in 2018) and the Safewalk Program (52%). However, there are many resources that are not as well known, presenting an opportunity to increase awareness and uptake of these resources.

Compared with 2018 results, there are some improvements in awareness, such as the ability to register multiple vehicle licenses on one parking permit (40% vs 31%), the shower only pass at Max Bell Centre and Joe Doupe Centre (12% vs 7%) and the University's subscription to GoManitoba.ca for ridematching (12% vs 7%).

Figure 38 on the following pages breaks down awareness of existing resources by affiliation.

Figure 37: Awareness of Existing Resources - All Respondents [n=3701]

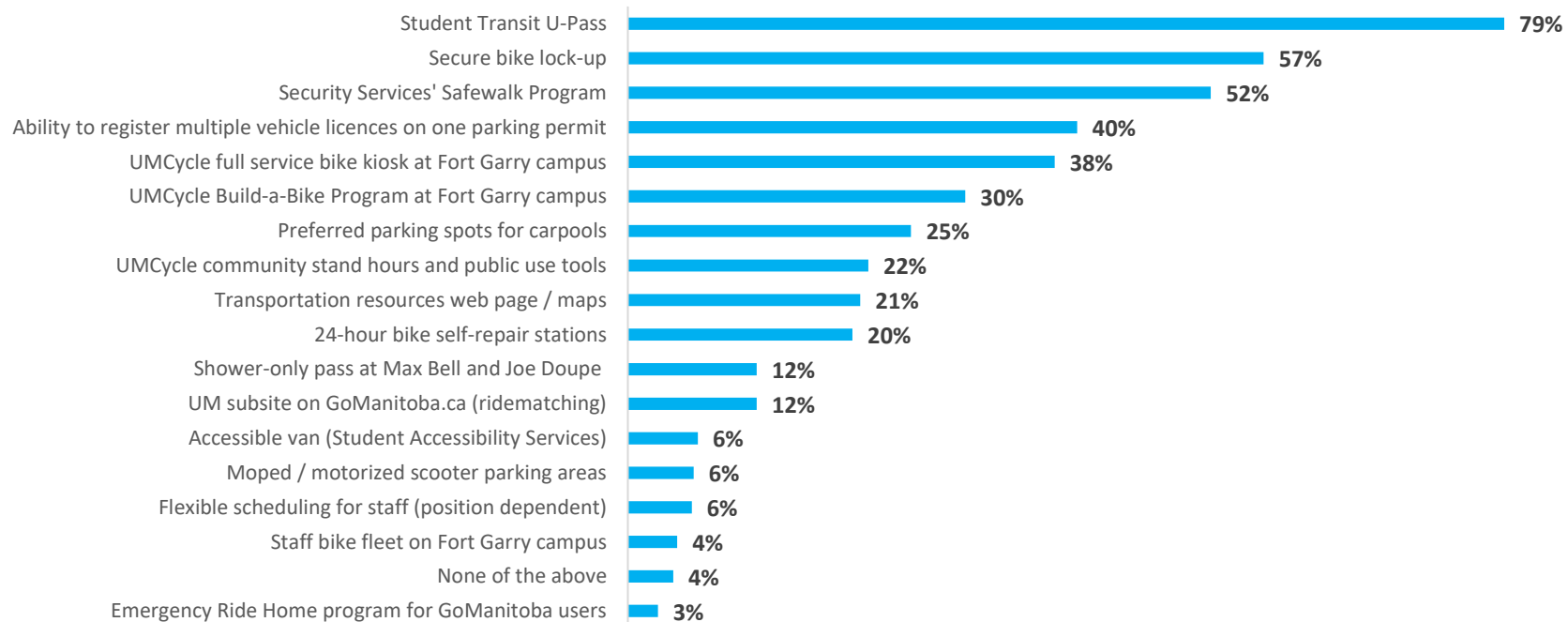
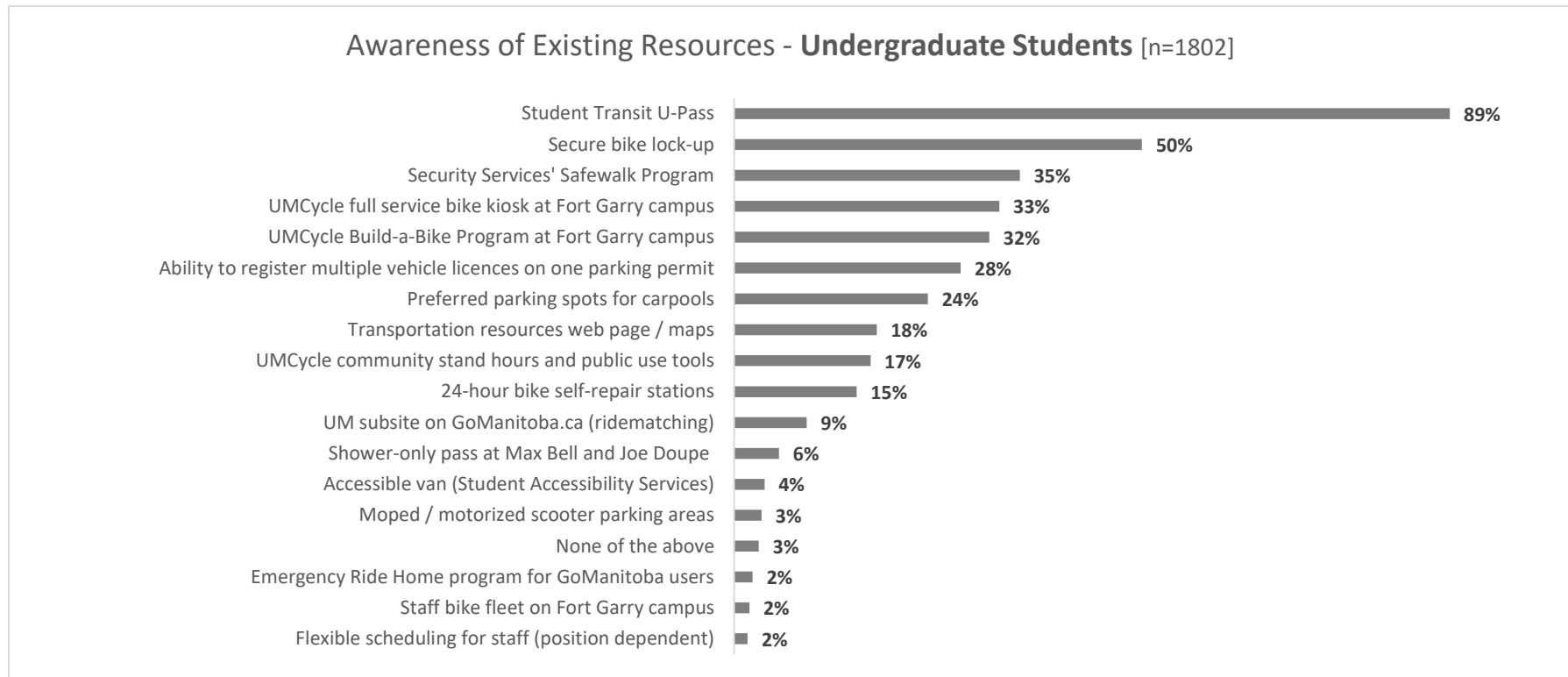
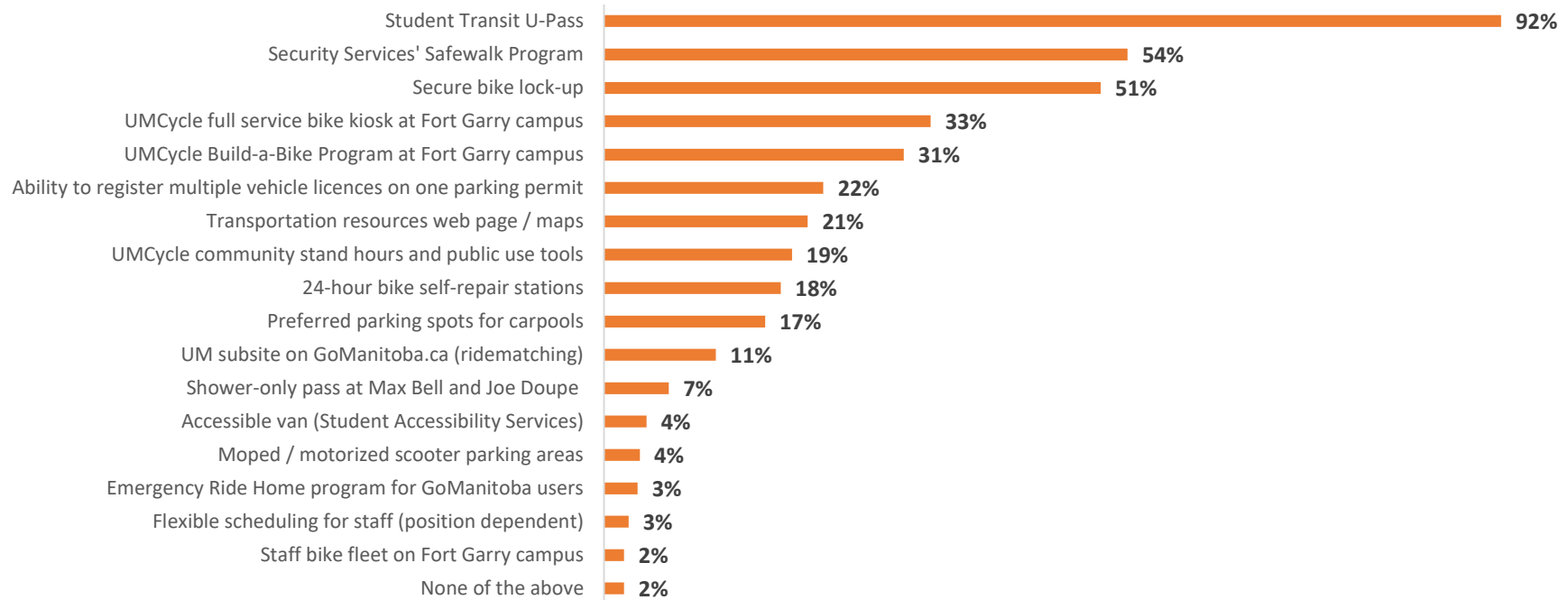


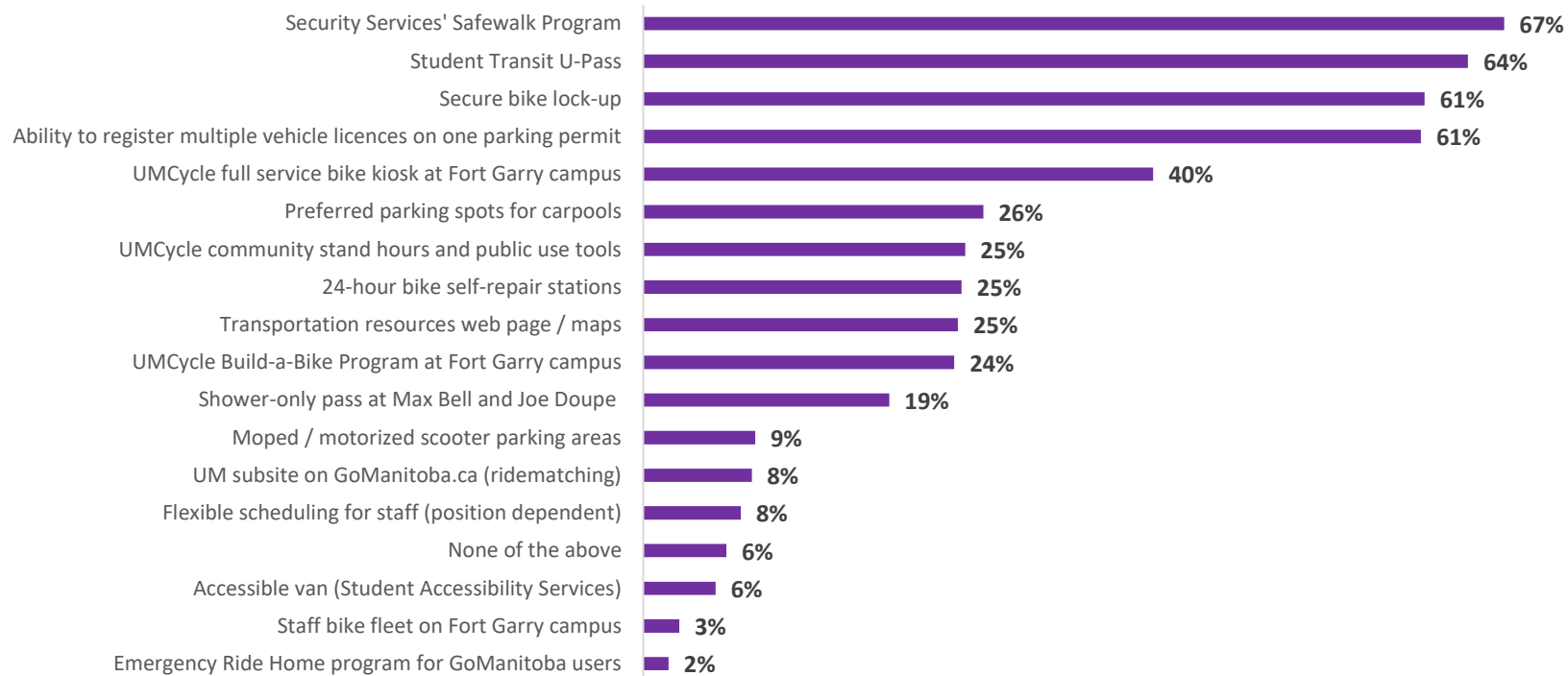
Figure 38: Awareness of Existing Resources by Affiliation



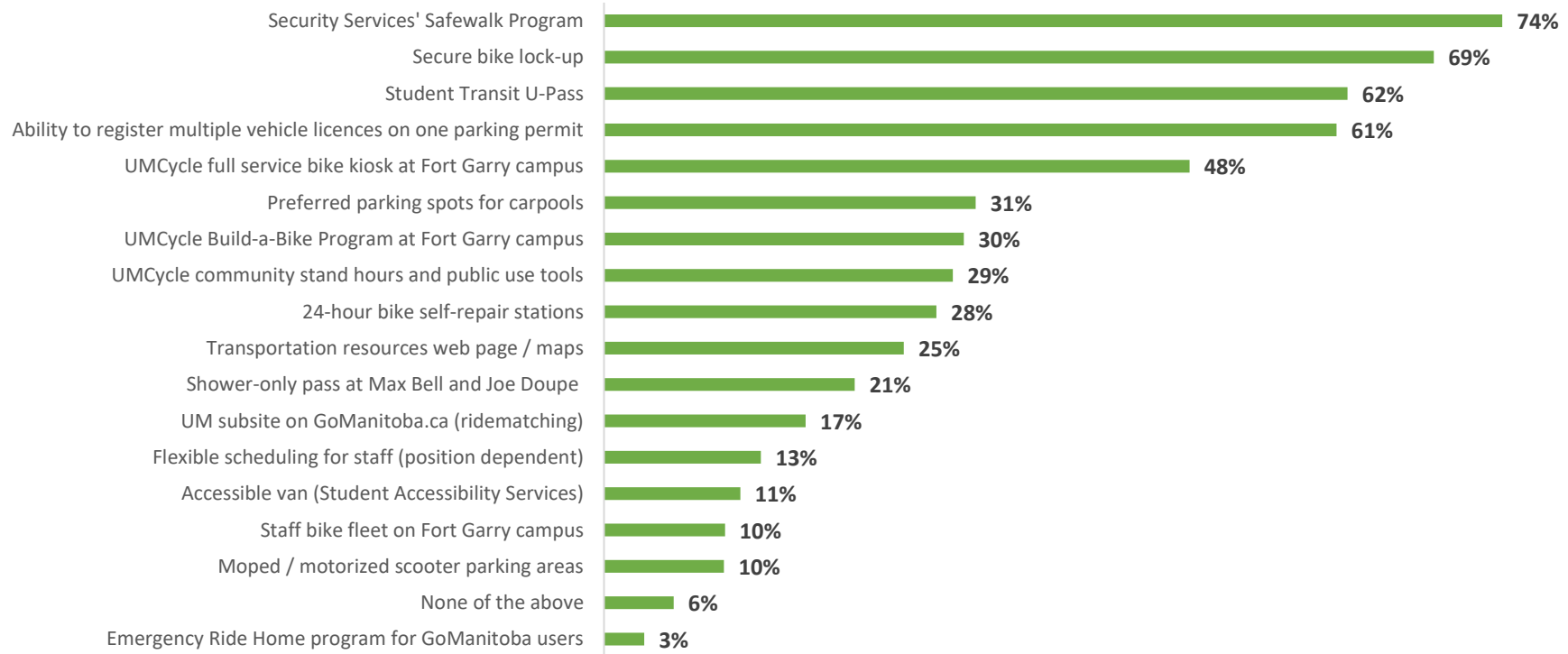
Awareness of Existing Resources - Graduate Students [n=436]



Awareness of Existing Resources - Faculty [n=355]



Awareness of Existing Resources - **Staff** [n=1108]



16. Additional Comments

Survey respondents were given the opportunity to provide any additional comments related to their commute, which are summarized in Appendix G.

The vast majority of comments from Fort Garry respondents focused on transit issues (70%), primarily related to bus schedules (34%), and overcrowding or pass-ups (15%). In 2018, U-Pass comments accounted for 17% of responses, which have now fallen to 5%.

At the Bannatyne Campus, comments also focused on transit at 52%, including 28% related to schedule and route issues. Vehicle parking represented 22% of comments, followed closely by cycling at 21% with a majority of those comments related to safe infrastructure.

At both campuses, there were only a few comments related to electric vehicle charging stations, with 1.4% of Bannatyne and 0.7% of Fort Garry comments related to EVs.



17. How Respondents Heard About Survey

Respondents were asked to identify how they heard about the survey, choosing all that apply. Email was the most common source of awareness faculty and staff along with students at Bannatyne campus. Social media was the primary source for students at Fort Garry, followed by email.

Similar to the 2018 results, of the 180 respondents who chose 'Other', the most commonly sources cited included word of mouth (e.g. friends, co-workers, professors, presentations in class) and personally approached (e.g. survey salons, given Campus Commute bookmark).

STUDENTS (combined)	Fort Garry [n=2019]	%	Bannatyne [n=207]	%
Email	736	36%	128	62%
Social media	930	46%	21	10%
UM Today	199	10%	7	3%
Website	90	4%	2	1%
Digital screens	31	2%	2	1%
Survey lounges / tabling	147	7%	30	14%
Outdoor signage	137	7%	11	5%
Other	148	7%	12	6%
None of the above	21	1%	7	3%

FACULTY and STAFF	Fort Garry [n=1139]	%	Bannatyne [n=307]	%
Email	920	81%	244	79%
Social media	69	6%	9	3%
UM Today	180	16%	38	12%
Website	20	2%	5	2%
Digital screens	4	0%	0	0%
Survey lounges / tabling	8	1%	11	4%
Outdoor signage	15	1%	0	0%
Other	18	2%	14	5%
None of the above	4	0%	3	1%

18. Key Recommendations

The University of Manitoba continues to grow and refine measures that support and encourage sustainable, healthy travel by community members. This section outlines opportunities to further build on that momentum.

These recommendations build on the University's progress over the past four years to make healthy and sustainable commuting options the preferred choice by community members.

The recommendations are based on data and feedback provided in the 2020 survey responses as well as the experience of successful Transportation Demand Management (TDM) programs at other universities and large institutions in North America. Success means more University community members choosing to walk, cycle, take transit or carpool to campus rather than drive alone, with the corresponding beneficial health impacts and reductions in commuting-related greenhouse gas (GHG) emissions.

Similar to results from previous campus commute surveys in 2018 and 2016, responses to the 2020 campus commute survey indicate a tremendous interest in healthy and sustainable commuting options, from cycling to transit to carpooling, across students, faculty members, and staff. Turning that interest into action will require the supportive infrastructure, policies and incentives that make those choices practical, convenient and affordable.

For the University community overall, the payoff will be fewer GHG emissions, improved mental and physical health, better air quality, less traffic congestion, and cost savings for less parking infrastructure.



Summary of Key Recommendations

A. REDUCE PARKING DEMAND

A.1 EcoPass Subscription

Subscribe to Winnipeg Transit's EcoPass program for University staff and faculty members at a minimum 30% subsidy level (including Transit's contribution). Reduce the annual cost of the program by allowing employees and faculty to opt in or out on a monthly basis to support a switch to active modes, particularly in the warmer months.

Rationale: A monthly bus pass can cost \$20-30 more per month than the cost of parking, depending on whether the person is faculty or staff. This creates a financial disincentive to take transit instead of driving. When asked the top 2 issues that would improve their commute, 39% of staff respondents identified Eco-Pass as an improvement (Section 14). Similarly, when asked how they would prefer to commute to campus, 29% of staff and 36% of faculty would prefer to take transit compared with current mode shares of 12% and 11% respectively (Section 6).

Sample EcoPass-related comments:

Eco bus pass option for staff during non-cycling weather would be fantastic!

I hate to say it because I don't want to pay more, but parking on campus is way too cheap! If you want to encourage people to use public transit (which you should) then parking should not be cheaper than a bus pass. I would prefer to use public transit, but for my fiancée and myself to both have a bus pass would cost \$200/month, whereas we can buy a parking pass for \$75.

Please, for the love of all things environmental, get the EcoPass. It's insane the U of M doesn't have this program.

I really think getting the EcoPass for staff would be huge. The cost of monthly bus passes is probably one of the biggest reasons so many staff decide to drive. Plus I think it's a great reward for those of us who decide not to drive.

I'll believe the University actually cares about the environment when they pony up for the EcoPass program instead of squeezing every cent they can out of the parking lots.

A.2 Flexible Parking Permits

Increase variety of flexible parking permit options to allow students, faculty and employees to choose to bike, walking or transit most or some of the time. For staff and faculty, combine this with the option of a seasonal parking permit or flex pass to allow a switch to cycling or walking, either full- or part-time, in the warmer months.

Rationale: A flexible parking permit was identified by 64% of Fort Garry respondents and 60% of Bannatyne respondents as an Important or Very Important influence when choosing how to commute (Section 13).

Sample parking pass-related comments:

I would love to pause my parking pass in the summer and take the bus (at a subsidized rate) instead and then carpool in the winter.

I live in the St. Vital area and ride my bike in the summer months. I have a year round faculty parking pass, but would love a flex pass where I could waive my parking for those months.

I would really like the option to have a parking permit in Fall and Winter terms, not have one in Spring term (as I would like to ride my bike), and then have one again in Fall and Winter. My concern with cancelling my permit at the end of Winter term is that I may not get one back for the start of Fall term.

A.3 GoManitoba Promotion

Continue to heavily promote the University's subsite on GoManitoba, both for carpooling matches and to assist first-time commuter cyclists or transit users with experienced mentors. Survey respondents show a definite interest in carpooling but low awareness of GoManitoba as a tool to find and set up carpools. Emphasize the opportunity to carpool part-time.

Rationale: All survey respondents indicated an interest in carpooling higher than the current mode shares (Section 6). For example, 33% of undergraduates and 22% of graduate students identified carpooling as their preferred mode vs current mode shares of 9% and 7%. Faculty and staff are also interested in carpooling at double the rates of current mode shares.

Assistance in finding a carpool partner was ranked as an Extremely or Very Important factor in their commute choice by 45% of all respondents (Section 13). Meanwhile, only 12% of all respondents indicated they are aware of GoManitoba.

Faculty and staff respondents to the 2020 survey were asked what was holding them back from sharing a ride if they were willing to do so. Of those who expressed willingness, 61% of staff and 73% of faculty indicated they were not aware of GoManitoba (Section 7). There is a similar lack of awareness for all respondents with only 12% indicating familiarity with the University's subsite on GoManitoba (Section 15).

Sample carpool-related comments:

It would be great if the campus could do a carpooling program app to find other students taking the same route.

For finding carpool partners, area specific searches would be useful. I live in an area with a high number of UM staff. If we could connect easily, that would make me consider this more.

I was lucky to find a convenient and friendly carpool through GoManitoba. The bus service is dreadful.

A.4 Emergency Ride Home Program

Promote the Emergency Ride Home program that is already included in the University's subscription to GoManitoba. This program, introduced in February 2019, is available to staff and faculty who are registered on GoManitoba and using sustainable modes of commuting. This provides 'peace of mind' to those who are looking to switch from driving alone to carpooling, transit, cycling or walking.

Rationale: Faculty and staff identified an Emergency Ride Home program as an Extremely or Very Important influence on their commuting decision. This included 49% of faculty and staff respondents at Fort Garry campus and 52% at Bannatyne (Section 13). At the same time, only 2% of faculty members and 3% of staff who responded to the survey were aware of the program's availability (Section 15).

A.5 Green Parking Fund

Introduce a mechanism to allocate parking revenues to fund green commuting incentives. This could be a surcharge to parking fees specific to solo drivers or a general increase in parking fees with a percentage dedicated to support sustainable commuting options.

Rationale: Limited availability of parking and the price of parking have been shown to be more effective in motivating a change in travel behaviour than incentives alone. (Source: 'Changes in workplace car parking and commute mode: a natural experimental study'. Knott CS, Sharp SJ, Mytton OT, et al. J Epidemiol Community Health 2019; 73:42–49.

<https://jech.bmj.com/content/73/1/42>)

B. EXPAND WALKING AND CYCLING INFRASTRUCTURE

B.1 Pedestrian and Cycling Plan

Continue to implement recommendations in the Pedestrian and Cycling Plan (2018), Sustainable Transportation Strategy (2017), and the Multi-Use Path Network Plan.

Rationale: Making it easy to bike or walk around campus contributes to lower vehicle use, reduced CO2 emissions, and a healthier campus community.

B.2 Secure Bike Parking

Continue to expand secure bike parking (i.e. bike cages) on both Bannatyne and Fort Garry campuses. Fear of bike theft can be a strong deterrent when considering cycling to campus.

Rationale: Additional secure bike parking was identified by 64% of Bannatyne respondents and 55% of Fort Garry respondents as Extremely or Very Important in their commute decision (Section 13).

Sample bike parking-related comments:

Having more safe bike parking spots in different areas of the Bannatyne campus would be great. Theft is the main deterrent for biking to work.

Biggest challenge / worry, is bike theft. I would bike to work year round if i could be sure that my bike would be safe and the possibility of bike theft would be minimized. With fewer people biking in the winter, the chances of my getting stolen is higher.

Bannatyne campus opened a new bike lock up, but for the mild weather months, this has led to worse access to bike parking than with the old lock up. Perhaps users prefer the new location and its become very over crowded, with bike racks positioned too close to one another so I carry my bike over other bikes to get to a spot and strain my back. I had a bike stolen from the non-secure bike racks, so I do hope another lock up is planned. Secondly, although I mainly bike now, snowy winter riding is starting to hurt my back, so I will be considering improved options for some of the winter.

I used to ride bicycle 365 days a year - I now drive 100% of the time either car or motorcycle. Since the university has cracked down on bring bicycles into my building I have had to abandon commuting in a healthy fashion by bike. I had access to secure out of the way storage accessible only by a few staff. There are the steel individual bike lockers at Engineering but we have been told there is an 800 person waiting list and it is at additional cost on top of the monthly parking rate we already pay.

Removing secured bike parking at the Bannatyne Campus adjacent to Dentistry was a ridiculous move and using the space to store lumber. Kind of the reverse of having secured areas. Please bring access to this back, as there is not enough secured storage beside the Brodie entrance for all of the bikes.

B.3 Cycling and Walking Infrastructure Leading to Campus

Share cycling- and walking-related survey results with the Public Works Department at the City of Winnipeg. Consider funding contributions on projects leading to the Fort Garry or Bannatyne campuses to accelerate timelines.

Rationale: Interest in cycling is high across all affiliations and both campus, with 24% of all Fort Garry respondents and 31% of all Bannatyne respondents identifying cycling as their preferred mode compared with current mode shares of 5% and 8% respectively. This is also the case for walking though at lower levels, with 11% of Fort Garry and 12% of Bannatyne respondents indicating walking is their preferred mode compared with current mode shares of 4% and 5% (Section 6). Improved cycling infrastructure was ranked by 73% of Fort Garry and 70% of Bannatyne as Extremely or Very Important in their commute decision (Section 13). Faculty members (38%), staff (30%) and graduate students (26%) rated safe cycling routes to campus as one of the top 2 issues to improve their commute.

Sample walking and cycling infrastructure-related comments:

I live in Prairie Pointe. I had considered bicycling in to work during the spring and summer months. But, after finding that there weren't any good and safe bicycling routes all the way to campus (ones that I felt safe on while navigating through/across Pembina and without having to bicycle on the road with vehicles), I decided against bicycling to campus. Transit access in my area seems quite poor. So, I drive alone.

They have improved the amount of bike lanes going into downtown, but it is still challenging to maneuver from my home on the south side of Winnipeg.

I would like to cycle to campus during the summer months, but don't feel comfortable cycling on major roads. I would require a bike lane to consider cycling.

Coming from a central Winnipeg location to the Fort Garry Campus the bike routes are pretty great especially with the addition of the newly opened bus rapid transit active transportation paths. Riding through the Southwood Lands is a great way to start the day too.

Better signage is needed for the pedestrian crossing on Dysart Road in front of the main entrance of the Wallace Building and the crossing at the north entrance of Lot A.

Paths to walk to the university are too icy to walk safely to school and are not well maintained. Including the paths on campus such as the chancellor mathason path.

Would love to see a footbridge across the river from Fort Garry campus to St. Vital for pedestrian and cycling use.

C. ENHANCE TRANSIT AND SHUTTLE SERVICES

C.1 Transit Scheduling and Frequency

Share transit-related survey results with Winnipeg Transit to demonstrate the high levels of interest (and frustration) by campus community members with over-full buses and issues with reliability. Assist with promotion of the new BLUE Rapid Transit line that leads to the Fort Garry campus.

Rationale: Transit continues to be identified as the preferred mode for many survey respondents (Section 6). This is especially true for undergraduate and graduate students with more than half (57% and 58% respectively) preferring transit which closely matches the current mode share (55% and 53%). The difference is more marked for faculty and staff respondents with 36% and 29% preferring to use transit compared with current mode shares of 11% and 12%.

Increased frequency and space on buses (86%) along with more direct transit routes to and from campus (80%) are the top issues for Fort Garry respondents. This also holds true for Bannatyne respondent at 77% and 83% respectively (Section 13).

When asked about issues that would improve their commute, undergraduate and graduate students ranked a reliable bus schedule (81% and 79% respectively) and sufficient space on the bus (67% and 45%) as their top two issues. Faculty and staff also included a reliable bus schedule in their top two, at 48% and 39% respectively.

Sample transit-related comments:

The key thing for me is transit inefficiency. I can drive to Bannatyne from my house in about 15 minutes; the shortest transit route will take over an hour. It's just not feasible or practical. I would love to take transit.



The transit system is possibly the worst part of University. In consist arrival times, packed busses make it hard to plan my day. I waste so much time waiting for busses that won't come, and for some reason I'm forced to pay for a UPass. Winnipeg Transit do better.

Bus service is unacceptably unreliable and getting worse. More buses are needed, last week I got frostbite waiting after 5 buses in a row were too full to pick me up.

Commuting to the University is incredibly difficult by bus. It's a legitimate task. I regularly wait over 30 minutes for a bus that is not over capacity and have waited over an hour. I have repeatedly missed school and work because Transit is so overloaded.

C.2 Inter-campus Transit

Partner with Winnipeg Transit to expand capacity and service levels between the Fort Garry and Bannatyne campuses during both peak and off-peak hours. Alternatively, consider re-establishing the University inter-campus shuttle, especially in off-peak hours.

Rationale: Faculty and staff from Fort Garry campus who travel at least once a week to another campus indicated they make 96 round trips per week to Bannatyne, with 59% made by driving alone, 34% by transit and 7% by carpooling. Respondents from Bannatyne campus indicated they make 55 round trips per week to Fort Garry, with 63% of those trips made by driving alone and 36% by transit (Section 12). Combined, this represents more than 7,800 round trips per year between the two campuses, with the majority of trips made by driving alone. Improved transit connections and frequency of service would support and encourage bus use for at least some of those trips made by faculty and staff. Students at both campuses would also benefit.

C.3 Fort Garry Campus Shuttle

Explore methods to increase awareness of the campus shuttle bus, and review the schedule for frequency and the stop locations. Create signage to make stops more visible and post a schedule. Consider methods to increase the reliability of the service and provide real-time updates for users.

Rationale: Of the Fort Garry respondents who do not currently use the campus shuttle bus, 28% were unaware of the schedule and 17% did not know about the service. An inconvenient route/stop locations (10%) and infrequent or inconsistent service were also cited as reasons they do not use the shuttle bus (Section 10).

C.4 Bus Fare for Workday Trips

Consider a pilot project to provide bus fare (single tickets or a pre-loaded Peggo card handled by an administrator) for faculty and staff for workday trips. This would enable those who bike, walk or carpool as a passenger to campus the option of transit for work-related trips without needing to bring their personal vehicle.

Rationale: Both faculty and staff indicated interest in this option, with 53% of Fort Garry respondents and 64% of Bannatyne respondents ranking bus fare for work-related trips as Extremely or Very Important (Section 13).

D. REDUCE NEED FOR USE OF PERSONAL VEHICLE

D.1 Fort Garry Bike Fleet Program

Continue to expand the Fort Garry and Smartpark bike fleet program for faculty members and staff to additional departments. Increase awareness of buildings where bikes are already available.

Rationale: A total of 30% of staff and 24% of faculty member respondents at Fort Garry campus and Smartpark indicated interest in accessing a fleet bike if available and identified their building (Section 11).

D.2 Online Meeting Technology

Promote the availability and encourage use of the existing videoconferencing centres.



E. INCREASE PROMOTION AND COMMUNICATION

E.1 Online Transportation Resources and Orientations

Continue to promote transportation resources on the UM website to increase awareness of all commuting options and resources available at the University. Include information in orientation package for new students and onboarding of staff, and through the parking office. Explore signage at the entrance of parking lots to encourage sustainable modes.

E.2 GoManitoba Tools

Link UM's online information to the GoManitoba subsite as the hub for transportation resources and tools. Take advantage of the contest, tracking, and mentorship tools of GoManitoba to help promote all transportation-related events and news.

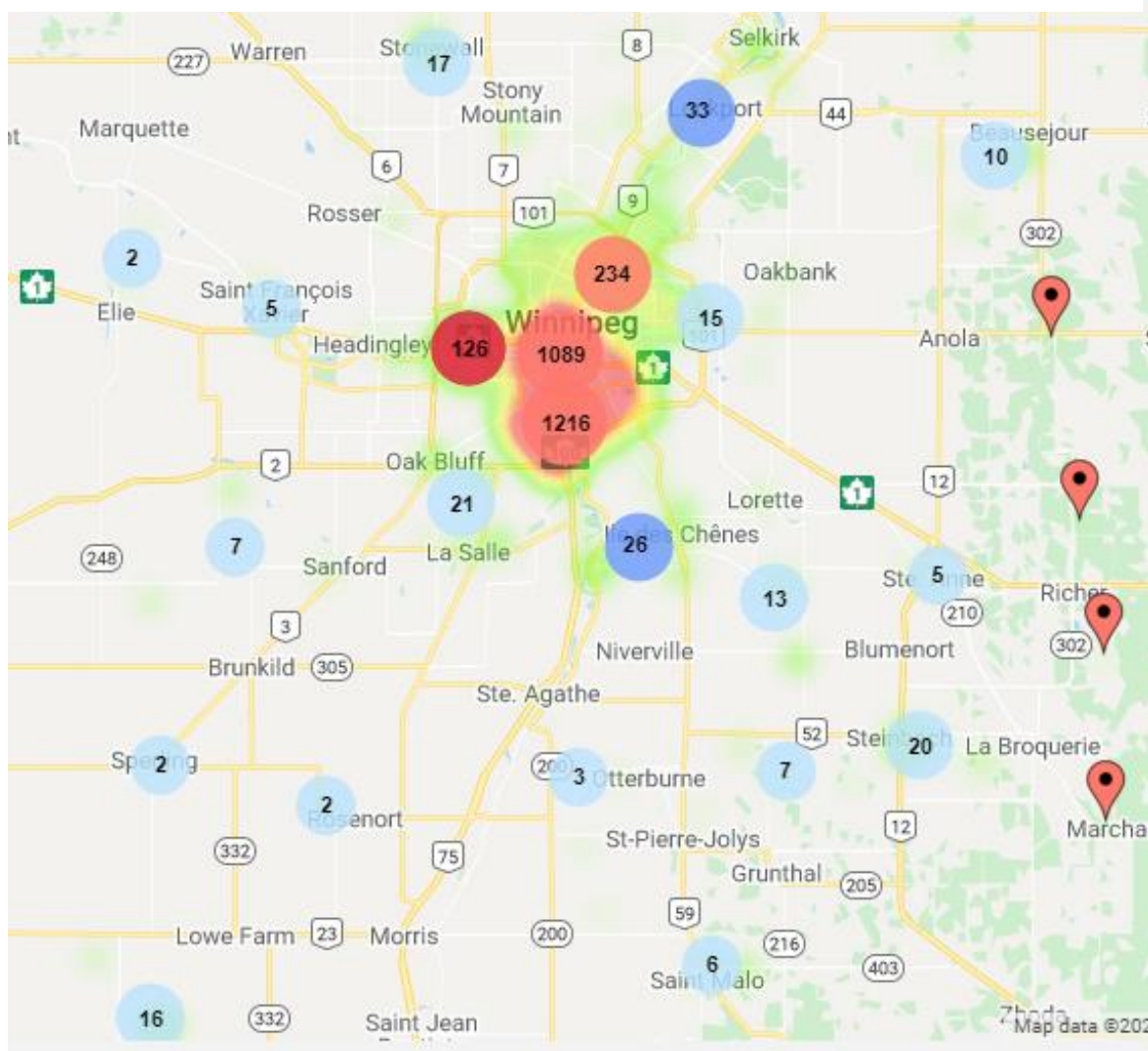
E.3 Targeted Promotion

Use targeted promotion by season and by affiliation to increase awareness of existing resources (Section 15), and heavily promote new commuting-related programs and infrastructure both at the time of introduction and during infancy.

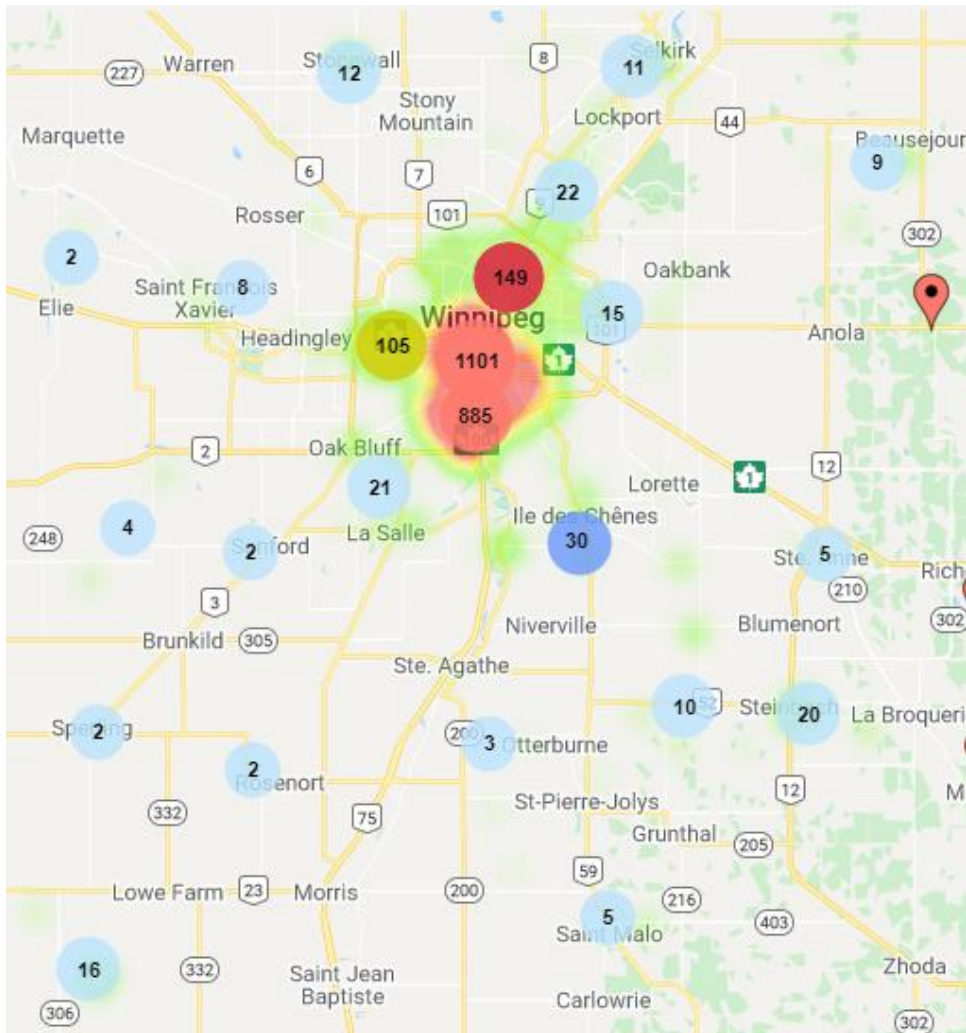


Appendix A: Regional Geographic Distribution of Respondents

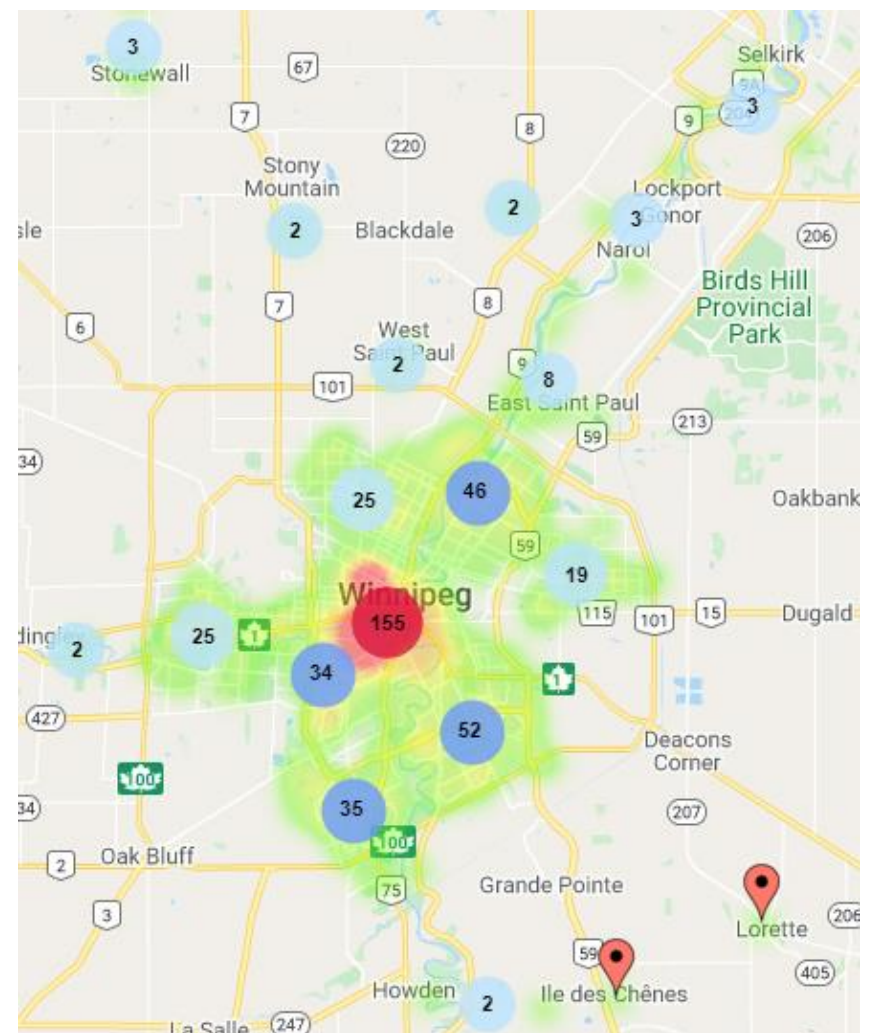
Regional Distribution: ALL Respondents



Regional Distribution: FORT GARRY Respondents



Regional Distribution: BANNATYNE Respondents



Appendix B: Calculation of Confidence Intervals

Per Person Emissions = $\pm 1.96 [(variance/n) \times (N-n/N)]^{1/2}$

Total Emissions = $\pm 1.96 [N^2 \times (variance/n) \times (N-n/N)]^{1/2}$

where,

N=total persons (39,752*);

n=survey respondents (3,185);

Type of Emission	Variance	Per Person Confidence Interval	All Persons Confidence Interval
CO ₂	1,632,870.726	±42.56	±1,692,024
CH ₄	0.006108516	±0.0026	±103.49
N ₂ O	0.000134936	±0.000387	±15.38
GHG	1,646,297.687	±42.74	±1,698,966

* The total campus population for 2020 was confirmed after the calculations were completed as 39,234.

Appendix C: GHG Emissions Factors

GHG emissions are calculated based on fuel emissions factors, vehicle fuel efficiency data, commute distance provided by respondent, and Winnipeg Transit fuel usage and ridership 2014 data (the most recent available).

Fuel emissions factors used in this calculation include (based on The Climate Registry 2016 data):

CO₂ - Gasoline: 2.31 kg/L
 CO₂ - Diesel: 2.68 kg/L
 CH₄ - Gasoline: 0.00014 kg/L
 N₂O - Gasoline: 0.000022 kg/L

Vehicle fuel efficiency data (L/100 km) is based on vehicle class averages for the top 5 models with exceptions*. If the vehicle type is not provided, the average fuel efficiency factor is derived from an average of all responses.

Subcompact = 7.7
 Compact = 7.9
 Mid-size = 8.0
 Large van or SUV = 9.3
 Transit Plus = 10.8
 Truck = 13.0
 Full-size = 10.4
 Minivan/Crossover = 11.5
 Hybrid/electric = 4.0*
 Motorcycle = 5.0*
 Scooter = 2.0*

* *General estimates based on internet search*

Commute distances are calculated automatically through Google mapping technology based on employee home postal codes as provided by respondent.

Carpool emissions are based on the fuel emissions factor, vehicle fuel efficiency data, commute distance, and number of adult carpoolers (including driver) indicated.

Transit emissions are calculated based on commute distance and annual fuel usage and ridership data provided by Winnipeg Transit.

Park and Ride emissions are based on vehicle fuel efficiency data, commute distance from home postal code to park and ride site, transit emissions formulas, and commute distance from park and ride site to primary work address.

Appendix D: ‘Other’ Parking Pass Preferences

Similar to the 2018 survey, campus community members were asked about their preference for specific types of parking pass options. The question stems from the 2016 survey, in which survey respondents indicated an interest in more flexibility in parking passes.

A total of 235 respondents in the 2020 survey chose ‘Other’ for their parking pass preference, with 180 of those respondents providing specific preferences. Preferences identified by at least 5 or more respondents are summarized below. In addition to the one-off comments, three respondents suggested a pass similar to a Peggo card with purchasers able to choose a value and run it down before reloading, and two respondents requested that parking fees be deducted at payroll.

n=180	# Comments	% Comments
Yearly / Annual	58	32%
Leave as is	20	11%
Ability to pick 3 days Custom day pass	16	9%
Surface lot flex pass	16	9%
Cheaper / Free parking	16	9%
Mon-Thurs Mon-Fri Mon-Thur-Fri	14	8%
Ability to pause in summer / Flex summer	13	7%
Hourly / metered	9	5%
Seasonal / Semester / Term	8	4%
Daily 1 Day	5	3%
Reciprocal parking between campuses	5	3%

Appendix E: ‘Other’ Suggestions to Improve Fort Garry Campus Shuttle Bus

When asked for suggestions how to improve the Fort Garry campus shuttle bus, 546 respondents chose ‘Other’. These respondents provided a total of 618 suggestions as summarized below.

n=618	# Comments	% Comments
Promotion	267	43%
Other	128	21%
Schedule	80	13%
App/Technology	78	13%
Route	46	7%
Stations/Stops	19	3%

Appendix F: Influences on Commute Choice by Affiliation and Campus

UNDERGRADUATE STUDENTS - FORT GARRY [n=1734]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	1150	24%	26%	30%	20%
On-campus bikesharing program	1195	13%	20%	33%	33%
Improved cycling infrastructure	1244	33%	28%	25%	14%
Improved walking infrastructure	1563	45%	31%	17%	7%
More locations with showers and lockers	1422	20%	23%	34%	23%
Access to a bike	1250	18%	24%	33%	26%
Bike valet system	1257	15%	19%	34%	33%
Route finding tools	1374	18%	25%	32%	25%
TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	1628	74%	16%	7%	3%
More direct routes to and from campus	1602	66%	18%	11%	6%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	1388	24%	26%	34%	16%
Assistance finding a carpool partner	1381	22%	23%	34%	21%
Emergency Ride Home program (GoManitoba)	1197	25%	25%	30%	20%

PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	1471	43%	27%	22%	8%
Electric vehicle charging stations	1075	23%	22%	29%	26%
Designated parking for mopeds/scooters	998	15%	16%	30%	38%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Affordable student housing on or close to campus	720	20%	22%	24%	34%
On-campus child care facilities	1248	48%	25%	16%	11%
Events and resources	1394	25%	26%	32%	17%

UNDERGRADUATE STUDENTS - BANNATYNE [n=67]

CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	50	28%	34%	24%	14%
On-campus bikesharing program	50	4%	16%	22%	58%
Improved cycling infrastructure	52	31%	33%	21%	15%
Improved walking infrastructure	61	38%	38%	20%	5%
More locations with showers and lockers	58	21%	19%	41%	19%
Access to a bike	53	17%	17%	36%	30%
Bike valet system	53	17%	15%	32%	36%
Route finding tools	56	14%	14%	43%	29%

TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	53	59%	17%	17%	7%
More direct routes to and from campus	54	64%	21%	9%	6%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	58	17%	19%	41%	22%
Assistance finding a carpool partner	58	19%	19%	26%	36%
Emergency Ride Home program (GoManitoba)	49	18%	24%	31%	27%
PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	59	31%	34%	24%	12%
Electric vehicle charging stations	48	23%	21%	29%	27%
Designated parking for mopeds/scooters	46	13%	7%	41%	39%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
On-campus child care facilities	37	16%	19%	35%	30%
Affordable student housing on or close to campus	49	22%	27%	35%	16%
Events and resources	51	18%	27%	35%	20%

GRADUATE STUDENTS - FORT GARRY [n=285]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	220	42%	27%	22%	9%
On-campus bikesharing program	217	20%	24%	32%	24%
Improved cycling infrastructure	235	50%	31%	14%	6%
Improved walking infrastructure	254	48%	27%	20%	6%
More locations with showers and lockers	245	22%	23%	30%	25%
Access to a bike	215	29%	28%	27%	17%
Bike valet system	233	16%	20%	36%	28%
Route finding tools	236	21%	25%	32%	22%
TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	272	75%	18%	7%	1%
More direct routes to and from campus	263	61%	18%	15%	6%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	218	22%	29%	32%	17%
Assistance finding a carpool partner	221	26%	27%	29%	18%
Emergency Ride Home program (GoManitoba)	197	25%	29%	32%	14%

PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	230	43%	27%	20%	10%
Electric vehicle charging stations	178	22%	28%	30%	21%
Designated parking for mopeds/scooters	169	17%	25%	28%	30%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Affordable student housing on or close to campus	143	32%	31%	17%	20%
On-campus child care facilities	218	56%	23%	13%	8%
Events and resources	249	29%	28%	28%	14%

GRADUATE STUDENTS - BANNATYNE [n=140]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	91	41%	19%	26%	14%
On-campus bikesharing program	94	14%	17%	27%	43%
Improved cycling infrastructure	99	44%	32%	15%	8%
Improved walking infrastructure	112	42%	31%	15%	12%
More locations with showers and lockers	109	17%	27%	33%	23%
Access to a bike	89	28%	24%	26%	22%
Bike valet system	98	15%	18%	31%	36%
Route finding tools	108	19%	24%	27%	30%

TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	127	65%	17%	9%	8%
More direct routes to and from campus	126	78%	12%	5%	6%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	114	32%	25%	25%	18%
Assistance finding a carpool partner	114	25%	27%	25%	23%
Emergency Ride Home program (GoManitoba)	96	30%	22%	24%	24%
PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	121	47%	24%	17%	12%
Electric vehicle charging stations	83	20%	12%	29%	39%
Designated parking for mopeds/scooters	78	9%	15%	19%	56%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
On-campus child care facilities	64	41%	8%	14%	38%
Affordable student housing on or close to campus	94	41%	13%	21%	24%
Events and resources	117	27%	15%	32%	26%

FACULTY - FORT GARRY [n=280]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	189	35%	23%	20%	22%
On-campus bikesharing program	178	7%	10%	28%	56%
Improved cycling infrastructure	198	56%	18%	12%	14%
Improved walking infrastructure	232	43%	22%	21%	14%
More locations with showers and lockers	198	19%	17%	24%	39%
Access to a bike	170	10%	8%	27%	55%
Bike valet system	197	9%	10%	29%	52%
Route finding tools	189	4%	8%	24%	64%
TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	216	50%	23%	17%	9%
Bus fare for work-related trips	201	24%	12%	24%	39%
More direct routes to and from campus	221	55%	23%	13%	9%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	193	13%	23%	31%	34%
Assistance finding a carpool partner	184	15%	28%	22%	34%
Emergency Ride Home program (GoManitoba)	174	18%	21%	26%	36%

PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	233	29%	24%	24%	24%
Electric vehicle charging stations	172	18%	17%	20%	44%
Designated parking for mopeds/scooters	147	7%	10%	17%	66%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Affordable student housing on or close to campus	133	23%	14%	10%	53%
On-campus child care facilities	207	22%	15%	29%	33%
Events and resources	215	8%	12%	33%	47%

FACULTY - BANNATYNE [n=73]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	55	45%	15%	24%	16%
On-campus bikesharing program	50	4%	4%	24%	68%
Improved cycling infrastructure	58	50%	26%	9%	16%
Improved walking infrastructure	61	30%	23%	31%	16%
More locations with showers and lockers	56	29%	27%	25%	20%
Access to a bike	39	10%	10%	18%	62%
Bike valet system	54	11%	19%	28%	43%
Route finding tools	52	6%	13%	21%	60%

TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	56	50%	13%	25%	13%
Bus fare for work-related trips	55	24%	24%	24%	29%
More direct routes to and from campus	57	58%	21%	12%	9%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	47	4%	13%	45%	38%
Assistance finding a carpool partner	47	17%	11%	36%	36%
Emergency Ride Home program (GoManitoba)	41	22%	15%	22%	41%
PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	58	26%	16%	22%	36%
Electric vehicle charging stations	41	5%	22%	29%	44%
Designated parking for mopeds/scooters	38	3%	11%	13%	74%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
On-campus child care facilities	37	16%	19%	35%	30%
Affordable student housing on or close to campus	49	22%	27%	35%	16%
Events and resources	51	18%	27%	35%	20%

STAFF - FORT GARRY [n=859]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	554	34%	25%	23%	17%
On-campus bikesharing program	516	10%	13%	30%	47%
Improved cycling infrastructure	598	44%	28%	16%	12%
Improved walking infrastructure	669	40%	29%	20%	11%
More locations with showers and lockers	586	22%	20%	29%	30%
Access to a bike	506	17%	22%	23%	38%
Bike valet system	564	14%	16%	31%	39%
Route finding tools	553	10%	13%	30%	47%
TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	599	52%	25%	15%	9%
Bus fare for work-related trips	556	35%	23%	22%	19%
More direct routes to and from campus	604	51%	25%	15%	8%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	613	18%	27%	28%	26%
Assistance finding a carpool partner	592	16%	27%	31%	26%
Emergency Ride Home program (GoManitoba)	555	18%	28%	28%	25%

PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	661	29%	22%	25%	25%
Electric vehicle charging stations	432	11%	18%	25%	45%
Designated parking for mopeds/scooters	414	9%	13%	28%	51%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Affordable student housing on or close to campus	335	32%	18%	14%	35%
On-campus child care facilities	628	28%	25%	29%	18%
Events and resources	636	11%	20%	39%	30%

STAFF - BANNATYNE [n=234]					
CYCLING / WALKING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Additional secure bike parking	138	41%	27%	14%	17%
On-campus bikesharing program	120	8%	13%	21%	58%
Improved cycling infrastructure	141	41%	24%	15%	20%
Improved walking infrastructure	156	37%	29%	18%	17%
More locations with showers and lockers	144	21%	28%	24%	28%
Access to a bike	125	26%	20%	15%	39%
Bike valet system	139	16%	17%	24%	44%
Route finding tools	141	13%	13%	33%	41%

TRANSIT	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Increased frequency and space on buses	177	53%	25%	14%	8%
Bus fare for work-related trips	172	42%	26%	20%	12%
More direct routes to and from campus	176	63%	18%	10%	10%
CARPOOLING	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Preferential parking for carpoolers	161	16%	24%	33%	27%
Assistance finding a carpool partner	153	15%	33%	29%	22%
Emergency Ride Home program (GoManitoba)	152	21%	27%	30%	22%
PARKING and FACILITIES	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
Flexible parking permit	162	31%	26%	21%	22%
Electric vehicle charging stations	107	12%	9%	31%	48%
Designated parking for mopeds/scooters	102	6%	20%	26%	48%
OTHER	Number Responses	Extremely important	Very important	Somewhat important	Unimportant
On-campus child care facilities	93	38%	17%	12%	33%
Affordable student housing on or close to campus	163	33%	25%	28%	14%
Events and resources	161	15%	23%	34%	28%

Appendix G: Additional Comments

Comments are summarized below by category to assess the level of interest for each. Key issues are explored further on the following pages.

	Bannatyne [n=140]		Fort Garry [n=718]	
Category	# Comments	% Comments	# Comments	% Comments
1. TRANSIT		52%		70%
a. U-Pass	8	6%	38	5%
b. Schedule/Routes	39	28%	244	34%
c. EcoPass	4	3%	35	5%
d. Bus Stations/Stops	--	0%	18	3%
e. Overcrowding/Pass-ups	5	4%	108	15%
f. Other	17	12%	58	8%
2. CYCLING		21%		13%
a. Parking	5	4%	14	2%
b. Repair Stations	1	1%	1	0%
c. Safety/Infrastructure	17	12%	65	9%
d. Other	6	4%	15	2%
3. WALKING	2	1%	47	7%
4. CARPOOLING	7	5%	28	4%
5. DISTANCE/TIME/FLEXIBILITY	10	7%	65	9%
6. VEHICLE PARKING		22%		15%
a. Electric Charging Stations	2	1%	5	1%
b. Other	29	21%	102	14%
7. FAMILY/CHILDCARE	7	5%	10	1%
8. OTHER	26	19%	90	13%

The following is a break down of comments by category and most frequently cited topics.

1. TRANSIT

a. U-Pass

- i. Most significant has been the drop in comments related to the U-Pass compared with the 2018 campus commute survey, which now account for just 5-6% of comments at both Fort Garry and Bannatyne Campus.
- ii. Those who complain are often in neighbourhoods with poor transit service, so the pass is viewed as an unfair fee since they view the services as inaccessible.

“Allow people to opt out of the bus pass. There are people that live 45 minutes away from the u of m and transit is a 90 minute commute. No student should be required to pay for a parking passing if they are unable to use it.”

“Get rid of the Upass. Not everyone should pay for a service that benefits only some. Transit is not an option for everyone and students do not have a lot of money.”
- iii. As the U-Pass has led to more transit ridership, some comments request the service be extended into the summer or to part-time students.

“The bus is my only form of commuting to campus as a graduate student. Please offer year round bus passes.”

“Please keep the Upass! Its so important!! Also summer upass because here on the bannatyne campus we have class until the end of june. And we start in august”
- iv. Comments also touched on the lack of capacity for transit to meet the current demands.

“The idea of the U-Pass is fantastic, however, I've almost exclusively stopped bussing due to the horrendous Winnipeg Transit services. Busses on popular routes fill up fast and leaves riders stuck at a stop for long periods of time which most university students cannot accommodate into their schedules.”

b. Schedule/Routes

- i. By far, most transit comments related to the reliability of the transit schedule. This either prevents people from choosing the bus, or leaves those who take the bus with an unenjoyable commute.
- ii. Many comments focused on how much longer their trip is by transit, as opposed to driving.

“The key thing for me is transit inefficiency. I can drive to Bannatyne from my house in about 15 minutes; the shortest transit route will take over an hour. It's just not feasible or practical. I would love to take transit.”

“I would prefer to use my U Pass to bus to school, but find it very impractical because of the unreliability of bus schedules during peak hours and the profound discrepancy between times estimated by the Winnipeg Transit trip planner and the actual travel time (often being double or more the estimated time)”

- iii. Commenters also noted their desire for a frequent transit system.

“Frequent Bus 36 Maples. There are a lot of students trying to get into Bus 36 but it only arrives every 30~minutes. Plus it almost never arrives on time regardless of how early I get to the bus stop. We would wait outside the freezing weather and the bus would arrive 20+mins late than its scheduled arrival.”

I bought my house so it was on 2 direct transit lines to work - if one is cancelled, at least I have the other. The decision to not drive to work, and rely on transit, significantly limited where I considered living, because the transit system is so poor in Winnipeg - infrequent service, which means transfers can take a long time. I would like to see the University of Manitoba become a stronger voice for a modern transit system - 10 min service, rapid bus transit (not just to the Fort Garry campus). Many different academic disciplines do work that supports better urban design and a well functioning, frequent service transit system to support the shift from cars to active transportation.

I tried transit for a year. The morning commute was delightful (I left my house at 6:10 am). The ride was 3x longer but stress free. However, going home was a nightmare. Buses were full and passed by you. Connections were unreliable. In cold weather my time to go home would sometimes increase from 60 to 90 minutes. I decided to stop transit based on the unreliability. Carpooling through a website was not on my radar until today.

- iv. Many noted how poor commutes negatively affect students, faculty and staff.

Buses are unreliable, few and far between, never on time, often full. I lose a lot of time because of this and it is affecting my studies and psychology.

It would be nice not to have to catch a bus at 6:38 for an 8:30 class just because the buses get so packed and the first 36 that goes onto McPhillips is the only one that has some seats available (standing for sometimes over an hour is horrible for people with mobility issues). An additional route that passes Through McPhillips/Inkster would be incredible to take the load off of the 36, which is notorious for getting packed within its first few stops. If you live even a little ways away from Maples along the 36 route it is pretty much guaranteed you will be standing for the rest of the route. It also stops showing up after 9 am through to 2 pm so that means I have to take 3 buses to get home after morning/afternoon classes.

c. EcoPass

- i. We noticed a rise in the number of staff and faculty commenting on their desire to have an EcoPass. It was noted how the cost of a parking pass was comparable to the cost of a full-rate bus pass, so it's difficult to justify the change financially.

Please provide the EcoPass!!!! Paying the full Adult fare actually costs more per month than UM parking.

I really think getting the EcoPass for staff would be huge. The cost of monthly bus passes is probably one of the biggest reasons so many staff decide to drive. Plus I think it's a great reward for those of us who decide not to drive.

d. Bus Stations and Stops

- i. Since the University reconfigured the bus routes on the Fort Garry Campus two years ago, we have seen a substantial drop in comments about the new stations and routes. Comments now mainly request more shelters and heated shelters, as well as some comments on signals and traffic flow.

A bus shack on EB Pembina @ Chancellor Matheson (#60096) is very much needed! The street is very windy and often you are waiting for 20+ minutes for a transfer with room for you. Many students wait at this stop.

The bus shelters in winter are often not heated, so when a bus is full and you have to wait an extra 30 minutes and its below 30 out there, it starts to become more dangerous than uncomfortable. Additional heated shelters in the winter, especially at the agriculture stop at fort garry is almost necessary.

the bus routes on campus especially University Crescent during rush hour impede foot and vehicle traffic. Having a bus lane or bus traffic light would help buses especially where they can't turn right on red.

e. Overcrowding and Pass-ups

- i. Overcrowding and pass-ups continue to be a source of complaints, especially at the Fort Garry campus.

The transit system is possibly the worst part of University. In consist arrival times, packed busses make it hard to plan my day. I waste so much time waiting for busses that won't come, and for some reason I'm forced to pay for a UPass. Winnipeg Transit do better.

Bus service is unacceptably unreliable and getting worse. More buses are needed, last week I got frostbite waiting after 5 buses in a row were too full to pick me up.

Commuting to the University is incredibly difficult by bus. It's a legitimate task. I regularly wait over 30 minutes for a bus that is not over capacity and have waited over an hour. I have repeatedly missed school and work because Transit is so overloaded.

- ii. Poor transit experiences and reputation will hinder the University's efforts to encourage community members to move from driving to transit.

I use to use transit in year 1 and year 1 but after MULTIPLE buses passing me everything single day I decided to drive my car. I was constantly late for school and wasting HOURS waiting and freezing outside in the cold with 20-40 people waiting at the bus stop. Transit is awful and I'd rather pay a fortune on parking than ever use transit again!

I've been driving the whole distance to university from out of the city for 5 years and never considered park and ride because I've heard from people that the buses are crowded, not frequent enough and unreliable.

I drive because it only takes 20-25 minutes to get to campus depending on the time of day versus 1.5 hours (3 hour round trip). Additionally, buses are not always reliable. I also don't feel comfortable busing at night and I study late on campus.

f. Other

Additional transit comments touched on safety issues, the expense of paying for parking and signage or displays.

- i. Safety

I fear about safety on the bus because I either encounter harassment on the bus or fights on the bus which make me feel unsafe so I would rather drive.

safety around the Bannatyne campus is an issue. I walk to the bus stop and have to wait, often alone. the time of day makes no difference to the perception of safety, and using SafeWalk to wait with me in case the bus is late/doesn't come seems like a poor use of resources

- ii. Signage/Displays

Bus schedule should be displayed at the entrance of all main buildings on campus such as University centre, EITC, Dofoe Library ETC. (Similar to St. Vital Centre back gate near Hudson's Bay)

A better online presence. I should be able to see if my bus is late (or early, using an App or Website. Current Winnipeg transit app is inadequate.

- iii. Other

If more busses could have bike racks then I could cut down my wait time from transfers (ie. take the main bus down Waverly, then get off to bike the rest of the way home down Taylor).

Improve the bus loading process. Have all-door loading at the UM stops.

Will there ever be a bus to and from Steinbach? Since there's a decent population of UM students living in and commuting daily from Steinbach.

2. CYCLING

a. Bike Parking

- i. Bike theft continues to be a deterrent, with users scared to risk having their bikes stolen, or having their bike being stolen leads them to no longer want to bike. Thus, there's a strong desire for more secure bike parking.

Having more safe bike parking spots in different areas of the Bannatyne campus would be great. Theft is the main deterrent for biking to work.

Biggest challenge / worry, is bike theft. I would bike to work year round if i could be sure that my bike would be safe and the possibility of bike theft would be minimized. With fewer people biking in the winter, the chances of my getting stolen is higher.

I used to ride bicycle 365 days a year - I now drive 100% of the time either car or motorcycle. Since the university has cracked down on bring bicycles into my building I have had to abandon commuting in a healthy fashion by bike. I had access to secure out of the way storage accessible only by a few staff. There are the steel individual bike lockers at Engineering but we have been told there is an 800 person waiting list and it is at additional cost on top of the monthly parking rate we already pay.

We need more bike lockers! I've been on the waiting list for 1.5 years. I have an expensive bike and it needs to be store in a secure location. I'm not permitted to store it in my office and I can't get a bike locker so I don't ride to work.

b. Bike Repair Stations

- i. Few survey takers commented on the bike repair stations. Those who did desire more, but the university may not find this is a good use of funds without more investigation.

I would love to see more bike repair options on campus

c. Safety/Infrastructure

- i. Comments referenced protected bike lanes as being important factors in their choice to bike.

Coming from a central Winnipeg location to the Fort Garry Campus the bike routes are pretty great especially with the addition of the newly opened bus rapid transit active transportation paths. Riding through the Southwood Lands is a great way to start the day too.

I live in Prairie Pointe. I had considered bicycling in to work during the spring and summer months. But, after finding that there weren't any good and safe bicycling routes all the way to campus (ones that I felt safe on while navigating through/across Pembina and without having to bicycle on the road with vehicles), I decided against bicycling to campus. Transit access in my area seems quite poor. So, I drive alone.

They have improved the amount of bike lanes going into downtown, but it is still challenging to maneuver from my home on the south side of Winnipeg.

I would like to cycle to campus during the summer months, but don't feel comfortable cycling on major roads. I would require a bike lane to consider cycling.

- ii. Survey takers noted their desire to bike over other modes.

I drive because it is by far the most convenient... I do not want to abruptly cut investments to vehicles but more investment in active transportation to give people a healthier choice would be appreciated.

- iii. Proper maintenance and snow removal are key to maintaining riders through the winter.

Keeping bike paths and walkways clear of snow/ice in winter will likely improve the number of people who are able to commute to work via bike/on foot.

I am riding more now that i have a winter bike. Snow clearing of the bike facilities at Bannatyne would be nice.

Because I live downtown I find it difficult to find connected cycling infrastructure through the winter time to the university campus, that is safe and cleared of snow.

d. Other

- i. Additional comments referenced the importance of shower facilities and shared bike systems, among other comments.

For active transportation the biggest thing holding me back is the limited access to showers since I would be going to work and/or class

I think the community bike sharing would be really cool.

Providing free cycling workshops and encouraging students to cycle .

How about an eco pass for cyclists to subsidize wear and tear to bikes during winter riding?

I would like more bike racks on busses. YOu can't schedule partial bike/bus travel as you can't tell which bus has a bike rack

3. WALKING

a. Sidewalks, Crosswalks and Speed Limits

- i. Most comments requested better sidewalks, crosswalks and enforcement of speed limits. Frequent comments requesting a pedestrian bridge to South St. Vital.

Better signage is needed for the pedestrian crossing on Dysart Road in front of the main entrance of the Wallace Building and the crossing at the north entrance of Lot A.

Paths to walk to the university are too icy to walk safely to school and are not well maintained. Including the paths on campus such as the chancellor mathason path.

1) Request Security Services better educate drivers and enforce campus speed limits, observance of pedestrian crossings, traffic signals, etc. I've nearly been run over on multiple occasions by drivers who blast through or ignore pedestrian crossings, go through red lights on a left turn, or who travel well beyond the 30 km/hr speed limit. 2) improve the riverside walking/bike trail through the old golf course between D'Arcy Drive and Sifton Road/campus. It is frequently muddy, rutted, bumpy in summer and uneven in winter.

Would love to see a footbridge across the river from Fort Garry campus to St. Vital for pedestrian and cycling use.

4. CARPOOLING

a. Positive Experience

- i. Comments from those who are carpooling already were positive.

I was lucky to find a convenient and friendly carpool through GoManitoba. The bus service is dreadful.

b. Carpooling Partners

- i. Comments from those desiring a carpool partner seem to be unaware of the GoManitoba tool. More promotion of GoManitoba would aid these individuals.

It would be great if the campus could do a carpooling program app to find other students taking the same route.

For finding carpool partners, area specific searches would be useful. I live in an area with a high number of UM staff. If we could connect easily, that would make me consider this more.

c. Perceived Barriers

- i. A perceived barrier to carpooling is that respondents assume no one near them would like to carpool or that their schedule wouldn't allow. Promoting carpooling as something to do part-time to start might encourage these individuals to try it.

5. DISTANCE / TIME / FLEXIBILITY

a. Live Outside City

- i. A majority of these comments are from those who live outside of the city, or in neighbourhoods with poor transit, so transportation choice is lacking.

I live outside of Winnipeg so walking or cycling are not viable options whatsoever. Also because I work part-time it is not feasible for me to carpool either. The only viable options I have are either driving and using Transit or just driving.

I commute into the city so answered the questions with relation to me in mind. However I support any effort to reduce the number of cars on the road and increase biking, walking and bussing.

6. PARKING

a. Electric Charging Stations

- i. With the coverage around electric vehicles, it was anticipated this might lead to comments around charging stations, however, less than 10 comments requested more stations.

b. Other

- i. Comments mostly focused on the flexibility of parking passes. The lack of flexibility leads to more driving when folks desire alternatives.
I would love to pause my parking pass in the summer and take the bus (at a subsidized rate) instead and then carpool in the winter.
I live in the St. Vital area and ride my bike in the summer months. I have a year round faculty parking pass, but would love a flex pass where I could waive my parking for those months.
I would really like the option to have a parking permit in Fall and Winter terms, not have one in Spring term (as I would like to ride my bike), and then have one again in Fall and Winter. My concern with cancelling my permit at the end of Winter term is that I may not get one back for the start of Fall term.
- ii. Comments also noted the expense of driving, which indicates lowering parking rates would increase the number of people commuting to campus in personal vehicles.
Parking needs to be more affordable. When bus passes went up, so did staff parking prices.
parking passes should be more affordable for students because we already pay a large fee to attend school. parking should be free or really cheap.

7. FAMILY/CHILDCARE

a. Childcare

- i. Having to pick-up and drop-off children at childcare is a barrier for many people who desire more sustainable options, but don't think transit or cycling are practical.
In a year or two, will not need to pick up kids after work, and will be looking to do more bus/biking to commute, if bike lanes are improved.
Being late to pick up my child is the main reason I choose car. I cannot rely on the bus. You catch a bus on time, then the bus stops, because the drivers stops in-between bus stops to get food and/or coffee. You sit on the bus stranded and voila, late for pick up. Happens all the time. Called 311 repeatedly, and nothing changes.
If I ever don't have a daycare issue, I'd love to be able to hire an experienced cyclist to ride with me the first time.