

**2020 University of Wisconsin-Milwaukee Transportation Survey  
Summary of Commute Impacts for UWM Greenhouse Gas Inventory**

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## Background

The UW-Milwaukee (UWM) Transportation Survey is a survey of the commuting practices of the entire UWM community, including students, faculty, and staff. The survey is used to collect key data used in UWM's Greenhouse Gas Inventory and to inform the campus's transportation initiatives. The survey gathers information about modes of transportation to campus, the distance from place of residence to campus, and attitudes regarding walking, bicycling, and taking the bus to UWM. Knowledge gained from the survey is intended to help UWM offer better transportation amenities, incentives, and programs to the campus population.

The UWM Transportation Survey was first conducted by the UWM Office of Sustainability in Fall 2008. Subsequent surveys have been conducted in Fall 2012, Fall 2014, Fall 2017, and Fall 2020. The main parts of this document describe the 2020 survey. The final section compares the 2020 results with previous survey results.

## Survey Design

Qualtrics survey software was used to design the 2020 UWM Transportation Survey. The survey included a combination of quantitative and qualitative (open-ended) questions. These questions captured the following information about individual respondents:

- Role at UWM (e.g., student, staff, faculty)
- Primary mode of transportation to campus
- Difference in mode of transportation by day
- Percentage of time spent using different transportation modes throughout the semester
- One-way commute distance
- Changes in commute habits over time
- Strategies to discourage commuting via driving and parking
- Demographics
- Adjustments to commute patterns since COVID-19
- Access to a reliable personal vehicle and bicycle
- Reported levels of satisfaction with commute
- Drivers' perceptions of other commute modes

While some of the 2020 UWM Transportation Survey questions were new, a core set of questions have been asked consistently since the survey was first conducted in 2008. These questions include respondent status at UWM, primary mode of transportation to campus, and one-way commute distance. The full survey instrument is included in Appendix A.

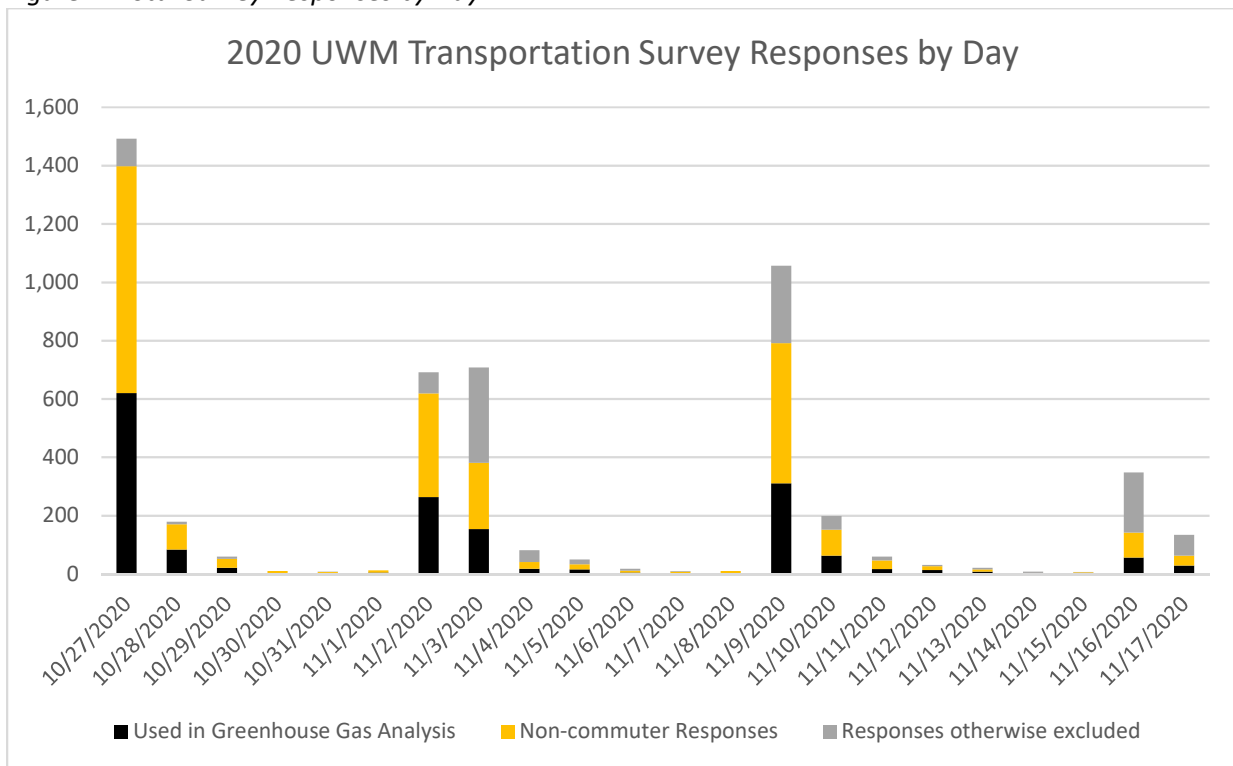
## Survey Distribution

In previous iterations of the UWM Transportation Survey, the target population was all UWM students, faculty, and staff. This included people associated with all UWM campuses. It also included people who commuted regularly to a UWM campus or mostly worked or studied from home, though detailed questions and the data analysis prior to 2020 focused on regular commuters. The target population of the 2020 survey was all UWM students, faculty, and staff who commuted to a campus or worked or studied from home during either the Fall 2019 or Fall 2020 semester. The sampling frame was all students, faculty, and staff with a current UWM e-mail account. The survey was distributed by email to the entire sampling frame. This was done by sending an anonymous Qualtrics survey link to all UWM e-

mail addresses. The survey was initially distributed on Tuesday, October 27, 2020. Follow-up reminder emails were distributed on Monday, November 2 and Monday, November 9. The survey remained open from October 27 until November 17, a total of 22 days. Throughout this period, a total of 5,188 unique individuals opened the survey, resulting in a raw response rate of 19.5% of the campus population (26,652 people).

Figure 1 summarizes the number of responses by day. The highest number of responses were received the first day of distribution. Other spikes in responses occurred on November 2, November 3, and November 9 when reminder emails were distributed. The reminder e-mails stated that the survey would close on November 13. A small surge in responses occurred on November 16 and 17, possibly due to people realizing that the deadline had passed but still wanting to register a response. For this reason, the survey was not closed officially until the end of November 17.

Figure 1. Total Survey Responses by Day



This chart includes all 5,188 responses: 1,683 used in the greenhouse gas analysis, 2,310 non-commuters, and 1,195 responses otherwise excluded (as detailed below).

There were notable differences in raw response rate by status at UWM. However, the exclusion of non-commuters from the greenhouse gas inventory reduced the usable response rate of each campus user type considerably. University employees (faculty and staff) were more likely than students to respond, and to have their responses contribute to the inventory (Table 1).

Table 1. Survey Responses for UWM Students, Faculty, and Staff

Classification	Campus Head Count	Raw Responses	Raw Response Rate	Non-Commuters	Responses Used for Greenhouse Gas Inventory	Greenhouse Gas Inventory Response Rate
Student	23,004	3,317	14.4%	1,501	1,067	4.6%
Faculty	729	334	45.8%	192	125	17.1%
Staff	2,919	1,161	39.8%	616	491	16.8%
No response		376		1	0	
<i>Total</i>	<i>26,652</i>	<i>5,188</i>	<i>19.5%</i>	<i>2,310</i>	<i>1,683</i>	<i>6.3%</i>

### Data Analysis

Of the 5,188 raw survey responses, 3,993 respondents finished the survey. Of these, 1,683 (6.3% of the campus population) were determined to be complete enough to use for the greenhouse gas inventory commuting analysis. Specifically, the following responses were excluded:

- 287 opened the survey but did not answer any questions
- 53 declined to participate
- 35 agreed to participate but did not answer any questions
- 1 did not indicate respondent type (student, staff, faculty)
- 283 indicated that they lived in Sandburg Hall or Purin Hall<sup>1</sup>
- 219 did not indicate commute mode
- 317 did not indicate commute distance<sup>2</sup>

Further, there were 2,310 non-commuters<sup>3</sup> in Fall 2020. This number of non-commuters is much higher than in previous years because of the large amount of remote working, teaching, and learning that occurred during the COVID-19 pandemic. Unlike previous iterations of the survey analysis, many of the 2020 analyses also focus on these non-commuters, so they are based on 3,993 responses (1,683 commuters + 2,310 non-commuters). Still, for direct comparison with previous surveys, only 1,683 responses were used for the specific greenhouse gas inventory commuting analysis.

Additionally, all UWM campus locations (e.g., Kenilworth Campus, School of Freshwater Sciences, School of Public Health, and School of Continuing Education) are considered together in the analysis for a complete understanding of UWM commute impacts.

<sup>1</sup> Due to reduced dorm capacities in the Fall 2020 semester, fewer students than typical reported living in Sandburg Hall or Purin Hall. Typically, more than 15% of students live in campus housing.

<sup>2</sup> Includes one unreadable response to the commute distance question (SurveyID 4818).

<sup>3</sup> Includes one response where the survey-taker indicated they commuted, but their subsequent answers stated that they do not commute because they participate in the remote UW Flexible Option program (SurveyID 4286).

## Results

The following sections summarize primary commute modes, commute distances, and commute frequencies reported by respondents. Each section is organized into separate categories for students, faculty, and staff. The data summarized below are for the Fall 2020 and Fall 2019<sup>4</sup> semesters, as noted.

### Primary Commute Mode

Among all respondents, most (57.9%) did not commute to any UWM campus during the Fall 2020 semester (Table 2). As this differs significantly from commuting in Fall 2017,<sup>5</sup> we are confident that this behavior can be attributed to the COVID-19 pandemic and the associated changes to campus activities in Fall 2020.<sup>6</sup> However, most responses from people associated with the School of Freshwater Sciences, the University Services and Research Building, UWM at Washington County, and UWM at Waukesha indicated that they did commute in Fall 2020 (Table 2). At both the Washington County and Waukesha campuses, students were the most likely group to commute to campus in Fall 2020 (Table B.1. in Appendix B).

Table 3 summarizes the percent breakdown of the primary modes of transportation used by UWM students, faculty, and staff for their commute to a UWM campus, including those who did not commute in Fall 2020. Table 4 summarizes the percent breakdown of the primary modes of transportation used by UWM students, faculty, and staff who commuted to a UWM campus in Fall 2020, excluding non-commuters. Table 5 summarizes the percent breakdown of the primary modes of transportation used by UWM students, faculty, and staff who commuted to a UWM campus in Fall 2019. The full breakdown with all transportation modes as separate categories is located in Appendix B.

Among all respondents not excluded from the analysis (see above), most did not commute to a UWM campus at all in Fall 2020 (Table 3). Because non-commuters make up such a large proportion of respondents, commute mode shares among each type of campus user are especially small in comparison with previous years. An interesting note is that 3.0% of respondents said they commuted in Fall 2020 but did not *usually* commute (Table 3). The “I don’t usually commute” mode option was intended to capture respondents who would normally work or take classes remotely in surveys conducted during pre-COVID-19 semesters. However, the Fall 2020 version first asked respondents whether they commuted at all in Fall 2020 and then asked for their typical commute mode (which included “I don’t usually commute” as an option).<sup>7</sup>

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<sup>4</sup> Survey respondents were asked to recall their commute behavior from Fall 2019. The 2019 questions were included to gather additional commuting information because so many members of the UWM community studied or worked remotely in Fall 2020.

<sup>5</sup> 0.8% of student respondents and 1.9% of both faculty and staff respondents indicated that they worked from home in Fall 2017.

<sup>6</sup> Example changes to UWM campus activities during Fall 2020 included: 1) approximately two-thirds of classes were offered online-only; 2) the remaining classes were offered as hybrid online and in-person classes where in-person capacity was limited and students could choose how to participate; 3) many staff worked remotely part- or full-time; 4) dorms were used at limited capacity, 5) UWM shuttles operated at 25% capacity; and 6) many athletic seasons were cancelled. On November 13, 2020 (while the survey was still open), UWM announced that all classes (with very few exceptions) would take place online after Thanksgiving recess (November 25-29, 2020).

<sup>7</sup> The new commute yes/no question likely changed the type of respondents who answered the mode question as “I don’t usually commute” because people who would normally work remotely would have answered “no” to the

Table 4 compares the mode shares of Fall 2020 commuters only. Of the 1,683 respondents who commuted to campus in Fall 2020 and who were not excluded from the analysis (as noted above), the highest proportion of all respondent types commuted via driving alone (Table 4). However, these proportions vary significantly between respondent types. Staff respondents were most likely to indicate that they usually commuted by driving alone to campus (79.9%), followed by faculty (65.8%), and students (44.0%). After driving alone, the next most common commute modes for students were bus (31.8%), walking (13.8%), and bicycling (4.7%). The same is true for faculty and staff, though the proportions are generally smaller. One exception is that faculty respondents were much more likely than other respondent types to commute via bicycle (12.5%) (Table 4).

To gain an understanding of how the COVID-19 pandemic affected the commuting behaviors of UWM students, faculty, and staff, the survey also asked respondents about their commutes during the Fall 2019 semester.<sup>8</sup> As expected, the most notable difference between the two semesters is the proportion of respondents who indicated that they worked from home or did not commute.<sup>9</sup> Among commuters, Fall 2019 mode shares are relatively similar to those of Fall 2020 among all respondent groups. However, the share of commuters who used the bus or UWM shuttle decreased from 24.0% in Fall 2019 to 1.4% in 2020. Public transportation was affected dramatically during the COVID-19 pandemic by capacity limits (no more than 15 passengers per Milwaukee County Transit System bus during most of the Fall 2020 semester) and general concerns about riding in an enclosed vehicle with other people.

Similar to the Fall 2020 commute questions, the survey asked whether respondents “commuted in the Fall 2019 semester”. Survey takers who responded that they *did* commute in 2019 were then asked for their commute mode. The wording and order of these questions may have caused some respondents who were students/faculty/staff in 2019 and worked or took classes from home to say that they didn’t commute in Fall 2019.<sup>10</sup> However, most people who reported not commuting in 2019 had been at UWM less than one year at the time the survey was open in Fall 2020, suggesting that their response was appropriate.<sup>11</sup>

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new question and then would not receive the mode question. The new group of respondents who answered “I don’t usually commute” are probably people who commuted to campus only a few times in Fall 2020, but didn’t consider themselves to commute “regularly” (likely due to COVID-19 related campus changes).

<sup>8</sup> The survey asks if the respondent “commuted in the Fall 2019 semester”, so some respondents who were students/staff/faculty in 2019 but worked from home or didn’t commute would say “no”. This skews the data slightly.

<sup>9</sup> The language differed slightly between the two surveys (2017 and 2020). The intention of the language change in 2020 was to capture those who would normally work from home in Fall 2020 and those who were not commuting as a result of the pandemic.

<sup>10</sup> 612 of the people who said they did not commute in Fall 2019 had been at UWM for at least one year when they completed the survey in Fall 2020.

<sup>11</sup> 943 of the people who said they did not commute in Fall 2019 had been at UWM for less than one year when they completed the survey in Fall 2020.

Table 2. Commute status by campus: Fall 2020

Campus	Percentage of respondents from each campus		
	Commuted <sup>1</sup>	Did not commute <sup>2</sup>	Number of responses
I would typically work from home	16%	84%	283
Kenwood Campus (main Milwaukee campus)	43%	57%	3,271
School of Continuing Education	21%	79%	43
School of Freshwater Sciences	79%	21%	29
University Services & Research Building	72%	28%	29
UWM at Washington County Campus	79%	21%	47
UWM at Waukesha Campus	69%	31%	111
Zilber School of Public Health	37%	63%	49
None of the above	40%	60%	127
Did not provide campus	50%	50%	4
Total	%	42%	58%
	n	1,683	2,310
			3,993

<sup>1</sup>Commuted: Includes the 1,683 respondents included in the analysis, including those who indicated that they commuted in Fall 2020 but mostly worked from home.

<sup>2</sup>Did not commute: Includes the 2,310 respondents who indicated they did not commute at all in Fall 2020.

Table 3. Mode share of all respondents: Fall 2020

Commute Mode	Mode Share of Respondent Type		
	Student	Faculty	Staff
Bicycle	1.8%	4.7%	1.6%
Walk <sup>1</sup>	5.3%	5.0%	2.5%
Drive alone <sup>2</sup>	16.8%	24.9%	33.4%
Carpool	0.7%	0.3%	0.8%
Bus <sup>3</sup>	12.1%	1.9%	2.0%
Commuter rail (train)	0.0%	0.0%	0.0%
Drop-off <sup>4</sup>	1.1%	0.6%	1.4%
Other	0.3%	0.3%	0.1%
Usually worked from home <sup>5</sup>	3.3%	1.6%	2.5%
Did not commute <sup>6</sup>	58.5%	60.6%	55.6%
Total responses <sup>7</sup>	2,569	317	1,107

<sup>1</sup>Walk: Includes walk/run, wheelchair, and skateboard/longboard

<sup>2</sup>Drive alone: Includes personal vehicle with driver only and motorcycle/scooter

<sup>3</sup>Bus: Includes bus and UWM shuttle

<sup>4</sup>Drop-off: Includes personal vehicle drop off and rideshare drop-off (e.g., Uber, Lyft).

<sup>5</sup>Usually worked from home: Includes those who indicated that they commuted in Fall 2020, but mostly worked from home.

<sup>6</sup>Did not commute: Includes those who indicated that they did not commute in Fall 2020.

<sup>7</sup>Total responses = 3,993. This total includes the 1,683 respondents who commuted and the 2,310 respondents who did not commute to campus for the Fall 2020 semester. The percentages for each mode are based on the totals in the bottom row.

Table 4. Mode share of all respondents who commuted in Fall 2020

Commute Mode	Mode Share of Respondent Type		
	Student	Faculty	Staff
Bicycle	4.7%	12.5%	3.9%
Walk <sup>1</sup>	13.8%	13.3%	6.0%
Drive alone <sup>2</sup>	44.0%	65.8%	79.9%
Carpool	1.8%	0.8%	1.9%
Bus <sup>3</sup>	31.8%	5.0%	4.8%
Commuter Rail (train)	0.1%	0.0%	0.0%
Drop-off <sup>4</sup>	3.0%	1.7%	3.2%
Other	0.8%	0.8%	0.2%
Total responses <sup>5</sup>	981	120	463

<sup>1</sup>Walk: Includes walk/run, wheelchair, and skateboard/longboard

<sup>2</sup>Drive alone: Includes personal vehicle with driver only and motorcycle/scooter

<sup>3</sup>Bus: Includes bus and UWM shuttle

<sup>4</sup>Drop-off: Includes personal vehicle drop off and rideshare drop-off (e.g., Uber, Lyft)

<sup>5</sup>Total responses: These totals include the 1,683 respondents included in the analysis, minus the 119 who indicated that they usually worked from home. The percentages for each mode are based on the totals in the bottom row.

Table 5. Mode share of all respondents who commuted in Fall 2019

Commute Mode	Mode Share of Respondent Type		
	Students	Faculty	Staff
Bicycle	3.0%	8.8%	3.3%
Walk	11.1%	12.4%	5.0%
Drive alone	42.3%	65.1%	73.0%
Carpool	2.4%	2.0%	3.5%
Bus	38.9%	9.8%	12.4%
Commuter rail (train)	0.0%	0.0%	0.2%
Drop-off	1.6%	1.0%	1.7%
Other	0.8%	1.0%	0.9%
Total responses	1,175	307	1,136

<sup>1</sup>Walk: Includes walk/run, wheelchair, and skateboard/longboard

<sup>2</sup>Drive alone: Includes personal vehicle with driver only and motorcycle/scooter

<sup>3</sup>Bus: Includes bus and UWM shuttle

<sup>4</sup>Drop-off: Includes personal vehicle drop off and rideshare drop-off (e.g., Uber, Lyft)

<sup>5</sup>Worked from home: Includes those who indicated they commuted in Fall 2019, but mostly worked or took classes from home.

<sup>6</sup>Total responses: These totals include the 2,632 respondents who provided their primary commute mode for the Fall 2019 semester, minus the 119 who indicated that they usually worked from home. The percentages for each mode are based on the totals in the bottom row.

## Commute Distance

Staff respondents had the highest average one-way distance traveled to campus for all modes of transportation combined (13.04 miles). The average distance traveled for students and faculty is more than three miles shorter than staff, at 10.00 miles and 8.93 miles respectively. As expected, people who drove alone or carpooled tended to have the longest commutes, and people who walked and bicycled tended to have the shortest commutes. Table 6 displays the average distance for each primary mode of transportation used by UWM students, faculty, and staff.

*Table 6. Average Distance for the Primary Commute Mode to UWM Campus*

Commute Mode	Average Distance (mi)		
	Students	Faculty	Staff
Bicycle	1.62	2.57	4.25
Walk	0.75	0.84	1.32
Wheelchair	-	-	-
Skateboard/Longboard	1.79	-	-
Personal vehicle with driver only	15.13	13.86	15.03
Motorcycle/Scooter	5.67	-	4.10
Carpool	11.79	17.00	14.47
Bus	5.10	2.67	3.77
UWM Shuttle	4.46	-	1.70
Commuter rail (train)	30.00 <sup>2</sup>	-	-
Personal vehicle drop-off (no parking)	7.56	6	10.71
Rideshare vehicle drop-off (Uber/Lyft)	5.52	-	16
Other	10.38	8.00	8.00
<b>Total Average</b>	<b>8.93</b>	<b>10.00</b>	<b>13.04</b>
Total Responses <sup>1</sup>	1,067	125	491

<sup>1</sup>These totals include the 1,683 respondents who provided enough information for commute analysis. The percentages for each mode are based on these totals. The “work from home” category is not shown as a separate row, but the total average distances and total responses do include people who said that they commute but selected “work from home.”

<sup>2</sup>Only one respondent commuted via commuter rail, so this is a single reported commute distance rather than an average distance. This respondent lives in Racine, where there is a nearby stop on the Amtrak Hiawatha route.

There are exceptions to the general trend of automobile users having the longest commutes. For example, 28.2% of students, 31.6% of faculty, and 22.6% of staff who drove alone to UWM commuted 5 miles or less. Table 7 shows additional percentages for those who drove alone and commuted 2 miles or less and 3 miles or less. These particular groups of short-distance drivers may have the potential to shift to other modes (since many other short-distance commuters already walk, bicycle, and take the bus), representing an opportunity to increase sustainable commuting to UWM. Interestingly, the proportions of drivers who commuted short distances in Fall 2020 are higher among all respondent types than in Fall

2017.<sup>12</sup> This suggests that short-distance commuters shifted toward driving during the COVID-19 pandemic. This could be due to greater automobile parking availability or lower parking prices.<sup>13</sup>

*Table 7. Percent of Automobile Users Who Commuted Short Distances, Driver only*

Distance	Students	Faculty	Staff
2 miles or less	20.3%	15.2%	13.0%
3 miles or less	22.1%	25.3%	15.5%
5 miles or less	28.2%	31.6%	22.6%

### Commute Frequency

Staff respondents made the most trips to and from campus per week with an average of 7.1 trips (i.e., traveled to campus an average of about 3.5 times per week). Faculty and students made slightly fewer trips to and from campus than staff with an average of 6.6 and 7.0 trips per week, respectively. The average number of trips was lower in Fall 2020 than in Fall 2017 for all respondent types. This may be indicative of people working from home more during the COVID-19 pandemic. Table 8 shows the commute frequency for each primary mode of transportation used by UWM students, faculty, and staff.

*Table 8. Commute Frequency to and from UWM Campus per Week<sup>1</sup>*

Commute Mode	Average Number of Trips		
	Students	Faculty	Staff
Bicycle	5.04	5.16	6.96
Walk	6.52	6.12	6.68
Wheelchair	-	-	14.00
Skateboard/Longboard	6.93	-	-
Personal vehicle with driver only	5.38	6.40	6.86
Motorcycle/Scooter	3.20	-	7.34
Carpool	4.48	4.00	8.40
Bus	6.73	8.40	7.20
UWM Shuttle	6.76	-	2.00
Commuter Rail (Train)	4.00	-	-
Other	7.25	6.00	6.00
<b>Total Average</b>	<b>6.98</b>	<b>6.62</b>	<b>7.08</b>
Total Responses <sup>2</sup>	1,067	125	491

<sup>1</sup>In this table, commute trips to and from UWM are considered separately, so one round-trip commute to and from UWM is two commute trips.

<sup>2</sup>These totals include the 1,683 respondents who provided enough information for commute analysis.

<sup>12</sup> The percentages of students, faculty, and staff automobile users who commuted 5 miles or less in 2017 were 17.4%, 30.9%, and 17.5%, respectively.

<sup>13</sup> On average, Kenwood campus parking permits were discounted by approximately 25% during the 2020-2021 school year.

### Historic Mode Share Comparison

Our final analysis shows UWM commute mode share trends over time for students (Table 9), staff (Table 10), and faculty (Table 11). We used older versions of the UWM Transportation Survey to summarize respondent mode shares from 2008, 2012, 2014, and 2017. We reported the 2019 and 2020 mode shares from the 2020 survey.

Note that the UWM Transportation Survey has generally improved over time through changes to survey questions, response options, and the overall survey organization. However, these changes make direct comparisons over time challenging. Still, the core question about the main mode used by campus commuters has stayed relatively consistent through each iteration of the survey, so we summarize the mode shares from this question as consistently as possible. The footnotes to each table describe key differences in how the responses were categorized each year.

Note that the 2019 and 2020 data reported in this section is somewhat different than the sections above. The primary difference is that previous tables exclude respondents who did not report their commute distance so that the data can be used to assess greenhouse gas emissions. However, all respondents who report a commute mode are included in this section because this analysis focuses only on mode shares and does not use information about commute distances. Any other slight differences from the 2019 and 2020 data presented above are also due to making the mode share comparisons across surveys as consistent as possible.

Table 9. UWM Fall Semester Primary Commute Mode: Student Respondents, 2008-2020

	2008	2012	2014	2017	2019	2020
<i>Total Responses Included as Commuters<sup>1</sup></i>	3012	3511	2375	1820	1095	1233
<b>Drive Alone<sup>2</sup></b>	<b>40.7%</b>	<b>37.7%</b>	<b>41.9%</b>	<b>44.0%</b>	<b>42.6%</b>	<b>42.4%</b>
<b>Carpool<sup>3</sup></b>	<b>2.4%</b>	<b>3.6%</b>	<b>3.7%</b>	<b>4.2%</b>	<b>4.4%</b>	<b>5.4%</b>
<b>Bicycle</b>	<b>4.7%</b>	<b>6.0%</b>	<b>3.6%</b>	<b>5.3%</b>	<b>3.0%</b>	<b>4.1%</b>
<b>Bus<sup>4</sup></b>	<b>33.1%</b>	<b>31.0%</b>	<b>38.8%</b>	<b>34.1%</b>	<b>38.4%</b>	<b>32.6%</b>
<b>Walk<sup>5</sup></b>	<b>18.8%</b>	<b>21.4%</b>	<b>12.1%</b>	<b>11.4%</b>	<b>10.8%</b>	<b>14.4%</b>
<b>Other<sup>6</sup></b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>1.1%</b>
<i>Responses not Included as Commuters</i>						
<i>Did not commute/Worked remotely<sup>7</sup></i>	22	23	45	284	10	1617
<i>Lived on campus<sup>8</sup></i>	n/a	n/a	250	138	n/a	283
<i>No response to commute mode</i>	80	163	40	157	14	105
<b>Total Students (for reference)</b>	29265	29145	28042	25412	26167	24725
<b>Student mode share response rate</b>	<b>10.6%</b>	<b>12.7%</b>	<b>9.7%</b>	<b>9.4%</b>	<b>4.3%</b>	<b>13.1%</b>

1) These totals include all respondents who reported commuting to campus and provided their primary commute mode for the fall semester. The percentages for each mode are based on these totals. Note that only students who were enrolled in classes in the fall semester were included.

2) Drive alone: Includes personal vehicle with driver only and motorcycle/scooter.

3) Carpool: Includes carpool; also specifically includes rideshare and personal vehicle drop-off in 2020.

4) Bus: Includes bus and UWM shuttle.

5) Walk: Includes walk/run, wheelchair, and skateboard/longboard. In 2008 and 2012, this category may include students who lived in Sandburg Hall or Purin Hall on the main Kenwood Campus, which could explain the higher walk mode share in those years.

6) Other: Includes commuter rail (Amtrak Hiawatha line between Milwaukee and Chicago), e-scooter, other modes not listed, and multiple-mode combinations specified by respondent (respondent chose not to report a single, primary mode).

7) Did not commute/worked remotely: The 2008 and 2012 surveys did not include "work from home" as a response option. For 2008 and 2012, this category includes respondents who reported "Never" as the frequency of using their primary commute mode. For 2014, this category includes students who answered "Not applicable, my classes and studies are off campus" and staff/faculty who answered "Not applicable (e.g., I primarily work from home)" for the campus they most often commute to. For 2017, this category includes respondents who answered "I usually work from home (I don't usually commute)" directly to the commute mode question. For 2019, this category includes respondents who at least occasionally commuted to UWM but answered "I usually work/take classes from home (I don't usually commute)" as their primary commute mode. Respondents who were employed or enrolled at UWM but didn't commute in 2019 belong in this category but may have been missed due to the question's location in the survey. For 2020, this category includes respondents who said "I have not commuted to UWM. I have completely/mostly worked or participated in classes remotely." It also includes respondents who at least occasionally commuted to UWM but answered "I usually work/take classes from home (I don't usually commute)" as their primary commute mode.

8) Lived on Campus: Includes students who lived in Sandburg Hall or Purin Hall on the main Kenwood Campus. Note that the 2008 and 2012 surveys did not identify students who lived on campus, so many of them may be included in the "walk" mode category in those survey years. For 2019, the survey did not ask respondents if they lived on campus, so we do not know how students who lived in dorms in 2019 reported their commute mode.

Table 10. UWM Fall Semester Primary Commute Mode: Staff Respondents, 2008-2020

	2008	2012	2014	2017	2019	2020
<i>Total Responses Included as Commuters<sup>1</sup></i>	824	594	930	1090	955	487
<b>Drive Alone<sup>2</sup></b>	<b>66.4%</b>	<b>65.7%</b>	<b>64.0%</b>	<b>67.2%</b>	<b>72.4%</b>	<b>79.9%</b>
<b>Carpool<sup>3</sup></b>	<b>5.9%</b>	<b>6.9%</b>	<b>8.3%</b>	<b>7.4%</b>	<b>5.4%</b>	<b>4.9%</b>
<b>Bicycle</b>	<b>4.0%</b>	<b>5.9%</b>	<b>5.2%</b>	<b>5.4%</b>	<b>3.0%</b>	<b>4.3%</b>
<b>Bus<sup>4</sup></b>	<b>15.9%</b>	<b>16.3%</b>	<b>15.3%</b>	<b>12.3%</b>	<b>12.8%</b>	<b>4.9%</b>
<b>Walk<sup>5</sup></b>	<b>7.8%</b>	<b>5.2%</b>	<b>7.1%</b>	<b>6.1%</b>	<b>5.3%</b>	<b>5.7%</b>
<b>Other<sup>6</sup></b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>1.5%</b>	<b>1.0%</b>	<b>0.2%</b>
<b><i>Responses not Included as Commuters</i></b>						
<i>Did not commute/Worked remotely<sup>7</sup></i>	4	2	2	21	2	646
<i>No response to commute mode</i>	8	0	14	27	8	28
<b>Total Staff (for reference)<sup>8</sup></b>	<b>2945</b>	<b>3017</b>	<b>3084</b>	<b>2894</b>	<b>3141</b>	<b>2919</b>
<b>Staff mode share response rate</b>	<b>28.4%</b>	<b>19.8%</b>	<b>30.7%</b>	<b>39.3%</b>	<b>30.7%</b>	<b>39.8%</b>

- 1) These totals include all respondents who reported commuting to campus and provided their primary commute mode for the fall semester. The percentages for each mode are based on these totals.
- 2) Drive alone: Includes personal vehicle with driver only and motorcycle/scooter.
- 3) Carpool: Includes carpool; also specifically includes rideshare and personal vehicle drop-off in 2020.
- 4) Bus: Includes bus and UWM shuttle.
- 5) Walk: Includes walk/run, wheelchair, and skateboard/longboard.
- 6) Other: Includes commuter rail (Amtrak Hiawatha line between Milwaukee and Chicago), e-scooter, other modes not listed, and multiple-mode combinations specified by respondent (respondent chose not to report a single, primary mode).
- 7) Did not commute/worked remotely: The 2008 and 2012 surveys did not include "work from home" as a response option. For 2008 and 2012, this category includes respondents who reported "Never" as the frequency of using their primary commute mode. For 2014, this category includes students who answered "Not applicable, my classes and studies are off campus" and staff/faculty who answered "Not applicable (e.g., I primarily work from home)" for the campus they most often commute to. For 2017, this category includes respondents who answered "I usually work from home (I don't usually commute)" directly to the commute mode question. For 2019, this category includes respondents who at least occasionally commuted to UWM but answered "I usually work/take classes from home (I don't usually commute)" as their primary commute mode. Respondents who were employed or enrolled at UWM but didn't commute in 2019 belong in this category but may have been missed due to the question's location in the survey. For 2020, this category includes respondents who said "I have not commuted to UWM. I have completely/mostly worked or participated in classes remotely." It also includes respondents who at least occasionally commuted to UWM but answered "I usually work/take classes from home (I don't usually commute)" as their primary commute mode.
- 8) Staff include Instructional Academic Staff, Non-Teaching Academic Staff, Limited Appointment, Blue Collar, Clerical, Professional, Supervisory, and Classified LTE categories. Staff do not include student workers. This classification of staff has been updated from previous transportation survey reports to provide a more accurate reflection of who is likely to consider themselves to be "staff" when answering the survey. The classification is consistent across all years listed in the table.

Table 11. UWM Fall Semester Primary Commute Mode: Faculty Respondents, 2008-2020

	2008	2012	2014	2017	2019	2020
<i>Total Responses Included as Commuters<sup>1</sup></i>	404	59	253	277	267	130
<b>Drive Alone<sup>2</sup></b>	<b>59.4%</b>	<b>55.9%</b>	<b>55.7%</b>	<b>61.0%</b>	<b>64.8%</b>	<b>67.7%</b>
<b>Carpool<sup>3</sup></b>	<b>3.2%</b>	<b>3.4%</b>	<b>4.3%</b>	<b>4.7%</b>	<b>3.4%</b>	<b>3.1%</b>
<b>Bicycle</b>	<b>10.4%</b>	<b>13.6%</b>	<b>11.1%</b>	<b>13.0%</b>	<b>9.0%</b>	<b>11.5%</b>
<b>Bus<sup>4</sup></b>	<b>13.4%</b>	<b>16.9%</b>	<b>12.3%</b>	<b>10.5%</b>	<b>10.1%</b>	<b>4.6%</b>
<b>Walk<sup>5</sup></b>	<b>12.9%</b>	<b>10.2%</b>	<b>15.0%</b>	<b>9.7%</b>	<b>11.6%</b>	<b>12.3%</b>
<b>Other<sup>6</sup></b>	<b>0.7%</b>	<b>0.0%</b>	<b>1.6%</b>	<b>1.1%</b>	<b>1.1%</b>	<b>0.8%</b>
<b><i>Responses not Included as Commuters</i></b>						
<i>Did not commute/Worked remotely<sup>7</sup></i>	0	0	2	15	1	197
<i>No response to commute mode</i>	2	0	4	8	2	7
<b>Total Faculty (for reference)<sup>8</sup></b>	<b>824</b>	<b>874</b>	<b>860</b>	<b>736</b>	<b>757</b>	<b>729</b>
<b>Faculty mode share response rate</b>	<b>49.3%</b>	<b>6.8%</b>	<b>30.1%</b>	<b>40.8%</b>	<b>35.7%</b>	<b>45.8%</b>

- 1) These totals include all respondents who reported commuting to campus and provided their primary commute mode for the fall semester. The percentages for each mode are based on these totals.
- 2) Drive alone: Includes personal vehicle with driver only and motorcycle/scooter.
- 3) Carpool: Includes carpool; also specifically includes rideshare and personal vehicle drop-off in 2020.
- 4) Bus: Includes bus and UWM shuttle.
- 5) Walk: Includes walk/run, wheelchair, and skateboard/longboard.
- 6) Other: Includes commuter rail (Amtrak Hiawatha line between Milwaukee and Chicago), e-scooter, other modes not listed, and multiple-mode combinations specified by respondent (respondent chose not to report a single, primary mode).
- 7) Did not commute/worked remotely: The 2008 and 2012 surveys did not include "work from home" as a response option. For 2008 and 2012, this category includes respondents who reported "Never" as the frequency of using their primary commute mode. For 2014, this category includes students who answered "Not applicable, my classes and studies are off campus" and staff/faculty who answered "Not applicable (e.g., I primarily work from home)" for the campus they most often commute to. For 2017, this category includes respondents who answered "I usually work from home (I don't usually commute)" directly to the commute mode question. For 2019, this category includes respondents who at least occasionally commuted to UWM but answered "I usually work/take classes from home (I don't usually commute)" as their primary commute mode. Respondents who were employed or enrolled at UWM but didn't commute in 2019 belong in this category but may have been missed due to the question's location in the survey. For 2020, this category includes respondents who said "I have not commuted to UWM. I have completely/mostly worked or participated in classes remotely." It also includes respondents who at least occasionally commuted to UWM but answered "I usually work/take classes from home (I don't usually commute)" as their primary commute mode.
- 8) Faculty include Tenured Faculty, Tenured Executive, and Non-Tenured Faculty categories. This classification of faculty has been updated from previous transportation survey reports to provide a more accurate reflection of who is likely to consider themselves to be "faculty" when answering the survey. The classification is consistent across all years listed in the table.

## **Appendix A. Survey Instrument**

This appendix includes the survey instrument used for the 2020 UWM Campus Travel Survey. The following e-mail text was used to distribute the survey to all active UWM e-mails on Tuesday, October 27. Follow-up reminder emails were distributed on Monday, November 2 and Monday, November 9.

### **Message title: Please take the 2020 UW-Milwaukee Transportation Survey**

**Please take the 2020 UW-Milwaukee Transportation Survey:** [Transportation Survey link]

The UW-Milwaukee (UWM) Transportation Survey is a survey of the commuting practices of the entire UWM community, including students, faculty, and staff. The data are used to conduct UWM's Greenhouse Gas Inventory and to inform the campus's transportation initiatives.

This survey focuses on the Fall 2020 semester, which is occurring during unusual and challenging circumstances due to the COVID-19 pandemic. We recognize that commuting patterns may be very different from previous and future years. Still, this information is important for UWM's Greenhouse Gas Inventory, transportation planning, and research.

If you agree to participate, you will be asked to complete a survey that will take approximately 10 minutes. The questions will ask about your modes of transportation to campus, the distance from your residence to campus, and your attitudes regarding commuting to UWM.

Additional information about the study is provided when you click on the button above. The survey will be available until November 13th, 2020.

Thanks for taking the time to help with this survey.  
Sincerely,

Kate M. Nelson  
Chief Sustainability Officer

Robert J. Schneider, Ph.D., Associate Professor  
Department of Urban Planning

# University of Wisconsin–Milwaukee

## Consent to Participate in Online Research

**Study Title:** 2020 UW-Milwaukee Transportation Survey

**Person Responsible for Research:** Kate Nelson & Robert Schneider

**Study Description:** The UW-Milwaukee (UWM) Transportation Survey is a survey of the commuting practices of the entire UWM community, including students, faculty, and staff. The data are used to conduct UWM's Greenhouse Gas Inventory and to inform the campus's transportation initiatives.

This survey focuses on the Fall 2020 semester, which is occurring during unusual and challenging circumstances due to the COVID-19 pandemic. We recognize that commuting patterns may be very different from previous and future years. Still, this information is important for UWM's Greenhouse Gas Inventory, transportation planning, and research.

If you agree to participate, you will be asked to complete a survey that will take approximately 10 minutes. The questions will ask about your modes of transportation to campus, the distance from your residence to campus, and your attitudes regarding commuting to UWM.

**Risks / Benefits:** Risks to participants are considered minimal. Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as breach of confidentiality. While the researchers have taken every reasonable step to protect your confidentiality, there is always the possibility of interception or hacking of the data by third parties that is not under the control of the research team. There will be no costs for participating, nor will you benefit directly from participating, though the knowledge gained could potentially result in UWM's ability to offer better transportation amenities, incentives, and programs to you and the campus population.

**Anonymity:** Identifying information such as your name, email address, and the Internet Protocol (IP) address of this computer will not be asked or available to the researchers. Data will be retained on the Qualtrics website server through January 2021. Data transferred from the survey site will be saved on a password protected computer for perpetuity, or as long as deemed necessary for the Greenhouse Gas Inventory trend analyses or commuting research. Only the Office of Sustainability and the Department of Urban Planning, who are conducting the online survey, will have access to the information. However, the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review this study's records.

**Voluntary Participation:** Your participation in this study is voluntary. You may choose to not answer any of the questions or withdraw from this study at any time without penalty. Your

decision will not change any present or future relationship with the University of Wisconsin-Milwaukee.

**Who do I contact for questions about the study:** For more information about the study or study procedures, contact Kate Nelson (Office of Sustainability) at knelson6@uwm.edu or Robert Schneider (Department of Urban Planning) at rjschnei@uwm.edu.

**Who do I contact for questions about my rights or complaints towards my treatment as a research subject?** Contact the UWM IRB at 414-229-3173 or irbinfo@uwm.edu.

**Research Subject's Consent to Participate in Research:** By entering this survey, you are indicating that you have read the consent form, you are age 18 or older, and that you voluntarily agree to participate in this research study.

Thank you!

The Office of Sustainability & The Department of Urban Planning

**The question below indicates that you are willing to participate in the survey.**

**Q1:** Do you understand the information on the previous page and agree to participate in the 2020 UWM Transportation Survey?

- (1) YES, I understand and agree to participate
- (0) NO, I do not agree to participate

If Q1:0 NO Is Selected, Then Skip To End of Survey

**This section provides background about your relationship with UWM.**

**Q2:** What is your main affiliation with UW-Milwaukee (UWM)? (If you are a student and a full-time employee of UWM, please select the appropriate “faculty” or “staff” category below. If you are a student and a part-time employee of UWM, please select the “student” category.)

- (1) Student
- (2) University Staff
- (3) Faculty
- (4) Academic Staff – Teaching
- (5) Academic Staff – Non-Teaching

If Q2:1 Student Is Selected, Then Go To Q3. Otherwise, Skip To Q5.

**Display If Q2:1 Student Is Selected**

**Q3:** Are you enrolled in classes at UWM this semester (Fall 2020)?

- (1) Yes
- (0) No

If Q3:0 No Is Selected, Then Skip To Q19.

**Display If Q2:1 Student Is Selected**

**Q4:** Are you living in University housing this semester?

- (1) Yes, at Cambridge Commons
- (2) Yes, at RiverView Residence Hall
- (3) Yes, at Kenilworth Square Apartments
- (4) Yes, at Sandburg Hall or Purin Hall
- (0) No, I do not live in University housing

If Q4:4 Yes, at Sandburg Hall or Purin Hall Is Selected, Then Skip to Q19.

**This section is about commuting to UWM. For this survey, commuting refers to traveling between your home and UWM.**

**Q5:** If Fall 2020 was a typical semester (without COVID-19), which UWM campus would you commute to most often?

- (0) I would typically work from home
- (1) Kenwood Campus (main Milwaukee campus)
- (2) School of Freshwater Sciences
- (3) Zilber School of Public Health
- (4) School of Continuing Education
- (5) University Services & Research Building
- (6) UWM at Waukesha Campus
- (7) UWM at Washington County Campus
- (8) Other

**Q6:** Which of the following applies to you since Fall 2020 semester instruction began on September 2<sup>nd</sup>, 2020?

- (0) I have not commuted to UWM. I have completely/mostly worked or participated in classes remotely.
- (1) I have commuted to UWM.

**If Q6:0 I have not commuted to UWM... Is Selected, Then Skip To Q17.**

**Q7:** On a typical day during this semester (Fall 2020), what is the primary type of transportation that you use for commuting to UWM?

*If your commute is split between several types of transportation (e.g., you drive to a park and ride, then take a bus to campus), please select the type of transportation you use for the greatest distance during your commute.*

- (0) I usually work/take classes from home (I don't usually commute)
- (1) Personal vehicle (driver only, no passengers)
- (2) Carpool (driver and one or more passengers; all go to campus)
- (3) Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park on campus)
- (4) Personal vehicle drop-off (passenger; driver does not park on campus)
- (5) Bus
- (6) UWM Shuttle
- (7) Bicycle
- (8) Walk/Run
- (9) Wheelchair or other personal assistive device
- (10) Motorcycle/Motorized two-wheel scooter (e.g., Vespa)
- (11) Skateboard/Longboard
- (12) E-scooter (e.g., Bird, Lime, Spin)
- (13) Train (Amtrak)
- (14) Streetcar ("The Hop")
- (15) Other

**Display If Q7:5 Bus Is Selected**

**Q8:** What type of bus do you take when commuting to UWM this semester?

- (1) Milwaukee County Transit System
- (2) Waukesha Metro Transit
- (3) Coach

**Display If Q7:7 Bicycle Is Selected**

**Q9:** Do you commute to UWM using bike share (i.e., Bublr Bikes)?

- (1) Yes, I usually commute using Bublr Bikes
- (0) No, I usually ride my own bike

**Q10:** Some people have different types of commutes on different days. During a typical week this semester (Fall 2020), what is the primary type of transportation that you use for commuting to UWM on each day? (*choose one for each day*)

	M	Tu	W	Th	F	Sa	Su
I do not work on UWM-related tasks							
I work from home							
Personal vehicle (driver only, no passengers)							
Carpool (driver and one or more passengers; all go to campus)							
Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park on campus)							
Personal vehicle drop-off (passenger; driver does not park on campus)							
Bus							
UWM Shuttle							
Bicycle							
Walk/Run							
Wheelchair or other personal assistive device							
Motorcycle/Motorized two-wheel scooter (e.g., Vespa)							
Skateboard/Longboard							
E-scooter (e.g., Bird, Lime, Spin)							
Train (Amtrak)							
Streetcar ("The Hop")							
Other							

**Display If Q10 Personal vehicle or Carpool is NOT selected for any day**

**Q10A:** Do you ever drive or get a ride in a personal automobile to commute to campus?

- (1) Yes, occasionally I commute to campus by automobile.
- (2) No, I never commute to campus by automobile.

If Q10A:2 No, I never commute to campus by automobile is Selected, Then Skip To Q12.

**Q11:** Where do you park your vehicle most often when driving or carpooling to UWM this semester?

- (0) I do not park because I am usually dropped off
- (1) On campus (UWM parking structures and surface lots)

- (2) Off campus (city streets on and around the UWM campus)
- (3) UWM Capitol-Humboldt UPARK park and ride lot
- (4) Milwaukee County Transit System park and ride lots
- (5) Waukesha County Transit/Coach USA park and ride lots
- (6) Other

**Q12:** Think about the total time you spend between leaving your door at home to entering a door at UWM on a typical day this semester (Fall 2020). What percentage of this time is spent using each of the following types of transportation?

	None (0%)	Some, but <10%	10% to 49%	50% to 90%	>90%, but not all	All (100%)
Personal vehicle (driver only, no passengers)						
Carpool (driver and one or more passengers; all go to campus)						
Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park on campus)						
Personal vehicle drop-off (passenger; driver does not park on campus)						
Bus						
UWM Shuttle						
Bicycle						
Walk/Run						
Wheelchair or other personal assistive device						
Motorcycle/Motorized two-wheel scooter (e.g., Vespa)						
Skateboard/Longboard						
E-scooter (e.g., Bird, Lime, Spin)						
Train (Amtrak)						
Streetcar ("The Hop")						
Other						

**Q13:** People may spend different amounts of time at UWM on different days. During a typical week this semester (Fall 2020), how much time do you spend at UWM on each day? (*choose one for each day*)

	M	Tu	W	Th	F	Sa	Su
12 or more hours							
10.0 to 11.9 hours							
8.0 to 9.9 hours							
6.0 to 7.9 hours							
4.0 to 5.9 hours							
2.0 to 3.9 hours							
Less than 2 hours							
I did not spend any time at UWM							

\*May change the view of this depending on the capabilities of Qualtrics (e.g. fill-in/highlight a week calendar in time increments.)

**Q14A:** How far is your typical commute to UWM this semester (Fall 2020)? *(Please estimate the closest one-way distance category.)*

- (1) Less than 2 miles
- (2) Approximately 2 miles
- (3) More than 2 miles

**Display Only If Q14A:1 Less than 2 miles is selected**

**Q14B:** Since you usually commute less than 2 miles to UWM this semester, please enter your best estimate of the distance you travel to UWM in the space below to the nearest tenth of a mile (for example, your response could be 0.3 miles or 1.4 miles).

**Display Only If Q14A:3 More than 2 miles is selected**

**Q14C:** Since you usually commute more than 2 miles to UWM this semester, please enter your best estimate of the distance you travel to UWM in the space below to the nearest mile (for example, if you commuted 6.7 miles, you would enter 7 miles).

**Q15:** How satisfied are you with your commute to UWM this semester (Fall 2020)? *(Please move the bar to the number that best represents your answer: 1= completely dissatisfied and 10= completely satisfied)*

**Q16:** Please expand on any of your previous answers in this section about commuting to UWM. *(Please write in the space below.)*

**If Q5:1 I have commuted to UWM Is Selected, Then Skip To Q19.**

**Q17:** How satisfied are you with not commuting to UWM this semester (Fall 2020)? *(Please move the bar to the number that best represents your answer: 1= completely dissatisfied and 10= completely satisfied)*

**Q18:** Please expand on why you are satisfied or unsatisfied with not commuting to UWM. *(Please write in the space below.)*

**This section is about changes in your commute habits over time. For this survey, commuting refers to traveling between your home and work/school.**

**Q19:** Approximately how many years have you been at UWM?

- (1) Less than 1 year
- (2) 1.0 to 1.9 years
- (3) 2.0 to 4.9 years
- (4) 5.0 to 9.9 years
- (5) 10.0 to 19.9 years
- (6) 20 or more years

**Q20:** What city did you live in prior to starting at UWM? *(Please write city and state or city and country in the space below.)*

**Q21:** Before you came to UWM, what was the primary type of transportation that you used to commute to work or school?

*(Please select the type of transportation you used for the greatest distance.)*

- (0) I usually worked/took classes from home (I didn't usually commute)
- (1) Personal vehicle (driver only, no passengers)
- (2) Carpool (driver and one or more passengers; all go to same school/workplace)
- (3) Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park at school/workplace)
- (4) Personal vehicle drop-off (passenger; driver does not park at school/workplace)
- (5) Bus
- (6) Shuttle/Vanpool
- (7) Bicycle
- (8) Walk/Run
- (9) Wheelchair or other personal assistive device
- (10) Motorcycle/Motorized two-wheel scooter (e.g., Vespa)
- (11) Skateboard/Longboard
- (12) E-scooter (e.g., Bird, Lime, Spin)
- (13) Train (Amtrak or commuter rail)
- (14) Streetcar ("The Hop" or other city streetcar)
- (15) Other

**Q22:** Before you came to UWM, how far was your typical commute to work or school? *(Please enter your best estimate of the one-way distance you previously traveled to work or school in the space below to the nearest mile or tenth of a mile. If you worked from home, enter 0.)*

**Q23:** Before you came to UWM, how satisfied were you with your commute to work or school? *(Please move the bar to the number that best represents your answer: 1= completely dissatisfied and 10= completely satisfied)*

**Q24:** If the level of satisfaction with your commute changed after coming to UWM, please provide a brief description of why you are now more or less satisfied. *(Please write in the space below.)*

**Q25:** Since your first year at UWM, how has the amount you commute by driving a personal automobile changed?

- (0) It is still my first year at UWM
- (1) I drive more
- (2) I drive about the same amount
- (3) I drive less

**Display Only If Q25:1 I drive more**

**Q26:** Please provide a brief description of why you drive more now than during your first year at UWM. *(Please write in the space below.)*

**Display Only If Q25:3 I drive less**

**Q27:** Please provide a brief description of why you drive less now than during your first year at UWM. *(Please write in the space below.)*

**Q28:** Did you commute to UWM one year ago during the Fall 2019 semester?

- (1) Yes
- (0) No

**If Q28:0 No is Selected, Then Skip To Q29A.**

**Q28A:** On a typical day last year during the Fall 2019 semester, what was the primary type of transportation that you used for commuting to UWM?

If your commute was split between several types of transportation (e.g., you drove to a park and ride, then took a bus to campus), please select the type of transportation you used for the greatest distance during your commute.

- (0) I usually worked/took classes from home (I didn't usually commute)
- (1) Personal vehicle (driver only, no passengers)
- (2) Carpool (driver and one or more passengers; all went to campus)
- (3) Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver did not park on campus)
- (4) Personal vehicle drop-off (passenger; driver did not park on campus)
- (5) Bus
- (6) UWM Shuttle
- (7) Bicycle
- (8) Walk/Run
- (9) Wheelchair or other personal assistive device
- (10) Motorcycle/Motorized two-wheel scooter (e.g., Vespa)
- (11) Skateboard/Longboard
- (12) E-scooter (e.g., Bird, Lime, Spin)
- (13) Train (Amtrak)
- (14) Streetcar ("The Hop")
- (15) Other

**Display If Q28A:1 Personal vehicle or Q28A:2 Carpool or Q28A:3 Rideshare vehicle drop-off or Q28A:4 Personal vehicle drop-off is NOT selected**

**Q28B:** Last year during the Fall 2019 semester, did you ever drive or get a ride in a personal automobile to commute to campus?

- (1) Yes, occasionally I commuted to campus by automobile.
- (2) No, I never commuted to campus by automobile.

**If Q28B:2 No, I never commute to campus by automobile is Selected, Then Skip To Q29.**

**Q28C:** Where did you park your vehicle most often when driving or carpooling to UWM last year during the Fall 2019 semester?

- (0) I did not park because I was usually dropped off
- (1) On campus (UWM parking structures and surface lots)
- (2) Off campus (city streets on and around the UWM campus)
- (3) UWM Capitol-Humboldt UPARK park and ride lot
- (4) Milwaukee County Transit System park and ride lots
- (5) Waukesha County Transit/Coach USA park and ride lots
- (6) Other

**Q29:** Please add a sentence or two to describe how your experience commuting one year ago (Fall 2019) compares to your experience commuting this semester (Fall 2020). This will help indicate how COVID-19 has affected commuting to UWM. *(Please write in the space below.)*

**Q29A:** Please provide any thoughts you have about the current COVID-19 safety precautions on buses. *(Please write in the space below.)*

**Q30:** Please expand on any of your answers in this section about how your commute has changed over time. *(Please write in the space below.)*

**This section is about commuting options and preferences.**

**Q31:** Do you have any disabilities or physical conditions preventing you from traveling by walking? *(select all that apply)*

- (1) Yes
- (2) No
- (3) Prefer not to answer

**Q32:** Select the statement that best represents your *access* to a reliable personal vehicle. Assume a personal vehicle is reliable if you can reasonably expect to reach your destination without any serious mechanical or safety issues.

- (1) I have access to one or more reliable personal vehicles that I do not share with anyone.
- (2) I share access to a reliable personal vehicle with only one other driver who I live with.
- (3) I share access to a reliable personal vehicle with more than one driver who I live with.
- (4) I share access to a reliable personal vehicle with at least one driver who I do not live with.
- (5) I do not have consistent access to a reliable personal vehicle.
- (6) I am unable to drive a personal vehicle.
- (7) Other

~~[If Q10A:2 No, I never commute to campus by automobile is Selected AND (Q28B:BLANK OR Q28B:2 No, I never commuted to campus by automobile is Selected), then Skip To Q38.]~~

Alternate display logic necessary in Qualtrics:

Display Q33, Q34, Q35, Q36, and Q37 only if:

Q10A:1 Yes, occasionally I commute to campus by automobile is Selected

OR Q28B:1 Yes, occasionally I commuted to campus by automobile is Selected,

OR Q7:1 Personal vehicle is Selected,

OR Q7:2 Carpool is Selected.

OR Q28A:1 Personal vehicle is Selected.

OR Q28A:2 Carpool is Selected.

**The following questions are about your experience commuting via driving and parking in either Fall 2019 or Fall 2020.**

**Q33:** If parking on or near campus wasn't available to you on the days you commuted by personal automobile, what type of transportation would you use instead?

- (0) Work/Take classes from home (I would not commute)
- (3) Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park on campus)
- (4) Personal vehicle drop-off (passenger; driver does not park on campus)
- (5) Bus
- (6) UWM Shuttle
- (7) Bicycle
- (8) Walk/Run
- (9) Wheelchair or other personal assistive device
- (10) Motorcycle/Motorized two-wheel scooter (e.g., Vespa)
- (11) Skateboard/Longboard
- (12) E-scooter (e.g., Bird, Lime, Spin)
- (13) Train (Amtrak)
- (14) Streetcar ("The Hop")
- (15) Other

**Q34:** Based on your answer to the previous question, what do you think that your experience with this other option would be like? *(Please write in the space below.)*











**Q35:** We would like to know what factors currently affect your decision to commute to UWM via driving (or riding in a car) and parking on or near campus. Select the option that best represents its level of importance to your decision.

	Extremely important (1)	Somewhat important (2)	Not at all important (3)	Not applicable (4)
Hourly parking rate on campus (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price of a monthly/semester/annual campus parking pass (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of nearby off-campus parking (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of on-campus parking (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total commute distance (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total commute time (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traffic safety concerns with other options (walk, bus, bicycle) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal security concerns with other options (walk, bus, bicycle) (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Weather conditions (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q36:** We would like to know what changes would discourage your decision to commute to UWM via driving and parking on or near campus. On a scale of 0 to 5, where 0 = not applicable or not a factor at all and 5 = a major factor, please indicate how much each of the following changes on campus and in surrounding communities would discourage your decision to commute to UWM via driving and parking. If none of these changes would discourage you from driving and parking, leave all the bars on 0. Moving any bar to 1 or greater indicates that the change would decrease your chance of commuting to UWM via driving and parking. **Note: The specific actions listed below are not under active consideration. They are for research and planning purposes only.**

*(Please move the bar to the number that best represents your answer)*

0      1      2      3      4      5

Fewer parking spaces are available in campus lots or structures (1)	
The hourly parking meter rate increases on UWM campus lots and structures (2)	
The cost of a UWM campus parking pass increases (monthly/semester/annual) (3)	
Fewer nearby off-campus parking spaces are available (4)	
Several streets are permanently closed to vehicle traffic (5)	
A public transit route is added which allows you to commute to campus within 15 minutes of your current driving commute time (6)	
A low-stress bicycle path connection is made between the Oak Leaf Trail and UWM (7)	
Speed limits are lowered to 20 mph on streets within and adjacent to UWM (8)	
More affordable housing or apartments become available close to UWM (9)	
Other (write in on next page)	

Display If Q36: Other (write in on next page) is >0

**Q37:** Since you selected “Other” in your previous response, please describe the other change that would discourage your decision to commute to UWM via driving and parking on or near campus. (Please write in the space below.)








Skip To Q39.

Display if Q32:5 I do not have consistent access to a reliable vehicle OR Q32:6 I am unable to drive a personal vehicle Are NOT Selected

**Q38:** We would like to know which factors deter you from driving and parking on the UWM campus or surrounding city streets. On a scale of 0 to 5, where 0 = not applicable or not a factor at all and 5 = a major factor, please indicate how much each of the following factors influence your decision not to drive and park. If none of these factors influence your decision, leave all of the bars on 0. Moving any bar to 1 or greater indicates that the factor influences your decision not to drive and park.

(Please move the bar to the number that best represents your answer)

0      1      2      3      4      5

There is not enough on-street parking available near campus (1)	
There is not enough parking available in campus lots/structures (2)	
Driving and parking requires more time than my other transportation option(s) (3)	
Driving and parking costs more than my other transportation option(s) (4)	
Driving and parking makes a greater negative environmental impact than my other transportation option(s) (5)	
Driving and parking is a less enjoyable experience than my other option(s) (6)	
I don't drive often, so the idea of commuting by driving and parking doesn't really enter my mind (7)	

**Q39:** Please expand on any of your answers in this section about commute habits and preferences. *(Please write in the space below.)*

**This section will help us understand differences in commuting and travel preferences among different members of our campus community.**

**Q40:** What is the zip code of your current residence?

**Q41:** What is the closest major street intersection to your current residence? *(please list two intersecting streets: e.g., Humboldt Blvd. & North Av.)*

**Q42:** How many adults (18 and over) currently live in your home? *(Please include all members of your household, including yourself.)*

- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5 or more

**Q43:** How many children (17 and younger) currently live in your home?

- (0) 0
- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5 or more

**Q44:** Do you have a bus pass (e.g., MCTS M-Card or other pre-paid pass)?

- (1) Yes
- (2) No

**Q45:** Select the statement that best represents your *access* to a reliable personal bicycle. Assume a personal bicycle is reliable if you can reasonably expect to reach your destination without any serious mechanical or safety issues.

- (1) I have access to one or more reliable personal bicycles that I do not share with anyone.
- (2) I share access to a reliable personal bicycle with only one other person who I live with.
- (3) I share access to a reliable personal bicycle with more than one person who I live with.
- (4) I share access to a reliable personal bicycle with at least one person who I do not live with.
- (5) I do not have consistent access to a reliable personal bicycle.
- (6) I am unable to ride a bicycle.
- (7) Other

**Q46:** How often do you use bike share (e.g., Bublr Bikes)?

- (0) Never
- (1) A few times per year
- (2) 1 to 4 times per month
- (3) 1 to 4 times per week
- (4) 5 or more times per week

**Q47:** With what gender do you identify yourself? (*Check all that apply.*)

- (1) Woman
- (2) Man
- (3) Another gender identity not listed here (please write in on next page)
- (4) Prefer not to answer

**Display If Q47:3 Another gender identity not listed here is selected**

**Q47A:** Since you selected “Another gender identity” in your previous response, please list it here. (*Please write in the space below.*)

**Q48:** What is your age?

- (1) \_\_\_\_\_ (Fill-in)
- (2) Prefer not to answer

**Q49:** Of these income groups, which best represents your total household income before taxes during the past 12 months?

- (1) Less than \$25,000
- (2) \$25,000 – \$49,999
- (3) \$50,000 – \$74,999
- (4) \$75,000 – \$99,999
- (5) \$100,000 – \$149,999
- (6) \$150,000 – \$199,999
- (7) \$200,000 or more
- (0) Prefer not to answer
- (-7) Don't know/not sure

## Appendix B. Results

Table B.1. Commute Status by Campus and Respondent Type in Fall 2020

Campus	Student			Faculty			Staff			Total		
	Commuted	Did not commute	n	Commuted	Did not commute	n	Commuted	Did not commute	n	Commuted	Did not commute	n
I would typically work from home	16%	84%	224	8%	92%	12	17%	83%	47	16%	84%	283
Kenwood Campus (main Milwaukee campus)	43%	57%	2,079	39%	61%	276	44%	56%	916	43%	57%	3,271
School of Continuing Education	14%	86%	14			0	24%	76%	29	21%	79%	43
School of Freshwater Sciences	89%	11%	9	80%	20%	5	73%	27%	15	79%	21%	29
University Services & Research Building	40%	60%	10			0	89%	11%	19	72%	28%	29
UWM at Washington County Campus	88%	12%	33	71%	29%	7	43%	57%	7	79%	21%	47
UWM at Waukesha Campus	76%	24%	79	44%	56%	9	57%	43%	23	69%	31%	111
Zilber School of Public Health	37%	63%	41	0%	100%	3	60%	40%	5	37%	63%	49
None of the above	30%	70%	77	60%	40%	5	56%	44%	45	40%	60%	127
Did not provide campus	33%	67%	3			0	100%	0%	1	50%	50%	4
Total	%	42%	58%	39%	61%		44%	56%		42%	58%	
	n	1,067	1,502	2,569	125	192	317	491	616	1,107	1,683	2,310

Table B.2. Primary Mode of Transportation used to Commute to Campus in Fall 2020, All Categories

Commute Mode	Mode Share of Respondent Type		
	Student	Faculty	Staff
Bicycle	4.3%	12.0%	3.7%
Walk/Run	11.9%	12.8%	5.7%
Wheelchair or other personal assistive device	-	-	-
Skateboard/Longboard	0.7%	-	-
Personal vehicle (driver only; no passengers)	40.2%	63.2%	74.9%
Motorcycle/Motorized two-wheel scooter (e.g., Vespa)	0.3%	-	0.4%
Personal vehicle drop-off (passenger; driver does not park on campus)	2.2%	1.6%	2.9%
Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park on campus)	0.5%	-	0.2%
Carpool (driver and one or more passengers; all go to campus)	1.7%	0.8%	1.8%
Bus	21.6%	4.8%	4.3%
UWM Shuttle	7.7%	-	0.2%
Train (Amtrak)	0.1%	-	-
Streetcar ("The Hop")	-	-	-
E-scooter (e.g., Bird, Lime, Spin)	-	-	-
I usually work/take classes from home (I don't usually commute)	8.1%	4.0%	5.7%
Other, please specify:	0.7%	0.8%	0.2%
Total responses <sup>1</sup>	1,067	125	491

<sup>1</sup>These totals include the 1,683 respondents who provided enough information for greenhouse gas analysis. The percentages for each mode are based on these totals.

Table B.3. Primary Mode of Transportation used to Commute to Campus in Fall 2019, All categories

Commute Mode	Mode Share of Respondent Type		
	Student	Faculty	Staff
Bicycle	3.0%	8.8%	3.3%
Walk/Run	10.8%	12.3%	5.0%
Wheelchair or other personal assistive device	-	-	-
Skateboard/Longboard	0.2%	-	-
Personal vehicle (driver only; no passengers)	41.7%	64.9%	72.5%
Motorcycle/Motorized two-wheel scooter (e.g., Vespa)	0.2%	-	0.4%
Personal vehicle drop-off (passenger; driver does not park on campus)	1.3%	1.0%	1.7%
Rideshare vehicle drop-off (Uber/Lyft/taxi passenger; driver does not park on campus)	0.3%	-	-
Carpool (driver and one or more passengers; all go to campus)	2.4%	1.9%	3.5%
Bus	32.7%	8.4%	11.2%
UWM Shuttle	5.8%	1.3%	1.2%
Train (Amtrak)	-	-	0.2%
Streetcar (The Hop)	-	-	-
E-scooter (e.g., Bird, Lime, Spin)	-	-	-
I usually work/take classes from home (I don't usually commute) <sup>1</sup>	0.9%	0.3%	0.2%
Other, please specify:	0.8%	1.0%	0.9%
Total responses <sup>2</sup>	1,186	308	1,138

<sup>1</sup>We estimate that the share of respondents who reported that they would usually work or take classes from home in Fall 2019 is smaller than the actual share due to question sequencing and language.

<sup>2</sup>These totals include the 2,632 respondents who indicated that they commuted in Fall 2019 and provided both their primary commute mode and respondent type (student, faculty, or staff) for Fall 2019.