

Transportation Survey Review 2019-2020  
Reviewer: Samuel Hopkins  
For: Liz Tomaszewski and Paul Mathisen  
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## **2019-2020 Transportation Survey**

<https://docs.google.com/forms/d/1v5uk1fpVq7dLytfqKZU6czU2RVcIR2Egfn06LTRoo3s/e>  
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### **Executive Summary:**

In Fall 2019, the Office of Sustainability sent out a survey to Undergraduate and Graduate Students, Staff, and Faculty to gain insight into their transportation methods to, from, and around the WPI campus, as well as their awareness of transportation alternatives. The survey provided valuable information, and also helped to highlight some of our current needs related to transportation.

This survey was completed using Google Forms. It is recognized that the results reflect the perspectives of the group that responded, which may not necessarily be a fully accurate indication of the entire community. Nevertheless, the survey provided beneficial data and raised interesting questions for further review. The majority of respondents were aware of WPI's Zipcar option, the Worcester Rapid Transit Authority, and Gompeii's Gears - yet these areas were highly underutilized. A large number of people use third party transportation services like Uber or Lyft. While people are aware of these alternative transportation options, most people responded that they drive by themselves. This has already been identified as one of our major concerns regarding transportation. It is possible that car ownership in and of itself may just be a barrier to alternative forms of transportation - that if people already have a car they would just use that. However, there are also likely other factors that impact the use of alternative transportation and more investigation would be helpful.

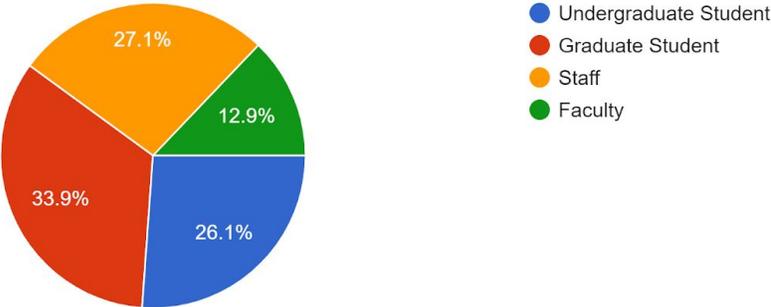
There are a few interesting things to note that extend beyond the intention of this survey. Thirteen people responded that they telecommute 50% of the time. Given the current global pandemic and change to work from home/online, is it possible that this number could increase in the future? Assuming WPI improved digital infrastructure and modified schedules and workloads to accommodate the pandemic, it should be possible to expand telecommuting in the future. Another thing to pay attention to is the number of people that make use of ride sharing services like Uber or Lyft. The majority of people (58.3%) said they drive themselves to travel around Worcester, but 16.5% said they use ride sharing. Ride-sharing is a paid service, and a lot of people have access to personal transportation. This presents an opportunity to expand carpooling services like Carpool World, since respondents already use third-party, paid services to arrange transportation and there are already ample drivers available on campus.

The following pages summarize the overall responses to the basic questions, and a more detailed summary is provided at the end to illustrate the trends for different categories of respondents (e.g. undergraduate, graduate, faculty, and staff).

# Breakdown by Question

## What do you do at WPI?

What do you do at WPI?  
723 responses



Class	Quantity
Undergraduate Students	189
Graduate	245
Staff	196
Faculty	93

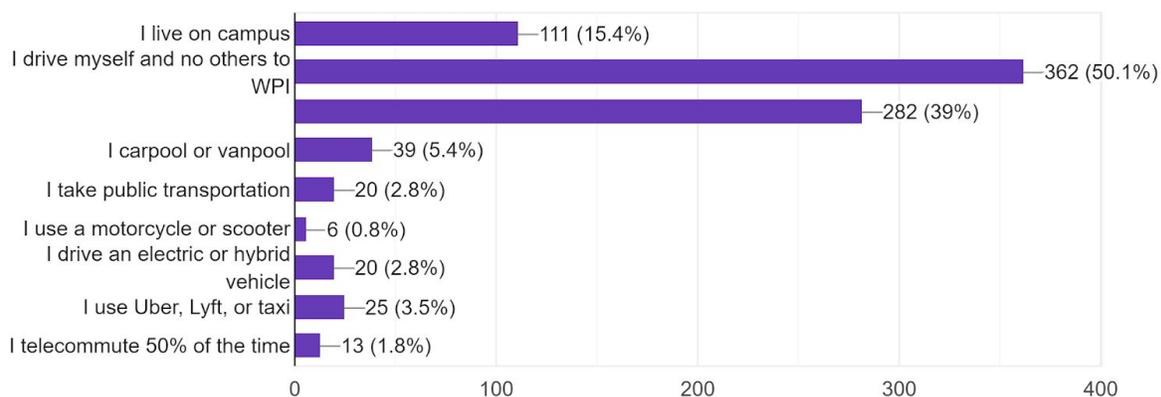
Table 1: Above shows the responses for this question broken down by category.

While this question was primarily to determine the demographic of respondents, there are a few things to note. The graduate students represented the largest proportion of respondents to this survey, while faculty had the lowest. Therefore, the survey will better represent the

responses of graduate students, while faculty might be under-represented in this survey compared to the other groups.

## How do you commute to campus MOST of the time? Check as many boxes as appropriate; for example, if you drive yourself and no others AND drive an electric vehicle, check both boxes.

How do you commute to campus MOST of the time? Check as many boxes as appropriate; for example, if you drive yourself and no others AND drive an electric vehicle, check both boxes.  
723 responses



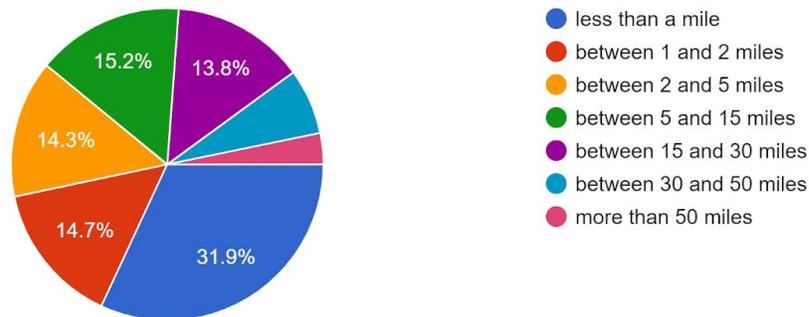
There is a small missing part in the graph above. The response without text had 282 (39%) of respondents was “I walk, bicycle, or use other non-motorized means”

Approximately 111 respondents live on campus, and this is expected to represent the undergraduate population since they are predominantly the main body that lives on campus. The largest response was “I drive myself and no others”. This is one of our main problem areas currently, that the main form of transportation to and from campus is single occupancy vehicles. The second largest response was “I walk, bicycle, or use other non-motorized means”. Roughly the same amount of people use public transportation (20) as Uber, Lyft, or Taxi (25). Only 20 respondents drive electric vehicles or hybrids. Thirteen respondents telecommute. There may be room for improvement there after the pandemic, due to an increased structure supporting telecommuting.

## If you do not live on campus, how far do you commute?

If you do NOT live on campus, how far do you commute?

617 responses



Category	Quantity
Less than a mile	197
Between 1 and 2 miles	91
Between 2 and 5 miles	88
Between 5 and 15 miles	94
Between 15 and 30 miles	85
Between 30 and 50 miles	42
More than 50 miles	20
Total	617

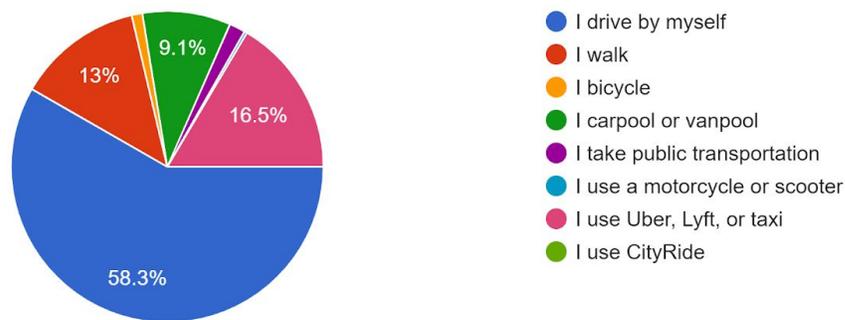
Table 2: Above shows the breakdown of respondents per category.

This question had 106 less respondents than the total amount of 732, because it represents everyone who does not live on campus. The amount of people who live under 2 miles is a combined total of 288, which roughly matches the amount of respondents who said they walk to campus. Assuming a correlation between these two data points, it might be possible that 2 miles is the threshold beyond which people seek motorized forms of transportation. Approximately 88 (14%) of respondents said they live within 2 and 5 miles of campus. This could be a potential area to coordinate/expand current programs like SNAP since SNAP only operates within 1 mile of campus, or expand bike sharing into a larger area than just on campus.

# How do you commute MOST of the time from campus to venues around the city (downtown, Blackstone Valley Shoppes, Worcester Airport, CVS, etc.)?

How do you commute MOST of the time from campus to venues around the city (downtown, Blackstone Valley Shoppes, Worcester Airport, CVS, etc.)?

722 responses



Category	Quantity
I drive by myself	421
I walk	94
I bicycle	8
I carpool or vanpool	66
I take public transportation	12
I use a motorcycle or scooter	2
I use Uber, Lyft, or Taxi	119
I use CityRide	0
Total	722

Table 3: Above shows the breakdown of respondents per category.

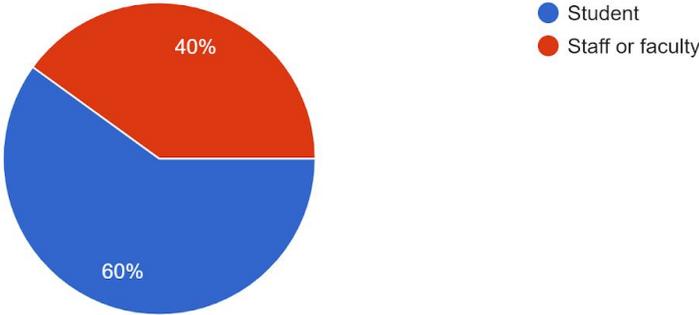
The majority of respondents drive by themselves. Again, this is our largest problem area. There are a few areas for improvement. While we cannot control walking distances, we can improve carpooling, public transportation, and CityRide. This will

likely have to come from promoting awareness on these transportation modes or public perception. A lot of people use Uber, Lyft, and taxis which is similar to public transportation, but is also a paid service. This indicates that 16.5% of respondents were willing to pay for a third party application to arrange a ride. Given this information, it is possible we could promote carpool services like CarpoolWorld as the majority of people have access to cars they drive themselves and people are willing to pay to arrange for transportation. No respondents claimed to use CityRide. This might be a fault of the question since CityRide only has three stops: Union Station, and 2 at Blackstone Valley Shops. It does not offer a way to get around the city except for those few locations.

## For the previous question, tell us if you are a student or staff/faculty.

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722 responses

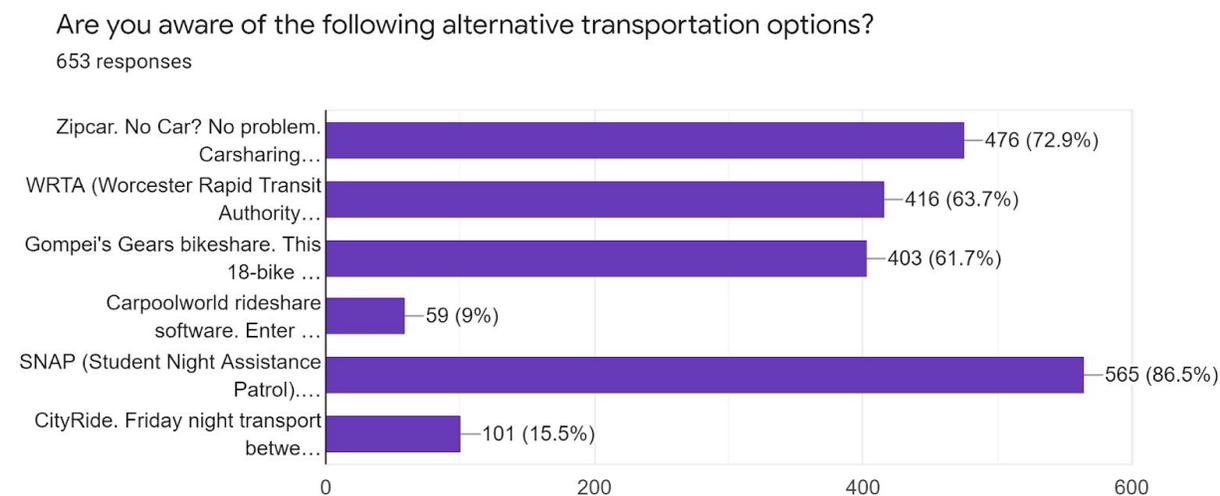


Category	Quantity
Student	289
Staff or Faculty	433
Total	722

This question follows up Question 4. One potential problem is that it does not show how students responded to Question 4 versus how faculty responded. I expect that staff of faculty might make up the majority of the people who drive themselves around

Worcester given their increased access to personal transportation than students. It brings up questions like “are students taking public transportation or are faculty?” or “who are the people that predominantly carpool, students or faculty?”

## Are you aware of the following alternative transportation options?



The majority of respondents said they are aware of Zipcar, which was surprising. The previous questions did not ask students if they use Zipcar, which would have been a good thing to know since so many students are aware of it. The majority of students were aware of the Worcester Rapid Transit Authority, which again poses another problem. If most people know of it, then why are the numbers for public transportation in question so much lower (416 versus 12)? Most people know of SNAP and Gompei's Gears which is good, but those gears are best for limited and on campus transportation. Very few people were aware of Carpoolworld, which is an area we can improve on. An interesting thing to note, is that 59 people know of Carpool, while 66 people said they carpool. It would be good to know if the 59 respondents who know of Carpool were the same people who said that they carpool. Otherwise that means most people who carpool are arranging it on their own which would also be interesting to follow up on. As for CityRide, 101 respondents said they know of it, but 0 respondents actually use it. This means that this is the least favorable transportation option to respondents.

## Extension– More Detailed Analysis of Responses for Different Categories of Respondents (e.g.

undergraduates, graduates, staff, and faculty)

How do you commute to campus MOST of the time?

Check as many boxes as appropriate; for example, if you drive yourself and no others AND drive an electric vehicle, check both boxes.

Commuter Data by Group				
Category	Undergraduates (%)	Graduates (%)	Staff (%)	Faculty (%)
Total number of Respondents	189	245	196	93
I live on campus	92 (48.68)	19 (7.76)	0 (0)	0 (0)
I drive myself and no others to WPI	20 (10.58)	97 (39.59)	175 (89.29)	70 (75.27)
I walk, bicycle, or use other non-motorized needs	107 (56.61)	153 (62.45)	14 (7.14)	18 (19.35)
I carpool or vanpool	11 (5.82)	9 (3.67)	15 (7.65)	4 (4.30)
I take public transportation	7 (3.70)	6 (2.45)	5 (2.55)	2 (2.15)
I use a motorcycle or scooter	1 (0.53)	2 (0.82)	3 (1.53)	0 (0)
I drive an	1 (0.53)	3 (1.22)	6 (3.06)	10 (10.75)

electric or hybrid vehicle				
I use Uber, Lyft, or taxi	4 (2.12)	12 (4.90)	4 (2.04)	5 (5.38)
I telecommute 50% of the time	1 (0.53)	8 (3.27)	1 (0.51)	3 (3.32)