

# UIUC Student e-Survey Report



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#### Introduction

Two e-surveys were conducted in Champaign/Urbana as part of the miPLAN mobility project. One was a survey of the employees of larger employers in the area, while the other was a study of UIUC students. The latter are the subject of this report. A separate report will be prepared based on the employee survey.

The objective of the study was to provide a profile of the mobility patterns of a large proportion of the student body and a proportion that is as representative as possible. With a large sample it would be possible to geocode many points of origin and destination, to learn about typical mobility patterns, uses of multiple modes, perceived barriers to walking or riding a bicycle.

Invitations were sent by university authorities via email to all UIUC students. According to university records at the time, the total student population, including undergraduate and graduate students, was 41,342. A total of 3,319 completed surveys were submitted electronically, for a response rate of 8%.

Data were analyzed using SPSS, and are presented in charts created in an Excel and exported to PowerPoint. Consequently, there is a PowerPoint file of all slides contained in this report which can be used for presentation purposes.

In almost all of the charts in the report percentages are rounded to the nearest whole number. This may cause the sum of any given percentage to total 99% or 101%. This is simply rounding error and should be ignored.

When conducting e-surveys, we are often asked two questions:

- (1) What is the statistical margin of error?
- (2) Is the response a "good" response?

First, measurement of a range of sample error is a product of the *randomness* of a sample, not the proportion of the population included in a survey. The sample cannot be considered a "random sample" because response was entirely voluntary and thus self-selected. To approximate a random sample would require identifying a large body of students choosing them in a rigorous randomized manner, then pursuing them over time and with financial incentives until the sample was completed. Thus sample error statistics are not truly applicable to this sample.

As a practical matter, however, without great expense, it is not practical to achieve a true random sample of students today for several reasons. First, telephone interviewing is generally considered to be the optimum method of approximating a random sample in today's environment. However, cell phone use is very high and land-line use very low among college students. While we do not know the incidence of cell-only use among UIUC students, in households with unmarried persons living together as roommates the

national percentage is at least 54% and growing rapidly<sup>1</sup>. Because of the lack of public listings of cell phone numbers, and because of the fact that there are usually charges for incoming calls, there are practical, ethical, and legal concerns about including cell phone numbers and using a telephone methodology to reach students. Because by definition a cell phone is mobile, there are also questions of practicality, data quality and even safety when an interview is conducted by cell phone.

Even if cell phone use were not an obstacle to completing a student survey by telephone, cooperation rates have declined so substantially in telephone surveys among all populations for many reasons, that increasingly experts are raising questions about even telephone methods for providing truly random samples. Many sampling experts are now arguing that an e-survey of a population is preferable, especially when weighted for known demographic characteristics.

Other methods than telephone surveys and e-surveys are available, but they involve combinations of personal contact, paper-mail, personal follow up, and financial incentives which are quite labor intensive and too costly for this project. Thus in proposing the e-survey method we felt that a large and diverse sampling of students, albeit self-selected students, would suffice for our purposes of profiling a large proportion of the student population at a reasonable cost.

The second question about whether this is a "good response" is more difficult to answer. A "good" response in common-sense lay-terms would in the first instance be one that met the central objectives of the study. The objectives are to provide a profile of the mobility patterns of a large proportion of the student body and a proportion that is as representative as possible. Is the sample representative? While we have no independent measure of mobility modes by which to judge representation of the key variable (mobility mode) in the study, we can measure two demographic characteristics in both the sample and the student body: age and class.

For both age and class, the sample was reasonably well in line with the characteristics of the student body as a whole. In this sense, the response is not only "good," but also in all likelihood far better both in terms of numbers of respondents and the accuracy of its representation of the total student body, than could be achieved at the same cost by telephone or other methods.

The table and charts on the following pages compare age and class as determined by the University and the survey respondents<sup>2</sup>. Figure 1 Age comparison, students in sample vs. students in University records" indicates that the age distribution of the sample is reasonably close to that of the student body in general. Experience with telephone and mail surveys teaches that this distribution is as close as most telephone surveys using random-digit dialing come today to being truly representative prior to weighting.

<sup>&</sup>lt;sup>1</sup> Blumberg & Luke, "Wireless Substitution: Early Release of Data from the National Health Interview Survey, July – December 2006, Division of Health Interview Statistics, National Center for Health Statistics. <sup>2</sup> The student profile is available online at <a href="http://www.dmi.uiuc.edu/stuenr/index.htm#class">http://www.dmi.uiuc.edu/stuenr/index.htm#class</a> at the link within the site, <a href="Student Enrollment by Curriculum and Class Level">Student Enrollment by Curriculum and Class Level</a> . The information is provided by the Division of Management Information of the University of Illinois.

As the pie charts depicting academic class level indicate (Figure 3 Distribution by class, from student records and unweighted sample), the sample is reasonably, but not entirely, representative of the proportions of students in the several classes. Graduate students are somewhat overrepresented among the survey respondents and seniors somewhat under-represented.

Weighting was use to correct this disproportion, such that the sample being analyzed is precisely in proportion to the classes as measured by the university and shown in the pie chart on the left in Figure 3.

This weighting assumes (like all weighting methods), that those members of the senior class who did not respond to the survey are like those who did respond in terms of their local mobility practices. Since the introduction to the survey did not refer to any specific mode of transportation, but only to the ways people travel locally, there is no reason to assume that the response to the survey would differ among respondents according to the mode they commonly use. For example, a frequent user of MTD would be no more or less likely than a dedicated bicyclist or SOV user or walker to respond to the survey since the survey was introduced as a project of miPLAN, not of MTD.

## Comparison of respondent ages in sample and respondent ages in University records

Comparison of ages of respondents in survey to ages of all students at UIUC						
	UIUC Census e-Survey Difference					
Year Of Birth	All UIUC students	% of all UIUC students	n	Percent of sample	(Sample % minus actual %)	
1939-1964	392	1.03%	35	1.06%	0.0%	
1965	47	0.12%	2	0.06%	-0.1%	
1966	65	0.17%	4	0.12%	0.0%	
1967	84	0.22%	4	0.12%	-0.1%	
1968	86	0.23%	12	0.36%	0.1%	
1969	85	0.22%	13	0.40%	0.2%	
1970	142	0.37%	16	0.49%	0.1%	
1971	156	0.41%	11	0.33%	-0.1%	
1972	190	0.50%	19	0.58%	0.1%	
1973	242	0.63%	17	0.52%	-0.1%	
1974	308	0.81%	33	1.00%	0.2%	
1975	367	0.96%	40	1.22%	0.3%	
1976	403	1.06%	51	1.55%	0.5%	
1977	540	1.42%	62	1.88%	0.5%	
1978	678	1.78%	86	2.61%	0.8%	
1979	835	2.19%	100	3.04%	0.9%	
1980	1000	2.62%	132	4.01%	1.4%	
1981	1061	2.78%	134	4.07%	1.3%	
1982	1224	3.21%	149	4.53%	1.3%	
1983	1555	4.08%	179	5.44%	1.4%	
1984	3682	9.65%	304	9.24%	-0.4%	
1985	6455	16.92%	475	14.44%	-2.5%	
1986	7027	18.42%	514	15.62%	-2.8%	
1987	6944	18.21%	537	16.32%	-1.9%	
1988	4500	11.80%	354	10.76%	-1.0%	
1989-1990	71	0.19%	7	0.21%	0.0%	
Total	38140	100.00%	3290	100.00%		

Figure 1 Age comparison, students in sample vs. students in University records

## Distribution of student ages, actual spring, 2007 and as sampled, spring, 2007



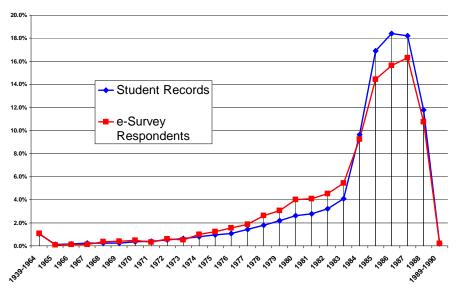


Figure 2 Distribution of age in the sample and in the student body as a whole

## Actual class distribution compared to unweighted sample

Actual student population, from UIUC student records (left), and un-weighted e-survey sample (right)

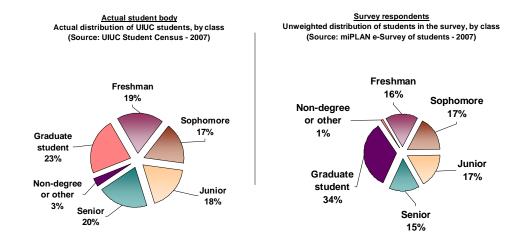
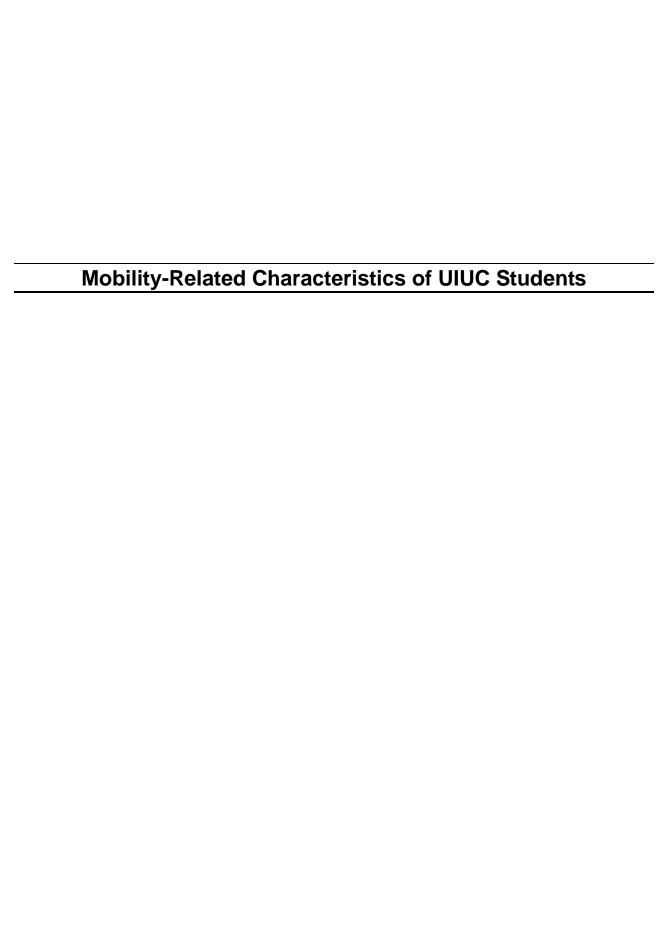
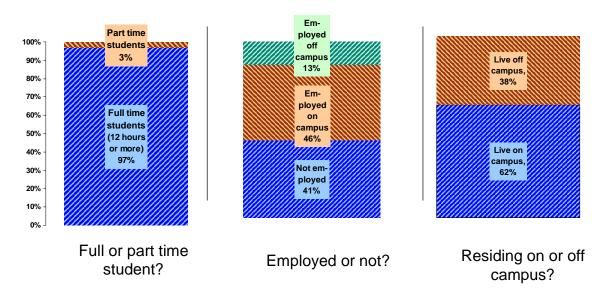


Figure 3 Distribution by class, from student records and unweighted sample



# Three characteristics of students that relate to local mobility

(Source: miPLAN e-Survey of UIUC Students, 2007)



Each column includes the entire student sample

Figure 4 Three mobility-related characteristics of UIUC students

#### Characteristics of the student respondents

The chart above describes three characteristics of the student body all of which are related to mobility needs:

• The vast majority, 97% of the respondents, are full-time students defined as attending the University for 12 credit hours or more.

		Do you live on campus or off campus during the academic year?		
		Lives on campus	Lives off campus	
What	Freshman	30%	1%	
year are you in at	Sophomore	22%	8%	
college?	Junior	20%	14%	
	Senior	18%	23%	
	Graduate student	7%	48%	
	Non degree student	2%	5%	
	Other:	0%	2%	

- Of all respondents, 46% said they are employed on campus, and 13% off campus, for a total of 59% saying they are employed during the school year.
- Of all respondents 62% said they live on campus, while the balance, 38% said they live off campus.

For purposes of this report, residence on or off campus was

determined by asking the direct question: "Do you live on or off campus?" As one would expect, (see inset table) there is a clear relationship between class level of residence on or off campus. Very few graduate students (7%) said they live "on campus," while 48% of those living off campus were graduate students<sup>3</sup>.

There are 1,150 graduate students in the sample, about a third of the total sample. Of these, 1141 answered the question about where they live. It is possible that others from Orchard Downs also responded but are not identified as such if they skipped the location questions as 379 of the more than 3,300 respondents did.

The responses for off-campus residents are certainly heavily conditioned by the response of graduate students, though not primarily by students living in the Orchard Downs complex. While the latter are an important constituency for public transportation and other alternative mobility modes, they do not dominate the graduate student data in the survey.

<sup>&</sup>lt;sup>3</sup> A question arose about non-US nationals living off campus as graduate students, especially at Orchard Downs, which is a University-owned complex of homes off the main campus. The reasoning was that this group of students may be especially transit dependent. In the sample, twenty respondents could be identified as living there either by their having cited Orchard Downs as their residence, or by geocoding of their address data.

#### **Employment**

#### by class

(Source: miPLAN e-Survey of UIUC Students, 2007)

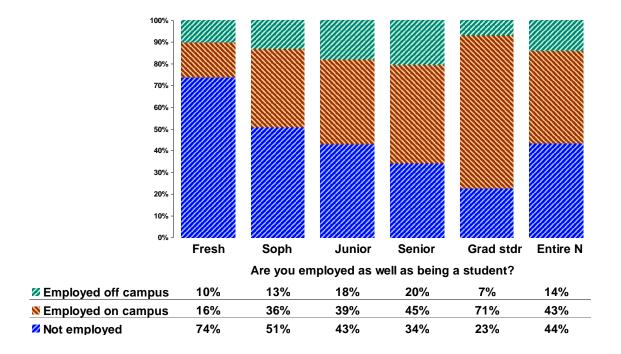


Figure 5 Employment, by class

#### Employment by class

Among the entire sample<sup>4</sup>, a total of 56% of respondents are employed, 14% off campus and 43% on campus.

The tendency to be employed or not employed varies greatly by the class level of the student respondents. The lower the class level of the student, the less likely he or she is to be employed. Thus, for example, only a total of 26% of freshmen indicated they are employed either on or off campus, while 65% of seniors indicated that they were so employed. Among graduate students the total employed was highest, as would be expected, at 78%.

<sup>&</sup>lt;sup>4</sup> In the charts throughout this report, the terms "Entire N," and "Entire Sample" are used interchangeably to cope with the text restrictions imposed by the graphics package. Both refer to all respondents. Also, although they were used in the weighting, the non-degree students, among whom only 26 of the 1,413 students enrolled responded, are not included in the analysis when tables are run by class because the sub-sample is too small. They are included in the tables not arrayed by class level. Finally, the term "Fresh" is used for freshmen rather than the traditional "Frosh."

Similarly, the percentage of students who are employed off campus increases with class level. While only 10% of freshmen said they are employed off campus, 20% of seniors indicated that they are. Among graduate students, however, only 7% indicated that they are employed off campus, presumably because at that level their employment would tend to be academically oriented in either teaching or research positions.

#### Lives on or off-campus

by class

(Source: miPLAN e-Survey of UIUC Students, 2007)

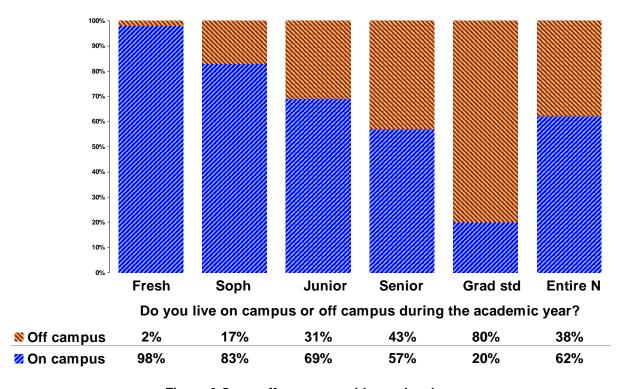


Figure 6 On or off campus residence, by class

#### Residence by class level

Of the entire sample, 62% said they live on campus, and 38% off campus. This obviously creates two very different markets for mobility options.

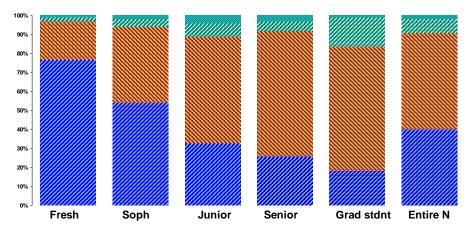
There is a direct relationship between class level and living on or off campus. The higher the class level, the more likely the student is to live off campus. For example, only 2% of freshmen, but 17% of sophomores, 31% of juniors, 43% of seniors, and 80% of graduate students live off campus.

Undoubtedly there are various reasons for this relationship of class level to residence, including parental influence, perhaps university regulations, and growing independence with maturation. Whatever the reasons, the relationship of class level to living arrangements has a major effect on the mobility options of the different class levels because of the limited on campus parking available to students, especially freshmen.

#### **Vehicles**

#### by class

(Source: miPLAN e-Survey of UIUC Students, 2007)



How many vehicles (cars, vans, motorcycles, pick-ups) in running condition are available to you on a regular basis during the school

/	е	8	u	•

Three or more	1%	2%	4%	3%	1%	2%
<b></b> Two	2%	4%	7%	5%	15%	7%
N One	20%	40%	57%	66%	65%	51%
None	76%	54%	33%	26%	18%	40%

Figure 7 Number of vehicles, by class

#### Vehicles available

Another mobility factor directly related to class level is having a vehicle available while living in Champaign/Urbana. While 76% of freshmen said they do not have a vehicle, only 26% of seniors said they lack a vehicle. Among graduate students, only 18% lack a vehicle. Freshmen are not prohibited from having a vehicle, but they must park at such a great distance from their residence halls that a car is of limited utility.

The tendency to have a vehicle available is also related to on or off campus residence

#### Two influences on whether students have vehicles

	Are	you employ	or off campu	on campus us during the iic year?	
	Not employed	Employed on campus	Employed off campus	Lives on campus	Lives off campus
No vehicle	48%	31%	24%	52%	17%
One	44%	58%	59%	42%	66%
Two	5%	10%	13%	4%	15%
Three or more	2%	2%	4%	2%	2%

students at lower class levels.

(see inset table) and to employment. Upper classmen are more likely to be employed, more likely to live off campus, and are more likely to have a vehicle, perhaps for those reasons. Whatever the reason, it is clear that the upperclassmen have more mobility options than do the

#### Vehicles – ratio of vehicles to drivers

#### by class

(Source: miPLAN e-Survey of UIUC Students, 2007)

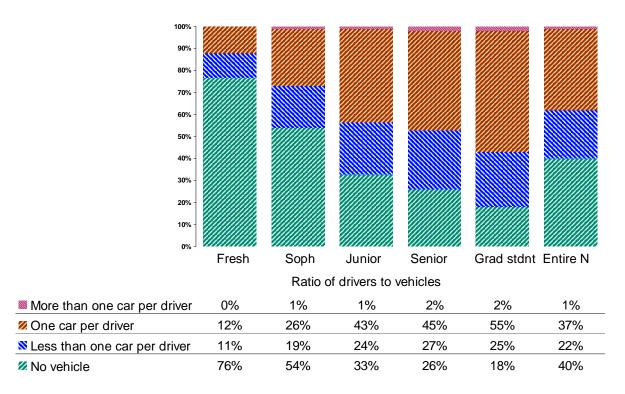


Figure 8 Vehicles - ratio of vehicles to drivers, by class

#### The ratio of vehicles to drivers

Students who have a vehicle were asked how many drivers share that vehicle. Among the entire sample, those who have a vehicle available tend have one vehicle per driver (37%). Some students, 22%, share a vehicle.

The ratio varies somewhat by class, but the differences are minor compared to the overriding factor of having or not having a vehicle.

Current and Potential MTD Market among UIUC Students

#### **MTD Market segments**

(Source: miPLAN e-Survey of UIUC Students - 2007)

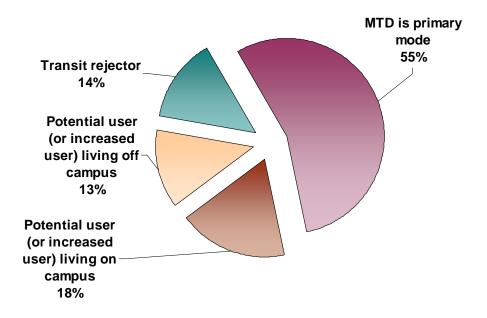


Figure 9 MTD Market segments

#### MTD market segments

The key to understanding the student data related to MTD is to remember that virtually all of the students are multimodal in their mobility practices. Unlike the transportation markets in cities, the campus transportation market includes relatively few people who use SOV-only. The public transit portion (i.e. MTD) of the mobility market in this population is therefore fundamentally different from the transit markets in other environments such as cities and suburbs were virtually the only option available to most people is the private vehicle.

We have divided the respondents into four groups as shown in the chart above. Students were asked which mode they had used most frequently in the past month. Fifty-five percent (55%) indicated that MTD buses had been their primary mode. This did not mean that the others did not use MTD, because in fact most of them had used it at least occasionally. It meant only that it was not the most frequently used mode.

Potential users were defined as those who did not use MTD as their most common mode during the past month, but said they would use it once a week or more, or would use it more often than they now do, if service were more direct and frequent. They were then divided into potential MTD users living on campus (18%) or off campus (13%) because their mobility needs vary so greatly.

Rejectors (14%), in contrast, said there was no likelihood that they would use or increase their use of MTD regardless of changes in service.

In order to understand the charts which follow, it is important to remember that all four of the MTD market segments tend to use the MTD buses at least occasionally. The distinction is one of relative frequency of using MTD versus other modes, and perception that they might use it more often in the future under certain circumstances.

In the charts that follow in this chapter, we use a set of abbreviations for the market segments. Given the limits of the text features in the charting software, the use of abbreviations was necessary. The abbreviated categories are as follows:

- MTD primary = MTD has been the primary, but for most respondents, not exclusive, mode of mobility for the past seven days (55%).
- Ptl-campus = These students live on campus and indicate that they would use MTD bus service once a week or more, or that they would use it more often if they already use it with some frequency, but not as their primary mode of mobility (18%).
- Ptl Off-cmps = These students live off campus indicate that they would use MTD bus service once a week or more, or that they would use it more often if they already use it with some frequency, but not as their primary mode of mobility (13%).
- Rejector = these students may live on or off campus, and they may use MTD service
  to some extent now (though not as their primary mode) but they indicate that under no
  circumstances would they begin to use MTD once a week or more or more often than
  they now do (14%).

## **Class** within MTD market segment

(Source: miPLAN e-Survey of UIUC Students, 2007)

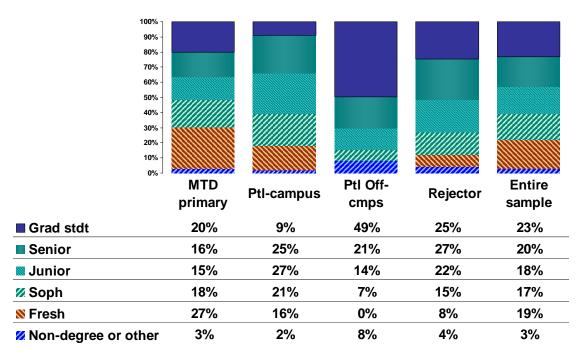


Figure 10 Class level, within MTD market segment

#### What are the class level characteristics of the MTD market segments?

Those who use MTD as their primary mode of local mobility ("MTD Primary") are fairly well distributed among the classes<sup>5</sup>. The single largest group of current primary MTD users are freshmen (27% of the MTD primary users), and the next largest group is graduate students, at 20%.

On the other hand, of potential on campus users of MTD only 9% are graduate students, but 25% are seniors and 27% are juniors. However, of potential off campus MTD users 49% are graduate students and 21% seniors. Thus the current on campus and off campus potential markets are very different in terms of their class level make up, and both are quite different from those who already use MTD as their primary mode.

<sup>&</sup>lt;sup>5</sup> The reader familiar with the miPLAN onboard survey may notice that the distribution of MTD users by class in the Campus Route Survey is different from the distribution shown here for the MTD primary segment. The distribution among the classes cannot be expected to be the same as the distribution of the class levels in the onboard campus route survey because the e-survey is based on a sample of individuals who were invited to participate *without regard to whether they use MTD, or the frequency with which they use MTD buses.* That method finds non-riders, frequent, and infrequent riders without regard to their use of MTD. On the other hand, the onboard survey is a survey of riders found on the buses in a one-week period. That method quite naturally tends to find and include only riders and especially more frequent riders.

#### **MTD Market segment**

by class

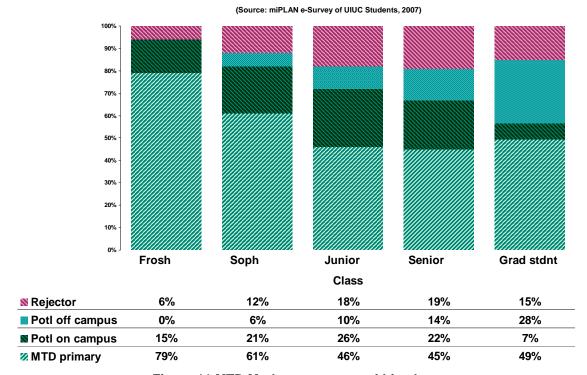


Figure 11 MTD Market segments, within class

Another way to look at class level is to reverse the numerator and denominator of the percentages, thus determining *within each class level* the percentage of students that fall into each of the MTD market segments.

Looked at in this way, the relationship between class level and use of, and interest in, MTD service is even clearer than in the previous chart. Here we see that for 79% of freshmen MTD is the primary mode of mobility. Among sophomores, 61% cite MTD as their primary mobility code, while among juniors and seniors 46% and 45% respectively cite MTD as their primary mode.

This pattern strongly suggests that the use of MTD declines from the first to second to third year and then stabilizes.

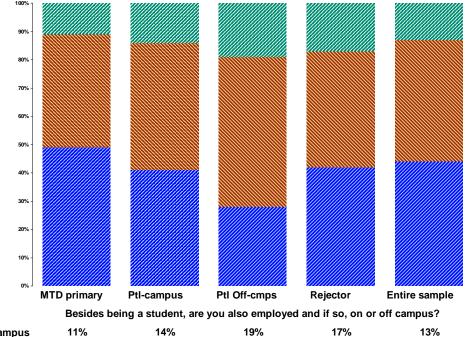
The potential market is most focused among the juniors living on campus and graduate students living off campus.

Conversely, the percentage of rejectors increases from the freshmen year (6%) through the sophomore year (12%) and then stabilizes at about 18% or 19% into junior and senior years.

#### **Employment**

#### within MTD market segment

(Source: miPLAN e-Survey of UIUC Students, 2007)



Employed off campus	11%	14%	19%	17%	13%
	40%	45%	53%	41%	43%
Not employed	49%	41%	28%	42%	44%

Figure 12 Employment, by MTD market segment

#### **Employment**

Of the entire student sample, 44% indicated they were not employed at all while 43% indicated they were employed on campus and 13% off campus. These percentages vary

		Are you also employed?				
		Not employed	Employed on campus	Employed off campus		
		Col %	Col %	Col %		
Potential to	MTD primary	62%	52%	44%		
use MTD or to use MTD more often	Ptl Campus	16%	19%	18%		
	Potl off cmps	8%	16%	19%		
	Rejector	14%	14%	18%		

among the several MTD market segments. For example, of the potential MTD users *living* off campus, 53% said they are *employed* on campus. This suggests that there may be a potential market for increased commuting via MTD between off campus and on campus locations for work purposes.

In the inset table reverses the numerator and denominator to offer a different perspective. The table shows that:

 Of those who are not employed, 62% already use MTD as their primary mobility mode.

- Of those employed on campus, slightly more than half, 52%, use MTD as their primary mobility mode.
- Of that same group, 19% are potential MTD users living on campus
- Of those who are employed on campus, 16% live off campus but have some potential to use MTD more often.
- Of students who are employed off campus, 44%, the lowest percentage among the three groups shown in the table, but still quite a substantial proportion, say they use MTD as their primary mobility mode.

#### **Employment and having vehicle available**

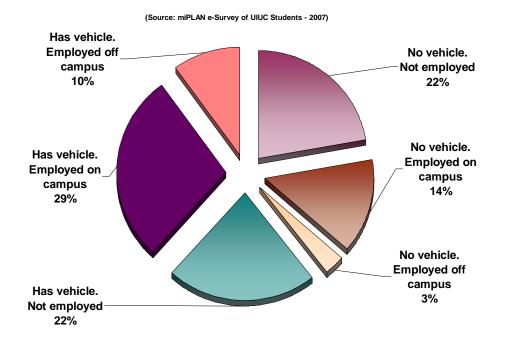


Figure 13 Employment and having a vehicle available

#### Employment and having a vehicle available

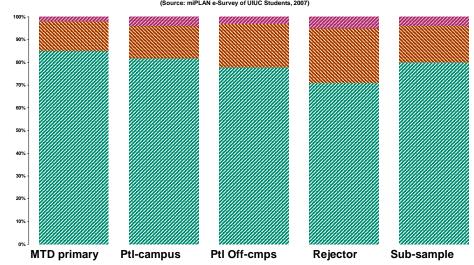
In the chart above, all respondents are broken into groups to characterize whether they have a vehicle and are employed. Twenty-nine percent (29%) are employed on campus and have a vehicle, and another 10% have a vehicle and are employed off campus.

#### Thus:

- The total work-trip commuting market among those who have the choice of using their own vehicle and who need to commute to work is 39%, of whom 10% are employed off campus and 29% are employed on campus.
- The total commuting market among those who are employed but who have no vehicle is 17%, of whom 3% are employed off campus, and 14% are employed on campus.

## Requirement of employed students that they use their own vehicle for work purposes





(Employed students with vehicles only) Are you required to use your own car to perform work while at your job?

Yes, always	2%	4%	3%	5%	4%
Yes, sometimes	13%	14%	19%	24%	16%
No. never	85%	81%	77%	71%	80%

Figure 14 Needing to use one's own vehicle at work (employed students with a vehicle only), by

MTD market segment

#### Employment and a requirement of using one's own vehicle

A major obstacle among non-student populations to using public transit is having to use their own vehicles for work purposes. Students who are employed and have a vehicle were asked whether they are required to use their own vehicle to perform work at their job. The inset table shows the breakdown of the entire student sample into combined

Cell percentages are based on the total student	Has no vehicle		Has a vehicle		
sample and thus are	Lives on	Lives off	Lives on	Lives off	Row sub-
additive among cells.	campus	campus	campus	campus	totals
Not employed	17%	3%	12%	9%	41%
Employed on campus	10%	4%	11%	22%	47%
Employed off campus	2%	1%	4%	5%	12%
Column sub-totals	30%	8%	27%	36%	100%

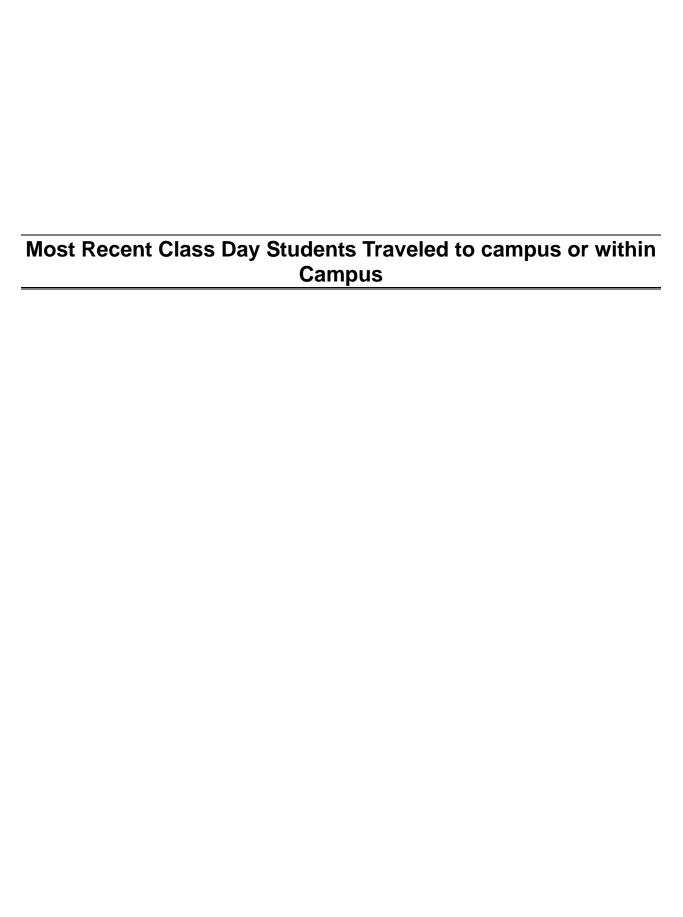
percentages showing where students live (of or off campus), whether they have a vehicle, and whether and where they are employed. Thus, for example, 17% have no vehicle,

live on campus, and are not employed. Because the cell percentages are based on the

total student sample, they are additive. For example 22% of all students have a vehicle, live off campus and are employed on campus, and another 3% have no vehicle, live off campus and work on campus for a total of 25% of students living off campus but working on campus. For those living off campus who have a vehicle and work on campus, commuting by their own vehicle would probably be quite difficult given the parking challenges.

In the graphic chart (Figure 14) only a sub-sample of those with vehicles and employed are included. This is a total of 42% of the sample. Of the sub-sample included in the chart above, 80% said they do not have to use their cars at work, and only 4% said that they always have to. Another 16% said they sometimes have to use their vehicles at work, for a total of 19% who must always or sometimes use their own vehicles for work-related purposes. Adjusting for the fact that 42% of the respondents fall under the category of having a vehicle and being employed, this means that 8% of the respondents have a job that requires them to use their own vehicle at least some of the time when they are working.

In large urban populations the percentage of people saying they must use their cars for work purposes is generally greater. The student e-survey data suggests that for the most part this is not a major obstacle for student use of MTD.



# Requirement of employed students that they use their own vehicle for work purposes

within MTD market segment

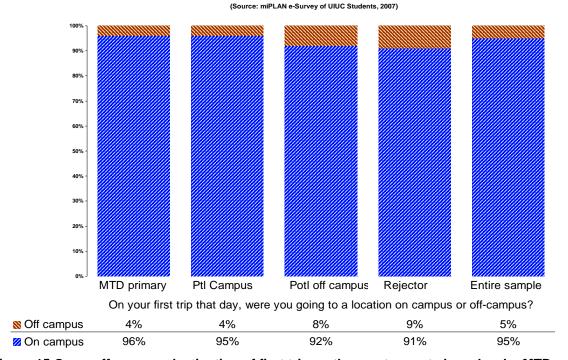


Figure 15 On or off campus destination of first trip on the most recent class day, by MTD market segment

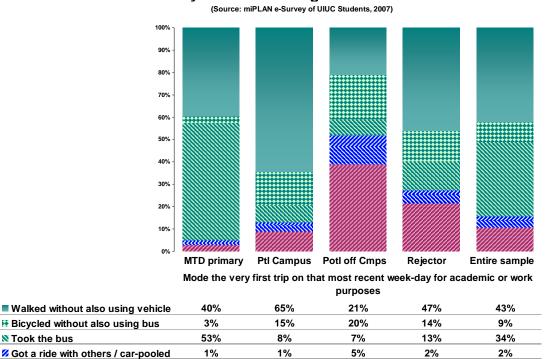
#### Destination of the first trip of the day

Respondents were asked to describe various aspects their own mobility on the most recent weekday when they were on campus. First respondents were asked whether the first destination was on campus or off campus. Almost universally respondents said that the destination was on campus (94%).

Although the percent saying that their first trip was off campus varies somewhat among the MTD market segments, the tendency for the first trip to involve a destination on campus is so overwhelming -- more than 90% in all segments -- that the difference is unimportant.

#### Mode for first trip of the day

by MTD market segment



8%

39%

4%

22%

3%

11%

Figure 16 Mode for first trip of the day, by MTD market segment

3%

1%

#### Mode for the first trip of the day

Nove, taking one or more adults

N Took the bus

Drove alone

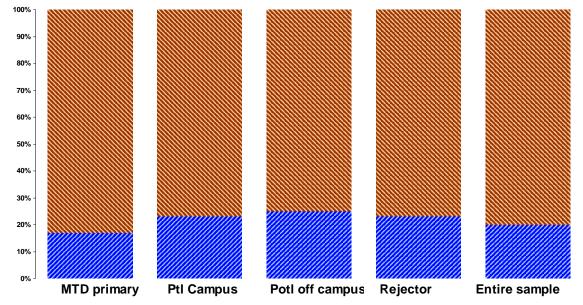
The mode for the first trip of the day on the most recent day when the respondent was on campus is quite interesting. First, of the entire sample, only 11% drove alone. This contrasts sharply with the 80% or more of the public that drive alone in most non-student, urban markets. Also, 34% said they took the bus, 9% bicycled without also using the bus and 43% walked.

These results are of course conditioned by the residential arrangements in which the students live. They are also no doubt profoundly influenced by the lack of parking on campus, the ready availability of plentiful bus service, and the relatively small geographic area (i.e. the campus) in which mobility needs are constrained.

Among the rejectors, 13% said they had taken the bus on the most recent day. Of course, as we have pointed out, virtually everyone in the sample uses the bus at least occasionally. The rejectors are not defined by a failure to use the bus at all, but by their rejection of the idea of using the bus once a week or more or at least more often than they do now. Among the rejectors, 22% said they had driven alone on the most recent weekday on campus, while 47% said they had walked. Thus, unlike the situation in most transportation markets, driving alone is not the primary competition in terms of mobility services.

## Having to stop on the way to or from destination

(Source: miPLAN e-Survey of UIUC Students, 2007)



That day, did you stop briefly on your way to or from your destination whether for errrands, dropping off children, or other purposes?

🔊 No	83%	77%	75%	77%	80%
Yes	17%	23%	25%	23%	20%

Figure 17 Stopping during the first trip of the day, by MTD market segment

#### Stopping during the first trip of the day

Among the constraints on using modes that are alternatives to the single occupancy vehicle is the need to stop on the way to or from a destination for errands, dropping off children, or other purposes. Of the entire sample, 20% indicated that they had stopped for some purpose during their first trip of the day. This was most likely to occur among the potential MTD users living off campus (25%). It was least likely to occur among those who use MTD as their primary mobility mode (17%).

### Purpose of the stop during the first trip of the day (Includes only those who stopped)

Multiple responses included - each bar is based on the sub-sample of 20% who stopped on their first trip (Source:

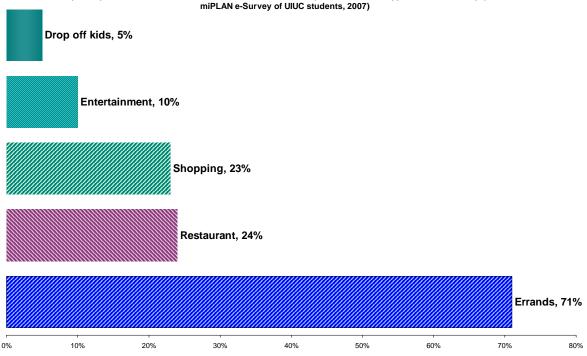


Figure 18 Purpose of the stop made during the first trip of the day (including only those who stopped), by MTD market segment

#### Purpose of the stop (if any) during the first trip of the day

When we break down the 20% who said they had stopped during the first trip of the day, we find that for the most part they were doing errands (71%), while others were going to restaurants (24%) or shopping (23%), and a few were going for entertainment (10%) and some dropping off children (5%).

Of course, some people were doing multiple things such as dropping off children and running errands. In many markets, especially where there is no yellow-bus school service, dropping off children at school or childcare is among the significant obstacles to using any mode except one's own vehicle. In this campus market which is constrained within parameters of limited geography and limited age, this is a necessity for only a small part of the market (5% of the 20% who stop during their trip, or less than 1% of the market).

#### Parking payment method

(Source: miPLAN e-Survey of UIUC Students - 2007)

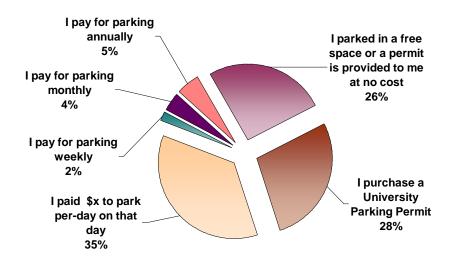


Figure 19 Parking payment method

#### Parking payment methods and estimated rates

A total of 14% of the respondents drove their cars to their destination on the first trip of the day (alone or taking others) and thus had to park<sup>6</sup>. (See Figure 16.) These respondents were asked how they paid for parking and how much it cost. The pie chart

More than \$1.50, 20%

39c to \$1.50, 22%

Up to 38c, 29%

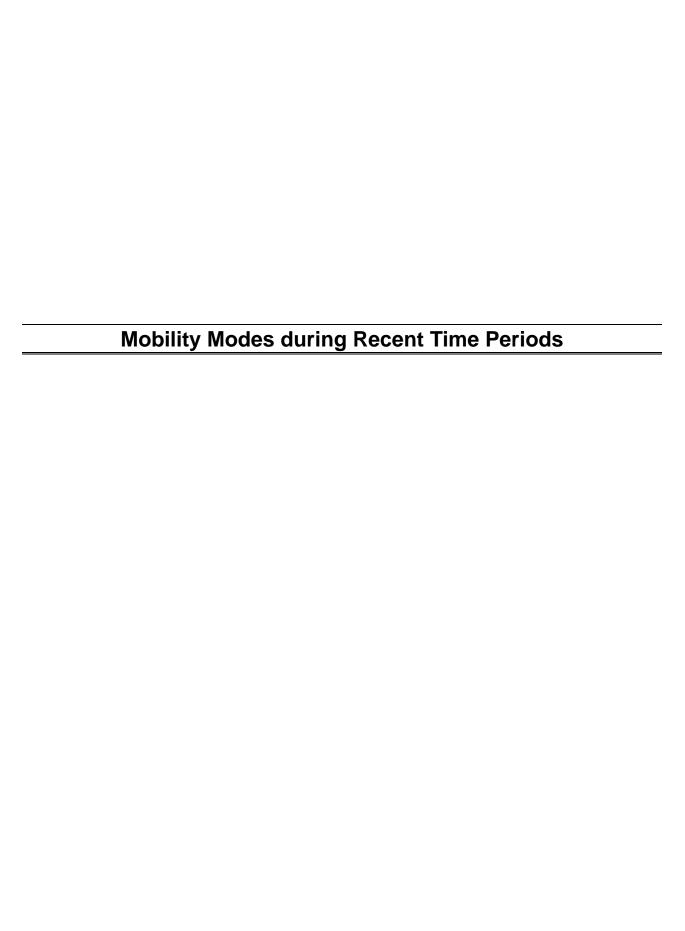
Free parking, 29%

Daily cost to park most recent day on campus

above indicates the distribution within the sub-sample of the payment methods. Slightly more than one-fourth (26%) parked free, and another 28% parked using a university permit they had purchased. Somewhat more than one-third, 35%, paid a per-day charge. The other categories probably overlap the university permit category in some cases, and in others may represent various private rental arrangements. The time periods were used to approximately pro-rate the parking costs.

Depending on how much they paid to park, respondents were broken into four sets divided as nearly as possible into roughly equal groups, prorated for parking on a daily basis. These sets are shown at the left. Parking is generally a bargain compared to parking costs in major urban centers.

<sup>&</sup>lt;sup>6</sup> This sub-sample includes 495 respondents, too small to break meaningfully into MTD market segments.



#### Mode used most often in past seven days

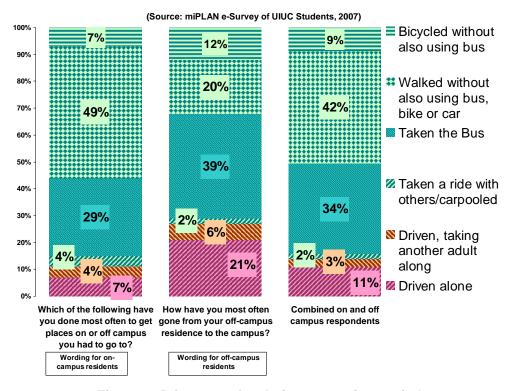


Figure 20 Primary modes during recent time periods

#### Mobility modes used most often

In another illustration of how different the mobility market is in a campus community than in a city, the chart above indicates the modes most often used by students. The chart is

Next most frequent mode for those who live on campus			
and most frequently walk to destinations	-		
Driven alone	16%		
Driven, taking another adult along	9%		
Taken a ride with others/carpooled	14%		
Taken the Bus	55%		
Bicycled without also using bus	6%		

Next most frequent mode for those living off c who most frequently walk to campus	ampus_
Driven alone	4%
Taken a ride with others/carpooled	8%
Taken the Bus	40%
Bicycled without also using bus	33%
Walk only - no second mode	15%

broken into two components, one related to off campus residents, the other related to on campus residents.

Because this survey was related to commuting, slightly different questions were asked of people of those living on or off campus. From the point of view of the off-campus residents our interest was in how they get to campus. From the point of view of the on campus resident, since they were already on campus, their "commute" would most likely be from one part of campus to other points on campus, though in a few cases they might make a first trip off-

campus<sup>7</sup>.

The chart demonstrates that relatively few respondents drive to or within the campus compared to the percentage who walk, take the bus, or bicycle.

Walking is clearly the dominant mode for those who live on campus, with 49% indicating that walking is their most frequently used mode. Another 29% said that they take the bus. Compared to the percentage who use those modes, relatively few indicated that they drive alone or use a bicycle (7% each) or drive taking others (4%) or get a ride (4%).

Those who live off campus are three times more likely (21%) to drive alone to get the campus than those who live on campus are to drive alone (7%). Off campus residents are also more likely to take the bus to get to campus (39%) than on campus residents are to use the bus to move about (29%). And, conversely, off campus residents are less likely to walk to their campus destination (20%) than are those living on campus (49%).

The inset table on the previous page shows the second most common mode for those who most often walked. This provides another indication of the great importance of bus service to the students. This back-up mode question was asked to obtain a general idea of the vehicular back-up mobility mode for those who usually walk. For both on and off campus students, the bus was the alternate mode cited most often. Specifically, 55% of the 49% of on campus residents who walked (i.e. 27% of on campus students) and 40% of the 20% of off campus residents who most often walk to campus (i.e. 8% of the off-campus residents) said they most often take the bus as an alternative to walking.

-

<sup>&</sup>lt;sup>7</sup> In the subsequent question regarding the mode for first trip of the day, identical questions were asked regardless of on or off campus origin.

# Mode for first trip of the day

by residence on or off campus

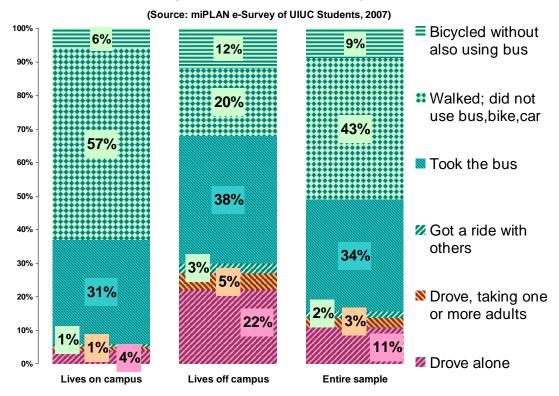


Figure 21 Primary mode during past seven days, by on or off campus residence

# Modes used for the first trip of the day on the most recent weekday when students were on campus

In order to profile the mobility practices of students on a given day, respondents were asked about the most recent weekday on which they were on campus. The first question was how they got to the first destination of the day. The responses are shown in the chart above. The responses are very similar to those presented in the previous chart regarding the usual mode over a period of time.

For the entire sample, more people (43%) said they walked than said they used any other mode. Taking the bus (34%) was the second most frequently used mode. As one would expect, the tendency to drive alone or drive with others was greater for those who live off campus (a total of 30%) than for those who live on campus (6%). For those who live on campus, walking, at 57%, was quite dominant as the mode used first on a given day, while the bus, at 31% was the second most widely used mode.

Seven percent (6%) of those living on campus said they had used a bicycle for their first trip of the day. A bicycle was used by more of those living off campus (12%).

# Number of days on which four mobility modes were used at all in the previous seven days

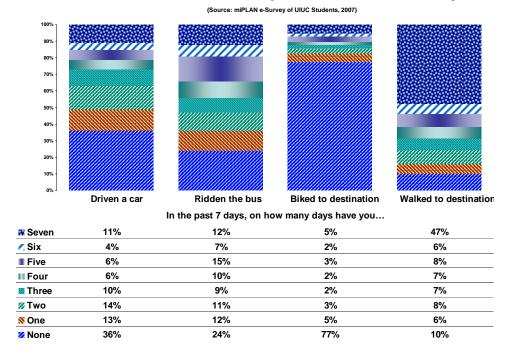


Figure 22 Frequency of driving, walking, biking and using the bus in previous seven days

### Mobility by car, bus, bicycling, and walking in the past seven days

Use of the various modes was examined in another way also. Respondents were asked on how many of the previous seven days they had driven a car, ridden by bus, bicycled or walked to destinations.

First, notice the contrast between this table and previous tables. Take, for example, the column in the chart above titled: "driven a car." Thirty-six percent (36%) indicated that they had not driven a car at all. Therefore the balance, 64%, indicated that they had driven a car one day or more of the previous seven days. This contrasts sharply with the percentages in Figure 16 (page 30). That figure showed a very small number of respondents who said they had driven a car for the *first trip* of the day driving alone or taking others (14%). Similarly, it contrasts with the finding in Figure 20 (page 35) that driving a car (alone or taking others) was their *usual mode*, also 14%.

Similarly, 77% said they had not used a bicycle to reach a destination at all during the previous seven days. However, this also indicates that 23% had used a bicycle for this purpose. This contrasts with only 9% who indicated that the bicycle was the *most frequent mode*, and 9% who indicated that they had used a bicycle for their *first trip of the day*. The discrepancy suggests that there are many more people who use a bicycle than who use it as their most common mode. In other words, expansion of the bicycle as a mobility mode is not as constrained by lack of equipment as the first trip and usual trip data may have implied. To repeat a point, these students are very multi-modal in their mobility behaviors.

# Driving a car in the past seven days

by MTD market segment

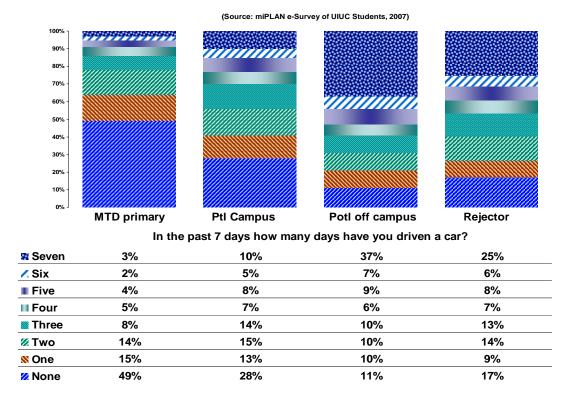


Figure 23 Frequency of driving a car in the past seven days, by MTD market segment

# Frequency of driving a car in the past seven days by MTD market segment

In the chart above, we examine the relationship between MTD market segments and driving a car. For example, of those for whom MTD buses are the primary mode, 49% said they had not driven a car at all. Conversely, this indicates that 52% had driven a car. Obviously this indicates that many MTD users have a car available (see also Figure 7) and in fact use it.

As would be expected, those who live off campus and consider themselves potential users of MTD, drive more frequently than those who use MTD as their primary mode, and than the on campus potential MTD users. Many in this off campus potential MTD user segment currently drive five, six, or seven days per week (a total of 53%), and only 11% of this group said they had not driven at all during the previous seven days. The potential MTD users on campus by contrast, although most of them had driven a car (72%), tended to have done so only two or three of the previous seven days.

# Riding the bus in the past seven days

by MTD market segment

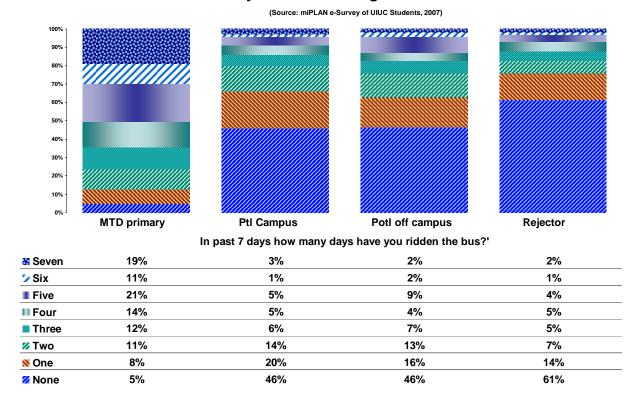


Figure 24 Riding the bus in the past seven days, by MTD market segment

# Frequency of riding the bus in the past seven days by MTD market segment

On how many of the past seven days had respondents ridden MTD buses? Of the respondents for whom MTD is the primary mode, many had used it five or more days of the past seven (51%), and only 5% said they had not used it. The 5% who said they had not used it and yet who said it was their most frequent mode of transportation present a paradox the data cannot address. It may be that the previous seven days were exceptional for them in this respect.

Sixty percent (61%) of the rejectors said they had not used MTD at all, while 39% had used it on at least one day. In contrast, of the potential MTD users living off campus, only 46% said they had not used the bus at all, and 54% had used it on at least one day. The results for the potential MTD users living on campus were very similar to those for the potential users living off campus.

#### Bicycling to a destination in the past seven days by MTD market segment (Source: miPLAN e-Survey of UIUC Students, 2007) 10% MTD primary **Ptl Campus** Potl off campus Rejector In past 7 days how many days have you bicycled to a destination?' 1% 10% 9% 9% Seven Six 1% 5% 2% ■ Five 1% 5% 6% 7% 4% **III** Four 1% 2% 5% Three 2% 3% 2%

Figure 25 Bicycling during the past seven days, by MTD market segment

3%

10%

58%

2%

4%

72%

3%

4%

71%

## Frequency of bicycling in the past seven days by MTD market segment

Of those for whom MTD is the primary mode, only 15% said they had used a bicycle in the past seven days. We know that a substantial proportion of this segment lives on campus, and because many trips on campus can be made on foot when not being made by bus, this may account for the low level of bicycle usage.

We have already seen in Figure 23 (page 39) that many (89%) of the potential MTD users who live off campus have driven a car in the past week. Many of that same group used a bicycle (42%) on at least one day. We have seen previously that the off campus residents in general (i.e. regardless of the MTD market segments) are more likely to use a bicycle than on campus residents. This is also true of the potential MTD users living on campus compared to those living off campus. Of the potential MTD users living on campus, 71% said they had not used a bicycle at all, leaving 29% who said they had done so compared to 42% of those living off campus.

The relationship between living off campus and using a bicycle speaks to the issue of needing bicycle path improvement not only on campus but also in the community.

Two

N One

Mone

3%

5%

85%

# Walking to a destination in the past seven days by MTD market segment

(Source: miPLAN e-Survey of UIUC Students, 2007 30% 20% MTD primary Ptl Campus Potl off campus Rejector In past 7 days how many days have you walked to a destination?' 47% 59% 22% 50% Seven Six 5% 9% 4% 5% Five 10% 7% ■ Four 5% 8% 4% 11% 4% Three 6% 9% 12% 9% Two 5% N One 6% 11% 7%

Figure 26 Walking to local destinations during the past seven days

28%

3%

# Frequency of walking to a destination in the past seven days by MTD market segment

On how many days had respondents walked to their destinations? We saw in Figure 22 (page 38) that only 10% of all respondents said they had not walked to a destination at all, while 47% indicated that they had done so on all of the last seven days.

How does this practice vary among the MTD market segments? The results are similar among the four MTD market segments, except that the potential MTD users living off campus were much less likely than the other three segments to have walked frequently and are more likely to have not walked to their destinations at all (28%). Also the potential MTD users living on campus were much less likely than other groups to say that they had not walked to a destination at all (3%), while they were more likely (59%) to say that they had walked to a destination on all of the previous seven days.

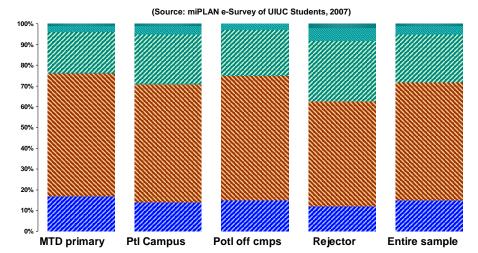
None

8%

14%

## **Rating MTD service**

by MTD market segment



Based on your experience with CU-MTD, or just what you hear, how would you rate the overall quality of CU-MTD bus service?

■ Very Poor	1%	1%	0%	2%	1%
<b>■</b> Poor	3%	4%	3%	6%	4%
<b> ∅</b> Fair	20%	24%	22%	29%	23%
<b>S</b> Good	59%	57%	60%	50%	57%
Excellent	17%	14%	15%	12%	15%

Figure 27 Rating MTD service

## Rating the quality of MTD bus service

Most respondents rated MTD bus service as good (57%) or excellent (15%). The ratings do not vary greatly among the MTD market segments, although the rejectors are slightly less likely than others to rate the service as good (50%) or excellent (12%) and are slightly more likely to rate it as poor (6%) or very poor (2%).

One might have expected a more negative response from those who reject increased use of MTD. Apparently, however, their resistance to further use of MTD does not have to do with dissatisfaction with service as they have experienced or observed it, but with situational factors for which MTD does not meet their needs.

### Interest in additional MTD service

(Source: miPLAN e-Survey of UIUC Students, 2007)

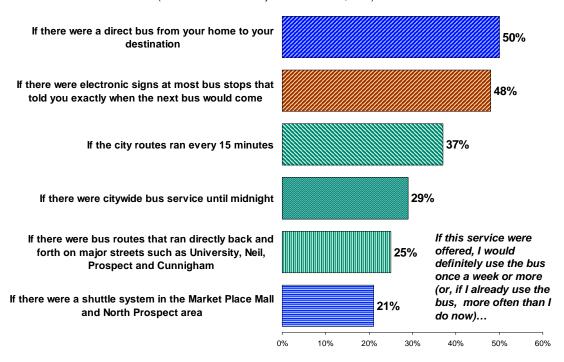


Figure 28 Interest in additional MTD service

### Interest in additional MTD service

Respondents were asked to respond to six proposed changes in MTD service. Because some respondents already use the bus while others do not, their differing perspectives on their prospective use or expanded use of MTD meant that the questions and responses had to differ between those two groups. For those who do not use the bus, the question was whether they felt these service changes would "definitely" cause them to use the bus once a week or more often. But for those who use the bus now, the question was whether they felt that each item would cause them to use the bus more than they currently do.

The three aspects of service that received the most positive response were:

- direct service from home to destination (50% -- this is always popular)
- electronic signs indicating when the next bus would arrive (48%). The latter is generally popular because it removes much of the uncertainty experienced when waiting for a transit vehicle.
- Service on city routes every 15 minutes (37%).

The least popular aspect of service change among all respondents is a shuttle serving the Marketplace Mall and the North Prospect area (21%). In most similar surveys, services such as this that would serve a narrowly focused population always receive lower ratings than more global improvements such as more direct and frequent service. Thus the low showing for the mall shuttle is not surprising. Similarly, citywide service until midnight

received a positive response from 29%, and buses running back and forth along major routes and thus connecting major areas of the city's received 24% very positive response. These are far lower than the more general improvements, but this simply means that there are fewer people who would benefit from them. In a student population, late night service might be thought to be useful to a broader segment of the population, but apparently it is not.

# Interest in additional MTD service. Percent indicating each service would cause them to use or increase using MTD

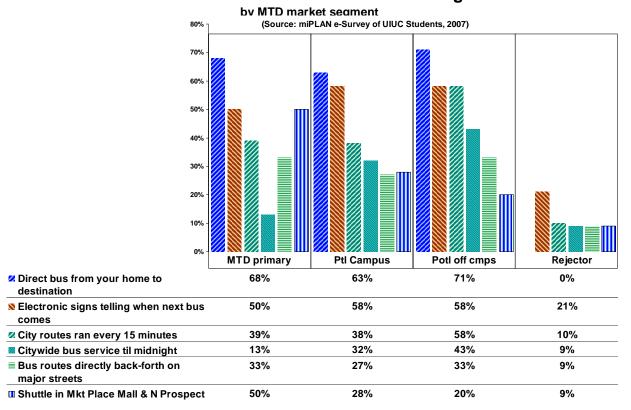


Figure 29 Interest in additional MTD service, by MTD market segment (showing only the most positive responses for each item)

# How response to potential service improvements varies among the MTD market segments

How to read this chart. Each respondent was asked six questions about what effect they thought MTD service improvements would have on their use of the buses. The chart shows only the most positive responses to each service within each market segment. The percentages not shown are those for whom the service is less important. For example, 68% of those who already use MTD as their primary mode said that a direct bus would cause them to ride even more frequently than they now do. This implies that 32% would not use MTD more frequently for this reason. Another example: 38% of the potential users who live on campus said they would begin using MTD once a week or more, or use it more frequently, if MTD ran its city routes every 15 minutes.

We do not consider these to be predictions of actual rider behavior. Rather they are statements of preference for the kinds of services that would be attractive to potential users.

Among those who use MTD as their primary mode, three improvements scored very high: direct service, electronic signs coupled to AVL, and a shuttle to North Prospect and

Market Place Mall. The latter is interesting because this was not a popular service for many potential users. We presume this response occurs among the MTD-primary groups because of their dependence on MTD.

Also of interest was the response of the potential off campus users among whom there was very positive response to more direct service, electronic signs, and more frequent 15 minutes service, as well as service until midnight. One-third of them (33%) also responded positively to the idea of bus routes running directly back and forth on major streets. They gave a rather low positive response (20%) to a shuttle in the marketplace Mall in North Prospect area, however. This low positive response among the potential MTD users living off campus may result from the fact that many of them have access to a vehicle and don't need bus service to access the malls.

In general the rejectors felt that none of the services would convince them to use the bus. However, the one change that received the most positive response from the rejectors was electronic signs at the bus stops – an indication that they are not comfortable with the uncertainty involved in waiting for a bus.

# Full table, showing interest in additional MTD service by MTD market segment

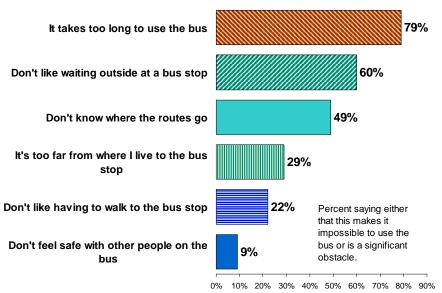
## Interest in new MTD services, by market segment

		MTD primary	Ptl Campus	Potl off cmps	Rejector	Entire sample
If there were a direct bus		mrz piinary	. a campac		110,00101	- Cumpio
from your home to your	Would definitely use the bus once a week or more	68%	64%	71%	0%	50%
destination	Might use the bus once a week or more	32%	30%	24%	56%	35%
	Not likely to use the bus once a week or more	0%	6%	5%	43%	15%
	Not likely to use the bus office a week of filore	070	070	370	4570	1370
If the city routes ran every	Would definitely use the bus once a week or more	39%	40%	56%	10%	37%
15 minutes	Might use the bus once a week or more	29%	44%	33%	45%	41%
	Not likely to use the bus once a week or more	32%	16%	11%	45%	22%
If there were electronic	Would definitely use the bus once a week or more	50%	59%	56%	20%	48%
signs at most bus stops	Might use the bus once a week or more	38%	34%	35%	53%	40%
that told you exactly when	Not likely to use the bus once a week or more	12%	7%	9%	27%	13%
If there were a shuttle	Would definitely use the bus once a week or more	50%	29%	19%	9%	21%
system in the Market Place		11%	30%	29%	28%	29%
Mall and North Prospect	Not likely to use the bus once a week or more	40%	42%	52%	63%	50%
Mail and North Frospect	Not likely to use the bus office a week of filore	40 /6	42 /0	JZ /0	0376	JU /0
If there were citywide bus	Would definitely use the bus once a week or more	13%	33%	41%	8%	29%
service until midnight	Might use the bus once a week or more	42%	44%	33%	38%	39%
Ŭ	Not likely to use the bus once a week or more	44%	23%	26%	54%	32%
If there were bus routes						
that ran directly back and	Would definitely use the bus once a week or more	33%	28%	33%	9%	25%
forth on major streets such	Might use the bus once a week or more	33%	41%	39%	35%	39%
as University, Neil,	Not likely to use the bus once a week or more	3370	7170	3370	JJ /0	3370
Prospect and Cunnigham		34%	30%	28%	56%	36%

Figure 30 Full table of service improvement preferences by MTD market segment

# Perceived obstacles to using MTD (or using it more often)

(Source: miPLAN e-Survey of UIUC Students, 2007)



<u>Figure 31 Perceived obstacles to using MTD or using it more often. Chart includes only</u>
<u>respondents who do not use the bus as their primary mode</u>

## Perceived obstacles to using MTD or using it more often

Typically, surveys of those who do not use buses or who do not use them frequently, find that a major perceived obstacle to using the bus is the time bus trips are perceived to take compared to the private vehicle. Although this campus-oriented market is fundamentally different from most transit markets in many other respects, the concern about trip-duration is the concern cited most often (79%) by those who do not use the bus as their primary mode.

The obstacle cited second most frequently (60%) is that the respondents do not like waiting outside at a bus stop. Typically, this concern reflects the challenges of coping with the weather, but also uncertainty regarding when the next bus will arise. A combination of AVL-driven signage coupled with comfortable shelters can aid in these respects.

It is interesting that in spite of the high usage of MTD by the student respondents (even those who do not use it as their primary mode), 49% said that one reason that they do not use the buses more often is that they do not know where the routes go. This suggests that many people are using the buses in a very limited manner whereas they might travel farther if they sought (or were "spoon-fed") more information.

Living too far from the bus stop is perceived to be a problem by 29% of the respondents and disliking having to walk to the bus stop is a problem for 22%. A sense of lack of safety appears not to be a major problem, and was cited by only 9%.

# Perceived obstacles to using MTD

by MTD market segment

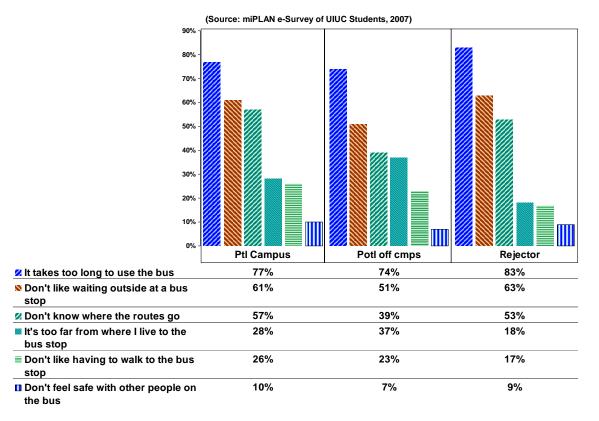


Figure 32 Perceived obstacles to using MTD, by MTD market segment Chart includes only respondents who do not use the bus as their primary mode

# Obstacles to using MTD, or using it more often, among MTD market segments

The chart above displays the percent, broken down by MTD market segment, of those who cited each obstacle to using the bus or using it more often. (Those who use MTD as their primary mode were not asked these questions.) Although the percentages differ slightly, the rank order of the percentages is the same for all segments. As is true for most transit services, trip duration is the primary perceived obstacle among potential riders. Waiting at the stop (which is related to the duration) is second, and knowing the route structure is third.

One interesting feature of the data is that the distance to the bus stop is a problem for more of the potential riders than for the rejectors. As a group, the rejectors appear to object primarily to the trip duration and the wait for the bus. The potential MTD users also find those to be obstacles, but many of them are also likely to complain that the bus stop is too far from them.

## **Perceived obstacles**

### Full table

## Perceived obstacles to using MTD or using MTD more often

		Dil O	B.d. off	B	Entire
		Ptl Campus	Potl off cmps	Rejector	sample
Don't know where the	Not a problem for me	44%	62%	47%	51%
routes go	A significant problem for me	47%	32%	42%	41%
	Makes using the bus impossible for me	9%	6%	11%	8%
Don't like waiting outside at	Not a problem for me	39%	46%	36%	41%
a bus stop	A significant problem for me	54%	48%	55%	53%
·	Makes using the bus impossible for me	6%	5%	9%	7%
Don't feel safe with the	Not a problem for me	90%	89%	91%	90%
other people on the bus	A significant problem for me	8%	9%	7%	9%
	Makes using the bus impossible for me	2%	1%	2%	2%
Don't like having to walk to	Not a problem for me	74%	78%	82%	77%
the bus stop	A significant problem for me	23%	20%	15%	20%
·	Makes using the bus impossible for me	2%	2%	3%	2%
It takes too long to use the	Not a problem for me	22%	24%	17%	21%
bus	A significant problem for me	60%	58%	61%	60%
	Makes using the bus impossible for me	18%	18%	22%	19%
It's too far from where I live	Not a problem for me	72%	62%	81%	71%
to the bus stop	A significant problem for me	23%	22%	14%	20%
<u> </u>	Makes using the bus impossible for me	6%	16%	5%	9%

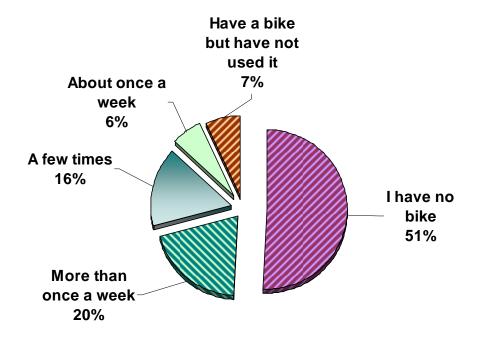
Figure 33 Full table - Perceived obstacles to using MTD, by MTD market segment

The table above provides the full range of results for questions that have already been reported in charts using only key percentages.

Bicycling	

# Using a bicycle

(Source: miPLAN e-Survey of students - 2007)



In the past year, how often have you ridden a bike for any reason, including recreation, errands, or commuting?

Figure 34 Using a bicycle

## Bicycle use

Bicycle use is fairly extensive among UIUC students. Forty-nine percent (49%) of students said they have a bicycle, and most use it at least occasionally. In fact, a total of 22% said they use a bicycle once a week (6%) or a few times a week (16%), and another 20% said they use it more than once a week, for a total of 42% indicating regular bicycle use.

Does respondent	Has a bike while at UIUC	35%
have a bicycle?	Borrows a bike	13%
	No bike at all	51%

Some respondents (13%) indicated that they had no bike of their own, but that they do ride a bicycle in Champaign/Urbana. We infer that they borrow a bicycle.

## Using a bicycle during the past year

by MTD market segment

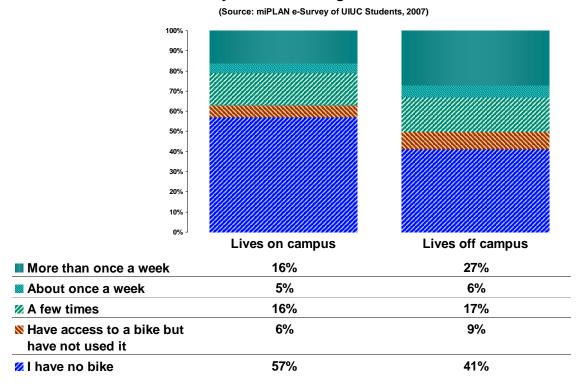


Figure 35 Frequency of using a bicycle in the past year

## On and off campus use of bicycles

Those who live off campus are more likely than those living on campus to have a bicycle and to use it. While 57% of those living on campus said that they have no bicycle, only 41% of those living off campus said they have no bicycle. Conversely, of those living on campus 16% said that they use a bicycle more than once a week compared to 27% of those living off campus.

This re-emphasizes the point that to increase the use of bicycles would require accommodating them within the cities to an equal or perhaps even greater extent than accommodating them on campus.

# Percent of students who say each change would "definitely" cause them to use a bike once a week or more or, if already using a bike that often, to use it more often

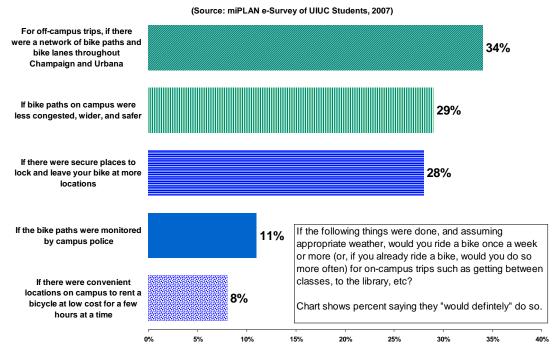


Figure 36 Interest in improvements encouraging bicycle use

## What would encourage students to use bicycles more often?

The keys to encouraging bicycle use are improved bike paths and places to secure the bicycles. These themes were evident in the focus groups and are also evident in the survey.

The idea of bicycle rental attracted relatively little interest (8%), perhaps because bicycle ownership is so widespread, and bicycle borrowing appears to be common.

Monitoring of bicycle paths by the campus police appealed to 11% of the respondents. This may be helpful, but does not appear to be the key. The safety concerns of bicyclists have less to do with threatening activity of others than with traffic, and congestion on the bicycle paths.

## Interest in using a bicycle and potential to use MTD

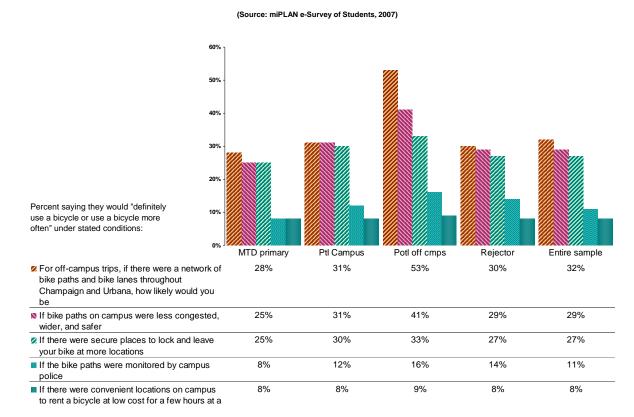


Figure 37 Interest in using a bicycle and potential to use MTD

Interest in using a bicycle, or using one more often, is related to a combination of interest in using MTD and where they now live. That is, those who live off campus and have an interest in using MTD, are more attracted by three potential improvements in bicycling conditions than are other students.

This suggests that their interest is not so much in either the bus or the bike, but in increased mobility options in general. For example, while 31% of potential MTD users living on campus and 32% of the entire sample show an interest in having improved bicycle paths, 53% of potential MTD users living off campus express this interest. This group is also substantially more interested than others in wider, safer, less congested bike paths, and in secure places to leave a bicycle.

# Percent of students who say each change would "definitely" cause them to use a bike once a week or more or, if already using a bike that often, to use it more often

by MTD market segment (Source: miPLAN e-Survey of UIUC Students, 2007)

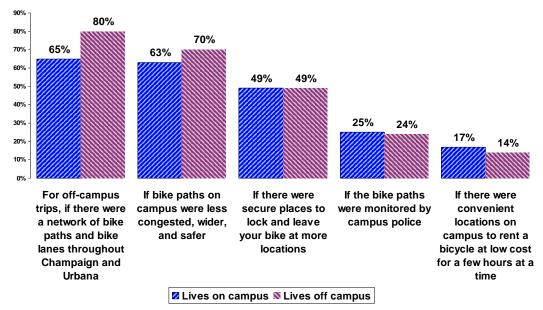


Figure 38 Interest in improvements encouraging bicycle use, by residence on or off campus

# What would encourage on and off campus residents to use bicycles more often?

How to read the chart above: The chart shows the percent who responded most positively or somewhat to each of the five questions shown, broken down by those who live on campus and off campus. Those who responded negatively are not shown in the chart, but are shown in the full table (Figure 39).

On and off campus residents differ in expected ways in terms of their preferred improvements related to bicycle use. For example, a greater percentage (80%) of off campus residents than on campus residents (65%) would like to see a network of bike paths and lanes throughout Champaign and Urbana.

Interestingly, slightly more (70%) of the off campus residents than the on campus residents (63%) said they would like bicycle paths on campus that were less congested wider and safer.

In terms of the other improvements, there were no important differences.

# Factors to increase use of bicycles

(Full table)

### Factors that might lead to increased use of bicycles

		Lives on campus	Lives off campus	Entire sample
If there were convenient locations on campus to rent	Would definitely use a bike once a week or more	8%	8%	8%
a bicycle at low cost for a few hours at a time	Might use a bike once a week or more	17%	16%	17%
	Not likely to use a bike once a week or more	75%	76%	75%
If bike paths on campus were less congested, wider,				
and safer	Would definitely use a bike once a week or more	25%	36%	29%
	Might use a bike once a week or more	29%	27%	28%
	Not likely to use a bike once a week or more	46%	37%	42%
If the bike paths were monitored by campus police				
	Would definitely use a bike once a week or more	9%	14%	11%
	Might use a bike once a week or more	21%	25%	23%
	Not likely to use a bike once a week or more	70%	61%	66%
If there were secure places to lock and leave your				
bike at more locations	Would definitely use a bike once a week or more	25%	31%	28%
	Might use a bike once a week or more	31%	30%	30%
	Not likely to use a bike once a week or more	44%	39%	42%
For off-campus trips, if there were a network of bike				
paths and bike lanes throughout Champaign and	Would definitely use a bike once a week or more	25%	45%	34%
Urbana	Might use a bike once a week or more	25%	22%	24%
	Not likely to use a bike once a week or more	50%	33%	42%

Figure 39 Factors to increase use of bicycles (full table of responses)

The table above presents the full range of data for those interested in the detail.

## Perceived obstacles to using a bike

(Among only those not now using a bike)

Percent who say each obstacle is either a significant problem, or makes using a bicycle impossible (Source: miPLAN e-Survey of UIUC Students, 2007)

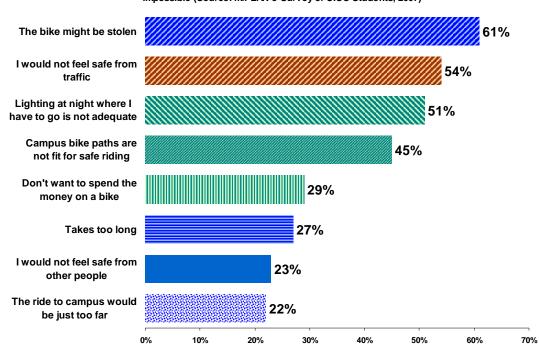


Figure 40 Perceived obstacles to using a bicycle among those not now using a bicycle

# What did non bicycle-users perceive as obstacles to using a bicycle?

The three top concerns of those who do not now use bicycles, each of which received more than 50% expressing concern, are that the bicycle might be stolen (61%), that they would not feel safe from traffic (54%), and that lighting at night where they have to go was not adequate (51%).

Close behind those concerns are that campus bicycle paths are not fit for safe riding (45%).

# Obstacles to using a bike

(Source: miPLAN e-Survey of UIUC Students, 2007)

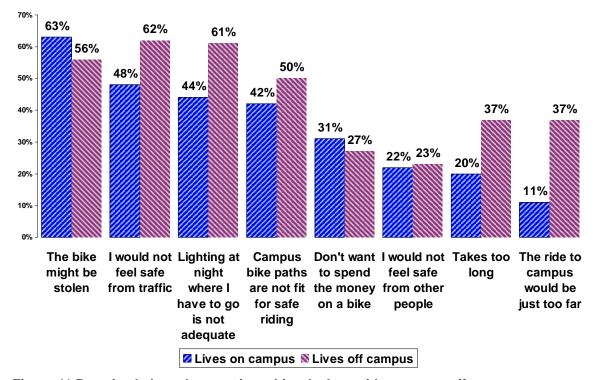


Figure 41 Perceived obstacles to using a bicycle, by residence on or off campus among those not now using a bicycle

# Concerns about using a bicycle among on and off campus residents

The concerns of those who do not now use a bicycle differ considerably between those who live on and off campus. The most evident difference is in the distance of the trip. Thirty-seven percent (37%) of those living off campus say the ride to campus would be just too far and would take too long. Fewer of the on campus residents had those concerns with distance and time.

Another difference included feeling safe from traffic. On that factor, 62% of the off campus residents expressed a concern, compared to 48% of the on campus residents. Similarly, 61% of the off campus residents expressed a concern about lighting at night compared to only 44% of those living on campus.

Clearly, although off campus residents are more likely to use bicycles, increasing their tendency to use bicycles is hampered by these perceptions.

# Reasons not to use a bicycle

(Full table)

	Obstacles to using a bicycle			
		Lives on campus	Lives off campus	Entire sample
Don't want to spend the money on a bike	Not a problem for me	69%	73%	71%
	A significant problem for me	24%	22%	23%
	Makes using a bike impossible for me	7%	5%	6%
The bike might be stolen	Not a problem for me	37%	43%	39%
-	A significant problem for me	53%	49%	52%
	Makes using a bike impossible for me	10%	7%	9%
Campus bike paths are not fit for safe riding	Not a problem for me	58%	50%	55%
	A significant problem for me	34%	40%	36%
	Makes using a bike impossible for me	8%	10%	9%
I would not feel safe from traffic	Not a problem for me	52%	38%	46%
	A significant problem for me	37%	46%	41%
	Makes using a bike impossible for me	11%	16%	13%
The ride to campus would be just too far	Not a problem for me	89%	63%	78%
	A significant problem for me	8%	22%	14%
	Makes using a bike impossible for me	3%	15%	8%
I would not feel safe from other people	Not a problem for me	78%	76%	77%
	A significant problem for me	18%	19%	19%
	Makes using a bike impossible for me	4%	4%	4%
Takes too long	Not a problem for me	80%	63%	73%
	A significant problem for me	16%	25%	20%
	Makes using a bike impossible for me	4%	12%	7%
Lighting at night where I have to go is not adequate	Not a problem for me	56%	39%	49%
	A significant problem for me	34%	44%	38%
	Makes using a bike impossible for me	10%	17%	13%

Figure 42 Obstacles to using a bicycle

The table above provides the full detail of the responses which are summarized in the previous two charts.

Walking	

## Key destinations in reasonable walking distance

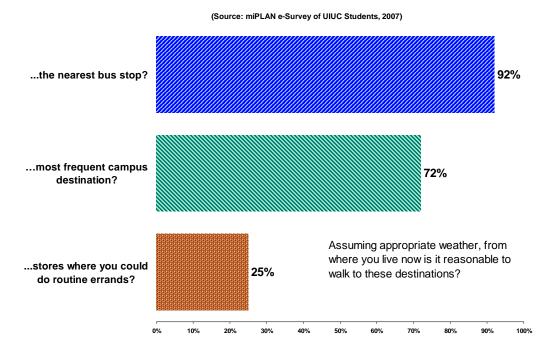


Figure 43 Are key destinations within walking distance?

## Walking to major destinations

We have seen earlier in this report (Figure 20, page 35) that walking is one of the dominant modes in this campus community. That figure showed that 42% of all respondents indicated that walking is their most frequent mode. The tendency is even more pronounced for those who live on campus, with 49% indicating it is their primary mode.

Key destinations for walking include the nearest bus stop, which is considered to be in reasonable walking distance (92%), and the campus destination that they most frequently go to which is considered a reasonable walk by 72%. However, stores where routine errands could be run is considered a reasonable walk by only 25% of respondents.

Note that in spite of the fact that nearly all respondents (92%) consider the bus stop to be located at a reasonable walking distance, that 29% of the potential MTD users nevertheless complained that the distance to the bus stop was an obstacle (see Figure 31, page 50). Apparently it is a "reasonable" walk for them, but it is perceived to be too far to make the walk routinely.

## Key destinations in reasonable walking distance

by residence on or off campus

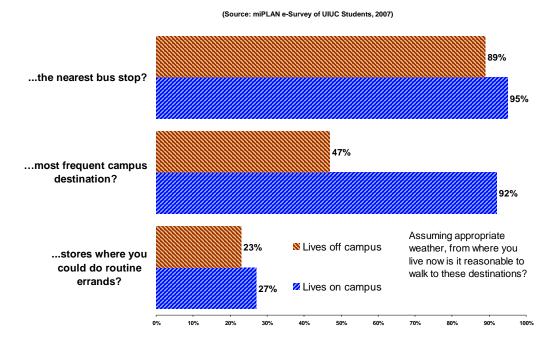


Figure 44 Are key destinations within walking distance? (By on or off campus residence)

# Differences in perception of reasonable walking differences between on and off campus residents

Both on and off campus residents consider the walk to the bus stop to be reasonable. However, they differ on whether the walk to the campus destination where they most frequently go is reasonable. While 92% of those who live on campus considered it reasonable, only 47% of those living off campus considered it reasonable. However, 47% is close to half of those living off campus, a fact which suggests that a great many of the off campus residents live close enough that if walking can be expedited in some fashion that it would become somewhat more common.

It is interesting that there is very little difference in perception of how reasonable it is to walk to do errands between the on and off campus residents. There is only a 4% difference, with 23% of those living off campus saying that doing errands on foot is reasonable compared to 27% of those living on campus.

## Why is a walk not reasonable?

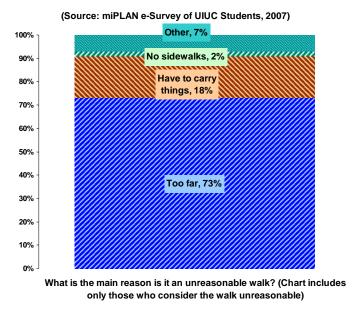


Figure 45 Reasons for which some consider walking to usual destinations to be "not reasonable."

### Why is the walk unreasonable?

Those who indicated that the walk to get to one of these major destinations would be unreasonable were asked what it is that makes it unreasonable. Almost three fourths, 73%, indicated that the walk would simply be too far.

		Do you live on campus or off campus during the academic year?		
		Lives on campus	Lives off campus	
		Col %	Col %	Col %
What is the main	Too far	72%	74%	73%
reason is it an unreasonable walk?	No sidewalks	1%	3%	2%
diffeasofiable walk:	Have to carry things	21%	15%	18%
	Other:	6%	7%	7%
Table Total		100%	100%	100%

Some, 18%, indicated a problem with having to carry things, while a few had other reasons.

These concerns did not differ substantially between those living on campus and those living off campus as the inset table shows.

# Factors influencing decision to walk

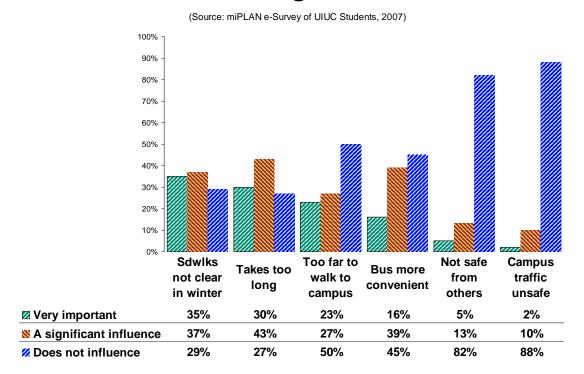


Figure 46 Factors that influence the decision to walk or not to walk

### What factors influence the decision to walk or not to walk

Those who perceived significant obstacles to walking were asked how each of several factors influenced their decision to walk or not to walk.

- Safety from traffic (2%) or from other people (5%) were considered "very important" concerns by very few people.
- Clearing sidewalks in winter was considered very important by 35%.
   This was also mentioned as a problem in the companion e-survey of local employees, and in the focus groups. There is no local ordinance requiring that sidewalks be cleaned in winter.
- That walking takes too long was a very important concern to 30%, second only to clearing the sidewalks in winter.
- Related to the time for the walk was the distance ("too far") with 23%.
- That the bus is more convenient was perceived as a very important reason not to walk by only 16% of respondents.

# Walking

(full table)

### What factors influence your decision to walk or not to walk?

		Lives on campus	Lives off campus	Entire sample
Traffic on campus makes	Does not influence whether I choose to walk	88%	87%	88%
walking feel unsafe	A significant influence on my decision to walk	9%	10%	10%
	Very important to me in deciding whether to walk	2%	3%	2%
The bus is just much more	Does not influence whether I choose to walk	45%	45%	45%
convenient	A significant influence on my decision to walk	40%	37%	39%
	Very important to me in deciding whether to walk	15%	18%	16%
The sidewalks are not	Does not influence whether I choose to walk	27%	32%	29%
cleared in winter	A significant influence on my decision to walk	39%	33%	37%
	Very important to me in deciding whether to walk	34%	36%	35%
The walk to campus would	Does not influence whether I choose to walk	63%	34%	50%
be just too far	A significant influence on my decision to walk	27%	27%	27%
·	Very important to me in deciding whether to walk	11%	39%	23%
I would not feel safe from	Does not influence whether I choose to walk	82%	82%	82%
other people	A significant influence on my decision to walk	13%	13%	13%
	Very important to me in deciding whether to walk	4%	5%	5%
Takes too long	Does not influence whether I choose to walk	34%	19%	27%
ŭ	A significant influence on my decision to walk	45%	40%	43%
	Very important to me in deciding whether to walk	21%	41%	30%

Figure 47 Factors influencing decision to walk or not to walk (Full table)

## Obstacles to walking, by residence on or off campus

The table above summarizes the perceptions of barriers to walking among those who live on campus and off campus. Respondents agree on the importance of clear sidewalks in winter and the unimportance of safety-related issues in the decision to walk. The only substantial differences between on and off campus residents are for the time it takes to walk and the distance required.

Two services intended to provide off campus students with mobility back-up they may need to enable them to use alternative modes

# Services that might help convince students to use alternative modes

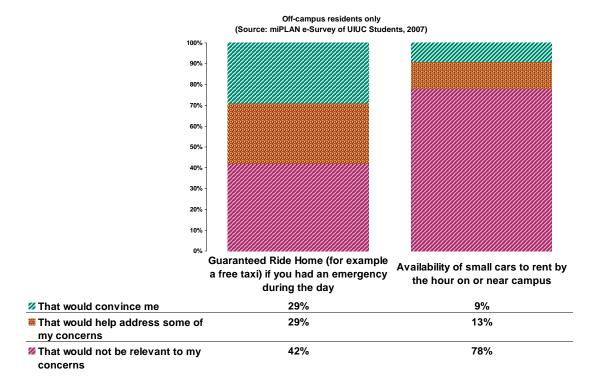


Figure 48 Guaranteed ride home, and availability of hourly car rentals as encouraging use of alternative modes (off campus residents only)

#### Guaranteed ride home

Respondents who live off campus were asked about two programs that could offer them some of the conveniences of having their own vehicles:

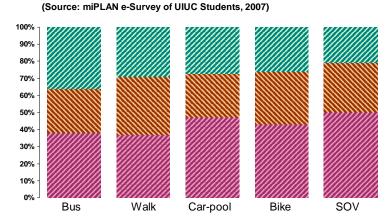
- guaranteed ride home program
- availability of small cars to rent by the hour on or near campus

In other markets, the guaranteed ride home program is often found to be popular in surveys and, while rarely used, provides a sense of security for some people. Twenty nine percent (29%) said that the guaranteed ride home would convince them to use an alternative mode, or to use it more often than they now do. Another 29% said that the guaranteed ride home would address some of their concerns. These responses do not mean that these respondents would necessarily begin taking the bus or walking or bicycling because of the guaranteed ride home, but it does mean that the idea is appealing to them and can be one aspect of a program promoting the use of alternative modes.

Nine percent (9%) said that having the availability of small cars to rent by the hour on or near campus would convince them to use an alternative mode or to

use it more, and another 13% said it would address some of their concerns. The 9% figure should not be taken as a demand forecast by entrepreneurs who might consider offering this service. It is best thought of as the maximum pool of potential interest to which a service could be marketed. The eventual share of that market would be under the 9% ceiling.

## **Guaranteed ride home**



Guaranteed Ride Home (for example a free taxi) if you had an emergency during the day

That would convince me	36%	29%	28%	26%	21%
▼ That would help address some of my concerns	26%	34%	25%	31%	29%
▼ That would not be relevant to my concerns	38%	37%	47%	43%	50%

<u>Figure 49 Guaranteed ride home as an incentive, by type of mode most often used currently</u>

# How does the guaranteed ride home concept appeal to those who use various modes now?

The guaranteed ride home appeals to a larger proportion of those who walk, take the bus or ride a bicycle (i.e. those do *not* drive alone) than it does to those who drive. This is not surprising, since the guaranteed ride home reduces one of the uncertainties connected with not having a personal vehicle close at hand. Essentially this means that a guaranteed ride home program would be more important for retention of current alternate mode users than as a means of attracting those who currently drive as their primary mode.

Very few people decide to drive alone rather than to rely on an alternative mobility mode simply because of the need to "get home in an emergency." However, the ability to move quickly and independently under pressure it is part of the larger picture of having a sense of independence and freedom from having to rely on others. A guaranteed ride home does not provide a substitute for all of these desires for independent movement, but it does offer some reassurance and can be part of a larger marketing picture for at least the 29% of all respondents and 21% of SOV users who said it would convince them to use an alternative mode or use it more often.

# Availability of cars to rent hourly

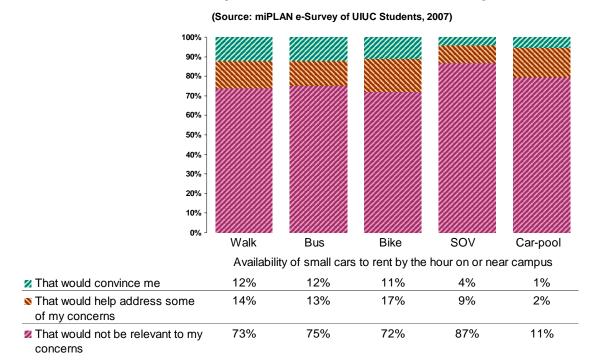


Figure 50 Availability of cars to rent by the hour (off campus residents only)

# How does the concept of having small cars to rent hourly appeal to those who use various modes now?

The initial appeal of availability of small cars to rent by the hour is less powerful than the guaranteed ride home program, but is similar in the sense that it appeals more to those who already rely on alternatives to the SOV than it does those whose who drive. After all, those who drive alone or drive for a car pool, already have a vehicle. Renting simply adds short-term cost to the capital and operating costs of their own vehicle.

The fact that relatively few respondents said they would be convinced by the availability of hourly car rentals to use an alternate mode or use it more often does not necessarily mean that hourly car rental could not become a viable business opportunity. The potential for business success depends on various things independent of its effect on use of alternative modes. The critical mass of rentals needed to make it viable is only one element. The limited level of interest, however, does mean that using this service with the objective of promoting increased use of transit, bicycles or walking would not be effective in the near future.

# **Appendix: Questionnaire**

### The miPLAN Student Transportation Survey

The cities of Urbana and Champaign, along with the Mass Transit District, UIUC, and other organizations are working on a project called "miPLAN," to improve commuting and all types of transportation in our community - walking, biking, driving and public transportation.

The miPLAN team would like to hear <u>your</u> experiences and opinions regarding your commute to campus and other local travel. This survey asks about your transportation habits and preferences - about walking, biking, driving and taking the bus on campus and in the Urbana/Champaign area.

#### **Consent Form**

Pamela Voitik, Director, Campus Services Division, of Facilities & Services, is the UIUC representative on the miPLAN project.

Participation in the survey is completely voluntary, completely confidential, and will take about ten or twelve minutes. No personally identifying information will be collected. You will not be individually identified in the data. Data will be aggregated and presented in a statistical report.

You must be 18 years of age or older to participate. You may elect not to participate or discontinue participation at any time during the survey without impact to your grades or standing with the University . If you have any questions about this survey please contact Pamela Voitik, at <a href="mailto:pvoitik@uiuc.edu">pvoitik@uiuc.edu</a> or by phone at 217-333-7790. You may also contact the UIUC IRB Office (217.333.2670; irb@uiuc.edu) with your questions about research participants' rights. You may call the UIUC IRB Office collect if you identify yourself as a research subject.

You may print this email consent form as a copy for your records.

By clicking the "Continue" below, I acknowledge that I am 18 years of age or older have read and understand the above consent form and that I give my consent to participate in the survey.

- O Continue
- O I Do Not Wish to Continue [Go to question End]

Your input is very important for planning long term transportation improvements on the campus and in the Urbana/Champaign communities.

We thank you for helping!

# MiPlan Student Web Questionnaire

Parkland O	attend the University of Illinois at Urbana/Champaign or both UIUC and Community College? UIUC Both
	ear are you in at college? Freshman Sophomore Junior Senior Graduate student Non degree student Other:
C	a full time or part time student? Full time (12 hours or more) Part time
O O	also employed? Not employed Employed on campus Employed off campus
O	live on campus or off campus during the academic year? On campus Off campus
available O O O	any vehicles (cars, vans, motorcycles, pick-ups) in running condition are to you on a regular basis during the academic year?  None [Go to question Q9]  One [Go to question Q7]  Two [Go to question Q7]  Three or more [Go to question Q7]
) )	2

0	u required to use your own car to perform work while at your job? Yes, always Yes, sometimes No, never
O	have a bicycle in Champaign/Urbana? Yes No
places on O O O O	e past seven days, which of the following have you done most often to get or off campus you had to go to? Driven alone [Go to question Q11] Driven, taking another adult along [Go to question Q11] Taken a ride with others/carpooled [ question Q11] Taken the Bus [Go to question Q11] Walked without also using bus, bike or car Bicycled without also using bus [Go to question Q11]
) ) )	ch have you done next most often? Driven alone Driven, taking another adult along Taken a ride with others/carpooled Taken the Bus Bicycled without also using bus
to the car  question (	Driven alone (including alone or with a child you drop off or pick up) [Go to
seven day O O O O	e on campus, how have you most often gone from place to place in the past ys?  Driven alone (including alone or with a child you drop off or pick up)  Driven, taking another adult along  Taken a ride with others/carpooled  Taken the Bus  Bicycled

To help plan for better local travel, we need a general idea of students' local travel on a particular week-day. 11. What was the most recent week-day on which you had class, had to use the library, lab (etc.) or go to work? O Mon O Tue O Wed O Thurs O Fri 12. On the very first trip on that most recent week-day for academic or work purposes (i.e. not including going out to coffee or breakfast or meeting friends), how did you get from your residence hall or on-campus apartment to that location? O Drove alone O Drove, taking one or more adults along O Got a ride with others / car-pooled O Took the bus O Walked without also using bus, bike or car O Bicycled without also using bus 13a. That day, did you stop briefly on your way to or from your destination whether for errands, dropping off children, or other purposes? • Yes [Go to question Q13b] O No [Go to question Q14] 13b. For what purpose did you stop on the way that day? (all that apply) ☐ Drop children at daycare or school

<b>UIUC Student</b>	t e-Survey	

EntertainmentShopping

☐ Restaurant stop☐ Other errands

14. How much did you pay to park that day?

O I purchase a University Parking Permit

O I pay for parking annually \$\_\_\_\_\_

O I parked in a free space or have a permit provided to me at no cost

To understand local travel patterns, we need a general idea of where people are going and where they are coming from on that particular day.

<ul> <li>15. On your first trip that day, were you going to a location on campus or off-campus?</li> <li>On campus [Go to question Q15a]</li> <li>Off campus [Go to question Q16]</li> </ul>
15a. What campus building or other campus location did you go to first that day (not including parking lots)? (If you don't recall the name, just leave this blank)  Name of building or other campus location:
16. What is the name of the street where that is located? (If not sure, please just leave the street name blank.)  Name of Street
If North, South, East or West is part of the street name, please include it as N,S, E, or W.
If not sure, please just leave the street name blank.  17. What is the name of the cross street nearest that location?  Cross Street
18. When you went to that location, did you leave from a residence hall or from off campus?
<ul><li>Residence Hall [Go to question Q19]</li><li>Off campus [Go to question Q20]</li></ul>
19. Which residence hall were you leaving from?  Allen Residence Hall  Busey-Evans Residence Halls  Champaign Residence Halls  Daniels Hall Graduate Housing  Florida Avenue Residence Halls  Lincoln Avenue Residence Halls  Pennsylvania Avenue Residence Halls  Other: [Go to question Q23]

What is the street intersection nearest to where you live while attending college? (Please keep this survey anonymous and do <u>not</u> include your address.)
20. The name of the major street? (If North, South, East or West is part of the name, please include it as N,S, E, W.) (If not sure, please just leave the street name blank.)  Name of Street
If North, South, East or West is part of the street name, please include it as N,S, E or W. If not sure, please just leave the street name blank.  21. What is the name of the nearest major cross street?  Cross Street
22. Where is that?  Champaign Urbana Savoy Rantoul Danville Other City/Village Unincorporated part of Champaign county Other county Other county
23. During your usual school week, which days are you normally on campus?  Monday through Friday only  All seven days  Mon  Tue  Wed  Thurs  Fri  Sat  Sun

24. During the past seven days, on how many days have you:

0	O	0	O	O	$\sim$	
			•	9	O	$\mathbf{O}$
O	0	0	0	0	0	0
0	0	0	0	0	0	0
O	O	O	O	O	O	O
	0	<b>O</b> O	O O	O O O	O O O O	

25. In what year were you born? 19
26. Are you male or female?  O Male O Female

We would like to ask your perception of several ways people use to get around in the Champaign/Urbana area, including walking, bicycling, and the CU-MTD buses.

## RIDING THE CU-MTD BUSES

27. Based on your experience with CU-MTD	, or just what you hear, how would you rate
the overall quality of CU-MTD bus service?	

$\mathbf{O}$	Excellent
O	Good
$\mathbf{C}$	Fair
$\mathbf{C}$	Poor
$\mathbf{O}$	Very Poor

be to use CU-MTD by Very Likely Somewhat It would ma Not very like Very unlike	Likely ake no difference ely	ur Parkland student ID once a week or more? is often [Go to question	, · · ·
block or two of where other local destination the same trip by car. around campus or Ch  O Very likely O Somewhat O Not very like O Definitely w O Couldn't O Couldn't	you live and ran dirent, that it ran frequently, Thinking realistically, nampaign-Urbana one likely yould not under any coneed car for a job other problem would	ectly to within a block of ly and took no more the how likely would you loce a week or more?	tion Q33]
30. How likely would for trips off campus s		s once a week or more ag or recreation.	e to get to campus, or
	Would definitely use the bus once a week or more	Might use the bus once a week or more	Not likely to use the bus once a week or more
If there were a direct bus from your home to your destination.	O	0	0
If the city routes ran every 15 minutes.	0	<b>O</b>	<b>O</b>
If there were electronic signs at most bus stops that told you exactly when the next bus would come.	0	•	•
If there were a shuttle system in the Market Place	0	О	O

Mall and North Prospect area, with small buses that ran every 10-			
15 minutes and connected the			
various stores and shopping centers.			
If there were citywide bus service until midnight.	0	<b>O</b>	O
If there were bus routes that ran directly back and forth on major streets such as University, Neil, Prospect and	0	0	O
Cunningham.			

31. How significant is each of the following in preventing you from using the bus currently.

	Not a problem for me	A significant problem for me	Makes using the bus impossible for me
Don't know where the routes go.	<b>O</b>	<b>O</b>	O
Don't like waiting outside at a bus stop.	0	O	O
Don't feel safe with the other people on the bus.	0	0	O
Don't like having to walk to the bus stop.	0	0	O
It takes too long to use the bus.	0	O	0
It's too far from where I live to the bus stop.	<b>O</b>	O	O

32. How likely would you be to use the bus more often than you do now for trips in the Champaign/Urbana community, such as work, shopping or recreation or getting to campus from off-campus locations.

	Would definitely	Might use the bus	Not likely to use
	use the bus more	more	the bus any more
If there were a direct bus from your home to your destination.	0	0	O
If the city routes ran every 15 minutes.	0	0	0
If there were electronic signs at most bus stops that told you exactly when the next bus would come.	•	•	O
If there were a shuttle system in the Market Place Mall and North Prospect area, with small buses that ran every 10-15 minutes and connected the various stores and shopping centers.	•	•	0
If there were citywide bus service until midnight.	<b>O</b>	<b>O</b>	0
If there were bus routes that ran directly back and forth on major streets such as University, Neil, Prospect and Cunningham.	0	0	0

## **BICYCLE**

33. How often, if ever, in the past year have you ridden a bicycle for any purp	ose,
including recreation, running errands, or commuting?	

- O I have no bike
- O Have a bike but have not used it
- O A few times
- About once a week
- More than once a week
- O Physically unable to ride a bicycle [Go to question Q37]

34. Assuming weather appropriate for bicycling, how likely would you be to use a bicycle once a week or more for on-campus trips, such as getting between classes, to the library etc.?

If there were convenient locations on campus to rent a bicycle at low cost for a few	Would definitely use a bike once a week or more	Might use a bike once a week or more	Not likely to use a bike once a week or more
If bike paths on campus were less congested, wider, and safer.	<b>O</b>	<b>O</b>	<b>O</b>
If the bike paths were monitored by campus police.	<b>O</b>	<b>O</b>	0
If there were secure places to lock and leave your bike at more locations.	•	•	•
For off-campus trips, if there were a network of bike paths and bike lanes throughout Champaign and Urbana, how likely would you be to use a	•	0	0

_	s each of the following ground on campus?	ı in preventing you f	rom using a bicycle to ge
commute or to run local errands?			
bicycle once a week or more to			

	Not a problem for me	A significant problem for me	Makes using a bike impossible for me
Don't want to spend the money on a bike.	<b>O</b>	O	0
The bike might be stolen.	O	0	O
Campus bike paths are not fit for safe riding.	0	O	<b>O</b>
I would not feel safe from traffic.	<b>O</b>	0	0
The ride to campus would be just too far.	0	O	0
I would not feel safe from other people.	0	<b>O</b>	0
Takes too long.	O	O	<b>O</b>
Lighting at night where I have to go is not adequate.	0	0	0

36. Assuming weather appropriate for bicycling, how likely would you be to use a bicycle more often than you now do now for on-campus trips, such as getting between classes, to the library etc.?

	Would definitely Might use a bike		Not likely to use a			
	use a bike more	more	bike more			
If bike paths on	O	O	O			
campus were						
less congested,						
wider, and safer.						

If the bike paths were monitored by campus	<b>O</b>	<b>O</b>	0
police.			
If there were secure places to lock and leave your bike at more locations.	<b>O</b>	•	•
If there were convenient locations on campus to rent a bicycle at low cost for a few hours at a time.	0	•	•
For off-campus trips, if there were a network of bike paths and bike lanes throughout Champaign and Urbana, how likely would you be to use a bicycle once a week or more to commute or to run local errands?	•	•	•

## **WALKING**

37. Assuming appropriate weather, from where you live now is it reasonable to go to walk (or use wheelchair) to get to these destinations?

	Yes	No	Not Sure
your most frequent campus destination?	0	0	0
stores where you could do routine errands?	0	0	0
the nearest bus stop?	0	0	0

30	What is	thor	nain	roscon	ic	it o	n unr	aconak	J۸	พลไหว	,
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- O Too far
- O No sidewalks
- Have to carry things
- O Other:

39. How significant is each of the following in preventing you from walking to campus or walking between locations on campus.

	Does not influence whether I choose to walk	A significant influence on my decision to walk	Very important to me in deciding whether to walk
Traffic on campus makes walking feel unsafe	O	0	0
The bus is just much more convenient	O	0	0
The sidewalks are not cleared in winter	O	0	0
The walk to campus would be just too far	O	0	0
I would not feel safe from other people	O	0	0
Takes too long	O	<b>O</b>	O

40. To encourage students who live off campus to get to campus in ways other than driving, supplementary travel methods are sometimes offered. If the following back-ups were offered how useful would each one be in addressing your concerns about getting to campus by a means other than driving once a week or more? That would That would help That would not be convince me address some of relevant to my my concerns concerns O Availability of  $\mathbf{O}$  $\mathbf{O}$ small cars to rent by the hour on or near campus Guaranteed Ride 0 O 0 Home (for example a free taxi) if you had an emergency during the day And the final question .... For the sake of controlling traffic congestion as the Champaign/Urbana area grows, reducing the number of people who drive alone is a high priority. 41a. In your own words, what is the main reason that you ride the bus, carpool, vanpool, bike or walk to your primary campus destinations? And the final question .... For the sake of controlling traffic congestion as the Champaign/Urbana area grows, reducing the number of people who drive alone is a high priority. 41b. In your own words, what kind of changes would it take to convince you to walk, bike or use the bus for more of your local trips?