

# APPENDIX D

## 2013-14 Urbana Pedestrian and Bicycle Survey (PABS) Report



# URBANA 4 PEDESTRIAN 1 AND BICYCLE 0 SURVEY REPORT 2

AUGUST 2014

Prepared for:



**Urbana** Park District

Prepared by:



CHAMPAIGN COUNTY  
REGIONAL PLANNING  
COMMISSION

# URBANA 4 PEDESTRIAN 1 AND BICYCLE 0 SURVEY REPORT 2

## REPORT FUNDED BY:

---

CITY OF URBANA

## REPORT PREPARED FOR:

---

CITY OF URBANA

URBANA PARK DISTRICT

## REPORT PREPARED BY:

---

The Champaign-Urbana Urbanized Area Transportation Study (CUUATS), a program of:

### CHAMPAIGN COUNTY REGIONAL PLANNING COMMISSION (CCRPC)

1776 East Washington Street

Urbana, Illinois 61802

Tel: (217) 328-3313

Fax: (217) 328-2426

Website: <http://www.cuuats.org/ubmp>

### 2013-14 URBANA PEDESTRIAN AND BICYCLE SURVEY (PABS) REPORT STAFF:

Rita Morocoima-Black

Planning & Community Development Director

Gabe Lewis

Transportation Planner

Kazi Jahan

Transportation Planner

Beth Carroll

Planning Intern

Quan Chak Daniel Tse

Transportation Intern (*former*)

## AUGUST 2014

---

# TABLE OF CONTENTS

## 1 EXECUTIVE SUMMARY

Summary Table .....	6
Background .....	7
Survey Response .....	7
Valid Responses .....	9
Main Findings .....	10

## 2 INTRODUCTION AND METHODS

Introduction .....	13
Sampling Methods .....	13
Probability Sampling: Stratified Random Sampling .....	14
Non-Probability Sampling: Opportunity Sampling .....	14
Distribution Methods .....	14
Mail-Out Survey / Mail-Back with Internet option .....	14
Outreach Events .....	15

## 3 QUESTION RESPONSES

Recent Travel Pattern .....	17
Biking Patterns In The Last 7 Days .....	20
Walking Patterns In The Last 7 Days .....	21
General Travel Behavior .....	22
Greenways and Trails .....	25
Profile of the Respondents .....	28

## APPENDIX

Sample Size Calculation .....	33
Question Responses .....	36
Urbana Resident PABS 2013-14 English Paper Survey Form .....	47
Urbana Resident PABS 2013-14 Spanish Paper Survey Form .....	52

## LIST OF FIGURES

Figure 1. Response rate by Traffic Analysis Zone (TAZ).....	8
Figure 2. Number of valid responses by question .....	9
Figure 3. CUUATS staff done preparing the July 2013 paper survey mailing .....	13
Figure 4. LRTP Bus at Meadowbrook Park .....	15
Figure 5. Survey outreach at the Leal School Fun Fair .....	15
Figure 6. Survey outreach at Urbana’s El Progreso market .....	15
Figure 7. Did you leave Urbana-Champaign during the last 7 days (up to yesterday)? .....	17
Figure 8. Number of days respondent went outside Urbana-Champaign in last 7 days .....	17
Figure 9. Percentage of transportation modes used in recent times.....	18
Figure 10. Modes of transportation used in the last 7 days.....	19
Figure 11. Percent of people biking by number of days in the last week.....	20
Figure 12. Percent of people walking by number of days in the last week.....	21
Figure 13. Travel modes to work or school by number of days per week.....	23
Figure 14. Average number of days people commute to work or school during a typical week .....	23
Figure 15. Do you ever use park trails in Urbana?.....	25
Figure 16. Purpose of trail use .....	25
Figure 17. Respondents’ preference for trail length .....	26
Figure 18. Travel modes to parks .....	26
Figure 19. Paper survey response distribution.....	29
Figure 20. Web survey response distribution.....	30

## LIST OF TABLES

Table 1. 2013-14 Urbana Pedestrian and Bicycle Survey (PABS) Summary Table .....	6
Table 2. Surveys collected at outreach events .....	15
Table 3. Transportation modes used in recent times .....	18
Table 4. People biking by number of days in the last week.....	20
Table 5. People walking by number of days in the last week.....	21
Table 6. Bicycle and motor vehicle access.....	22
Table 7. Physical or health condition limiting biking and walking .....	22
Table 8. Travel modes to work or school by number of days per week .....	23
Table 9. Weather Effects on Biking and Walking .....	24
Table 10. Number of months respondents do not walk or bike due to weather.....	24
Table 11. Weather Effects on Biking and Walking - Statistics .....	24
Table 12. Trail Type Preferences .....	26
Table 13. Biking to parks encouragement preferences & behaviors .....	27
Table 14. Respondents profile.....	28
Table 15. Respondent household profile .....	31

# 1 EXECUTIVE SUMMARY

Summary Table	6
Background	7
Survey Response	7
Valid Responses	9
Main Findings	10

## SUMMARY TABLE

**Table 1. 2013-14 Urbana Pedestrian and Bicycle Survey (PABS) Summary Table**

Question Number	Question Subject	Average	Response*	Total Responses	Percentage (%)
4	Bike to/from public transit	0.3 days	3-4 days – 14	1,371	1
5	Bike to/from work or school	1.68 days	3-4 days – 122	1,371	9
6	Bike to other destinations	1.5 days	3-4 days – 155	1,371	11
7	Bike for exercise or recreation	1 day	3-4 days – 125	1,371	9
8	Walk to/from public transit	0.93 days	3-4 days – 75	1,371	6
9	Walk to/from work or school	0.96 days	3-4 days – 69	1,371	5
10	Walk to other destinations	2.19 days	3-4 days – 234	1,371	17
11	Walk for exercise or recreation	2.82 days	3-4 days – 232	1,371	17
12	Access to a working bicycle	-	Always – 824	1,371	60
13	Access to a motor vehicle	-	Always – 1,012	1,371	74
14	Physical condition limiting Biking	-	164	1,371	12
15	Physical condition limiting Walking	-	154	1,371	11
16	<b><i>Trips to work or school</i></b>				
	Walking	1.3 days	3-4 days – 82	1,371	6
	Bicycling	1.8 days	3-4 days – 130	1,371	9
	Public Transit	0.8 days	3-4 days – 73	1,371	5
	Drive Alone	2.5 days	3-4 days – 140	1,371	10
	Car Passenger	0.7 days	3-4 days – 70	1,371	5
17	People not Biking due to Weather	4.3 months	3-4 months – 220	567	39
18	People not Walking due to Weather	3.6 months	3-4 months – 182	459	40
19	People using Trails	-	854	1,371	62
20	People using Trails for Walking	-	729	2,177	33
21	People preferring Medium Length Trails (½ – 4 miles long)	-	662	1,918	35
22	People preferring Paved Surface Trails only	-	333	1,371	24
23	<b><i>Travel modes to parks</i></b>				
	Drive	-	548	2,130	26
	Walk	-	500	2,130	23
	Bike	-	459	2,130	22
	Public Transit	-	43	2,130	2
24	<b><i>Encouragement preferences/behaviors to bike to parks</i></b>				
	I already bike to the park	-	246	1,451	17
	Combination of on- and off-street bicycle network	-	169	1,451	12
	Connected off-street bicycle network	-	149	1,451	10
	I would never bike to the park	-	147	1,451	10
	Connected on-street bicycle network	-	108	1,451	7

\*3-4 days was assumed to be the average representative response for questions asking about travel within the last 7 days.

## BACKGROUND

Initiatives to spur more use of active transportation modes have become increasingly popular these days due to their reduced environmental impact, reduced road and parking space usage, and associated health benefits. Planning for these modes involves analyzing existing bicycle and pedestrian facilities; and understanding residents' attitudes and behaviors of bicycling and walking.

The best way to improve transportation networks for any mode is to collect and analyze trip data to optimize investments. Walking and bicycling trip data for many communities are lacking. The City of Urbana, like many other communities, does not have robust data regarding how many active travel trips occur in its jurisdiction, let alone how the numbers change over time. This data gap can be overcome by establishing routine collection of non-motorized trip information. A statistically-valid survey is crucial in creating a baseline for setting realistic and achievable goals, and to accurately determine the needs and desires of people. Communities that routinely collect walking and bicycling data are able to track trends and prioritize investments to ensure the success of new facilities. Considering this, a Pedestrian and Bicycle Survey (PABS) was conducted for the City of Urbana between July 2013 and May 2014. The City of Urbana contracted with CUUATS to gauge public use of pedestrian and bicycling facilities, determine attitudes about active transportation modes, and solicit ideas for improvements.

The survey focused on these main purposes:

- Determine the modes of transportation used by Urbana residents during the past year
- List the general purposes of walking and cycling trips
- Determine the prevalence and frequency of walking and bicycling together with exploring the reasons for not walking or bicycling
- Understand respondents' habits in walking or bicycling to different destinations within the community

## SURVEY RESPONSE

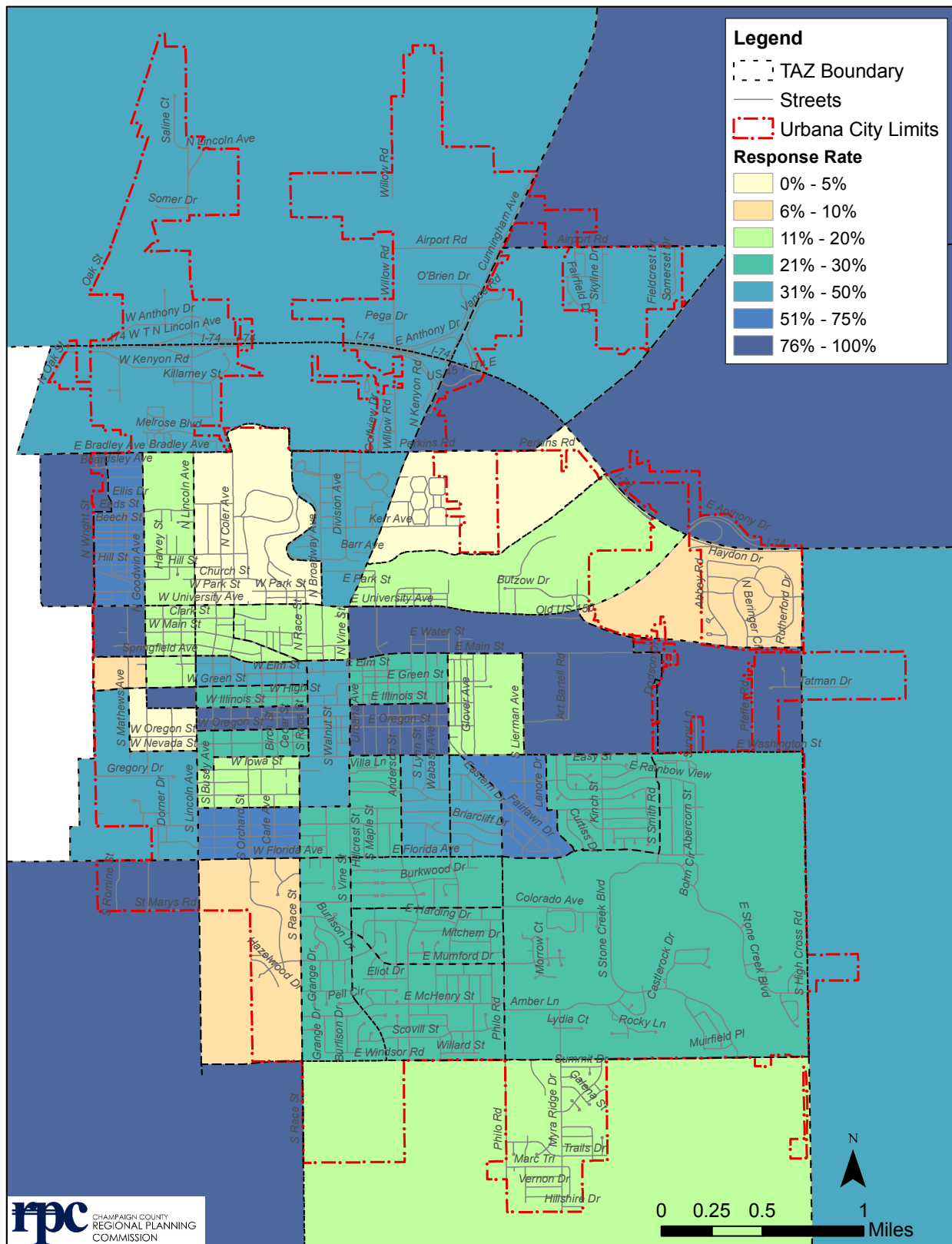
Paper copies of the Urbana Pedestrian and Bicycle Survey (PABS) were mailed to 1,271 households in July 2013. After undeliverable surveys were returned from insufficient addresses, unoccupied and nonresidential buildings, an additional 303 surveys were mailed to new households in September 2013, totaling 1,574 surveys mailed. Additionally, CUUATS staff and volunteers utilized seven outreach methods to gather more surveys. 202 surveys were returned by mail, and 190 paper surveys were completed at outreach events, totaling 392 paper surveys completed.

In addition to paper surveys, 979 responses were received via the Urbana Bicycle Master Plan website where the survey was posted online for six weeks between July and September 2013. All of the 979 respondents completed the survey through Page 1 (i.e. Question 7), and 768 of those respondents fully completed the survey through Page 5.

A total of 1,371 respondents attempted the survey (i.e. they at least provided an answer to Question 1) out of both paper and web surveys. The overall response was higher than the minimum target of 382.

Response rates by Traffic Analysis Zone (TAZ) are presented in Figure 1. As it shows, respondents of this survey are not concentrated in any particular area of the city, which is crucial to evaluate travel patterns of residents throughout the city.

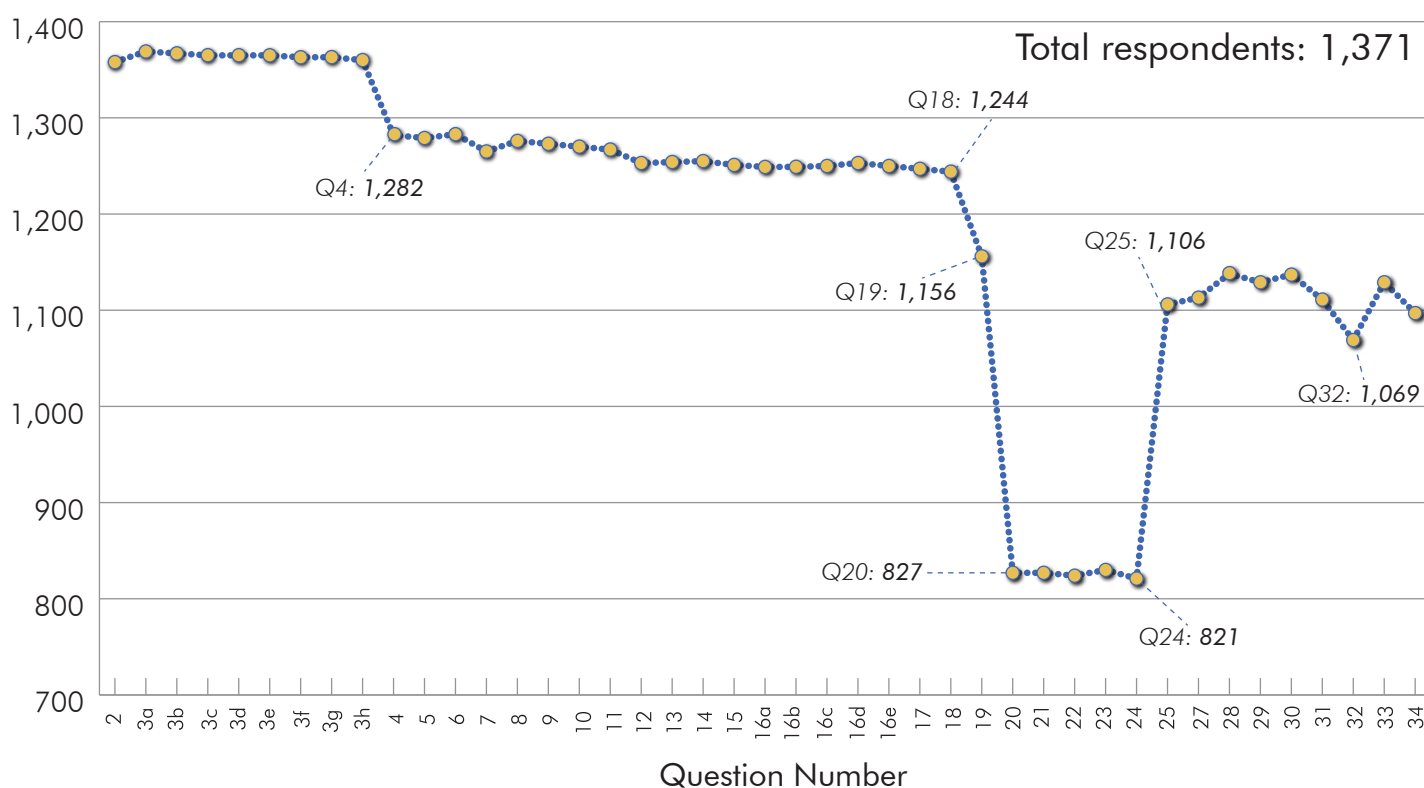
**Figure 1. Response rate by Traffic Analysis Zone (TAZ)**



## VALID RESPONSES

A total of 1,371 respondents at least commenced the survey, with more than 1,300 completing the survey through Question 3. Minimum sample sizes were achieved for all of the questions. Responses by question number are shown in Figure 2. Most of the respondents answered the questions about their biking and walking patterns. However, responses were relatively low on the questions about greenways and trails (Q20 to Q24). This can be attributed to the fact that these questions were mostly answered by people who use park trails. Responses also decreased on subsequent pages, i.e. more responses were provided for the first questions in the survey.

**Figure 2. Number of valid responses by question**



## MAIN FINDINGS

### RECENT TRAVEL

- Approximately 80% (1,103) of respondents reported that they went out of town the week before the survey day. It indicates that many Urbana residents travel out of town in good weather.
- On average, respondents left Urbana-Champaign two of the previous seven days (mean = 1.96), but the majority of them (69%) took that trip only once in the last 7 days.
- In the seven days before respondents completed the survey, walking trips (41%) were found to have the highest trip share, followed by biking (26%).
- In the seven days before respondents completed the survey, about 25% of the trips were taken in a motor vehicle (car, truck, motorcycle, or taxi).
- In the seven days before respondents completed the survey, only about 7% of the trips taken by the survey respondents were done by public transit.

### BIKING PATTERNS IN THE LAST 7 DAYS

- Almost half of the respondents (42%) biked to a destination other than work, school or public transit at least once in the last seven days, and 23% had done so in the last 3 or more days.
- Although biking to/from work, school or public transit is not as popular among the respondents, around 19% of them biked to or from work or school in the last 5-7 days. Also, about 21% of the respondents biked for exercise or recreation in the last 1-2 days, which indicates more popularity of such biking trips among residents.

### WALKING PATTERNS IN THE LAST 7 DAYS

- Around 71% of people had walked for recreation or exercise in the last 7 days. Among them, about 29% walked in the last 1-2 days, and 25% had walked in the last 5 or more days.
- For accessing destinations other than work, school or public transit, 30% of people walked in the last 1-2 days. 16% of people had done so in the last 5 or more days.
- Walking to or from work, school or public transit were found to be the least preferred activities among the respondents. In the last 7 days, about 67% of the respondents did not take any walking trip to/from work, school or public transit.

### GENERAL TRAVEL BEHAVIOR

- More respondents always had access to a working motor vehicle (74%) than a bicycle (60%).
- 23% of respondents had no access to a bicycle, while 5% had no access to a working motor vehicle in the last 7 days.
- The majority of respondents (78%) did not have any physical or health conditions that limit the amount of bicycling or walking they can do. About 12% of respondents mentioned that their physical or health condition limits their biking capability, while about 11% responded so regarding their walking capability.
- The majority (53%) of Urbana residents drive alone to their workplace or school.
- About 39% of respondents reported using a bike to commute to work or school at least once in the last 7 days. It indicates that bicycle usage is promising in Urbana despite its high motor vehicle dependence.
- During a typical week, on average people drive more than two days to work or school (2.5 days).

People also bike to work or school almost two days per week (1.8 days). The average number of days that people use public transit and ride with others is lowest, less than once in a week. Urbana residents also walk to work or school more than once a week (1.3 days).

- Walking behavior is less influenced by weather conditions compared to biking. While about 25% of people continue to walk irrespective of weather conditions, only about 11% of them do so in the case of biking.
- People avoid biking on average 4.3 months of the year due to weather conditions, and on average avoid walking 3.6 months of the year due to weather.

## GREENWAYS AND TRAILS

- 62% of respondents use park trails in Urbana.
- Walking (33%) was by far the most frequent mode used on Urbana trails, followed by biking (16%), nature hiking (14%), and running (11%).
- 35% of trail users preferred medium length trails that are 0.5 to 4 miles in long. 21% of respondents preferred long trails more than 4 miles long.
- Most respondents preferred paved trails (24%) compared to non-paved trails (13%). On the other hand, 23% of respondents preferred both paved and non-paved trails.
- More than one quarter (26%) of the respondents travel to parks by driving. About one quarter (23%) of Urbana residents walk to parks, and almost another quarter (22%) residents bike to parks. Only a very small number of trail users use public transit to get to parks (2%). 2% of the respondents also mentioned other means of transportation to get to the park, such as driving with a friend or getting a ride from someone else, running, and roller skating.
- Around 29% of respondents would bike to the park more if more off-street and/or on-street facilities existed. Separately, 10% of respondents felt that a connected off-street trail system would encourage them to bike to the park, while only 7% felt that a network of on-street facilities would encourage them to do so. While 17% of respondents mentioned that they already bike to the park, 10% stated that they would never bike to the park.

## PROFILE OF THE RESPONDENTS

- 47% of the 1,371 respondents were 25 to 54 years old.
- The majority of the respondents were female (45% female compared to 35% male, with some missing responses).
- The majority of people surveyed indicated "White" as one of their racial identities (64%). "Black or African American" was the next highest (6%), followed by "Asian" and "Hispanic or Latino" (5% each).
- Most of the respondents indicated that they work outside their home (49%).
- The highest percentage of respondents reported living in two or more person households (59%). 22% of respondents reported living alone.
- The highest percentage of households has two people of less than 16 years of age (16%). Also 75% of respondents mentioned having two people 16 years or older in their household. 11% of respondents also mentioned having 3 people in their household 16 years or older.
- 66% of respondents have one or two working motor vehicles in their household. 35% of respondents have one working vehicle in their household, while 7% of respondents do not have any vehicle available in their household.
- 25% of respondents earn less than \$40,000 per year. About 42% earns more than \$60,000 annually. 20% of the respondents were reluctant to disclose their earnings.

## 2 INTRODUCTION & METHODS

Introduction	13
Sampling Methods	13
Distribution Methods	14

## INTRODUCTION

Soliciting public input on bicycle, trail, and park facilities in Urbana was integral in the updating the Urbana Bicycle Master Plan (UBMP) and in developing the Urbana Park District Trails Master Plan (UTMP). The first step in doing so was to survey Urbana residents' mode choices and preferences as well as socio-economic information. The survey model used was the Mineta Institute's Pedestrian and Bicycle Survey (PABS). The rationale for using PABS rather than other types of surveys was:

- PABS is cost-effective and easy to administer.
- PABS captures vital information for planning and evaluation, such as travel volume, trip purpose, and socio-economic information.
- PABS produces and provides information on behaviors, such as walking and bicycling, that a large number of people engage in in any given week or year even if they make up a small part of a community's total trips.
- PABS is one of the very few survey techniques that has been tested for reliability. This means that PABS respondents would give similar answers if they were to do the PABS at a different time.
- Using a probability sampling approach, PABS can generate results that are generalizable to the larger population.



Figure 3. CUUATS staff done preparing the July 2013 paper survey mailing

## SAMPLING METHODS

CUUATS staff utilized both probability and non-probability sampling approaches to maximize the number of surveys completed. The former targets bicyclists and non-bicyclists, which is important in making the results generalizable to the City of Urbana's residents. This approach also allows CUUATS staff to gather input from people who do not bike or use trail facilities. In contrast, the latter aids in targeting respondents who reside in underserved neighborhoods or areas with traditionally low public input participation.

## PROBABILITY SAMPLING: STRATIFIED RANDOM SAMPLING

CUUATS staff determined the total population residing in each Traffic Analysis Zone (TAZ) (Figure A1) that is within the City of Urbana. Regarding TAZs that are partially within the city limits, only the population within the Urbana city limits was considered. Then, CUUATS staff calculated the percentage of each TAZ's population relative to the City of Urbana's total population. Afterwards, the minimum sample size (n) was estimated using the following equation:

$$n = (z_{\alpha/2}^2 \times S^2) / [e^2 + (z_{\alpha/2}^2 \times S^2) / N]$$

where,

n = minimum sample size

N = total population

S<sup>2</sup> = population variance, which for this case is 0.25

z<sub>α/2</sub> = (1-α/2)<sup>th</sup> percentile of the standard normal distribution for 1-α degree of certainty.  
We aimed for 95% confidence level (α=0.05 or z<sub>α/2</sub>~1.96).

e = acceptable margin of error (we assumed acceptable margin of error of +/- 5%, i.e. e=0.05)

The minimum sample size for the 2013-14 Urbana PABS survey was estimated to be 382. Considering Urbana's population of 41,250 (Census 2010), the number of surveys that needed to be sent out based on an expected 30% response rate and at a 95% confidence level, with a margin of error of +/- 5%, was estimated to be 1,273 surveys (Appendix). To determine how many households to survey per TAZ, the household percentage of each TAZ was multiplied (i.e. the number of households in a TAZ divided by the number of households in all surveyed TAZs) by 1,273 (Table A1).

## NON-PROBABILITY SAMPLING: OPPORTUNITY SAMPLING

In addition to probability sampling, CUUATS staff engaged in opportunity sampling to gather additional public input regarding bicycle and trail planning in Urbana. Opportunity/convenience sampling is where people who are present are asked to complete the survey. CUUATS staff attended several community and planning outreach events and asked event attendees to complete the PABS survey if they had not done it yet.

## DISTRIBUTION METHODS

### MAIL-OUT SURVEY / MAIL-BACK WITH INTERNET OPTION

CUUATS staff mailed the paper survey to 1,574 households in two mailings identified from the stratified sampling method (for more information, see "Survey Response" in Chapter 1). An address list of all households in each TAZ was created through geographic information systems (GIS), and CUUATS staff used this to randomly select households in each TAZ. Each mailing contained: a cover letter explaining the survey's purpose, the paper survey, instructions on how to access the web survey, and a stamped return envelope to mail back the completed paper survey. This gave respondents the flexibility to complete the survey either on paper or on the internet. 202 surveys were returned by mail.

In addition to paper surveys, CUUATS posted the PABS survey on the Urbana Bicycle Master Plan website so that any Urbana resident could complete it. The survey link was advertised via the paper survey, City of Urbana website, Urbana Public Television (UPTV), and a News-Gazette article. The web survey's contents were identical to that of the paper survey. Recognizing that some survey respondents may have also received the mailed survey, the web

survey notified respondents that they could only fill out one of the two types of surveys. The web survey was open for six weeks between July and September 2013. The survey was broken into five parts and posted online on five webpages; if a respondent decided to stop answering questions before completing the full survey, their responses from the previous page(s) were still recorded. 979 respondents completed the web survey through Page 1 (i.e. Question 7), and 768 of those respondents fully completed the survey through Page 5.

## OUTREACH EVENTS

As previously mentioned, CUUATS staff attended various community events, including Long Range Transportation Plan (LRTP) outreach events, and asked event attendees to complete the PABS paper survey. At least one CUUATS staff member was present at each event to assist Urbana residents in completing the surveys. The LRTP outreach and community events from which CUUATS staff were able to receive completed PABS surveys are listed below:

**Table 2. Surveys collected at outreach events**

Date	Events	Completed
08.06.2013	LRTP Bus: Sounds at Sunset, Douglass Park	8
08.07.2013	LRTP Bus: Neighborhood Nights, Meadowbrook Park	8
08.24.2013	Sweetcorn Festival, Downtown Urbana	77
09.05.2013	University District Traffic Circulation Study Open House, University of Illinois Activities and Recreation Center (ARC)	23
09.07.2013	Garden Gladness, Lierman Neighborhood Community Garden	18
Fall 2013	Other surveys received in person	13
05.02.2014	King Park Neighborhood Outreach	11
05.02.2014	Leal School Fun Fair - Latino family outreach	7
05.03.2014	King Park Neighborhood Outreach	12
05.03.2014	El Progreso International Market - Latino outreach	13
<b>Total</b>		<b>190</b>

Furthermore, CUUATS staff gathered input from populations with traditionally low public input participation. Staff gathered surveys at the Lierman Neighborhood Community Garden anniversary event, home to low-income residents in the Lierman neighborhood. In 2014, CUUATS staff solicited input from the Latino community at the Leal School Fun Fair and El Progreso grocery store. Results from surveys received in 2013 also revealed an underrepresentation of Northwest Urbana residents, so staff went door to door in 2014 to collect surveys in the King Park neighborhood.



**Figure 4. LRTP Bus at Meadowbrook Park**



**Figure 5. Survey outreach at the Leal School Fun Fair**



**Figure 6. Survey outreach at Urbana's El Progreso market**

### 3 QUESTION RESPONSES

Recent Travel Pattern	17
Biking Patterns in the Last 7 Days	20
Walking Patterns in the Last 7 Days	21
General Travel Behavior	22
Greenways and Trails	25
Profile of the Respondents	28

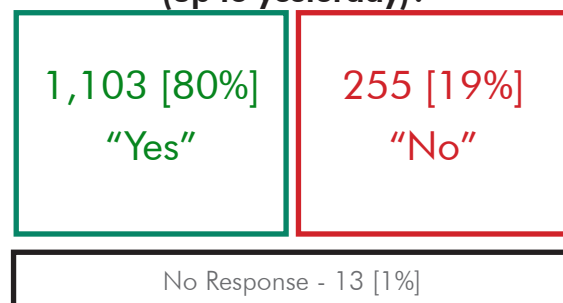
## RECENT TRAVEL PATTERN

The purpose of this section is to identify the respondents' recent travel characteristics and to describe the nature and scope of this survey in providing information on these characteristics. The first section discusses trips outside Urbana-Champaign taken by the respondents, followed by their travel pattern during the last 7 days. This section also gives an overview on how the survey respondents' in most recent times walked or biked to or from public transit, a job, store, park or other destinations; used public transit, a car, truck, or were a passenger in a vehicle.

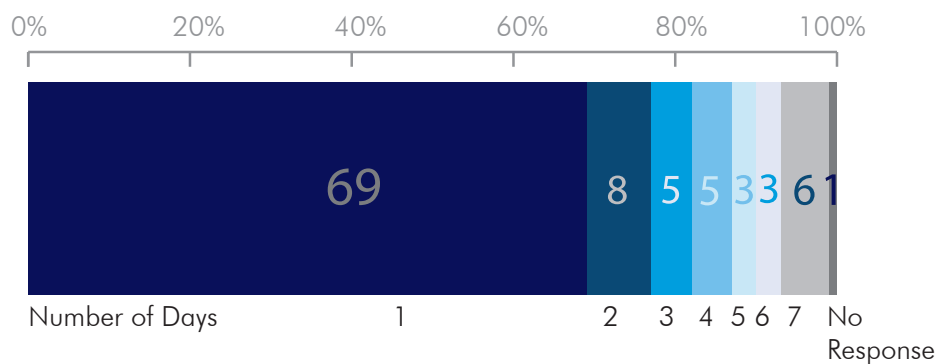
### Trips Outside Urbana-Champaign (Q2)

Respondents were asked to indicate if they have visited any places outside Urbana-Champaign during the last seven days. Out of 1,371 responses, 1,103 (80%) of respondents reported that they went out of town the week before the survey day. Of those respondents who went out of town, almost all of them (99%) also gave a response to how many days they went out of town. On average, they went out of town two days (mean = 1.96), but the majority of them (69%) were only gone once in the last 7 days.

**Figure 7. Did you leave Urbana-Champaign during the last 7 days (up to yesterday)?**



**Figure 8. Number of days respondent went outside Urbana-Champaign in last 7 days**



Mean 1.96 days  
Standard Deviation 1.78 days  
Number of Responses 1,093

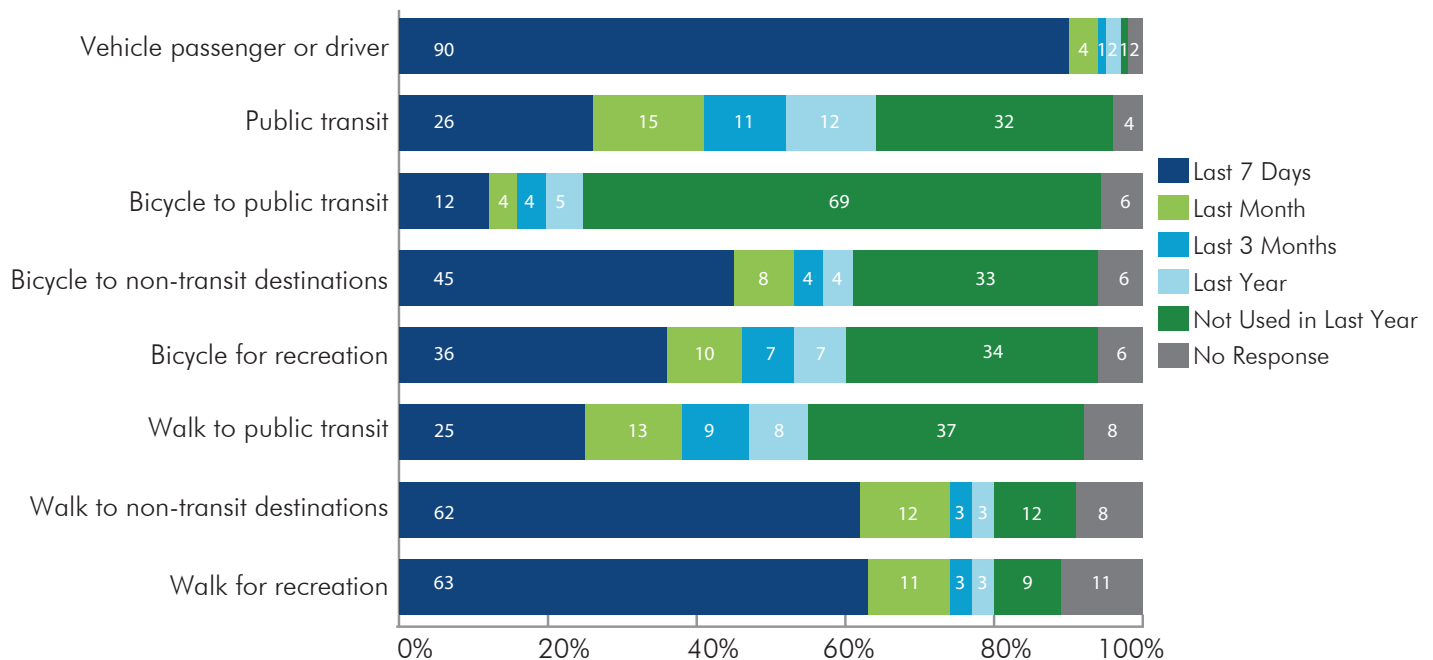
### Travel Pattern by Transport Mode (Q3)

Respondents were asked the most recent time that they used the following types of travel:

- Passenger or driver in a vehicle (for example, a car, truck, motorcycle, or taxi)
- Public transit (for example, a bus or train)
- Bicycle to or from public transit
- Bicycle to a destination other than public transit (for example, to a job, store, park or friend's house)
- Bicycle for recreation or exercise
- Walk to or from public transit
- Walk to a destination other than public transit (for example, to a job, store, park or friend's house)
- Walk for recreation, exercise or to walk the dog

The following bar chart graphically shows the pattern of frequency for different types of travel used by respondents. It indicates significantly higher usage of a car, truck, motorcycle, or taxi in the last 7 days. About 90% of the respondents reported that they were a passenger or driver in a car, truck, motorcycle or taxi during the last seven days. Only about 1% of them were not a passenger or driver in the last year. 26% of the respondents used public transit in the last 7 days, while another 15% used it in the last month. About 32% of the respondents did not use any public transit in last year. It indicates that there is a high percentage of the population in Urbana-Champaign who are primarily dependent on cars.

**Figure 9. Percentage of transportation modes used in recent times**



**Table 3. Transportation modes used in recent times**

Type of Travel	Last 7 Days		Last Month		Last 3 Months		Last Year		Not Used in Last Year		No Response		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Vehicle passenger or driver	1,233	90	57	4	11	1	26	2	13	1	31	2	1,371	100
Public transit	352	26	206	15	154	11	164	12	438	32	57	4	1,371	100
Bicycle to or from public transit	167	12	47	4	50	4	73	5	949	69	85	6	1,371	100
Bicycle to a destination other than public transit	624	45	104	8	55	4	57	4	455	33	76	6	1,371	100
Bicycle for recreation or exercise	492	36	131	10	100	7	93	7	471	34	84	6	1,371	100
Walk to or from public transit	349	25	174	13	127	9	113	8	505	37	103	8	1,371	100
Walk to a destination other than public transit	848	62	156	12	46	3	43	3	169	12	109	8	1,371	100
Walk for recreation, exercise, or to walk the dog	857	63	154	11	42	3	47	3	121	9	150	11	1,371	100

The survey also identified very low usage of a bicycle to access public transit (among those who used public transit at least once in last year). Over two-thirds of people (69%) using public transit did not bike to or from public transit in the last year. Only 12% of them used a bicycle for this purpose in the last 7 days. Compared to accessing public transit, bicycle usage is higher for other trip purposes. Almost half of the people (45%) biked to work, the store, a park or other destinations in the last 7 days, and 36% used a bicycle for recreation or exercise during the same time period. But the survey also found a significant percentage of the population does not bike for any of these purposes. About 33% did not use a bicycle at all in the last year for going to school, work, or the store (i.e. destinations other than public transit and parks), and 34% did not bike for any recreation or exercise purposes.

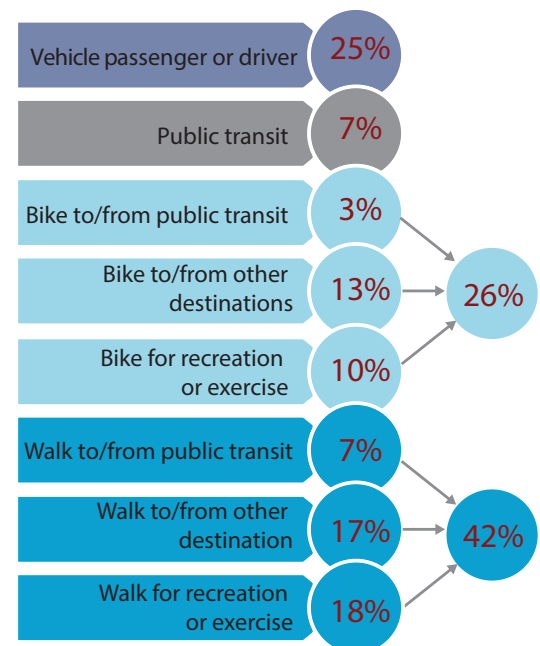
Walking followed somewhat similar patterns as bicycle usage. One quarter (25%) of people walked to or from public transit in the last 7 days, but about 37% of people did not make such a trip in the last year. On the other hand, more than 60% of people walked to work, the store, a park or other destinations compared to only 12% who did not take such a trip in the last year. 63% of respondents walked in the last 7 days for recreation, exercise, or to walk the dog. The survey also found that 9% of people did not take any such walking trip in the last year.

Driving or riding as a passenger is the most frequent travel pattern in Urbana. The majority of people had not biked in the last year, but the vast majority of people had walked. Walking is by far the most common activity in terms of active transportation. Over 60% of people had walked for recreation or exercise in the last seven days, while 9% did not take any such walk in the last year.

### Travel Pattern Across Transport Modes (Q3)

Comparing survey travel patterns only within the last seven days, the mode with the highest amount of travel were motorized vehicles (car, truck, motorcycle, or taxi). For about 25% of the trips in the last seven days, people were either a driver or passenger using these modes. About 42% of people walked for different purposes (public transit or other purposes) and about 26% of people biked for those same purposes. Walking and biking to a destination other than public transit (17% and 13% respectively), and walking for recreation (18%) were the most common recent active travel trips among the survey respondents.

Compared to biking or walking, the survey also identified a very low percentage of trips using public transit. Only 7% of survey respondents reported using public transit in the last 7 days. However, a combined 10% of respondents reported walking or biking to public transit in the same time period, so transit usage is likely not as low as reported in this survey. Seasonal variation of transit usage may also influence this finding, as residents were only surveyed during good weather. Additionally, Champaign-Urbana Mass Transit District (CUMTD) ridership continues to grow annually, having passed 13 million rides in 2014.

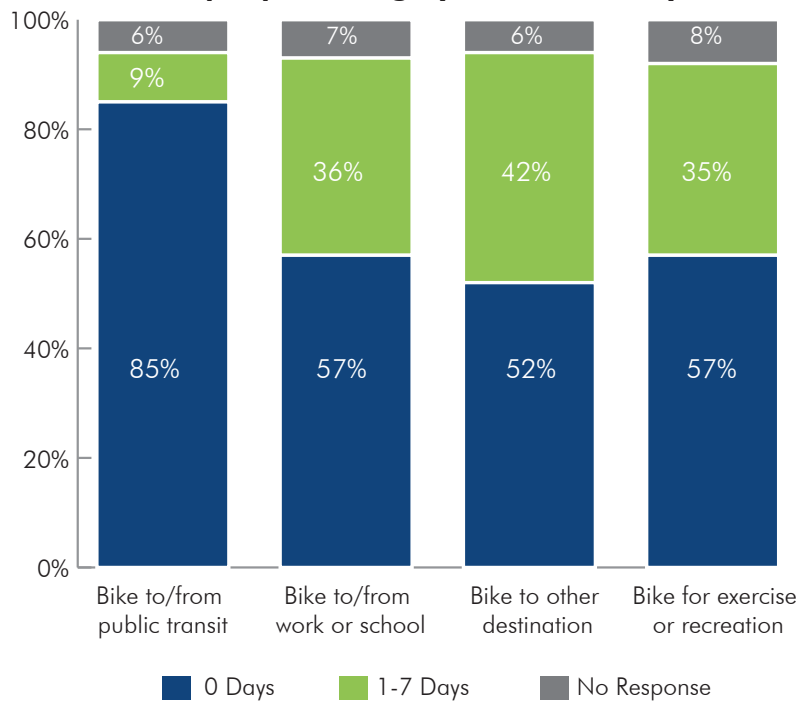


**Figure 10. Modes of transportation used in the last 7 days**

## BIKING PATTERNS IN THE LAST 7 DAYS (Q4 - Q7)

Respondents were asked how often they bike for different trip purposes, specifically, biking for exercise, recreation, accessing transit, and commuting to work, school, or any other destinations. Figure 11 illustrates bicyclists' travel frequency in the last 7 days for specific trip purposes.

**Figure 11. Percent of people biking by number of days in the last week**



Survey results reveal that biking to a destination other than work, school or public transit is more frequent than any other purpose. Almost half of the respondents (42%) biked to a destination other than work, school or public transit in the last seven days, and 23% had done so in the last 3 or more days, as shown in Table 3. Although biking to/from work, school or public transit was not as popular among the respondents, around 19% of them biked to or from work or school in last 5-7 days. Also, about 21% of the respondents biked for exercise or recreation in last 1-2 days, which indicates more popularity of such biking trips among residents.

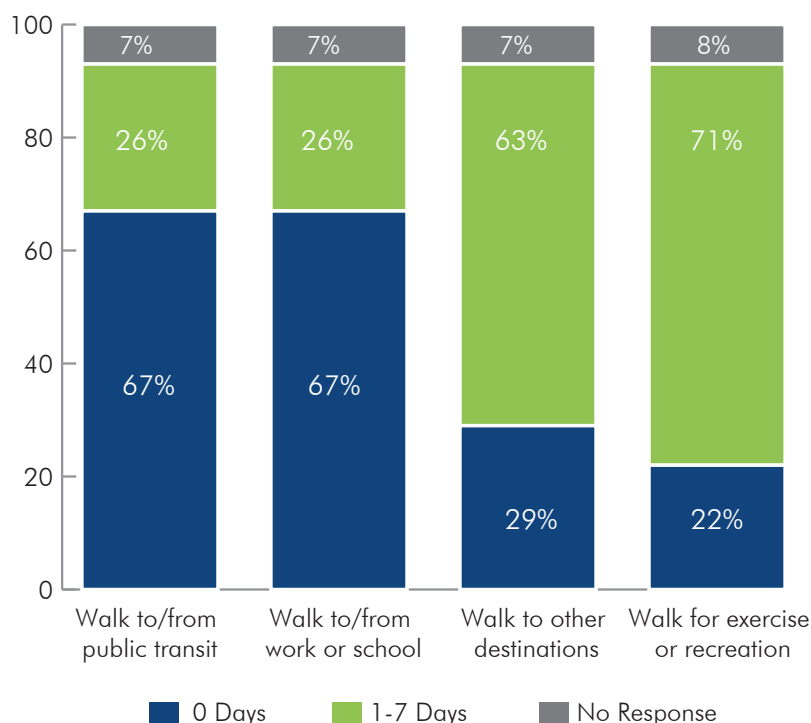
**Table 4. People biking by number of days in the last week**

Trip Purpose	0 days		1-2 days		3-4 days		5-7 days		No Response		Total		Mean (Days)
	#	%	#	%	#	%	#	%	#	%	#	%	
Bike to/from public transit	1,165	85	64	5	14	1	39	3	89	6	1,371	100	0.3
Bike to/from work or school	780	57	115	8	122	9	262	19	92	7	1,371	100	1.68
Bike to other destination	709	52	255	19	155	11	164	12	88	6	1,371	100	1.5
Bike for exercise or recreation	780	57	288	21	125	9	72	5	106	8	1,371	100	1

## WALKING PATTERNS IN THE LAST 7 DAYS (Q8 - Q11)

Respondents were asked how often they walk for different trip purposes, specifically, walking for exercise, recreation, accessing transit, and commuting to work, school or any other destinations.

**Figure 12. Percent of people walking by number of days in the last week**



Walking for exercise and recreation was found to be more common among respondents compared to walking to/from work, school or public transit. Around 71% of people had walked for recreation or exercise in the last seven days. Among these respondents, 29% walked in the last 1-2 days, and 25% had done so in the last five or more days. For accessing destinations other than work, school or public transit, 30% of people walked in last 1-2 days. 16% of people had done so in the last five or more days. Walking to or from work, school or public transit were found to be the least preferred walking activities among the respondents. In the last seven days, about 67% of the respondents did not take any walking trip to/from work, school or public transit.

**Table 5. People walking by number of days in the last week**

Trip Purpose	0 days		1-2 days		3-4 days		5-7 days		No Response		Total		Mean (Days)
	#	%	#	%	#	%	#	%	#	%	#	%	
Walk to/from public transit	920	67	168	12	75	6	113	8	95	7	1,371	100	0.93
Walk to/from work or school	920	67	160	12	69	5	124	9	98	7	1,371	100	0.96
Walk to other destination	403	30	414	30	234	17	219	16	101	7	1,371	100	2.19
Walk for exercise or recreation	296	22	397	29	232	17	342	25	104	7	1,371	100	2.82

## GENERAL TRAVEL BEHAVIOR

### Access to Transport Modes (Q12 - Q13)

More than half of the respondents (60%) always had access to a working bicycle in the last seven days, while 23% had no access to a working bicycle during this time. Almost three quarters of the respondents (74%) always had access to a working motor vehicle in the last seven days. Only about 5% did not have any access to a working motor vehicle in the last seven days. It reveals that Urbana residents have more access to a working motor vehicle than a bicycle, which also reflects the overall travel pattern discussed above.

**Table 6. Bicycle and motor vehicle access**

Response	Access to Bicycle		Access to Motor Vehicle	
	#	%	#	%
Always	824	<b>60</b>	1,012	<b>74</b>
Most of the time	59	<b>4</b>	81	<b>6</b>
Sometimes	32	<b>2</b>	60	<b>4</b>
Rarely	29	<b>2</b>	34	<b>2</b>
Never	309	<b>23</b>	67	<b>5</b>
No response	118	<b>9</b>	117	<b>9</b>
Total	1,371	<b>100</b>	1,371	<b>100</b>

### Physical Condition (Q14 - Q15)

Physical condition may influence whether a person will walk or bike for any trip purposes. The majority of respondents (78%) did not have any physical or health conditions that limit the amount of bicycling or walking they can do. About 12% of respondents mentioned that their physical or health condition limits their biking capability, while about 11% responded so regarding their walking capability. These numbers indicate that the physical or health condition of respondents should not significantly influence the travel patterns identified above.

**Table 7. Physical or health condition limiting biking and walking**

Response	Physical condition limiting Biking		Physical condition limiting Walking	
	#	%	#	%
Yes	164	<b>12</b>	154	<b>11</b>
No	1,063	<b>78</b>	1,064	<b>78</b>
Prefer not to say	28	<b>2</b>	33	<b>2</b>
No response	116	<b>8</b>	120	<b>9</b>
Total	1,371	<b>100</b>	1,371	<b>100</b>

## Trips to Work or School (Q16)

Trips to work or school are usually the main trips taken by people in their daily activities. The survey respondents were asked which mode of transport they have used in the last seven days to commute to work or school. The results indicate a high dependency on private motor vehicles for conducting such trips. The majority (53%) of Urbana residents drive alone to their workplace or school. More than half of the respondents do not walk, bike, use public transit, or even ride as a passenger in a vehicle to commute to work or school. About 39% of respondents reported using a bike to commute to work or school at least once in last 7 days. It indicates that bicycle usage is promising in Urbana despite its high motor vehicle dependence.

Figure 13. Travel modes to work or school by number of days per week

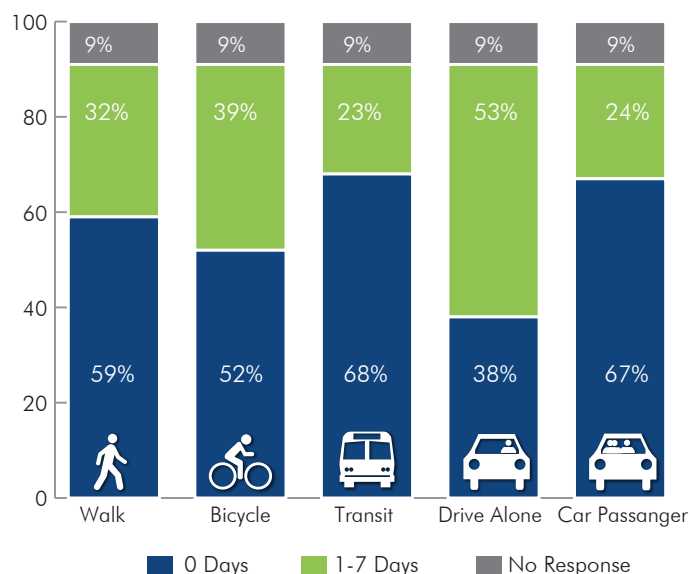
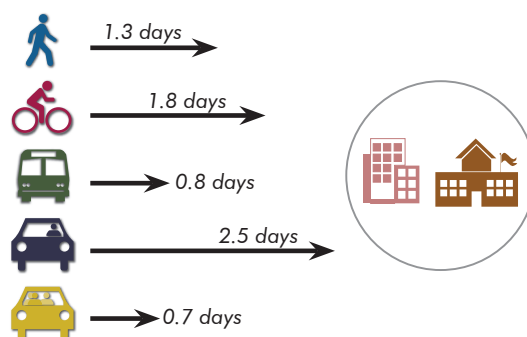


Table 8. Travel modes to work or school by number of days per week

	0 days		1-2 days		3-4 days		5-7 days		No response		Total		Mean (Days)
	#	%	#	%	#	%	#	%	#	%	#	%	
Walk	810	59	167	12	82	6	190	14	122	9	1,371	100	1.3
Bicycle	717	52	130	10	130	9	272	20	122	9	1,371	100	1.8
Transit	936	68	150	11	73	5	91	7	121	9	1,371	100	0.8
Drive Alone	525	38	184	13	140	10	404	30	118	9	1,371	100	2.5
Car Passenger	921	67	197	14	70	5	62	5	121	9	1,371	100	0.7

During a typical week, on average people drive to work or school (2.5 days). People also bike to work or school almost two days per week (1.8 days). Respondents walk to work or school more than once a week (1.3 days). The average number of days that people use public transit and ride with others is lowest, less than once a week.

Figure 14. Average number of days people commute to work or school during a typical week



## Weather Effects on Biking/Walking (Q17 - Q18)

Inclement weather may compel people to switch their usual travel mode. Survey respondents were asked if weather conditions influence their biking or walking trips, and how many months of the year they typically avoid walking or biking due to weather conditions.

**Table 9. Weather Effects on Biking and Walking**

Response	Biking		Walking	
	#	%	#	%
I never bike/walk	428	<b>31</b>	257	<b>19</b>
I always bike/walk	146	<b>11</b>	340	<b>25</b>
I don't know	106	<b>8</b>	187	<b>14</b>
Answered with some number of months	567	<b>41</b>	459	<b>33</b>
No response	124	<b>9</b>	128	<b>9</b>
Total	1,371	<b>100</b>	1,371	<b>100</b>

**Table 10. Number of months respondents do not walk or bike due to weather**

Response	Not Biking		Not Walking	
	#	%	#	%
2 months or less	111	<b>19</b>	159	<b>35</b>
3 - 4 months	220	<b>39</b>	182	<b>40</b>
5 - 6 months	157	<b>28</b>	70	<b>15</b>
7 - 8 months	44	<b>8</b>	25	<b>5</b>
9 months or more	35	<b>6</b>	23	<b>5</b>
Total	567	<b>100</b>	459	<b>100</b>

Survey respondents reported that they avoid biking on average 4.3 months of the year due to weather conditions, and on average avoid walking 3.6 months of the year due to weather. It indicates that walking behavior is influenced less by weather conditions compared to biking. This is also reflected in Table 10. While about 25% of people continue to walk irrespective of weather conditions, only about 11% of them do so in the case of biking.

**Table 11. Weather Effects on Biking and Walking - Statistics**

Statistic	Not Biking	Not Walking
Mean	4.3 months	3.6 months
Median	4 months	3 months
Standard Deviation	2.21 months	2.4 months
Number of Responses	567	459

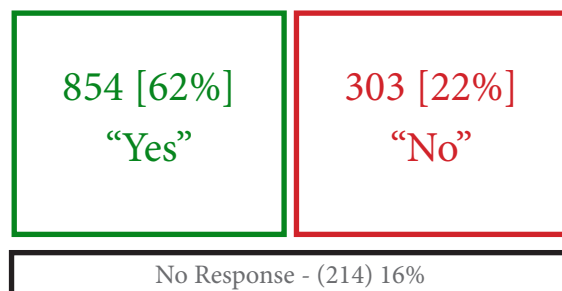
## GREENWAYS AND TRAILS

A component of the Pedestrian and Bicycle Survey unique to Urbana was to estimate and evaluate trail usage to better understand people's preferences and to address the growing need for more information on trail use. The first section discusses the purpose of trail use, followed by discussion on Urbana residents' preference of trail length and type and how they usually travel to parks. It also outlines respondents' opinions about preferred facility types that would encourage them to bike to the park.

### Trail Use (Q19)

Out of 1,371 responses, almost two-thirds (62%) of the respondents reported that they use park trails in Urbana. Non-trail users made up 22% of the survey respondents, and were also not asked to answer any more questions in this section of the survey if they did not want to.

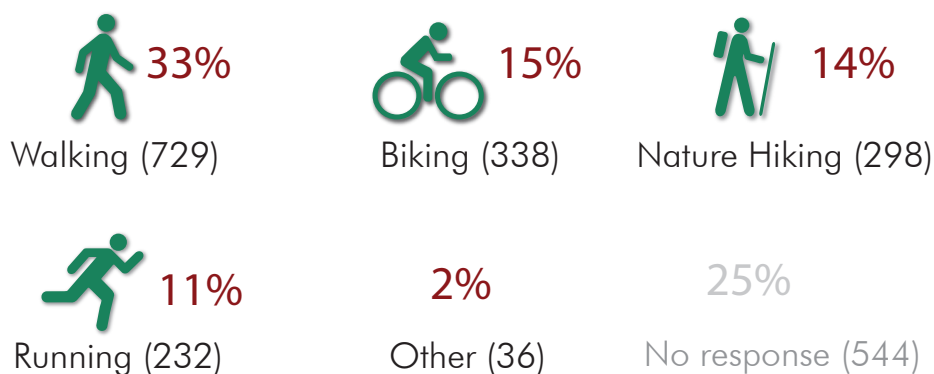
**Figure 15. Do you ever use park trails in Urbana?**



### Purpose of Trail Use (Q20)

People use trails for different purposes. Questions related to greenways and trails show that most of the trail users engage in different types of physical activity during their visits. Figure 16 shows the number and percentage of respondents reporting those various activities. Respondents could give multiple answers. Walking (33%) was by far the most frequent mode used on Urbana trails, followed by biking (15%), nature hiking (14%), and running (11%). 2% of trail users also mentioned that they use park trails for other uses. However, about 25% of respondents did not answer this question.

**Figure 16. Purpose of trail use**



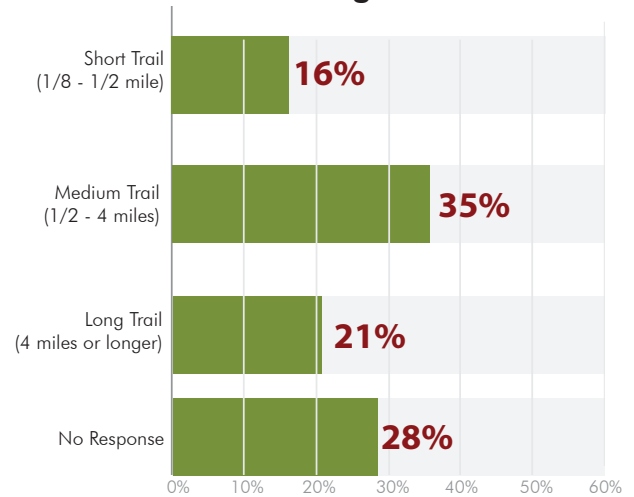
## Trail Length (Q21)

The survey asked people about their preferences on trail length. Approximately 35% of respondents preferred medium length trails that are 0.5 to 4 miles in length. 21% of respondents preferred long trails more than 4 miles long.

## Trail Types (Q22)

The survey also asked what type of trail people would prefer to use. Most of them preferred paved trails (24%) compared to non-paved trails (13%). On the other hand, 23% of respondents preferred both paved and non-paved trails. 23% of respondents preferred both paved and non-paved trails.

**Figure 17. Respondents' preference for trail length**



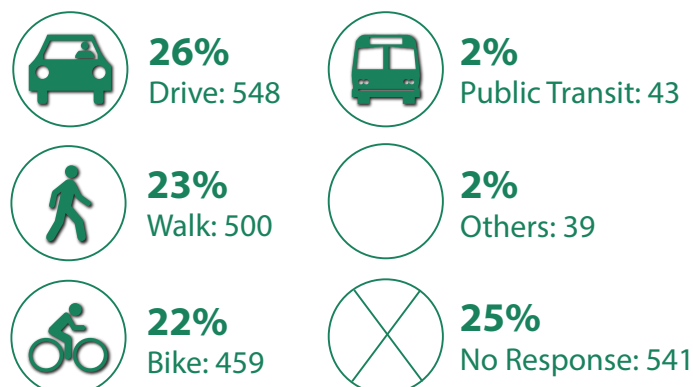
**Table 12. Trail Type Preferences**

Responses	#	%
Paved Surface (e.g. concrete, asphalt)	333	24
Non-Paved Surface (e.g. mowed natural area, woodchip, gravel)	182	13
Paved AND Non-Paved Surface	309	23
No response	547	40
<b>Total</b>	<b>1,371</b>	<b>100</b>

## Trips to Parks (Q23)

More than one quarter (26%) of the respondents travel to parks by driving. About one quarter (23%) of Urbana residents walk to parks, and almost another quarter (22%) of residents bike to parks. Only a very small number of trail users use public transit to get to parks (2%). 2% of the respondents also mentioned other means of transportation to get to the park, such as driving with a friend or getting a ride from someone else, running, and roller skating.

**Figure 18. Travel modes to parks**



## Encouragement for Biking (Q24)

From a list of five options, respondents were asked what would encourage them to bike to a park. Around 29% of respondents would bike to the park more if more off-street and/or on-street facilities existed. The highest group of residents preferred a connected bicycle network using a combination of on-street and off-street facilities (12%). Separately, 10% of respondents felt that a connected off-street trail system would encourage them to bike to the park; while only 7% of respondents felt that a network of on-street facilities such as bike lanes and routes would encourage them to bike to the park. While 17% of respondents mentioned that they already bike to the park, 10% stated that they would never bike to the park.

**Table 13. Biking to parks encouragement preferences & behaviors**

Response	#	%
I already bike to the park	246	17
Connected on-street bicycle network	108	7
Connected off-street bicycle network	149	10
Combination of on- and off-street bicycle network	169	12
I would never bike to the park	147	10
Other	82	6
No response	550	38
<b>Total</b>	1,451	100

6% of respondents cited other factors affecting their decision to bike to the park. The most cited factor that would get them to bike to the park is owning a bike, or owning a working bike. Time, having young children not able to bike to the park, and preferring walking or running were also cited by multiple respondents. Other desires to persuade people to bike to the park are more bike parking, more destinations besides Meadowbrook Park, and longer park trails. Some respondents stated that they are fine using the streets without special facilities, while others wanted better maintained roads that are less bumpy or have bike lanes cleared of debris.

## PROFILE OF THE RESPONDENTS

### Age (Q25)

Nearly half (47%) of the 1,371 respondents were 25 to 54 years old. 15% fell into the 55 to 64 age category, and the 65+ group made up another 12%. Children and young adults (under 18 and 18-24) were minimally represented with less than 1% and 6% of responses, respectively.

### Location of Survey Respondents (Q26 & Q27)

The location of the survey respondents (based on the self-reported nearest road intersection to their home) are presented in Figures 19 and 20. These figures indicate that both paper and web surveys were received from areas throughout the City of Urbana and there is no significant concentration of respondents in any particular location. However, web survey responses appear to be more dispersely located compared to paper survey responses.

Results also found that 25% of respondents have lived in their current neighborhood for 2 years or less. Another quarter (26%) have lived in their home 3-9 years, and more than another quarter (29%) have stayed 10 years or more.

### Gender (Q28)

Survey results reflect that the majority of the respondents were female (45% female compared to 35% male, with some missing responses).

### Race/Ethnicity (Q29)

The majority of people surveyed indicated "White" as one of their racial identities (64%). Second highest was "Black or African American" at 6%, followed by "Asian" and "Hispanic or Latino" (5% each).

### Employment (Q30)

Most of the respondents indicated that they work outside their home (49%). 13% of respondents reported that they are students (going to school).

**Table 14. Respondents profile**

<b>Age</b>	<b>%</b>
Less than 18	1
18-24	6
25-34	21
35-44	14
45-54	12
55-64	15
65+	12
No response	19
<b>Total</b>	<b>100%</b>
<b>Duration in Current Neighborhood</b>	<b>%</b>
0-6 months	8
6-12 months	2
1 year	8
2 years	7
3-4 years	10
5-9 years	16
10-19 years	14
20-29 years	8
30-39 years	4
40+ years	3
No response	20
<b>Total</b>	<b>100%</b>
<b>Gender</b>	<b>%</b>
Male	35
Female	45
Prefer not to say	3
No response	17
<b>Total</b>	<b>100%</b>
<b>Race/Ethnicity</b>	<b>%</b>
African American or Black	6
American Indian or Alaskan Native	1
Asian	5
Hispanic or Latino	5
Native Hawaiian or other Pacific Islander	0
White	64
Don't Know	0
Other	2
No response	17
<b>Total</b>	<b>100%</b>
<b>Employment Status</b>	<b>%</b>
Working outside the home	49
Working inside the home	5
Looking for work	2
Homemaker	3
Going to School	13
Retired	11
Other	2
No response	15
<b>Total</b>	<b>100%</b>

Figure 19. Paper survey response distribution

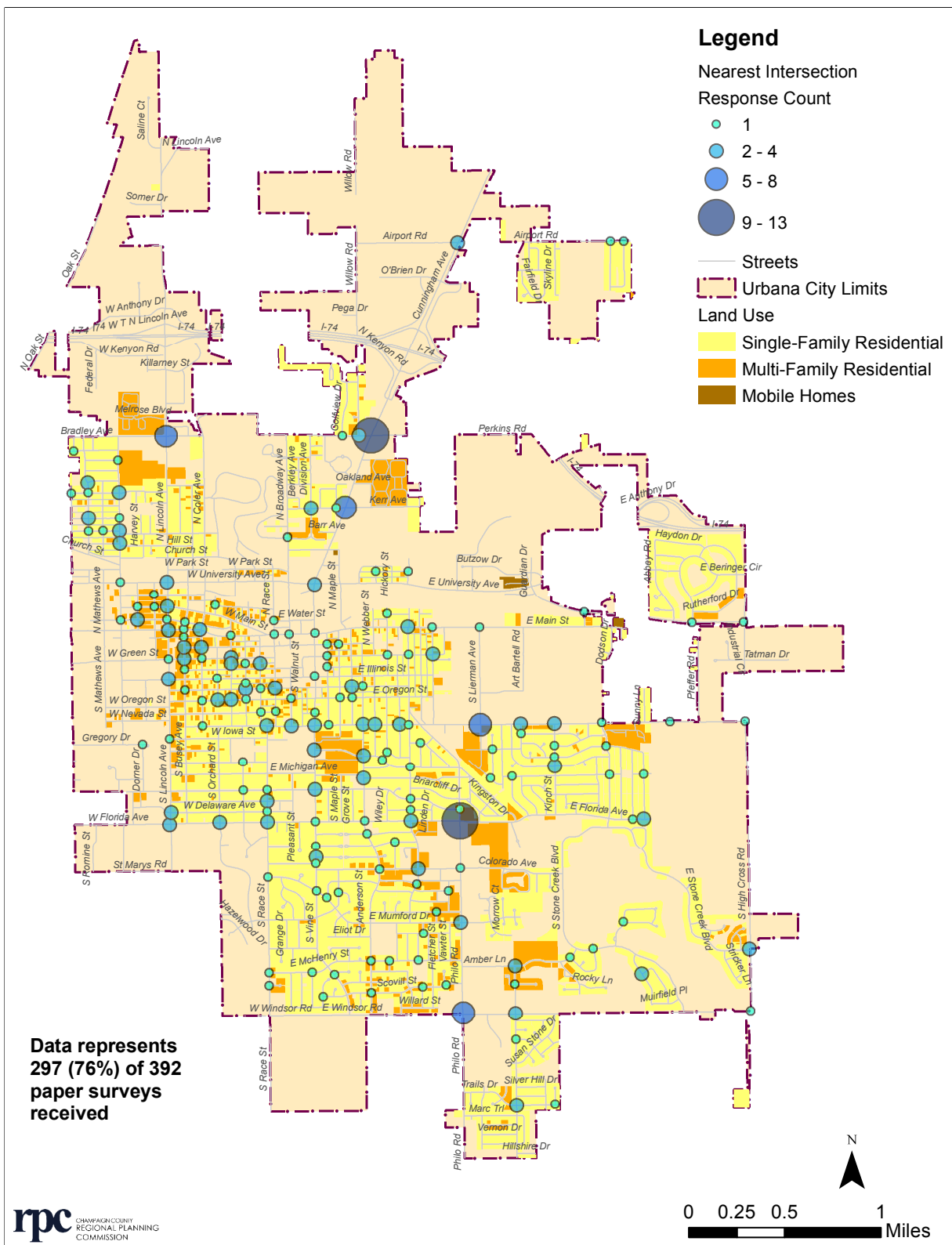
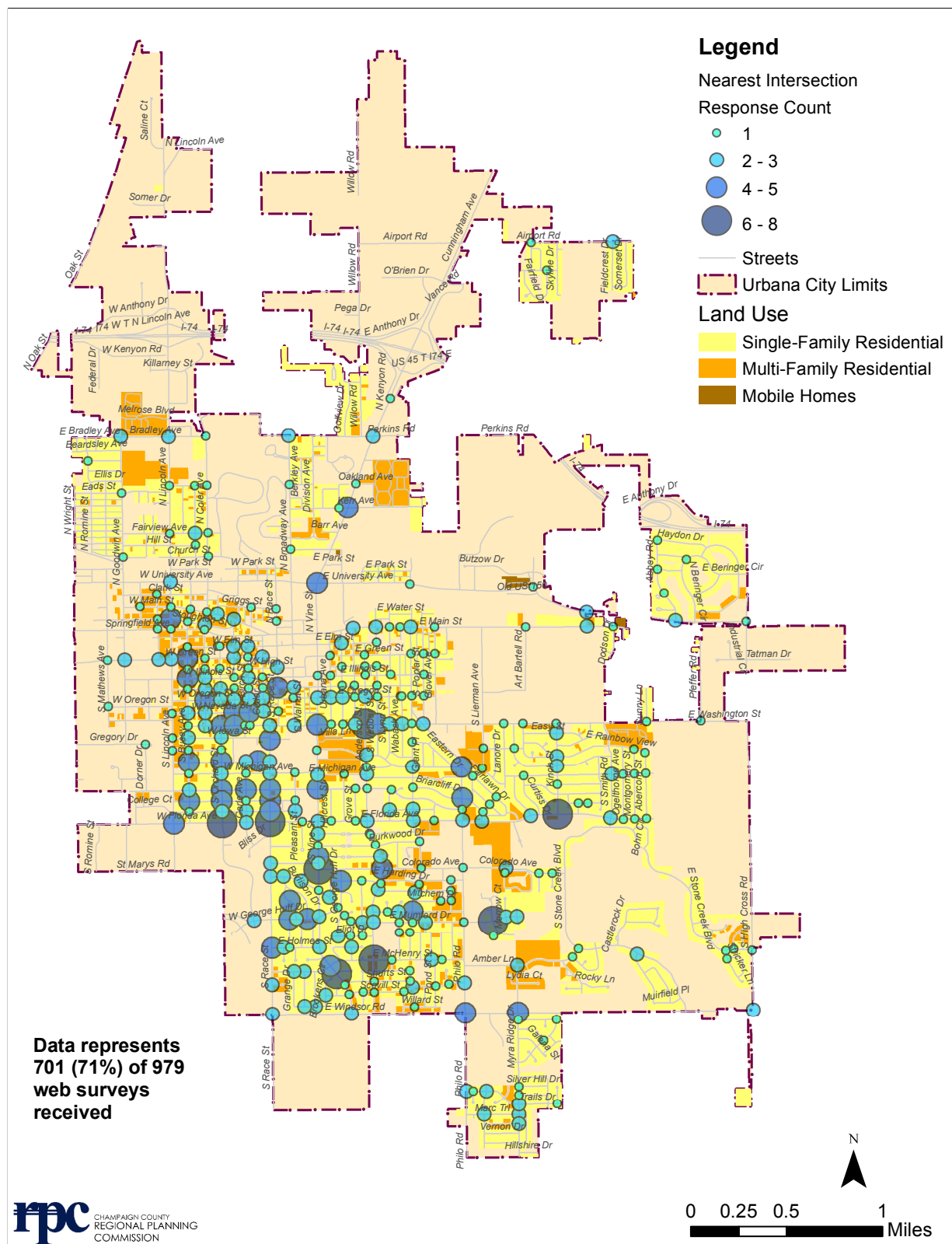


Figure 20. Web survey response distribution



## Household Size (Q31)

The highest percentage of respondents reported living in two or more person households (59%). 22% of respondents reported living alone.

## Age of Household Members (Q32)

The highest percentage of households has two people less than 16 years of age (16%). This population is more likely to walk or bike since they are not old enough to own a driver's license. Also 75% of respondents mentioned having two people 16 years or older in their household. 11% of respondents also mentioned having three people in their household age 16 years or older.

## Vehicle Ownership (Q33)

A large majority of respondents (66%) said they have one or two working motor vehicles in their household. 35% of respondents have one working motor vehicle in their household, and 31% have two working vehicles in their household. Most notable is that 7% of respondents do not have any vehicle available in their household.

## Income (Q34)

A significant number of the respondents belong to lower income groups. 25% of them earn less than \$40,000 per year. The 12% that earn less than \$20,000 per year may be walking and biking out of necessity. Also, about 42% earn more than \$60,000 annually. 20% of the respondents were reluctant to disclose their earnings.

**Table 15. Respondent household profile**

Household Size		%
One person		22
Two or more people		59
No response		19
Total		100%
<b>Age Composition of 2+ Person Households</b>		
# of People	< 16 years	16+ years
0	61%	1%
1	12%	4%
2	16%	75%
3	4%	11%
4 or More	2%	6%
No response	5%	3%
Total	100%	100%
<b>Working motor vehicle</b>		%
0		7
1		35
2		31
3		6
4 or more		3
No response		18
Total		100%
<b>Income</b>		%
\$0 - \$19,999		12
\$20,000 - \$39,999		13
\$40,000 - \$59,999		13
\$60,000 - \$79,999		11
\$80,000 - \$99,999		10
\$100,000 - \$119,999		7
\$120,000 or more		14
No response		20
Total		100%

# APPENDIX

Sample Size Calculation	33
Question Responses	36
Survey Questionnaire (English)	47
Survey Questionnaire (Spanish)	52

## SAMPLE SIZE CALCULATION

Minimum sample size (n) is estimated using the following equation:

$$n = (z_{\alpha/2}^2 \times S^2) / [e^2 + (z_{\alpha/2}^2 \times S^2) / N]$$

where,

- n = minimum sample size
- N = total population, which for this case is 41,250 (Census 2010)
- S<sup>2</sup> = population variance, which for this case is 0.25
- z<sub>α/2</sub> = (1-α/2)<sup>th</sup> percentile of the standard normal distribution for 1-α degree of certainty.  
We aimed for 95% confidence level (α=0.05 or z<sub>α/2</sub>~1.96).
- e = acceptable margin of error (we assumed acceptable margin of error of +/- 5%, i.e. e=0.05)

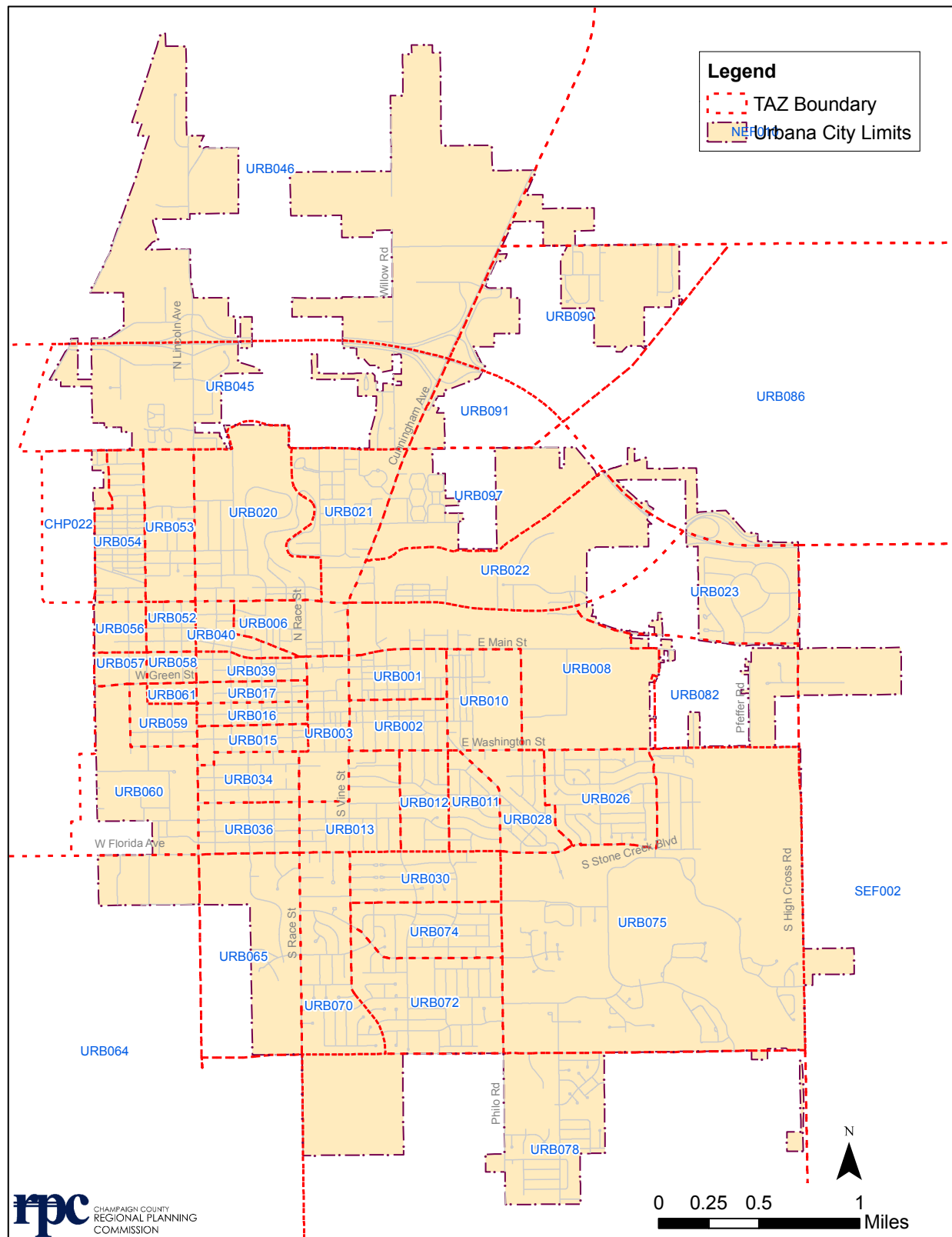
So, the minimum Sample Size (n) for the 2013-14 Urbana PABS survey was estimated to be 382. Assuming the response rate will be 30%, the total sample size is 1,273 (i.e. n/0.3). To determine how many households to survey per TAZ, we multiplied each TAZ's household percentage (i.e. the number of households in a TAZ divided by the number of households in all surveyed TAZs) by 1,273 (Table A1). The TAZ boundaries are shown in Figure A1.

**Table A1: Sample Size by Traffic Analysis Zone (TAZ)**

TAZ ID	NAME	Households	Percentage	Total Sample Size
179	URB064	20	0.1%	1
122	SEF002	3	0.0%	0
187	URB075	2,344	11.3%	144
159	URB026	684	3.3%	42
188	URB078	563	2.7%	35
174	URB057	17	0.1%	1
173	URB056	17	0.1%	1
170	URB052	820	4.0%	51
193	URB091	12	0.1%	1
194	URB097	773	3.8%	48
177	URB060	113	0.5%	7
10	CHP022	69	0.3%	4
168	URB045	820	4.0%	51
172	URB054	350	1.7%	22
169	URB046	100	0.5%	6
86	NEF010	3	0.0%	0
191	URB086	1	0.0%	0
192	URB090	202	1.0%	12
158	URB023	299	1.4%	18
147	URB008	228	1.1%	14
143	URB001	433	2.1%	27

TAZ ID	NAME	Households	Percentage	Total Sample Size
148	URB010	320	1.5%	20
144	URB002	397	1.9%	24
146	URB006	494	2.4%	30
145	URB003	363	1.8%	22
151	URB013	790	3.8%	49
156	URB021	483	2.3%	30
166	URB039	667	3.2%	41
167	URB040	432	2.1%	27
157	URB022	163	0.8%	10
189	URB082	97	0.5%	6
149	URB011	328	1.6%	20
160	URB028	691	3.3%	43
150	URB012	347	1.7%	21
152	URB015	412	2.0%	25
163	URB034	334	1.6%	21
153	URB016	363	1.8%	22
154	URB017	485	2.3%	30
155	URB020	520	2.5%	32
171	URB053	512	2.5%	32
161	URB030	731	3.5%	45
164	URB036	265	1.3%	16
180	URB065	945	4.6%	58
175	URB058	174	0.9%	11
176	URB059	422	2.0%	26
178	URB061	17	0.1%	1
183	URB070	460	2.2%	28
184	URB072	693	3.4%	43
186	URB074	884	4.3%	54
Total		20,660	100.0%	1,273

Figure A1: Traffic Analysis Zone (TAZ) boundaries



## QUESTION RESPONSES

### Question 1: What is today's date?

*Responses are aggregated by month.*

Month	#	%
July 2013	345	25.16
August 2013	732	53.39
September 2013	236	17.21
October 2013	6	0.44
November 2013	2	0.15
February 2014	1	0.07
May 2014	43	3.14
No response	6	0.44
Total	1,371	100

1,365 responses  
6 no response  
1,371 total respondents

### Question 2: Did you leave Urbana-Champaign during the last 7 days (up to yesterday)?

Responses	#	%
Yes	1,103	80
No	255	19
No response	13	1
Total	1,371	100

1,358 responses  
13 no response  
1,371 total respondents

### If yes, how many days?

Number of Days	#	%
1	764	69
2	92	8
3	51	5
4	50	5
5	38	3
6	35	3
7	63	6
No response	10	1
Total	1,103	100

1,093 responses  
10 no response  
1,103 total respondents

**Question 3: Check one box for each line below to tell us THE MOST RECENT TIME you used each type of travel. Note that some trips made fit into multiple categories below.**

Types of Travel	Last 7 Days		Last Month		Last 3 Months		Last Year		Not Used in Last Year		No Response		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
a) Passenger or driver	1,233	90	57	4	11	1	26	2	13	1	31	2	1,371	100
b) Public transit	352	26	206	15	154	11	164	12	438	32	57	4	1,371	100
c) Bicycle to or from public transit	167	12	47	4	50	4	73	5	949	69	85	6	1,371	100
d) Bicycle to a destination OTHER THAN public transit	624	45	104	8	55	4	57	4	455	33	76	6	1,371	100
e) Bicycle for recreation or exercise	492	36	131	10	100	7	93	7	471	34	84	6	1,371	100
f) Walk to or from public transit	349	25	174	13	127	9	113	8	505	37	103	8	1,371	100
g) Walk to a destination OTHER THAN public transit	848	62	156	12	46	3	43	3	169	12	109	8	1,371	100
h) Walk for recreation, exercise, or to walk the dog	857	63	154	11	42	3	47	3	121	9	150	11	1,371	100

**Question 4: In the last 7 days (up to yesterday), on how many days did you bicycle to OR from public transit?**

Number of Days	#	%
0	1,165	85
1	38	3
2	26	2
3	8	1
4	6	0
5	12	1
6	2	0
7	25	2
No response	89	6
Total	1,371	100

1,282 responses  
89 no response  
1,371 total respondents

**Question 5: In the last 7 days (up to yesterday), on how many days did you bicycle to OR from work or school?**

Number of Days	#	%
0	780	57
1	60	4
2	55	4
3	66	5
4	56	4
5	121	9
6	38	3
7	103	7
No response	92	7
Total	1,371	100

1,279 responses  
92 no response  
1,371 total respondents

**Question 6: In the last 7 days (up to yesterday), on how many days did you bicycle to somewhere OTHER than work, school or public transit?**

Number of Days	#	%
0	709	52
1	126	9
2	129	9
3	97	7
4	58	4
5	53	4
6	21	2
7	90	7
No response	88	6
Total	1,371	100

1,283 responses  
88 no response  
1,371 total respondents

**Question 7: In the last 7 days (up to yesterday), on how many days did you bicycle for exercise or recreation?**

Number of Days	#	%
0	780	57
1	190	14
2	98	7
3	75	5
4	50	4
5	20	1
6	15	1
7	37	3
No response	106	8
Total	1,371	100

1,265 responses  
106 no response  
1,371 total respondents

**Question 8: In the last 7 days (up to yesterday), on how many days did you walk to OR from public transit?**

Number of Days	#	%
0	920	67
1	97	7
2	71	5
3	38	3
4	37	3
5	47	3
6	9	1
7	57	4
No response	95	7
Total	1,371	100

1,276 responses  
95 no response  
1,371 total respondents

**Question 9: In the last 7 days (up to yesterday), on how many days did you walk to OR from work or school?**

Number of Days	#	%
0	920	67
1	93	7
2	67	5
3	43	3
4	26	2
5	48	3
6	14	1
7	62	5
No response	98	7
Total	1,371	100

1,273 responses  
98 no response  
1,371 total respondents

**Question 10: In the last 7 days (up to yesterday), on how many days did you walk to somewhere OTHER than work, school, or public transit?**

Number of Days	#	%
0	403	29
1	210	15
2	204	15
3	148	11
4	86	6
5	63	5
6	21	2
7	135	10
No response	101	7
Total	1,371	100

1,270 responses  
101 no response  
1,371 total respondents

**Question 11: In the last 7 days (up to yesterday), on how many days did you walk for exercise or recreation?**

Number of Days	#	%
0	296	22
1	199	15
2	198	14
3	143	10
4	89	6
5	83	6
6	32	2
7	227	17
No response	104	8
Total	1,371	100

1,267 responses  
104 no response  
1,371 total respondents

**Question 12: In the last 7 days, did you have access to a working BICYCLE?**

Access to Bicycle	#	%
Always	824	60
Most of the time	59	4
Sometimes	32	2
Rarely	29	2
Never	309	23
No Response	118	9
Total	1,371	100

1,253 responses  
118 no response  
1,371 total respondents

**Question 13: In the last 7 days, did you have access to a working MOTOR VEHICLE like a car, truck, or motorcycle that you can use either as a driver or as a passenger? (excluding taxis)**

Access to motor vehicle	#	%
Always	1,012	74
Most of the time	81	6
Sometimes	60	4
Rarely	34	2
Never	67	5
No Response	117	9
Total	1,371	100

1,254 responses  
117 no response  
1,371 total respondents

**Question 14: Do you currently have any physical or other health conditions that limit the amount of walking you can do?**

Response	#	%
Yes	164	12
No	1,063	78
Prefer not to say	28	2
No response	116	8
Total	1,371	100

1,255 responses  
116 no response  
1,371 total respondents

**Question 15: Do you currently have any physical or other health conditions that limit the amount of bicycling you can do?**

Response	#	%
Yes	154	11
No	1,064	78
Prefer not to say	33	2
No response	120	9
Total	1,371	100

1,251 responses  
120 no response  
1,371 total respondents

**Question 16: DURING A TYPICAL WEEK, how many days does your commute to work or school include any of the following forms of transportation?**

Number of Days	Walk		Bicycle		Transit		Drive Alone		Car Passenger	
	#	%	#	%	#	%	#	%	#	%
0	810	59	717	52	936	68	525	38	921	67
1	94	7	59	5	102	7	104	7	128	9
2	73	5	71	5	48	4	80	6	69	5
3	53	4	69	5	47	3	81	6	47	3
4	29	2	61	4	26	2	59	4	23	2
5	100	7	153	11	56	4	199	15	27	2
6	7	1	30	2	7	1	22	2	3	1
7	83	6	89	7	28	2	183	13	32	2
No response	122	9	122	9	121	9	118	9	121	9
Total	1,371	100	1,371	100	1,371	100	1,371	100	1,371	100

**Question 17: If you ever bicycle, how many months in a year do you TYPICALLY NOT make trips by bicycle because of local climate (bad weather)?**

Climate Effects	#	%
I never bicycle	428	31
I always bicycle	146	11
I don't know	106	8
Answered with some number of months	567	41
No response	124	9
Total	1,371	100

1,247 responses  
124 no response  
1,371 total respondents

**Question 18: If you ever walk, how many months in a year do you TYPICALLY NOT make trips by walking because of local climate (bad weather)?**

Climate Effects	#	%
I never walk	257	19
I always walk	340	25
I don't know	187	14
Answered with some number of months	459	33
No response	128	9
Total	1,371	100

1,244 responses  
127 no response  
1,371 total respondents

**Question 19: Do you ever use park trails in Urbana?**

Usage	#	%
Yes	854	62
No	303	22
No response	214	16
Total	1,371	100

1,156 responses  
215 no response  
1,371 total respondents

**Question 20: How do you use the trails? Check all that apply.**

Purpose	#	%
Walking	729	33
Nature hiking	298	14
Running	232	11
Biking	338	15
Other	36	2
No response	544	25
Total	2,177	100

827 responses  
544 no response  
1,371 total respondents

**Question 21: What length of trail would you prefer to use? Check all that apply.**

Preferred Trail Length	#	%
Short	315	16
Medium	662	35
Long	397	21
No response	544	28
Total	1,918	100

827 responses  
544 no response  
1,371 total respondents

**Question 22: What type of trail would you prefer to use? Check all that apply.**

Trail Types	#	%
Paved Surface	333	24
Non-paved Surface	182	13
Paved and Non-paved Surface	309	23
No response	547	40
Total	1,371	100

824 responses  
547 no response  
1,371 total respondents

**Question 23: How do you get to the park? Check all that apply.**

Modes	#	%
Walk	500	23
Bike	459	22
Drive	548	26
Public Transit	43	2
Others	39	2
No response	541	25
Total	2,130	100

830 responses  
541 no response  
1,371 total respondents

**Question 24: What would encourage you to bike to the park?**

Encouragement Options	#	%
I already bike to the park	246	17
Connected on-street bicycle network	108	7
Connected off-street bicycle network	149	10
Combination of on- and off-street bicycle network	169	12
I would never bike to the park	147	10
Other	82	6
No response	550	38
Total	1,451	100

821 responses  
550 no response  
1,371 total respondents

**Question 25: In what year were you born?**

*Responses are aggregated by age group of the respondent.*

Age Distribution	#	%
Less than 18	12	1
18-24	84	6
25-34	283	21
35-44	191	14
45-54	160	12
55-64	208	15
65+	168	12
No response	265	19
Total	1,371	100

1,106 responses  
265 no response  
1,371 total respondents

**Question 26: What two streets intersect closest to your home?**

See Figures 19-20.

**Question 27a-b: How many years or months have you lived in your neighborhood?**

Time of Residence	#	%
0-6 months	108	8
6-12 months	26	2
1 year	104	8
2 years	95	7
3-4 years	139	10
5-9 years	216	16
10-19 years	197	14
20-29 years	116	8
30-39 years	57	4
40-49 years	34	2
50+ years	10	1
No response	269	20
Total	1,371	100

1,102 responses  
269 no response  
1,371 total respondents

**Question 27c: What Zip Code do you live in?**

Zip Code	#	%
61801 (Urbana)	754	55
61802 (Urbana)	308	22
61820 (Champaign area)	41	3
61822 (Champaign area)	9	1
61874 (Savoy area)	1	0
No response	258	19
Total	1,371	100

1,113 responses  
258 no response  
1,371 total respondents

**Question 28: What is your legal gender?**

Gender	#	%
Male	480	35
Female	622	45
Prefer not to say	36	3
No response	233	17
Total	1,371	100

1,138 responses  
233 no response  
1,371 total respondents

**Question 29: What is your race or ethnicity? Check all that apply.**

Race or Ethnicity	#	%
African American or Black	82	6
American Indian or Alaskan Native	8	1
Asian	66	5
Hispanic or Latino	64	5
Native Hawaiian or other Pacific Islander	0	0
White	891	64
Don't know	1	0
Other	33	2
No response	242	17
Total	1,387	100

1,129 responses  
242 no response  
1,371 total respondents

**Question 30: Which category(ies) best describe you? Check all that apply.**

Employment Status	#	%
Working for pay outside the home	783	49
Working for pay inside the home	76	5
Looking for work	39	2
Homemaker	54	3
Going to School	203	13
Retired	172	11
Other	32	2
No response	234	15
Total	1,593	100

1,137 responses  
234 no response  
1,371 total respondents

**Question 31: How many people live in your household, including you?**

Household Size	#	%
One	301	22
Two or more	810	59
No response	260	19
Total	1,371	100

1,111 responses  
260 no response  
1,371 total respondents

**Question 32: How many people live in your household BY AGE, including you?**

Number of People	Less than 16 years		16 years and older	
	#	%	#	%
0	495	61	6	1
1	100	12	35	4
2	128	16	605	75
3	27	3	93	11
4	10	1	35	4
5	4	1	9	1
6	2	0.5	2	0.5
7	2	0.5	3	0.5
No response	42	5	22	3
Total	810	100	810	100

1,069 responses  
302 no response  
1,371 total respondents

**Question 33: How many working motor vehicles are there in your household?**

Number of Vehicles	#	%
0	99	7
1	474	35
2	432	31
3	88	6
4 or more	36	3
No response	242	18
Total	1,371	100

1,129 responses  
242 no response  
1,371 total respondents

**Question 34: To understand travel choices, and for statistical uses, we need an idea of your total household income. Please mark an X on the scale below to indicate the APPROXIMATE TOTAL ANNUAL COMBINED income of all the working adults in your household.**

Income	#	%
\$0 - \$19,999	160	12
\$20,000 - \$39,999	173	13
\$40,000 - \$59,999	186	13
\$60,000 - \$79,999	150	11
\$80,000 - \$99,999	137	10
\$100,000 - \$119,999	98	7
\$120,000 or more	193	14
No response	274	20
Total	1,371	100

1,097 responses  
274 no response  
1,371 total respondents