**APPENDIX A: PEER REVIEW MATRIX** 



#### APPENDIX

Category	Subcategory	Bloomington, IN	Ann Arbor, MI	Ithaca, NY	Portland, ME	Fort Collins, CO	Missoula, MT	Durham, NC	Totals
URBAN PLANNING CONTEXT									
TDM Organizational Model	City Planning Department	TBD	0	0	•	•	•	•	4
	City Transit Agency	TBD	•	0	0	0	0	0	1
	Downtown Business Improvement District	TBD	o	•	0	0	0	0	1
Funding Model	Funding Model	TBD	Federal: FTA	State grant: NYSERDA Climate Smart Communities	City's operating budget	Combo: Fed, state, local (CMAQ until 2017)	CMAQ grant	CMAQ grant and state grant (NCDOT)	n/a
	Federal	TBD	•	0	0	•	•	•	4
	State	TBD	0	•	0	•	0	•	3
	Local	TBD	0	0	•	•	0	0	2
Reasons for TDM	Parking	•	•	•	•	•	•	0	5
	Development	0	•	•	•	•	•	0	5
	Traffic	0	0	0	0	•	•	0	2
	Population Growth	0	0	0	0	0	0	•	1
Role of Local University	Town-Gown Partnership	0	•	0	•	•	•	0	4
	University TDM Programming	•	0	•	•	•	0	0	4
	University Impact on TDM	↔	↔	t	Ť	1	<b>+</b>	↔	↔
EXISTING TDM EFFORTS	La companya da managementa d								
Alternative Transportation	University subsidizes transit	•	•	•	•	•	•	•	6
	Carpool/Vanpool Matching	0	•	0	•	•	•	•	5
	Park-and-Ride	0	•	0	•	•	•	•	5, 1 partial
	Bikeshare	0	•	•	•	•	0	0	4
	City provides funding to employers to encourage transit usage	0	•	•	0	•	0	•	4
	Carshare	0	•	•	•	•	٥	0	3, 1 partial
	Scooters	•	•	•	0	•	0	•	3
	Walking Programming	0	0	•	0	•	0	0	2
	Bicycle Education	0	0	•	0	•	•	0 0	2
Education Programs + Information Tools	City subsidizes transit Outreach: Downtown Employers	0	•	•	0	•	•	•	3, 1 partial
Information Foots	Employee Education	0	•	0	0	•	•	0	3
	Travel Behavior Mgmt Software	0	0	•	0	0	•	0	2
	Outreach: Large Employers	0	•	0	0	0	0	0	1
	Live transit information	0	0	0	0	0	0	•	1
	Resident Education	0	0	0	0	0	0	•	1
Parking Supply Conditions + Development Policies	Development: Parking Minimums	•	•	•	•	•	•	•	6
	Exceptions to parking standards, i.e. lower requirements	No parking minimums in Courthouse Square Overlay District; Lower minimums in Downtown Core Overlay District	Lower min. in 2 downtown districts: 200% FAR in transition zone and 400% in dowtown core	No parking minimums for Central Business District	o	Transit-Oriented Development District: Depending on SF, exempt from parking requirement	Riverfront Neighorhood: Min: 50% of code, Max: 75% of code	Downtown Design District: Min: 0%, Max: 100%	5
	Parking Supply Saturated	•	•	•	0	0	0	0	2, 2 partial
	Development: Parking Maximums	•	(comm. only)	0	0	(comm. only)	0	0	2
	TDM Development Requirement	0	0	o	•	0	0	0	1
	Free On-Street Parking Downtown	o	0	0	0	•	0	0	1
Metrics	SOV	•	0	0	•	0	•	•	3
	Air Quality	o	0	0	0	0	•	0	1
	Biking Rate	0	0	0	0	•	0	0	1
	Parking Utilization	0	0	0	0	0	0	0	0



#### **APPENDIX B: FULL PEER REVIEW ANALYSIS**



**Background:** Bloomington, Indiana has several distinct qualities which directly impact its transportation needs. Bloomington is the location of the flagship campus of the Indiana University (IU) system, also its largest campus. Bloomington can be described as a quintessential "college town"; the city population is eighty-five thousand and includes more than forty thousand students. Although the city has many other constituencies, its need to support and respond to the needs of the university population cannot be overestimated.

Bloomington, Indiana, has a long and impressive history of supporting multimodal transportation. It has extensive walking and bicycling infrastructure, as reflected in its Gold-level rating from the League of American Bicyclists as well as its high Bike Score and Walk Score. Both the university and the city maintain regular bus transit throughout the city and the IU campus. The city is pursuing multimodal transportation initiatives as part of its commitment to sustainability as well as healthy living, and strategies that support these goals are captured in the city's Comprehensive Plan, Transportation Plan, and Sustainability Action Plan.

**Peer Cities:** As part of its preliminary background research, Wells + Associates performed a review of six small cities from across the country that are home to large universities and maintain Transportation Demand Management (TDM) programs: Durham, NC, Missoula, MT, Fort Collins, CO, Portland, ME, Ithaca, NY, and Ann Arbor, MI. In each case, Wells + Associates interviewed representatives with knowledge of the city's TDM program and created a matrix of findings to a) create a framework for how to approach TDM in the context of a small city with a large university presence and b) to inform its TDM recommendations. Identifying comparable cities helped narrow down TDM strategies to those most relevant to Bloomington. This peer review provides the urban planning context and commute patterns of both Bloomington and its peer cities to create points of comparison to Bloomington. It then summarizes the TDM programs and policies that have been implemented by these peer cities and highlights those most relevant to Bloomington.

#### Peer City Demographics and Urban Design

#### Peer Cities: City and University Population

Table 1 reports the population of Bloomington and each peer city as well as the population of their corresponding universities. The peer city that is most similar to Bloomington, IN, in terms of city population is Missoula, MT; the populations of Bloomington and Missoula are different by only ten thousand residents. However, although University of Montana (UM) is a flagship campus like Indiana University (IU) in Bloomington, UM is much smaller than IU, with only eleven thousand students. While the population of Ann Arbor, MI, is approximately forty percent larger than that of Bloomington, IN, the student population at University of Michigan (UMich) in Ann Arbor is most like that of Indiana University, Bloomington. Like IU, the UMich campus in Ann Arbor is also the flagship campus of the state's university system and educates more than forty thousand students. To approximate the impact of the university on the city, the scale of the university was measured using a ratio of the student population to the city most similar in scale to Indiana University (51%) in Bloomington is UMich (37%) in Ann Arbor.



Therefore, taking both city population and university population into account, the city that is most similar in scale to Bloomington, IN, is Ann Arbor, MI.

	City Population	Local University/ies	University Type	University Population	University / City Ratio
<u>Bloomington, IN</u>	84,918	Indiana University, Bloomington	Public, flagship	43,710	51.47%
Ann Arbor, MI	121,890	University of Michigan	Public, flagship	46,002	37.74%
Durham, NC	274,291	Duke University North Carolina Central University	Private 2. Public	16,294 8,207	8.93%
IFort Collins, CO	167,830	Colorado State University	Public, flagship	33,237	19.80%
Ithaca, NY	30,999	Ithaca College Cornell University	Private Private	6,059 14,907	67.63%
Missoula, MT	74,428	University of Montana	Public, flagship	11,865	15.94%
Portland, ME	66,417	University of Southern Maine University of New England	Public Private	6,110 8,281	21.66%

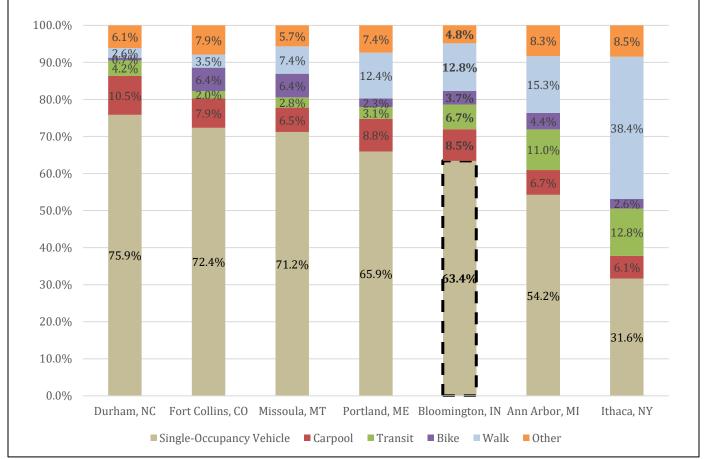
#### Table 1: Cities and Corresponding Universities Population Data

Sources: American Community Survey Population Quickfacts; US News and World Report.



#### Peer Cities: Travel Behavior

Figure 1 reports on the regular travel behaviors of residents in Bloomington, IN, as well as the six peer cities. Based on mode split, the city with the most similar travel behavior to that of Bloomington, IN, is Portland, ME. The SOV, carpool, and walking rates of Portland, ME, are the most like those of Bloomington. As far as bicycling rates, Ann Arbor is the most similar to Bloomington, and the transit rate in Durham, NC, is the most like that of Bloomington. Therefore, regarding <u>travel behavior</u>, the most apt comparison to Bloomington, IN, is Portland, ME.



#### Figure 1: Peer City Mode Split Data

Source: American Community Survey, Means of Transportation to Work, 2017 Estimates, Table B08301



#### Peer Cities: Existing Multimodal Transportation Infrastructure

Figures 2 through 7 report on the urban design and existing transportation infrastructure of Bloomington, IN, and the six peer cities as measured by Walk Score<sup>14</sup> data, which scores the walkability, Bike Score,<sup>15</sup> which measures the bikeability, and Transit Score,<sup>16</sup> which measures the transit access of locations on a scale from 1 to 100; 100 represents the most access. To provide context, scores for the entire city as well as for the downtown core is reported. An analysis of the downtown data demonstrates that downtown Fort Collins, CO, is the best comparison to downtown Bloomington, IN. Compared to downtown Bloomington, downtown Fort Collins has the most similar Walk Score, downtown Missoula has the most similar Transit Score, and downtown Ann Arbor has the most similar Bike Score. However, the downtowns of Ann Arbor and Missoula differ from Bloomington on Transit Score and Walk Score substantially; Ann Arbor is ranked significantly higher for transit availability than Bloomington, and Missoula is ranked significantly lower on walkability. In addition to having the Walk Score most similar to that of Bloomington, Fort Collins is the most comparable to Bloomington in its <u>multimodal transportation infrastructure</u>.

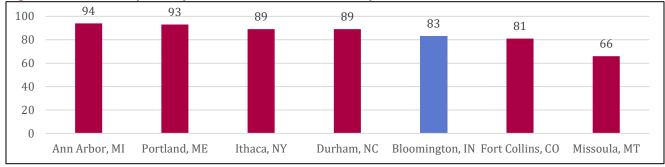


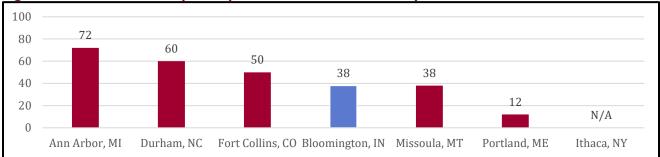
Figure 2: Walkability of City Downtown as Measured by Walk Score

<sup>&</sup>lt;sup>16</sup> **Transit Score methodology**: "The Transit Score algorithm calculates a score for a specific point by summing the relative "usefulness" of nearby routes. We define usefulness as the distance to the nearest stop on the route, the frequency of the route, and type of route." <u>https://www.walkscore.com/transit-score-methodology.shtml</u>



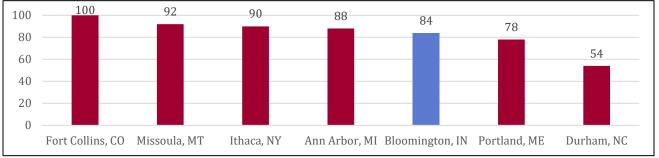
<sup>&</sup>lt;sup>14</sup> Walk Score methodology: "Walk Score measures the walkability of any address using a patented system. For each address, Walk Score analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Amenities within a 5 minute walk (.25 miles) are given maximum points. A decay function is used to give points to more distant amenities, with no points given after a 30 minute walk. Walk Score also measures pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density." <u>https://www.walkscore.com/methodology.shtml</u>

<sup>&</sup>lt;sup>15</sup> **Bike Score methodology:** "Bike Score...measures whether a location is good for biking on a scale from 0 - 100 based on four equally weighted components: bike lanes, hills, destinations and road connectivity, bike commuting mode share." <u>https://www.walkscore.com/bike-score-methodology.shtml</u>

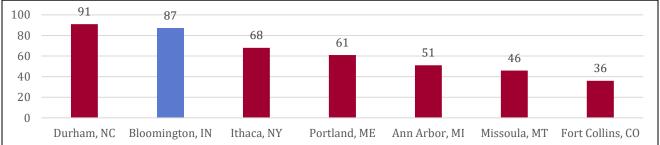


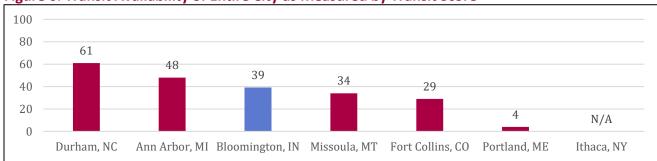
#### Figure 3: Transit Availability of City Downtown as Measured by Transit Score

#### Figure 4: Bikeability of City Downtown as Measured by Bike Score



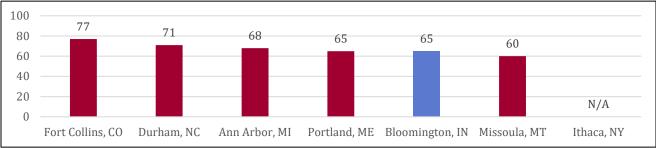
#### Figure 5: Walkability of Entire City as Measured by Walk Score





#### Figure 6: Transit Availability of Entire City as Measured by Transit Score





#### Figure 7: Bikeability of Entire City as Measured by Bike Score

#### **Most Similar Peer Cities:**

Considering all three demographic and urban design characteristics—population of city and university, commute behavior, and existing infrastructure—Ann Arbor, MI, Portland, ME, and Fort Collins, CO, stand out as the best peer comparisons to Bloomington. Ann Arbor is the most comparable in terms of population and university scale, Portland is the closet comparison based on commuting patterns, and Fort Collins is the closest comparison for existing transportation infrastructure. Narrowing the analysis down to TDM strategies provided in these locations helps narrow down what strategies are most likely to be effective in Bloomington.

#### **Interviews with Peer Cities**

**Research Process:** The project team asked representatives from each peer city a set of questions designed to provide an understanding of how its TDM programs are designed and implemented, what unique transportation issues the city is facing, and what TDM services the city currently offers. Topics covered by the interviews include:

Urban Planning Context:

- TDM Organizational Model
- Funding Model
- Reasons for TDM
- Role of Local University

Existing TDM Efforts:

- Multimodal Transportation Programs
- Education Programs + Information Tools
- Parking Supply Conditions + Development Policies
- Metrics of Success

TDM program managers at each peer city were interviewed over the phone. A summary of findings is presented below, as well as findings particularly relevant to Bloomington. A complete set of findings are presented in matrix format as an appendix.



**Summary of Findings:** Findings are ranked by their prevalence among peer cities. The numbers in parentheses note how many peer cities identified the characteristic across the following topic areas: urban planning context, existing TDM efforts, parking supply conditions and management policies, and metrics of success.

#### **Urban Planning Context**

**TDM Organizational Model:** In order to gain an understanding of how other cities have structured their TDM program, representatives were asked in what organization the TDM program is housed and staffed. In the case of Ithaca, the TDM program is not a formal part of the city government but rather a program run by the city's downtown business improvement district. In the case of Ann Arbor, MI, the TDM program is located in the city's transit agency. However, in the rest of the peer cities, the TDM program is housed in the city's planning department. Please see the peer review matrix in Appendix A for more specific information on how each city funds TDM initiatives.

- City Planning Dept (4: Fort Collins, CO; Portland, ME; Durham, NC; Missoula, MT)
- Transit Agency (1: Ann Arbor, MI)
- Business Improvement District (1: Ithaca, NY)

**Funding Model (Federal, State, Local):** To gain a better understanding of how TDM programming is financially sustained in peer cities, representatives were asked how their TDM program is funded. Most cities utilize only one funding source, and the most common source of funding is federal, primarily Congestion and Air Quality Mitigation (CMAQ) funds provided by the Federal Highway Administration (FHWA), although one city (Ann Arbor) uses Federal Transit Administration (FTA) funding. Interestingly, cities utilize many different sources of funding, including only state funding, only federal funding, and only local funding. Two cities use a combination of funding sources; Fort Collins, CO, uses federal, state and local funds, and Durham, NC, uses both federal and state funds.

Type of Funds:

- Federal funds (4: Fort Collins, CO; Durham, NC; Ann Arbor, MI; Missoula, MT)
- State funds (3: Ithaca, NY; Fort Collins, CO; Durham, NC)
- Local funds (2: Fort Collins, CO; Portland, ME)

Number of Funding Sources:

- Only one type of funding source (4: Ann Arbor, MI; Missoula, MT; Ithaca, NY; Portland, ME)<sup>17</sup>
- Multiple types of funding sources (2: Fort Collins, CO; Durham, NC)

<sup>&</sup>lt;sup>17</sup> Although this is the most common practice, diverse funding streams are recommended in order to create a financially resilient TDM program.



**Reasons for TDM**: The following were identified as issues that motivated the creation of TDM programs in the peer cities. Most cities identified multiple pressures that instigated the creation of TDM strategies, but limited space for parking and an increase in real estate development were the most common. In Ann Arbor and Ithaca, parking and development pressures go hand-in-hand; representatives identified them both as top reasons that TDM measures have been pursued. In Fort Collins and Missoula, parking, development, and traffic were all sited as sources of pressure on the city which led them to utilize TDM. In Durham, the central pressure driving TDM programming has been a desire to prepare for population growth.

- Parking (4: Fort Collins, CO; Portland, ME; Ann Arbor, MI; Missoula, MT)
- Development pressures (4: Fort Collins, CO; Portland, ME; Ann Arbor, MI; Missoula, MT)
- Traffic (2: Fort Collins, CO; Missoula, MT)
- Population Growth (1: Durham, NC)

Peer cities reported that parking and development were the primary pressures that motivated them to pursue TDM. Parking issues are analyzed in more depth in a forthcoming section, Parking Supply Conditions + Management Policies.

In Ann Arbor, development in the downtown is partly driven by demand for housing, although there is disagreement about how to build in what is already a dense area limited by special historic districts. In Portland, commercial development in the downtown is straining the transportation network: according to one of the city's urban planners, there are thirty to forty new projects in the pipeline across a variety of commercial sectors, including health care, hospitality, higher education, private K-12 education, office, and mixed-use. Similarly, many hotels are being developed in downtown Missoula, as well as a library and student housing. A representative from Missoula explained that businesses are relocating their offices and their employees to the city of Missoula to take advantage of its relatively low cost of living.

**Role of Local University**: Given that each of the peer cities are home to large universities, representatives were asked about the overall quality of the city-university relationship, the degree to which the university(ies) runs its own TDM programming, and how they impact the city's TDM strategies. In most cases, cities reported strong partnerships with their local universities and most universities were perceived as having a neutral impact on city TDM programs. Among the four cities whose university(ies) provides TDM programming, two cities (both considered by representatives to operate 'significant' TDM programming) reported a strong relationship with the university and said the university has had a positive impact on the city's TDM programs. Two other cities with TDM programming (considered by representatives to have limited or 'partial' TDM programming) reported not having strong relationships with their university, the programming was perceived as having a negative impact on downtown Ithaca, NY, and in the case of Duke University and North Carolina Central University, the programming was perceived as having a neutral impact on Durham, NC.

Overall Relationship Between City and University(ies):



- Strong Town-Gown Partnership (4: Fort Collins, CO; Portland, ME; Ann Arbor, MI; Missoula, MT)
- Weak Town-Gown Relationship (2: Durham, NC; Ithaca, NY)

University TDM Programming:

- Significant University TDM Programming (2: Portland, ME; Fort Collins, CO)
- Partial University TDM Programming (2: Durham, NC; Ithaca, NY)
- No University TDM Programming (2: Missoula, MT; Ann Arbor, MI)

University Impact on City TDM Program:

- Neutral Impact (3: Ann Arbor, MI; Durham, NC; Missoula, MT)
- Positive Impact (2: Portland, ME; Fort Collins, CO)
- Negative Impact (1: Ithaca, NY)

<u>Successful Town-Gown Collaboration</u>: Among the cities with university(ies) that maintain their own TDM program are several examples of collaboration between the city and the local university(ies) that are informative for Bloomington. In general, city representatives responded that the city's relationship with the local university was strong because they felt the city and university(ies) shared the same value for TDM programming and overall philosophy regarding managing transportation demand. In the most basic sense, cities felt support from local private institutions when these institutions established their own TDM programming and hired TDM staff. Examples include the Colorado State University in Fort Collins, which maintains its own TDM program office, and Maine Medical center in Portland, which recently hired a TDM program manager.

The University of Montana and Colorado State University are in regular communication and collaboration with their respective city governments regarding TDM initiatives. In Missoula, city staff serve as outreach ambassadors to the UM campus and run on-campus programming such as campus-specific commuter challenges. In Fort Collins, TDM staff from Colorado State University regularly attend public meetings and subarea plans as well as consult with developers of buildings that will be occupied by Colorado State University students on TDM issues.

In Ann Arbor, although the University of Michigan does not run TDM programming beyond administering parking policies, it contributes valuable transit usage data to the Federal Transit Administration. Although it is not a mandated data reporter, the University of Michigan tracks and reports its transit data to the FTA's national transit database, which the FTA uses in its annual funding appropriations. This additional data increases the amount of federal money the city qualifies for, beyond what it would receive if the city alone reported its transit data. The city of Ann Arbor then reconciles that federal return based on its own usage data to determine whether the city owes the university or vise-versa; according to a representative from Ann Arbor, it is generally about even. The additional federal funding benefits both the university and the city, since the federal funding supports public transit that serves campus and subsidizes the city's Go!Pass program, which is available to all employers in the city.



	Extent of University TDM Programming	Perceived Impact on City's TDM: Mutually Beneficial	Perceived Impact on City's TDM: Neutral	Perceived Impact on City's TDM: Negative
Ann Arbor, MI	UMich only has TDM- oriented efforts through parking policy		X	
Ithaca, NY	Cornell has TMA and cooperative extension that does TDM			Due to free University bus system, students & staff often park downtown and take bus to Cornell
Portland, ME	USM has TDM for students commuting between campuses, coordinated with transit agency on universal pass and a transit line	×		
Fort Collins, CO	Extensive TDM program at CSU, has invested 2.1 million dollars in local transit agency, 3 BRT stops on campus, transit center w/ real-time info	X		
Missoula, MT	Limited: student ambassadors to promote driving alternatives, but city has stepped in and run Campus Commuter Challenge past 2 years		X	
Durham, NC	Significant at Duke & NC Central: Subsidized transit passes, carpool, incentives/subsidies for multimodal transportation	X		One negative: In 2019, plans for light rail cancelled when Duke pulled out over fear it would disturb fine instruments at Duke Hospital

#### Table 2: University TDM Programming and Town-Gown Relations

The University of Michigan and Ann Arbor have been in close coordination regarding public transit service for a long time. For approximately 15 years, any active student, faculty member or staff can use their ID card as a fare card on the city's "TheRIDE" buses. Another way in which the University of Michigan supports the city's TDM programming is its large participation in the city's vanpool program, Vanride: approximately 90 percent of Ann Arbor's vans are serving the university or the university's health system.

Finally, in one case, the city and university collaborated closely to establish a Bus Rapid Transit (BRT) service. In Fort Collins, the MAX BRT line cost more than 70 million dollars in 2014; Colorado State contributed 1.5 million to the project and gave the city right of way and provided the line with reliable ridership. The line has been wildly successful and Colorado State students comprise about half its ridership. There are currently plans for three more BRT lines, and the city and university are already collaborating about how to fund them.

#### **Existing TDM Efforts**

A total of seventeen TDM services or programs were identified as aspects of TDM programming that exist in the six peer cities. Not all programs are provided by the city; some are provided by the local university, the state, or private companies. All TDM-related services were logged regardless of their provider in order to provide a more complete picture of the city's transportation environment.

Below is a list of these programs in order of prevalence among the peer cities. The most common services include carpool / vanpool matching, park-and-ride locations, and bikeshare programs. Notably, in each peer city the local university(ies) provides transit subsidies to students and faculty. In most peer cities, the city itself also provides transit subsidies or incentive programs to encourage commuters to use multimodal transportation. Please see the peer review matrix in Appendix A for information on which cities provide each program.

#### **Multimodal Transportation Programs**

- Local university subsidizes transit use (6)
- Carpool/Vanpool Matching (5)
- Park-and-Ride (5, 1 partial)
- Bikeshare (4)
- City provides incentives to commuters to encourage multimodal transportation use (4)
- Carshare: throughout city (3), at university only (1)
- Scooters (3)
- Walking Programming (2)
- Bicycle Education (2)
- City incentivizes/subsidizes transit (1)
- Developers installing live transit information in new buildings (1)

#### **Education Programs + Information Tools**

• Outreach: Downtown Employers (3, 1 partial)



- Employee Education (3)
- Travel Behavior Management Software (2)
- Outreach: Large Employers (1)
- Resident Education (1)

#### Parking Supply Conditions + Development Policies

Representatives from each peer city were asked about the general status of the city's parking supply. From a subjective perspective, most representatives considered their city to be parkingconstrained, and two considered its parking supply to be saturated. All of the peer cities except for one, Fort Collins, CO, charges for its downtown street parking. In Fort Collins, CO, the downtown parking is only free for a maximum of two hours. Representatives indicated that parking tends to be a hot-button topic among city leaders and constituents, who hold widely divergent views about it and therefore have difficulty coming to a consensus on new policies. Since zoning requirements influence the amount of available parking in a city, Wells + Associates reviewed parking requirements related to new development, namely parking minimums and/or maximums, to augment its findings regarding general parking availability. All peer cities maintain minimum parking requirements; two maintain parking maximums, and five allow lower parking minimums for developers within certain overlay districts. While none of the cities reviewed have set parking maximums for residential buildings, two cities, Fort Collins, CO, and Ann Arbor, MI, have set parking maximums for commercial buildings. Bloomington is in line with its peers on these policies: there is a perception that its parking supply is saturated, and it has removed or lowered parking minimums in many overlay districts. It goes beyond its peers in setting parking maximums—Bloomington maintains maximums for both residential and commercial buildings.

- Parking Minimums (6)
- Exceptions to Parking Standards, i.e. lower requirements in special zoning overlay districts (5)
- Parking Supply Saturated (2 yes, 2 partial)
- Parking Maximums (2)
- Free On-Street Parking Downtown (1)
- TDM Development Requirement (1)

Just as Bloomington is considering doing, many cities are using TDM to manage parking demand. Downtown Ithaca is currently at maximum parking capacity, and one of its main garages is about to undergo necessary repairs for approximately three years. Ithaca's Business Improvement District is hoping that TDM measures will help alleviate parking pressure before this garage goes under construction. In Ann Arbor, TDM policies are being used to alleviate parking pressure because its downtown is densely developed and there is limited space for additional garages. The downtown core is further limited in its ability to expand due to a historic district.

Similarly, on-street parking in downtown Fort Collins is maxed out, perhaps because its two garages charge fees while on-street parking is still free for up to two hours. Besides Fort Collins,



every other peer city provides metered street parking in its downtown. However, a representative from Portland indicated that many in city government believe the rates for downtown parking are too low and contribute to parking saturation there. Missoula also provides low-cost parking downtown despite high demand; this combination has led to an overflow of parked vehicles in adjacent neighborhoods. Although parking is still available in Durham, that is largely because the city recently spent 25 million dollars on a new garage. With the help of TDM, the city is trying to get ahead of population growth and prevent any future need for additional garages.

Except for Portland, all the peer cities, as well as Bloomington, IN, have created special zoning overlay districts in which parking minimums and/or maximums are reduced, requiring less parking be built with new development than in the rest of the city. In Ithaca and Durham, there are no parking minimums in the downtown core. In Durham, parking construction in the downtown core is capped at 100 percent, meaning a developer can build a maximum of 100 spaces for a 100-unit building. In Missoula, the Riverfront Neighborhood District has reduced parking requirements, requiring 50 percent of normal minimums and 75 percent of normal maximums. Similarly, in Fort Collins, a special district associated with transit stops, the Transit-Oriented Development District, exempts certain buildings from parking requirements based on square footage.

In Portland, an in-lieu parking fee and an impact fee ordinance feed into the Sustainable Transportation Fund, which supports multimodal transportation.<sup>18</sup> However, the city continues to look for more sources of public transit funding. Many studies of the parking situation in Portland recommended increasing the cost of parking, yet the city has still not done so. According to an urban planner in Portland, this is because constituents strongly believe "parking is a public utility that should not be a money-making endeavor." Portland is considering creating parking maximums and charging developers for any buildings that exceed the maximum, funds which would further support multimodal transit. Bloomington may also want to consider using its parking maximums to generate additional funding for TDM activities and other multimodal transportation services.

#### **Metrics of Success**

To gain a better understanding of how city-wide TDM programs set goals and are evaluated, representatives of peer cities were asked whether they track any metrics and, if so, whether cities have set any particular goals for these metrics. The following are metrics that representatives identified as being used in their jurisdictions:

SOV rate (3)

<sup>&</sup>lt;sup>18</sup> "The land use code incorporates fee-in-lieu parking standards, where some developments in nonresidential zones may contribute fees to the Sustainable Transportation Fund in place of all or some of their parking requirements. Funds in the Sustainable Transportation Fund may be allocated to such purposes as shared parking infrastructure and facilities, bicycle parking, transit capital improvements, bus shelters, and pedestrian and bicycle infrastructure" (p238). Portland, ME, Comprehensive Plan: Portland's Plan 2030.



- Bicycling rate (1)
- Air Quality (1)

As far as using metrics to formally evaluate the success of a TDM program (for instance, to determine funding) many representatives explained that metrics can be too complicated to rely on in a strict manner. For instance, although they would ultimately like to reduce SOV rates as a measure for success, the inputs which determine this rate are multifaceted and not currently understood well enough to use strictly. In some cases, this was due to the difficulty of disentangling transportation patterns at the university from those across the rest of the city. As a representative from Ann Arbor explains, "We don't want to create a false metric which is actually something in the university's control—we need to better understand those [SOV] rates first."

However, there are cities using metrics to manage their TDM programs. According to one of its city planners, the city of Durham has set a SOV-reduction goal of 5 percentage points over the next three years. Missoula, MT, tracks travel behavior and SOV rates as part of the regular functioning of its program. For instance, the city performs an annual commuter survey after its spring commuter challenge and tracks commuter behavior via their ride-matching platform; the data from both efforts are used to craft targeted marketing campaigns. Missoula also uses SOV rates to estimate emissions rates and reductions as part of its federal CMAQ grant requirements. The city of Fort Collins is looking to increase its bicycling mode share from 15-20 percent to 25 percent, and Colorado State University has a target parking utilization rate of 28 to 32 percent, a goal which they have already reached and are seeking to maintain. Finally, real estate developers must lower SOV rates as part of the development requirement in Portland, ME, and although this data is not yet being reliably gathered, it is a metric that Portland plans to track and enforce more deliberately in the future.

#### Most Relevant Findings: Lessons for Bloomington

The findings from the peer review which are most relevant to Bloomington can be categorized as a) those which are used by all peer cities and therefore should be considered reliable TDM tools in a small city with a large university presence, and b) those which are used by the cities most similarly situated to Bloomington (Portland, ME, Fort Collins, CO, and Ann Arbor, MI).

#### **Most Prevalent Strategies**

Based on their prevalence among peer cities, the following strategies are most likely to support Bloomington's goals to increase non-SOV commuting:

- Transit subsidies for people affiliated with university (6) (already provided in Bloomington)
- Carpool/Vanpool matching (5)
- Park-and-Ride (5)
- Bikeshare (4) (not well-suited to Bloomington)
- Incentives programs to encourage commuters to use multimodal transportation (4) (Bloomington maintains transit agreements with five employers)



- Outreach to downtown employers (3)
- Employee education (3)
- Carshare (3) (already offered at IU)
- Scooters (3)

#### Strategies from Closest Peer Cities: Ann Arbor, MI, Portland, ME, and Fort Collins, CO

Based on their implementation in at least two of the three closest peer cities of Ann Arbor, MI, Portland, ME, and Fort Collins, CO, the following strategies are most likely to support Bloomington's goal to increase multimodal commuting:

- Carpool / Vanpool matching (3)
- Park-and-Ride (3)
- Outreach to downtown employers (2)
- Incentives programs to encourage commuters to use multimodal transportation (2) (Bloomington maintains transit agreements with five employers)
- Employee education (2)
- Carshare (2) (already offered at IU)
- Scooters (2) (already offered in Bloomington)
- University subsidizes transit (3) (already offered at IU)
- Bikeshare (3) (not well-suited to Bloomington)

It is important to note that some of these strategies are already being deployed by Bloomington, IN. In particular, Indiana University's Campus Bus is already a fare-free system, all IU students and staff ride free on BT buses through an operating agreement with IU, and scooter share is available in Bloomington. Bloomington Transit also maintains pass programs with five employers: IU Health, IU, Monroe County, City of Bloomington and Monroe County Public Library. Zipcar carshare currently operates at Indiana University, although not wider Bloomington. Also, bikeshare was recently attempted without success, due to competition from scooter companies and perhaps because Bloomington's bicycling culture is already strong. In Missoula, MT, another small city with a long history of bicycling and substantial bicycling infrastructure, bikeshare has not been successful largely because so many residents already have their own personal bicycles. According to a representative from Missoula, a number of bikeshare operators have cropped up in the city over the years, but they each seemed to "age out," or conclude on their own, because they were not filling a need. In this way, bikeshare may be a better fit for places new to bicycling rather than places where bicycling is already a common form of transportation.

Both Ann Arbor and Fort Collins have provided incentives to commuters to increase their usage of multimodal transportation. However, a more structured program which utilizes financial incentives to change commuting behavior is in place in Ann Arbor. As part of its employer engagement strategy, the Ann Arbor Area Transit Authority uses city funding to incentivize employees to use multimodal transportation. Downtown employers can register with the program Go!Pass to receive unlimited-use bus passes for their employees at a reduced rate. The Ann Arbor Area Transit Authority also provides employers with customized commute planning through its program TheRide. Bloomington has a similar program established with five large employers in the area; it should expand this program to engage more downtown employers and therefore more downtown workers.

Additional strategies Bloomington should consider based on their usage in Ann Arbor, Portland, and Fort Collins includes the creation of an online carpool/vanpool matching system, expanding carshare service, and establishing park-and-ride locations. For park-and-rides, partnering with owners of private lots may be the best option since these are likely to provide the city with more location choices and thereby enable the city to best respond to user demand. A broader strategy for increasing the uptake of multimodal transportation that is likely to be successful in Bloomington is programming targeted to local employers designed to encourage multimodal commuting among their employees.



**APPENDIX C: TRIMMS ANALYSIS** 



#### Impact of TDM Strategies on Driving Alone: TRIMMS Model Projections based on October 2019 Transportation Survey Mode Split

Location	Scenario	Forecasted Drive Alone Rate	Forecasted Non-Drive Alone Rate	Employees Driving Alone
	October 2019 – Transportation Survey Mode Split	78%	22%	10,140
	TDM Marketing and promotion (Telework, guaranteed ride home, carpool matching etc.) but no price			
	changes or service improvements	77.2%	22.8%	10,036
	Transit Service Travel Time Improvement by 25%	77.1%	22.9%	10,023
	Parking Price Increase by 50%	75.9%	24.1%	9,867
Downtown Bloomington	Parking Price Increase by 100%	74.9%	25.1%	9,737
biotimigton	Transit Service Travel Time Improvement by 25% and Parking Price Increase by 100%	74.8%	25.2%	9,724
	50% Employer Subsidies, carpool/vanpool/transit and no parking price increase or transit time improvement	72.5%	27.5%	9,425
	50% Employer Subsidies, carpool/vanpool/transit AND parking price increase AND transit time			
	improvement	70.7%	29.3%	9,191

#### Impact of TDM Strategies on Driving Alone: TRIMMS Model Projections based on 2018 ACS Commuter Mode Split

Scenario	Forecasted Drive Alone Rate	Forecasted Non-Drive Alone Rate	Number of Employees Driving Alone	
ACS 2018 5-Year Commuter Mode Split	62.6%	37.4%	24,175	
TDM Support Programs and Marketing and Promotion only	61.2%	38.8%	23,635	
TDM Marking and Promotion AND Transit Service Travel Time Improvement by 25%	61.0%	39.0%	23,558	
TDM Marking and Promotion AND Parking Price Increase by 50%	59.4%	40.6%	22,940	
TDM Marketing and Promotion AND Parking Price Increase by 100%	58.1%	41.9%	22,438	
TDM Marking and Promotion AND Transit Service Travel Time Improvement by 25% AND Parking Price Increase by 100%	57.9%	42.1%	22,360	
TDM Marketing and Promotion AND 50% Employer Subsidies, Carpool/Vanpool/Transit and no parking price increase or transit time improvement	58.7%	41.3%	22,669	
TDM Marketing and Promotion AND 50% Employer Subsidies, Carpool/Vanpool/Transit AND parking price increase AND transit time improvement	56.3%	43.7%	21,742	

### APPENDIX D: DOWNTOWN BLOOMINGTON RESIDENTIAL PARKING PERMIT SURVEY





### Help the City and Help Your Wallet

Dear Downtown Bloomington Resident,

Thank you for submitting your Neighborhood Parking Permit application and helping us manage our city's parking supply to meet the needs of our entire community.

The City of Bloomington is committed to making Downtown more accessible to more people by making it more pedestrian and bicycle friendly as well as improving transit. Fulfilling this commitment requires that we not only manage our limited parking supply, but anticipate the future of transportation options and behaviors, and plan for and provide viable alternatives to driving a car. Along with having adequate roads and parking inventory, Bloomington must be a place where residents and visitors can easily and safely get to and around downtown on foot, bike, or by public transit.

To help us best allocate resources for transportation infrastructure and options, we need your input. Help us understand how you currently get around downtown Bloomington as well as what your preferences are when traveling by means other than driving. Please take five minutes to complete the survey to the right and on the back side of this page. In addition to helping us plan for our city's transportation future, completing the survey will qualify you for a drawing for \$150 worth of gift cards from downtown establishments.

Thanks in advance for your time.

Sincerely, John Hamilton Mayor, City of Bloomington

for Hant

#### WELCOME TO THE DOWNTOWN BLOOMINGTON RESIDENTIAL TRAVEL SURVEY!

Complete this quick survey by September 13, 2019 and you could win **ONE OF THREE GIFT CARDS TO A LOCAL BUSINESS VALUED AT \$150**. We respect your privacy. Your personal information will only be used by the City of Bloomington and assigned consultants for transportation planning improvements and commute assistance purposes. We will not disclose your personal information to any other organization.

1. a. First Name\*: \_\_\_\_\_

b. Last Name\*: \_\_\_\_\_

c. Email\*: \_\_\_\_\_

d. What is your work street address or main UI destination (e.g. Kelley School of Business or Ballantine Hall)?

e. What is your work zip code? Ex. 22222 \_

\*Name and email address are required for entry into prize drawings. Work address is requested to help understand your commute patterns.

2. What transportation mode did you use to travel to work or school last week? If you used more than one mode of transportation on a given day, select the mode you used to depart home. Only mark "Walk" as a mode if you walked the entire distance of your trip from home to work or school.

	MON	TUES	WED	THUR	FRI	SAT	SUN
Drive Alone	0	0	0	0	0	0	0
Bike	0	0	0	0	0	0	0
Public Transit (Bloomington Transit (BT))	0	0	0	0	0	0	0
Shuttle	0	0	0	0	0	0	0
Carpool/ Vanpool	0	0	0	0	0	0	0
Taxi/Uber/Lyft or Dropped off by a friend spouse or classmate	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0
Worked from home	0	0	0	0	0	0	0
Off (Didn't Work)	0	0	0	0	0	0	0
Other:	0	0	0	0	0	0	0

3. At what time do you typically leave for work/school and arrive at home?

Depart for Work/School: \_\_\_\_\_ O am O pm

Arrive Home: \_\_\_\_\_ O am O pm

- 4. Do you use any of the following transportation options to complete trips outside of your journey to work/school? (Select all that apply) E.g. I walk to the store; I take BT to baseball games.
  - O Public Transit (Bloomington Transit)
  - O Bike
  - 🔿 Walk
  - O Uber/Lyft/Taxi
  - O ZipCar
  - ◯ Scooter
  - O Other\_
- 5. If you selected "Drive Alone" in Question #2, if driving to work was not an option for you, what would be your second choice?
  - Walking/Biking
  - O Public Transportation
  - Carpool/Vanpool
  - Telecommuting
  - Carshare (e.g. ZipCar, Enterprise Carshare, Car2Go, etc.)
  - O Taxi/Ride-Hailing (e.g. Uber, Lyft, etc.)
  - O Other
- 6. How much would parking need to cost per year before your second choice from Question #5 became your more regular choice?
  - \$ \_\_\_\_\_
- 7. Would you like personalized transportation advice? E.g. Receive personalized information to help you get around.
  - Yes No
- 8. If you typically drive alone to work or school, which of these statements do you agree with? (Select all that apply)
  - O Other options are inconvenient
  - O Other options are too expensive
  - O I need a car to run errands
  - I need a car in case of emergencies
  - O Other options are unrealistic due to work hours
  - I enjoy having the freedom to arrive and depart whenever I want
  - O I enjoy the driving/the alone time
  - O My job requires me to use a car
  - O I am unaware of other travel options

- 9. Would you ever consider carpooling or vanpooling to work or school?
  - ⊖ Yes
  - O No
- If answered "no" to question #9, please indicate why you would never consider carpooling or vanpooling to work or school. (Select all that apply)
  - O I don't have a carpool partner
  - My work arrival/departure times are constantly changing.
  - O I lack flexibility in my schedule to carpool.
  - I generally work outside of regular hours (Outside of 8 AM – 5 PM).
  - O I lack information about using carpooling options to travel from my home to school/work.
  - O I enjoy the driving/alone time.
  - I think carpooling is unsafe.
- 11. Would you ever consider taking the bus to work or school?
  - Yes
  - O No
- 12. If answered "no" to question #11, please indicate why you would never consider taking transit to work or school. (*Select all that apply*)
  - I have no transit access from where I live.
  - O I lack information to use transit to travel from my home to school/work.
  - O Transit would take too long for my commute.
  - The transit route that goes to school/work is unreliable.
  - O The transit route that passes by my house doesn't run frequently enough for me.
  - O I think taking transit is unsafe.
  - O I generally dislike taking public transportation.
  - O The transit schedule doesn't align with my work schedule.
  - O I don't know how to use public transportation.

Thank you for taking the Downtown Bloomington Residential Travel survey!



# Downtown Bloomington Residential

**Residential Parking Permit Survey Analysis** 

November 2019

### Content

- Survey Summary
- General Travel Behavior Questions
  - Mode Split
  - Work Distribution
  - Work Arrival and Departure Times
  - Irregular User of Alternative Transportation
  - Use Alternative Transportation Outside of Work
  - Alternative Mode if Driving Not Available
  - Desire and Interest in Using Alternative Transportation

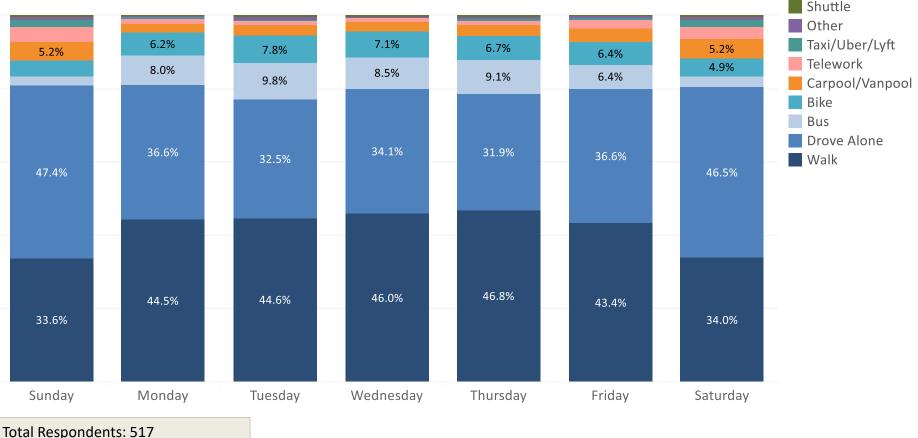
# Survey Summary

- Survey Dates: August 5, 2019 September 13, 2019
- Communication Channels: Neighborhood Parking Permit Application Distribution Channels
- Incentives: Three gift cards to a local business valued at \$150
- Response Rate: 31%

Category	Count/Percent			
Survey Responses	523			
Total Permits Sold in Time Period	1,667			
Response Rate	31%			
Margin of Error	4%			

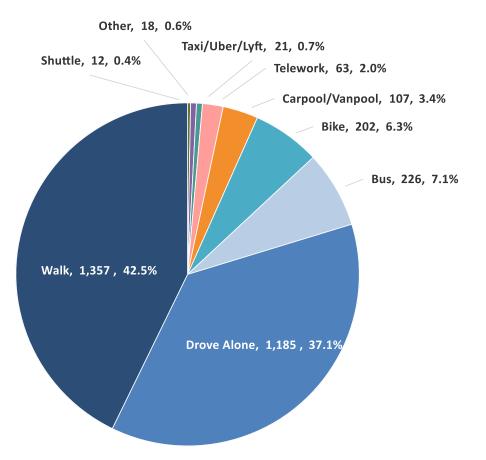
# Choose The Mode Of Transportation You Used To <u>Arrive</u> at work Last Week

Number of Responses, Percentage of Survey Responses



Total Respondents: 317

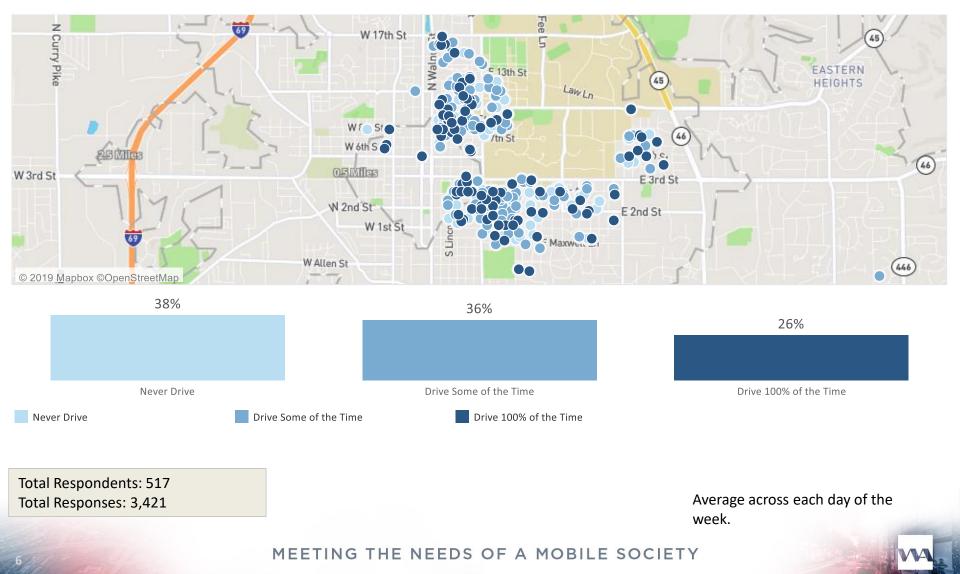
# Choose The Mode Of Transportation You Used To <u>Arrive</u> at work Last Week



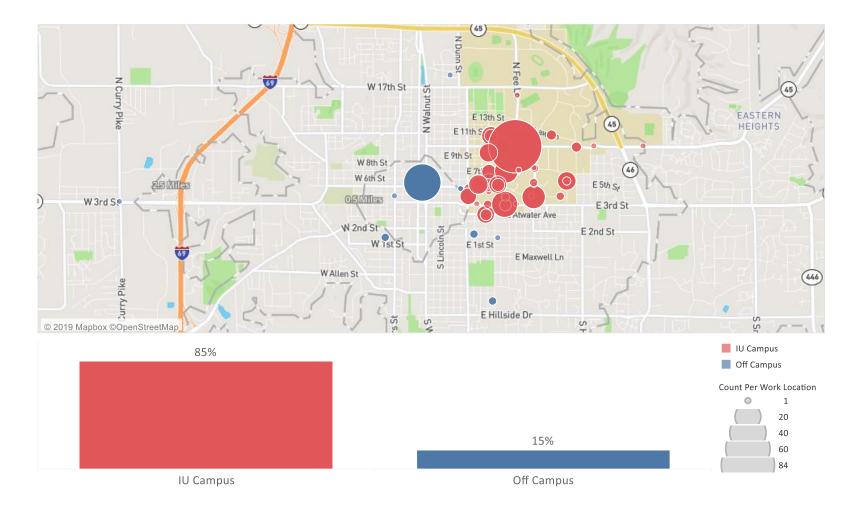
Total Respondents: 517 Total Responses: 3,421

Average across each day of the week.

# Choose The Mode Of Transportation You Used To <u>Arrive</u> at work Last Week

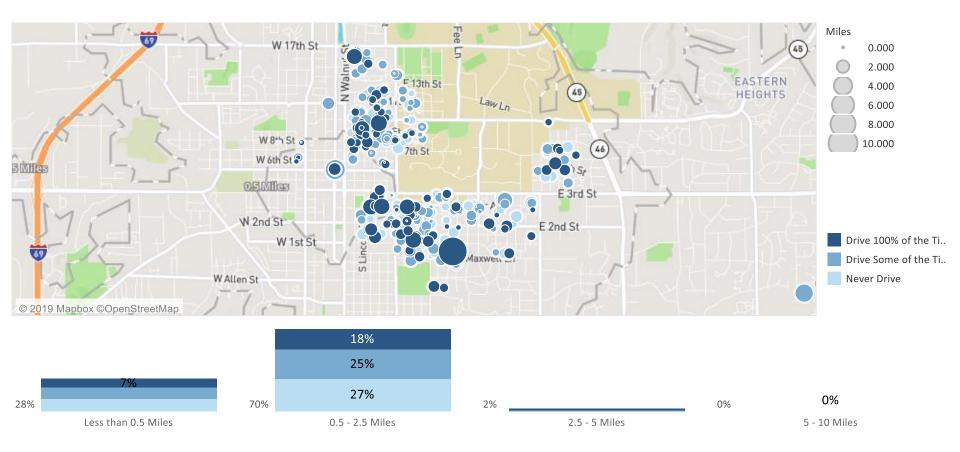


### What is your work street address or main IU destination?



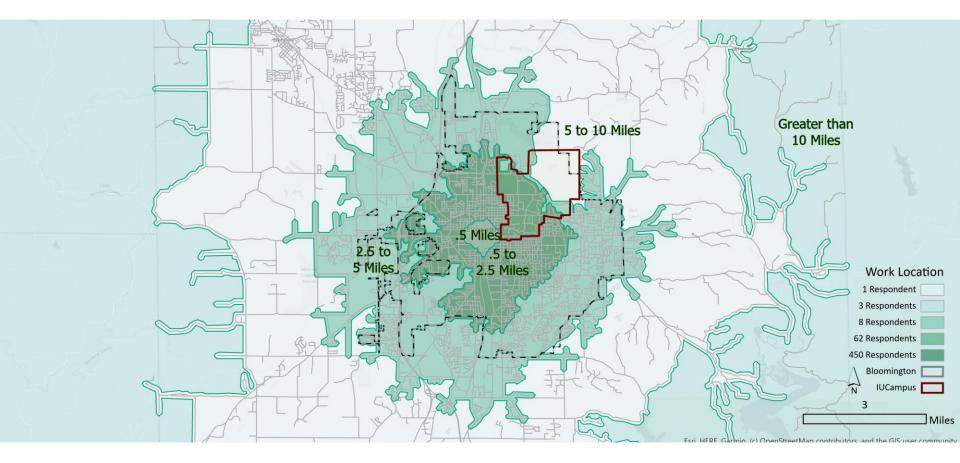
Total Responses: 408

### Average Distance to Work



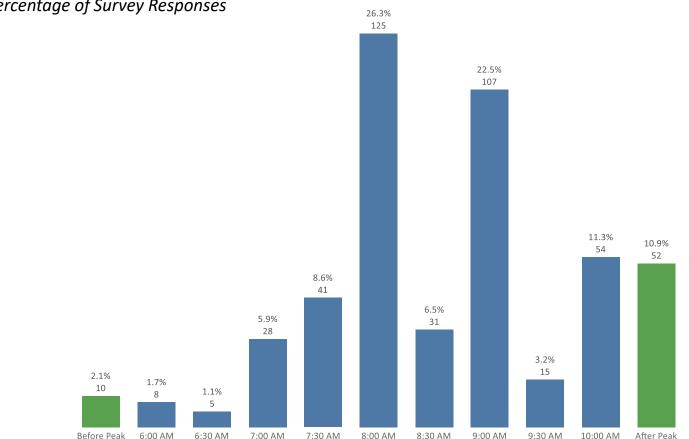
#### Total Responses: 511

### Work Location / Distance from Downtown



Total Respondents: 524

# Departure Time (Peak Hour)

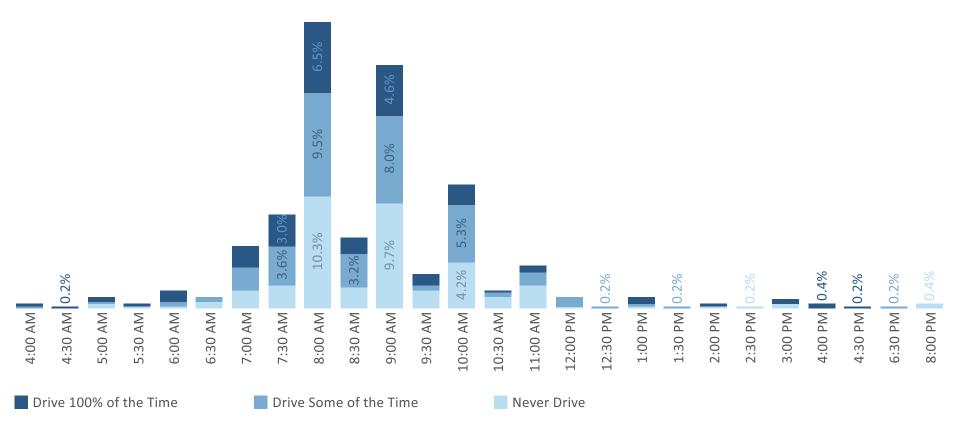


#### Percentage of Survey Responses

Total Responses: 476

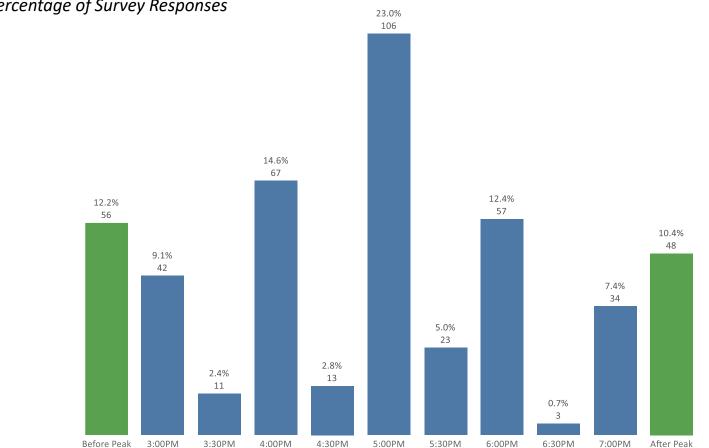
# Departure Time (Peak Hour)

Percentage of Survey Responses



#### Total Responses: 476

## Arrival Time (Peak Hour)

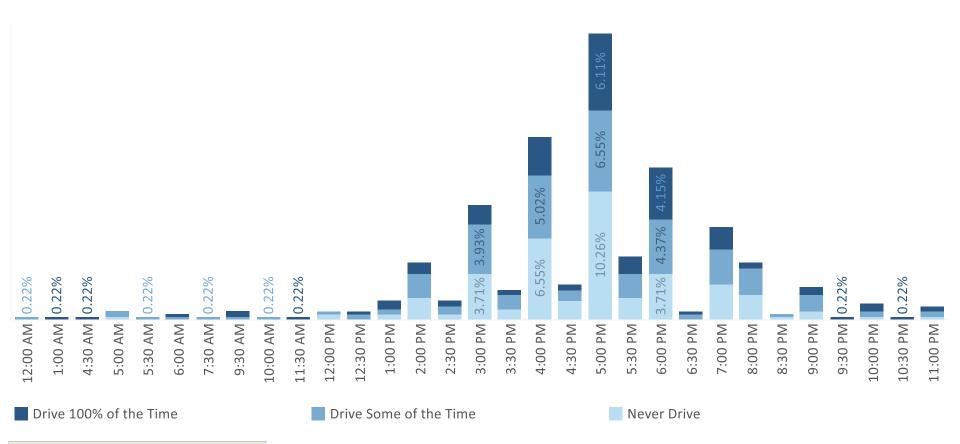


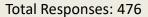
Percentage of Survey Responses

Total Responses: 476

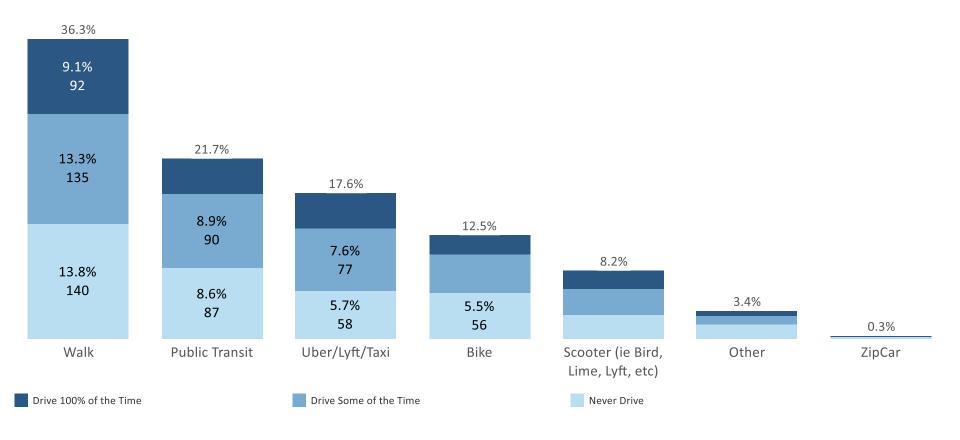
## Arrival Time (Peak Hour)

Percentage of Survey Responses



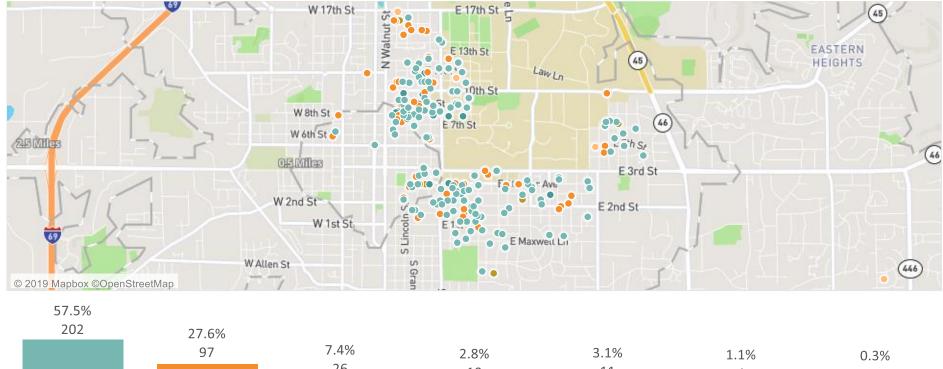


Do you use any of the following transportation options to complete trips outside of your journey to work/school? (select all that apply)



Total Respondents: 473 Total Responses: 1,017

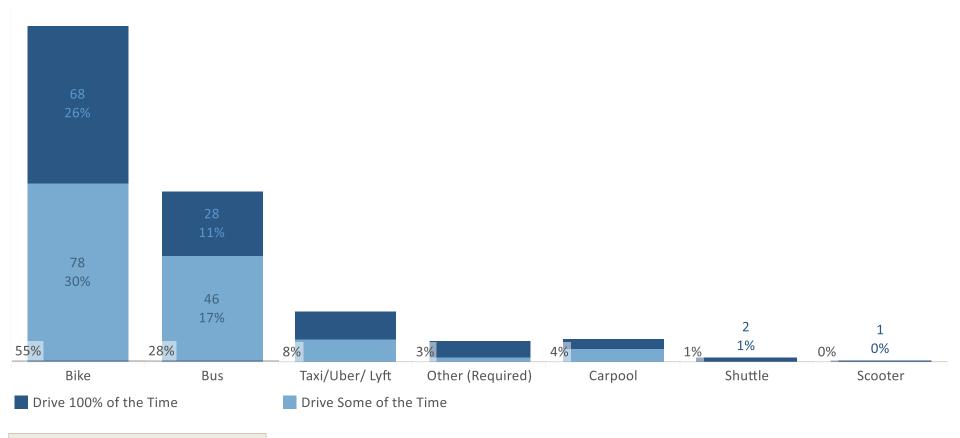
## If driving to work was not an option for you, what would be your second choice?



		26	10	11	4	1
Bike	Bus	Taxi/Uber/ Lyft	Carpool	Other (Required)	Shuttle	Scooter

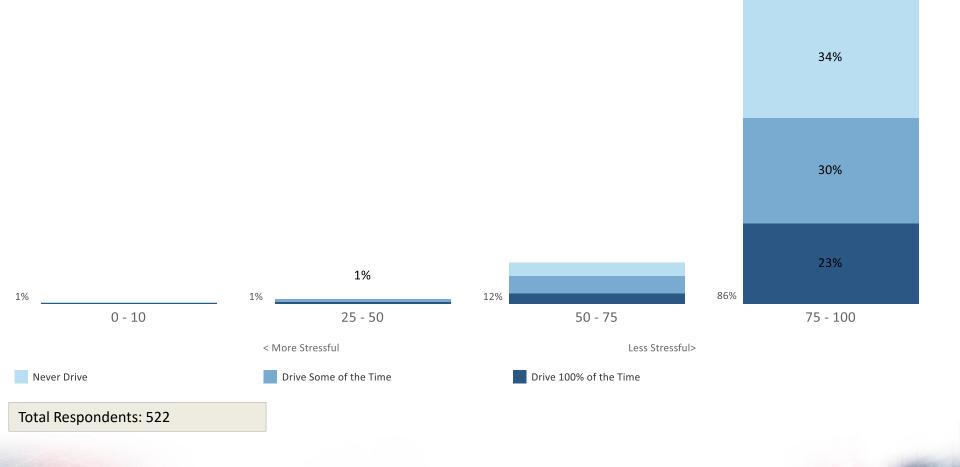
Total Responses: 351

## If driving to work was not an option for you, what would be your second choice?

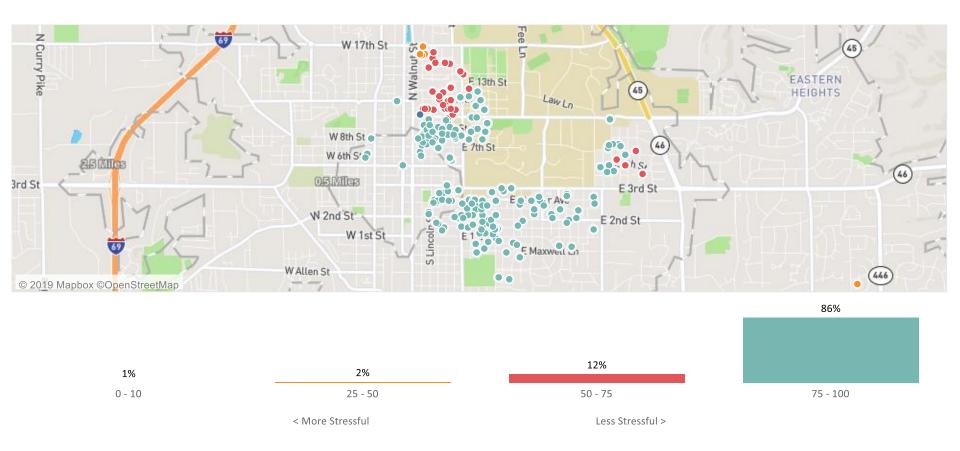


Total Responses: 351

## **Bicycle Network Analysis Score**



### **Bicycle Network Analysis Score**

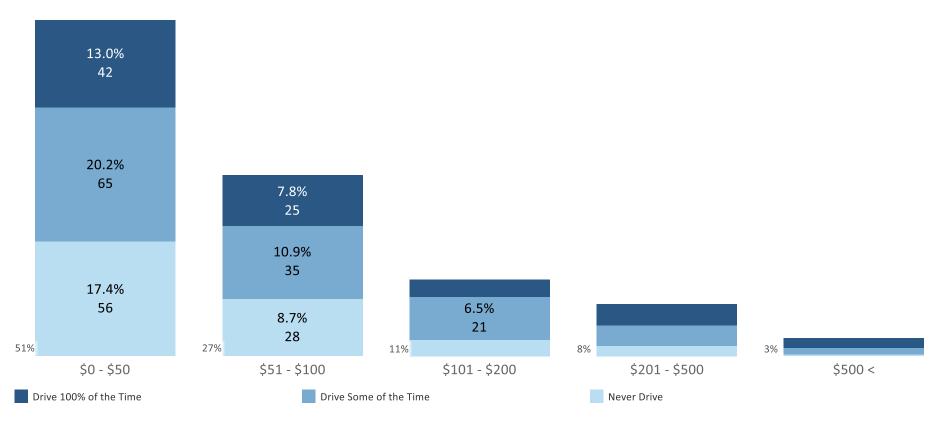


#### Total Respondents: 522

MEETING THE NEEDS OF A MOBILE SOCIETY

18

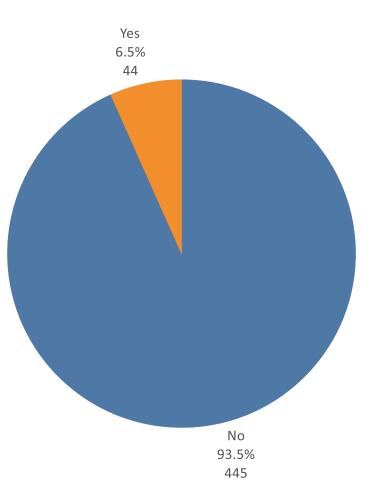
How much would parking need to cost per year before your second choice transportation mode became your more regular choice?



#### Total Respondents: 323

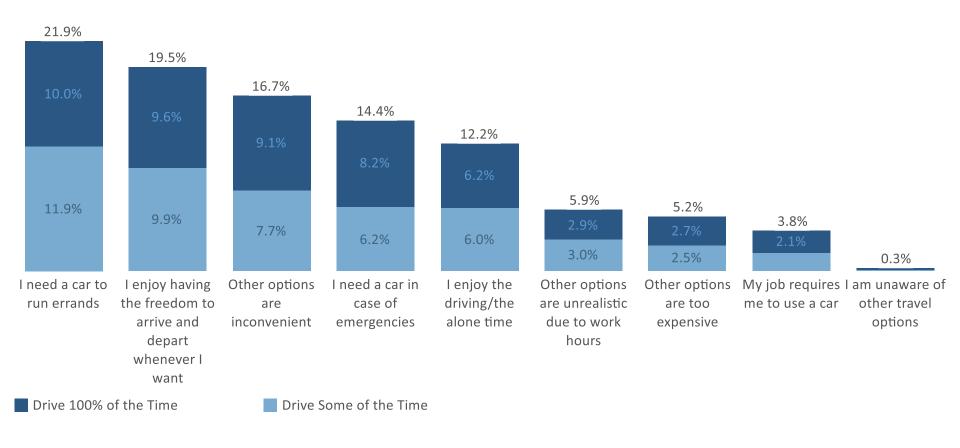
## Would you like personalized transportation advice?

E.g. Receive personalized information to help you get around.



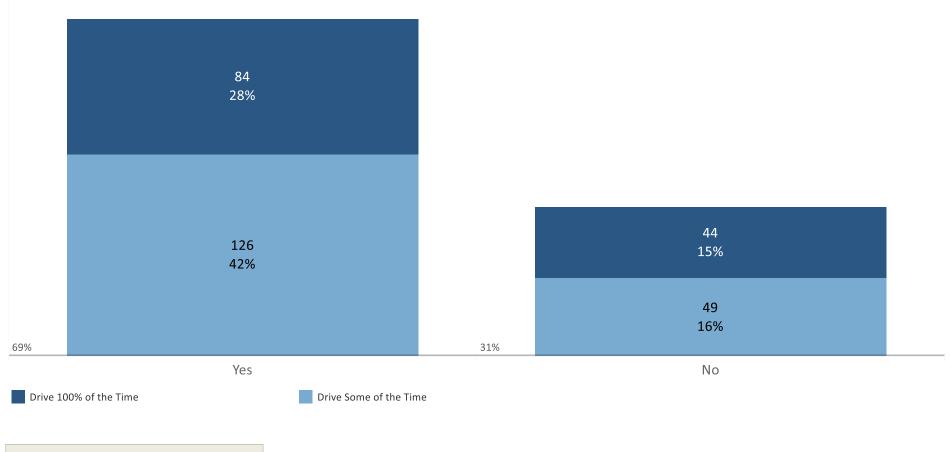
Total Respondents: 489

## If you typically drive to work or school, which of these statements do you agree with? *Select all that apply.*



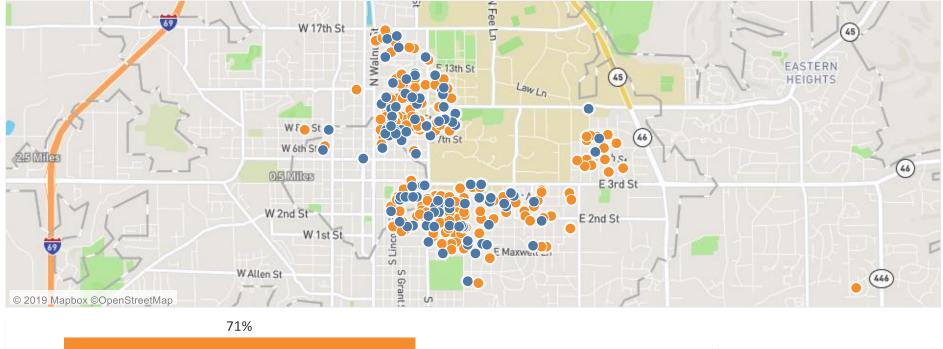
Total Respondents: 391 Total Responses: 1,000

# Would you ever consider carpooling or vanpooling to work or school?



Total Respondents: 303

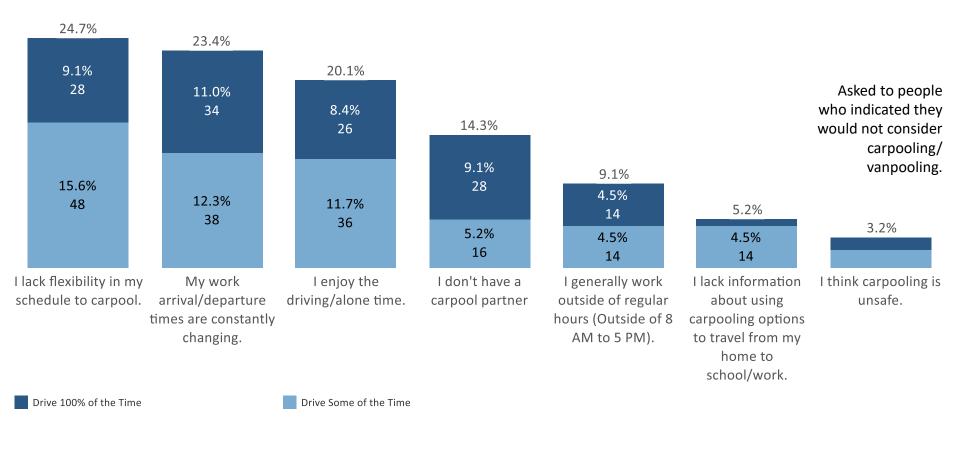
# Would you ever consider carpooling or vanpooling to work or school?



Yes No

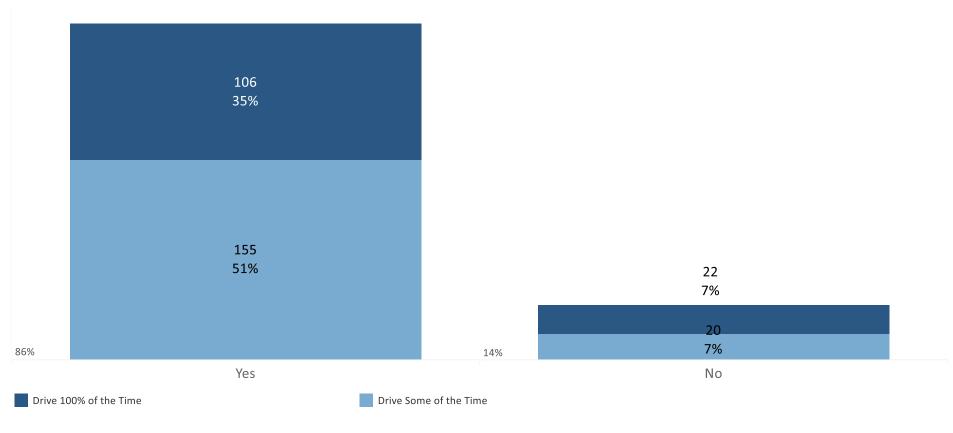
Total Respondents: 303

If no, please indicate why you would never consider carpooling or vanpooling to work or school? *select all that apply.* 



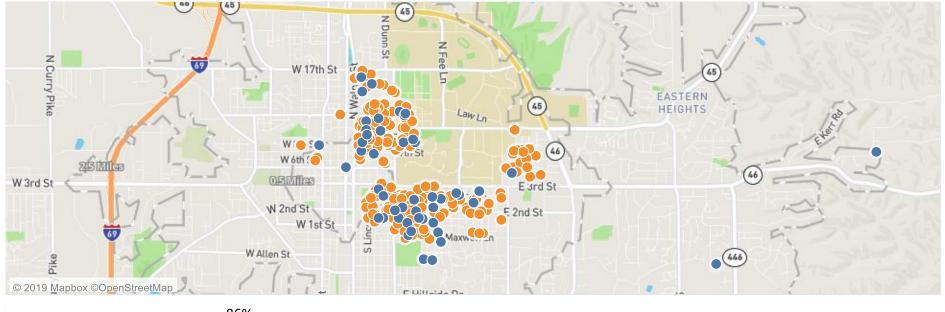
Total Respondents: 93 Total Responses: 308

# Would you ever consider taking the bus to work or school?



#### **Total Respondents: 303**

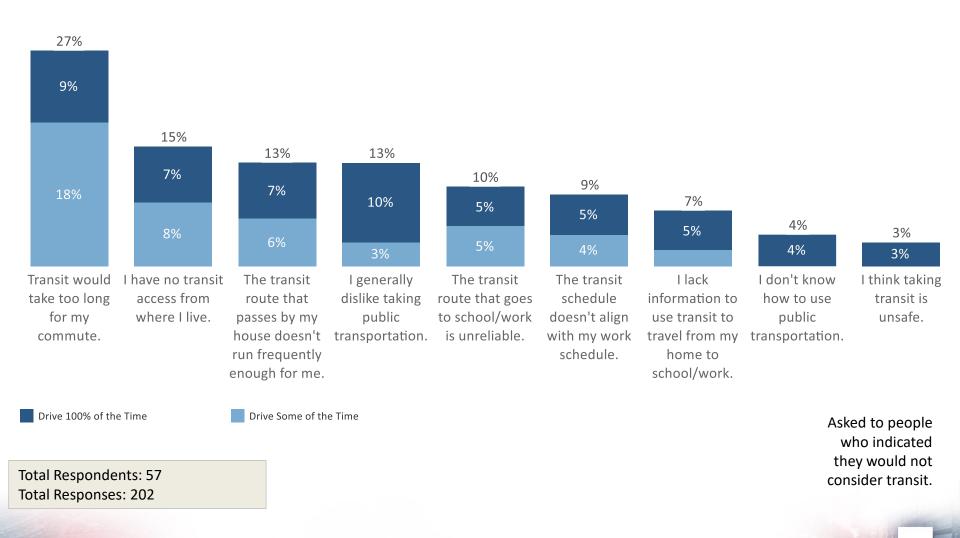
# Would you ever consider taking the bus to work or school?





Total Respondents: 303

## If no, please indicate why you would never consider transit to work or school? *Select all that apply.*

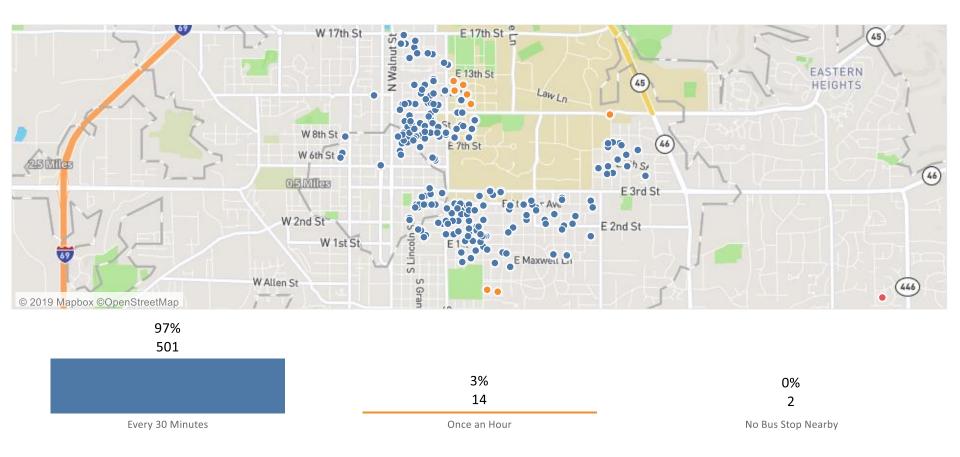


## Walking time from Home to a Bus Stop / Walking time from Work to a Bus Stop.

5 Minutes 10 Minutes Greater than 10 Minutes 37% 35% 25% 979 1% 1% 0% 1% 9% 0% 1% 5 Minutes 10 Minutes Greater than 10 5 Minutes 10 Minutes Greater than 10 5 Minutes Greater than 10 Minutes Minutes Minutes Drive 100% of the Time Never Drive Drive Some of the Time

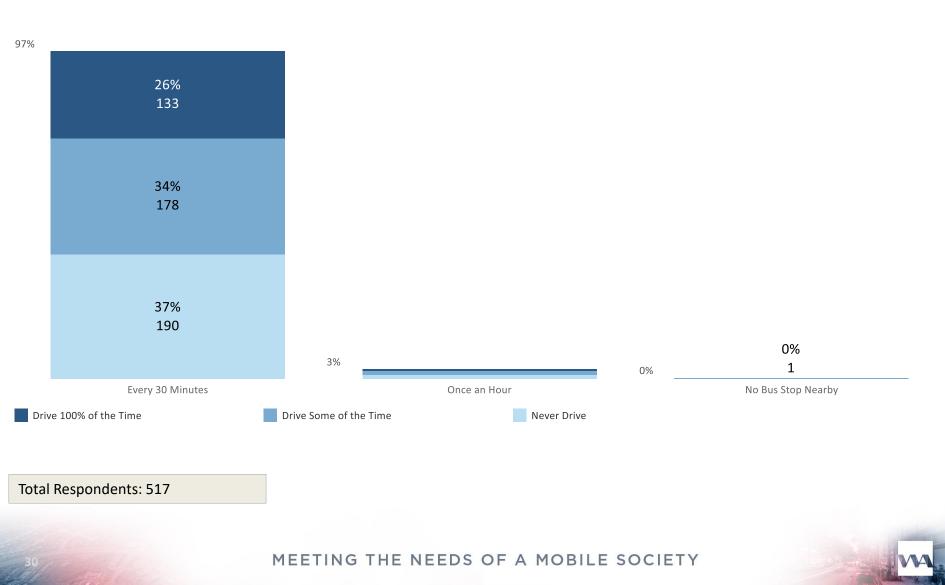
Time from Home to Bus Stop / Time from Work to Bus Stop

### Bus Frequency Near Respondent's Home



#### Total Respondents: 517

## Bus Frequency Near Respondent's Home



## Summary of Findings

Section	Findings		
Travel Modes	37% of respondents are driving alone to work at least one day a week.		
	Overall, 53% of respondents or more are commuting be an alternative method every day of the week.		
	Walking is the most popular mode – indicating that most people who live in the Downtown Parking Permit districts live close to work or school.		
Distance to Work	70% of respondents live between .5 and 2.5 miles from their work place or school.		
	Locations on the Indiana University Campus make up 85% of work/school destinations.		
Alternative Modes	57% of respondents would bike to work if they suddenly couldn't drive.		
	86% of people would consider using the bus but many people find the bus too infrequent or state that the commute would take too long on the bus.		
	71% of respondents would consider carpooling.		

## Recommendations

- Encourage and promote existing Biking culture.
  - Respondents reported that they would most likely bike to work if they could not drive and reported high rates of cycling outside of work.
     Filling gaps in existing cycling infrastructure, ensuring safe conditions on multi-use trails, and providing more bike racks could be key initiatives.
- The majority of people with downtown parking permits work close to where they live. Incentives to not renew parking passes could push "carlite" people who typically do not drive but keep a car to get ride of their car.
- Encourage and promote the bus, high headways on routes are discouraging people from seeing this as an option.
- Promote carpooling from neighborhoods near IU to campus. 70% of respondents are open to carpooling but do not think it's flexible enough for their needs.

#### APPENDIX E: DOWNTOWN BLOOMINGTON RESIDENTIAL PARKING PERMIT FOLLOW-UP SURVEY



#### **Bloomington Neighborhood Parking Permit Survey - Follow-Up**

#### **Collect: Contact Info**

Welcome to the 2019 Bloomington Neighborhood Parking Permit Follow-Up Survey!

You are being contacted because you previously answered a survey while applying for your Neighborhood Parking Permit.

Your answers to this short survey will allow the City of Bloomington and local employers to design incentives, strategies, and programs to increase transportation efficiency across the community. Responses will inform plans to maximize transportation choices and encourage the use of non-single occupancy vehicle travel options, including public transportation, bicycle, and pedestrian paths, ridesharing, and other similar programs. You may find more information about Transportation Demand Management at: https://bloomington.in.gov/transportation/tdm

#### **IU** Connection

**LOGC** Show/hide trigger exists.

- 4. What, if any, is your primary relationship to Indiana University?
  - Student
  - C Full-Time Staff/Faculty
  - Part-Time Staff/Faculty
  - O No Relationship

#### Car Usage

- 5. How often do you use your car? \*
  - O Daily
  - Several times a week
  - O Weekly
  - A few times a month
  - Monthly
  - Less than once a month

## 6. Considering your typical car usage, please rank the following activities from most common to least common reason you use your car. \*

Drag items from the left-hand list into the right-hand list to order them.

Run Errands	<i>,</i> *
Shopping	1
Childcare (e.g. picking children up from school/daycare)	*
Commute to School	*
Travel Out of Town	*
Recreation	1
Commute to Work	*
Medical Care	<i>i</i>

Days

- 7. Typically, which days of the week do you use your car?
  - Monday
  - Tuesday
  - Wednesday
  - Thursday
  - Friday
  - Saturday
  - Sunday

#### Car Share

#### LOGC Show/hide trigger exists.

#### 8. Have you ever used a car sharing platform?

(ZipCar, car2go, etc.)

- O Yes
- O No

#### Car Share 2

**Loce** Show/hide trigger exists. Hidden unless: #8 Question "Have you ever used a car sharing platform?

 $({\tt ZipCar}, {\tt car2go}, {\tt etc.})" \ is \ one \ of \ the \ following \ answers \ ("Yes")$ 

9. Do you still use car sharing services?

- O Yes
- O No

**LCCC** Hidden unless: #9 Question "Do you still use car sharing services?" is one of the following answers ("No")

10. Why do you no longer use car sharing services?

Select all that apply.

- Cost
- Availability of vehicles
- Location of vehicles
- Other Write In

Hidden unless: #8 Question "Have you ever used a car sharing platform?
 (ZipCar, car2go, etc.)" is one of the following answers ("No")
 11. Why have you never used car sharing services?

Select all that apply.

- Cost
- Availability of vehicles
- Location of vehicles
- Other Write In

#### Car Share 3

#### Logc Show/hide trigger exists.

12. If readily available, would you consider car sharing as an option for your typical car trips?

- Yes
- O No
- O Maybe

Hidden unless: #12 Question "If readily available, would you consider car sharing as an option for your typical car trips?" is one of the following answers ("Yes","Maybe")
13. If readily available, would you consider car sharing as an option for your typical car trips instead of owning a car?

- Yes
- O No
- O Maybe

#### **Break Shuttle**

Index Show/hide trigger exists. Hidden unless: #4 Question "What, if any, is your primary relationship to Indiana University?" is one of the following answers ("Student")
14. Have you ever used Indiana University's *Catch-A-Ride* bus service to travel to and from campus during breaks?

- O Yes
- O No
- Considered it as an option, but have never used the service

Incere Show/hide trigger exists. Hidden unless: (#4 Question "What, if any, is your primary relationship to Indiana University?" is one of the following answers ("Student") AND #14 Question "Have you ever used Indiana University's *Catch-A-Ride* bus service to travel to and from campus during breaks?" is one of the following answers ("Yes")) 15. Do you plan on using *Catch-A-Ride* again in the future?

- O Yes
- O No

#### (untitled)

Hidden unless: #14 Question "Have you ever used Indiana University's *Catch-A-Ride* bus service to travel to and from campus during breaks?" is one of the following answers ("No","Considered it as an option, but have never used the service")

#### 16. Why have you never used Catch-A-Ride?

Select all that apply.

- Cost
- □ Not Aware of the Service
- Condition of Vehicles
- Days/Hours of Operation
- Flexibility to Leave on Own Schedule
- Duration of Trip
- Pick Up Locations
- Drop Off Locations

**IDCEC** Hidden unless: #15 Question "Do you plan on using *Catch-A-Ride* again in the future?" is one of the following answers ("No")

17. Why do you no longer plan on using *Catch-A-Ride* as an option to travel during breaks?

Select all that apply.

- Flexibility to Leave on Own Schedule
- Drop Off Locations
- Condition of Vehicles
- Cost
- Duration of Trip
- Days/Hours of Operation
- Pick Up Locations

#### Thank You!

Thank you for taking our survey. Your response is very important to us. Your responses and data will remain confidential and will only be used for the purpose of Downtown transportation and parking.



## Downtown Bloomington Parking Permit Follow-up

**Residential Parking Permit Survey Analysis** 

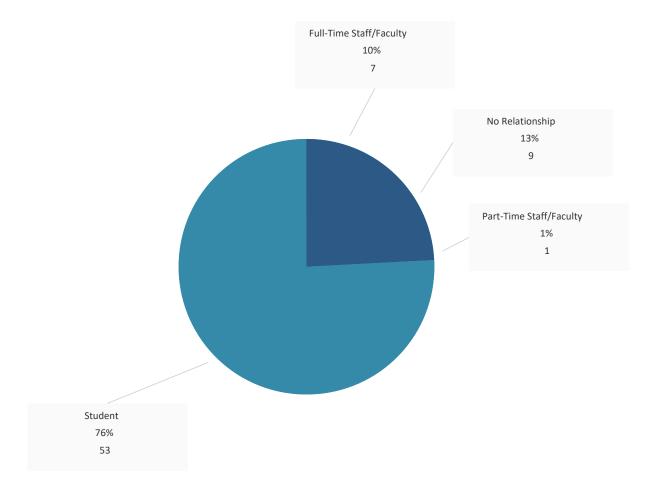
December 2019

## Survey Summary

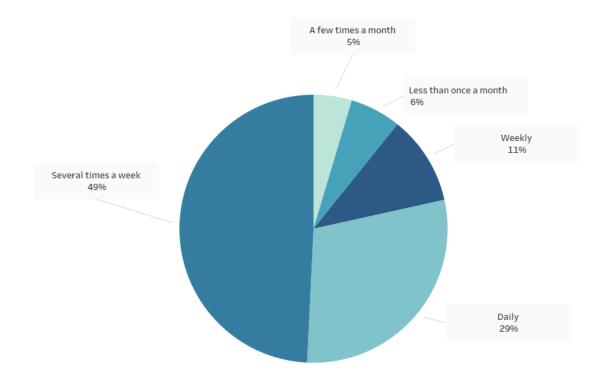
- Survey Dates: December 10, 2019 December 19, 2019
- Communication Channels: Follow-up emails to original respondents of Residential Survey
- Incentives: First 30 respondents received \$5 Starbucks gift card
- Response Rate: 12%

Category	Count/Percent	
Survey Responses	62	
Total Number of Targeted Residents	511	
Response Rate	12%	
Margin of Error	11.7%	

### What, if any, is your relationship to Indiana University?



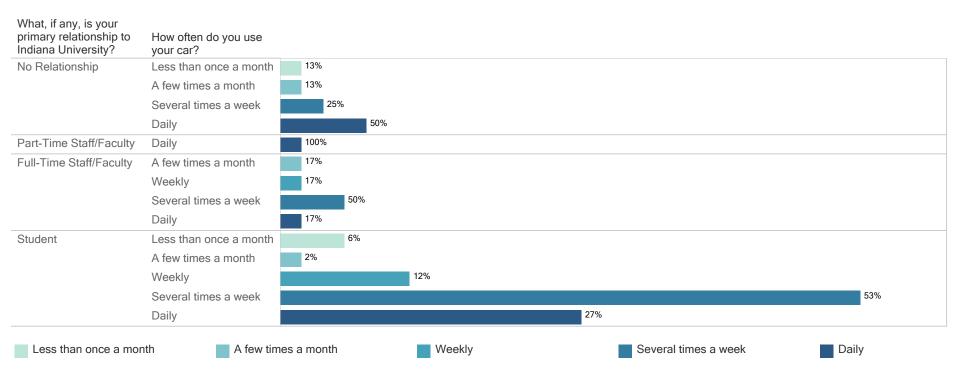
## How often do you use your car?



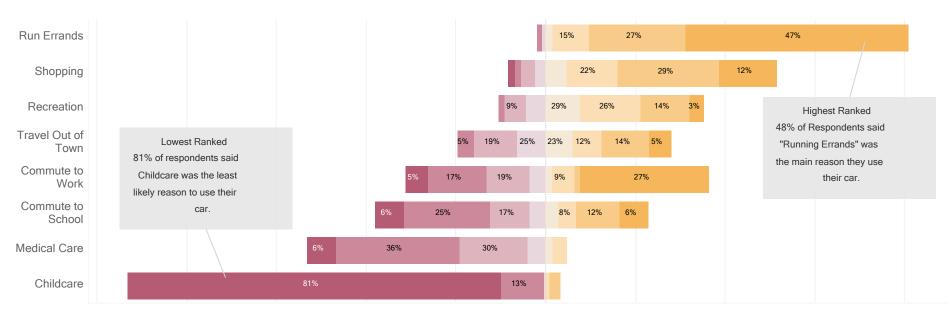
MEETING THE NEEDS OF A MOBILE SOCIETY

MA

## How often do you use your car?



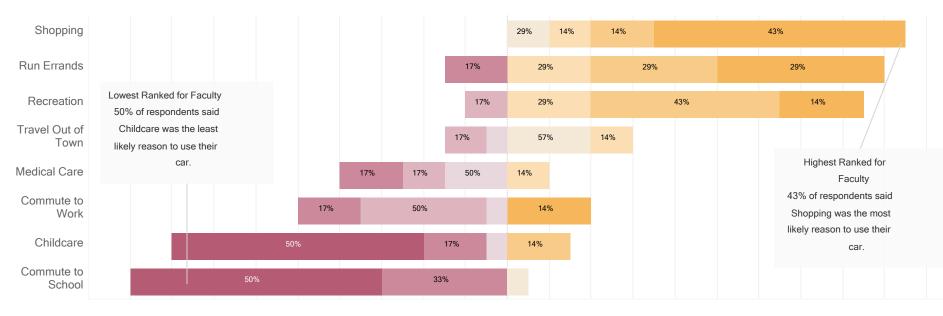
Considering your typical car usage, please rank the following activities from most common to least common reason you use your car.



#### How Do you Typically Use Your Car?

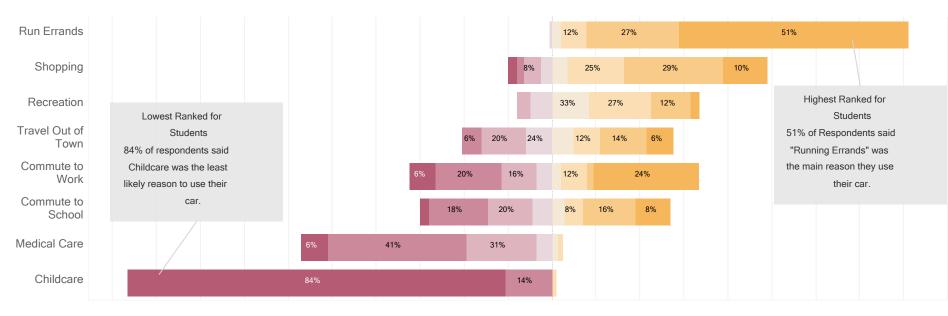


## **IU Faculty:** Considering your typical car usage, please rank the following activities from most common to least common reason you use your car.



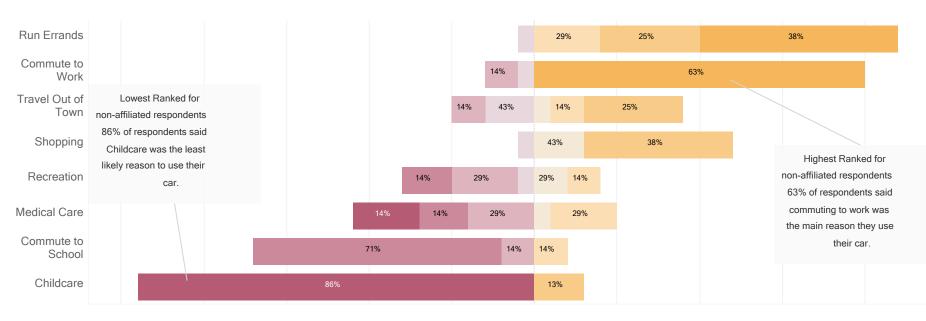
#### How Do you Typically Use Your Car?

### **IU Students:** Considering your typical car usage, please rank the following activities from most common to least common reason you use your car.



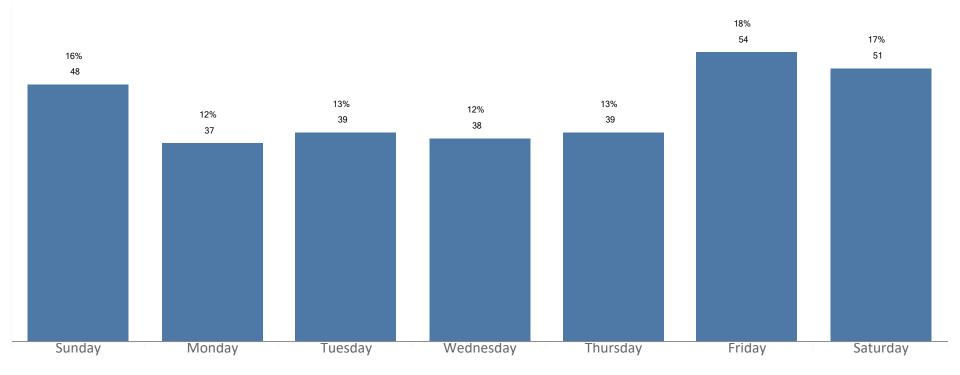
#### How Do you Typically Use Your Car?

**Not affiliated with IU:** Considering your typical car usage, please rank the following activities from most common to least common reason you use your car.

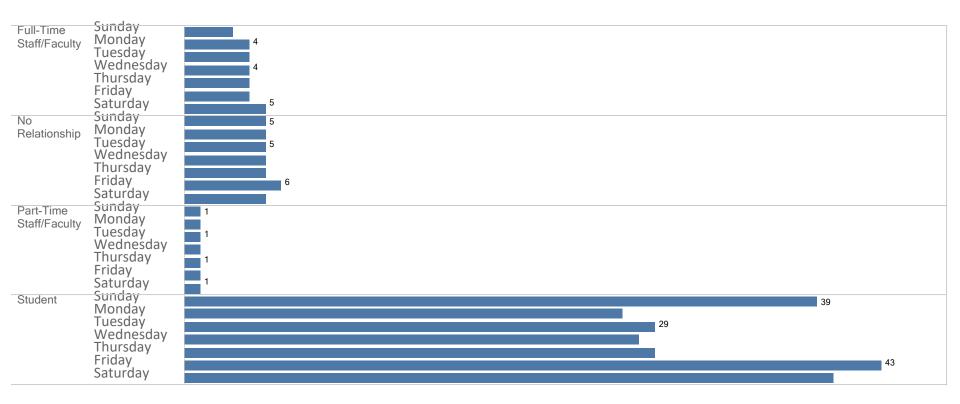


#### How Do you Typically Use Your Car?

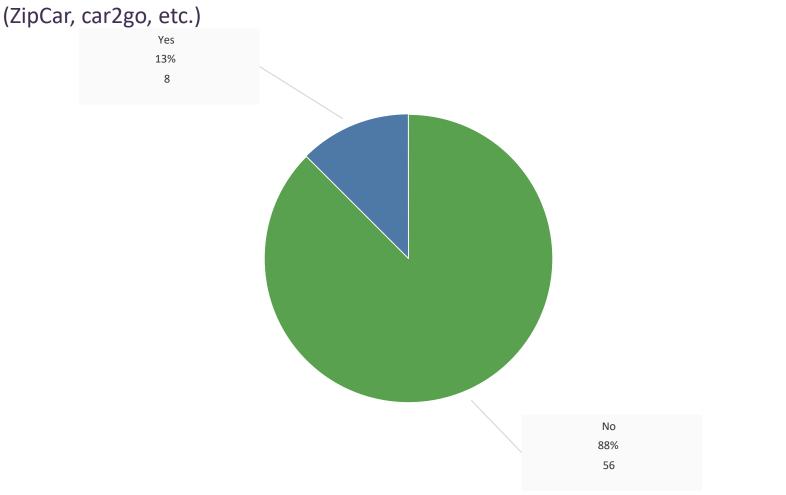
# Typically, which days of the week do you use your car? (Select all that apply)



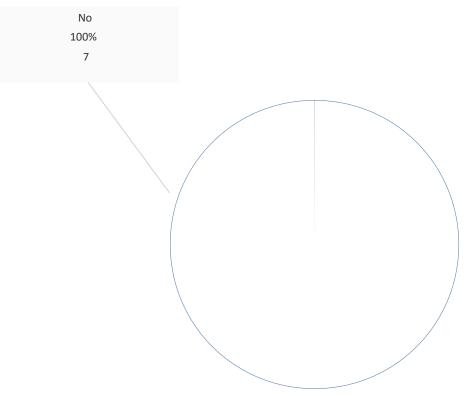
# Typically, which days of the week do you use your car? (Select all that apply)



### Have you ever used a car sharing platform?



### Do you still use car sharing services?

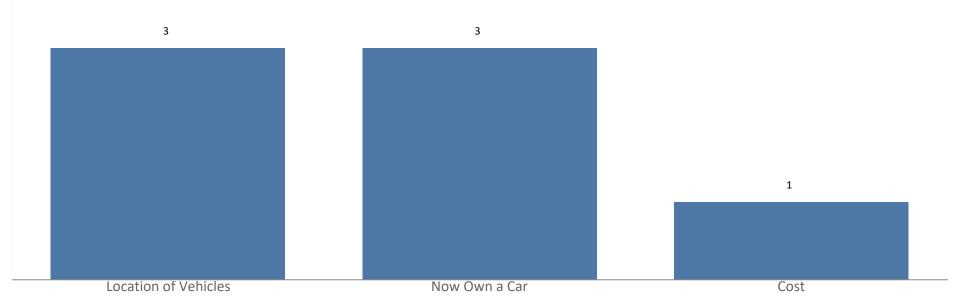


Asked only to respondents who had used car sharing before.



### Why do you no longer use car sharing services?

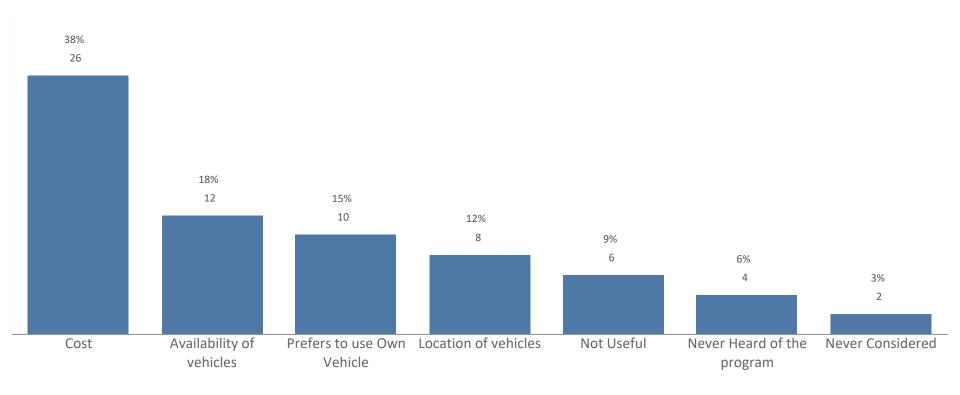
(Select all that apply)



Asked only to respondents who indicated they no longer use car sharing.



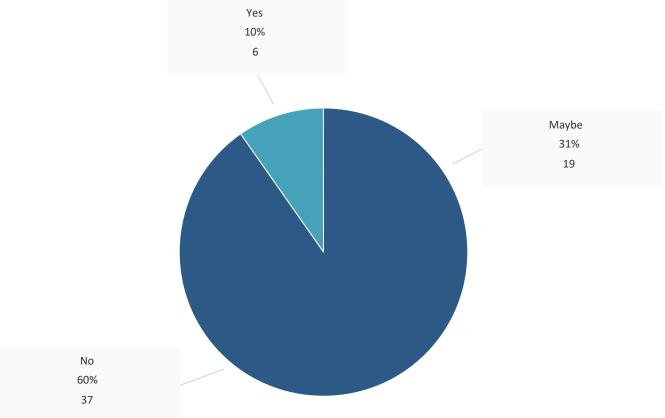
## Why have you never used car sharing services? (Select all that apply)



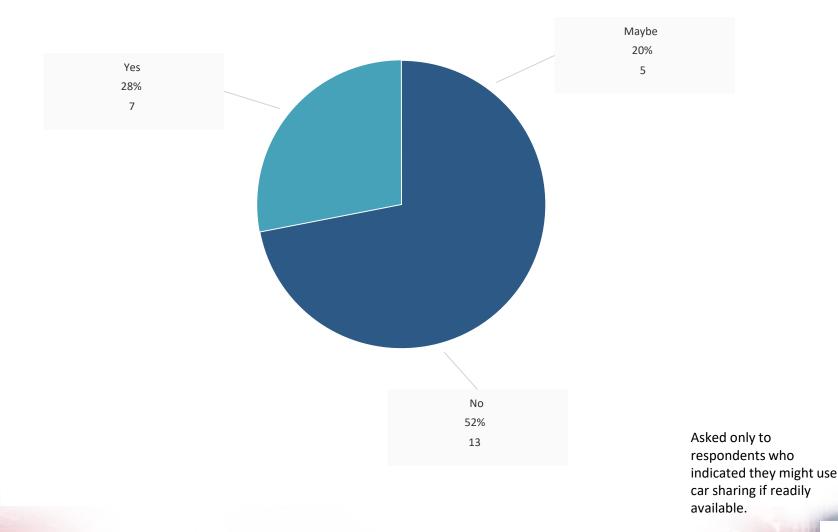
Asked only to respondents who indicated they have never used car sharing.



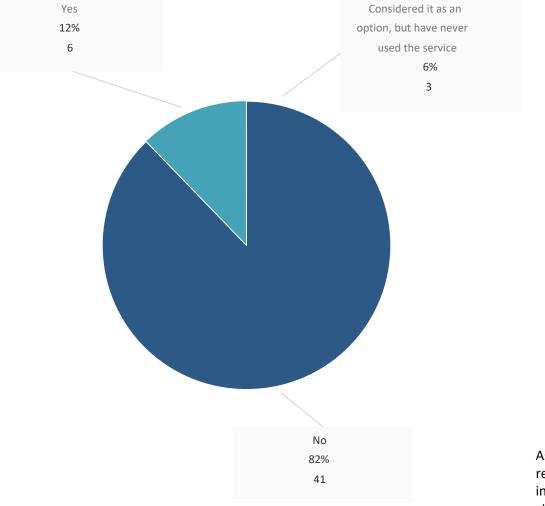
# If readily available, would you consider car sharing as an option for your typical car trips?



# If readily available, would you consider car sharing as an option for your typical car trips instead of owning a car?

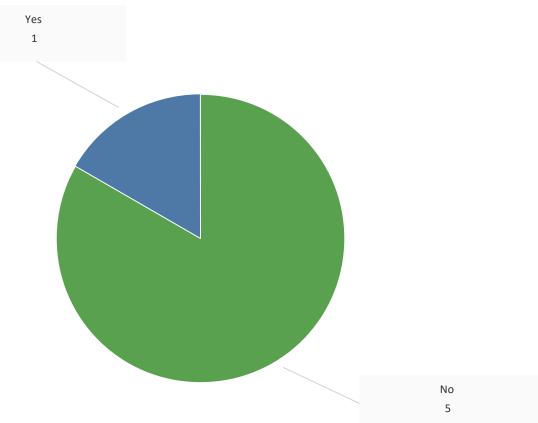


### Have you ever used Indiana University's Catch-A-Ride bus service to travel to and from campus during breaks?



Asked only to respondents who indicated they were IU students.

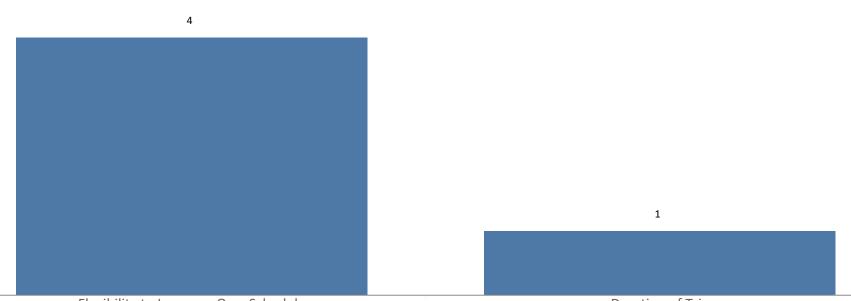
# Do you plan on using Catch-A-Ride again in the future?



Asked only to respondents who indicated they had used Catch-A-Ride previously.



### Why do you no longer plan on using Catch-A-Ride as an option to travel during breaks? (Select all that apply)



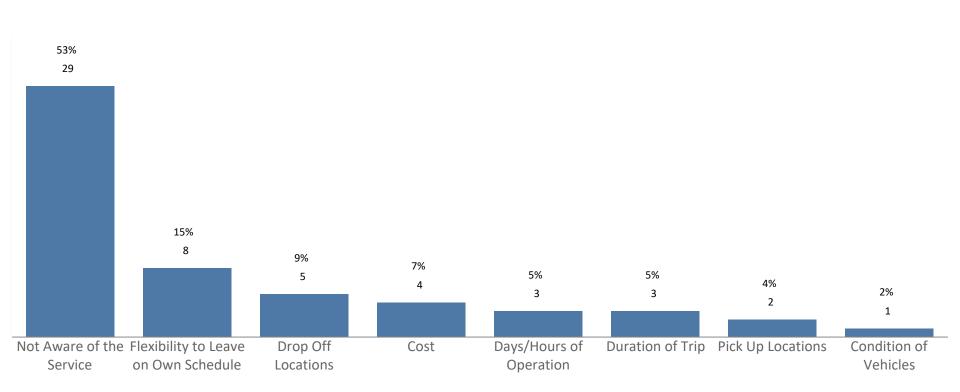
Flexibility to Leave on Own Schedule

**Duration of Trip** 

Asked only to respondents who indicated they had used Catch-A-Ride previously but would not use it again.

### Why have you never used Catch-A-Ride?

(Select all that apply)



Asked only to respondents who indicated they had never used Catch-A-Ride.



### Key Take-Aways

Differences between Student Car Usage and Faculty / non-affiliated car usage.

- Respondents not affiliated with IU more likely to use their car more frequently and for commuting to work
- Students more likely to use car on weekends and less frequently overall.

Most car usage represents choice activities, not essential activities.

- 71% of parking permit holders do not use their car everyday.
- Errands, shopping, and recreation are the most common reasons for using a car.
- Weekends are the highest usage rate.

More convenient/frequent alternatives could shift residents towards a more carlite or car free lifestyle.

- Increased awareness of current programs (Catch-A-Ride) is important
- Location, availability, and affordability of alternatives are key to increased use.

#### APPENDIX F: DOWNTOWN BLOOMINGTON EMPLOYEE COMMUTER SURVEY



#### **Bloomington Employee Survey**

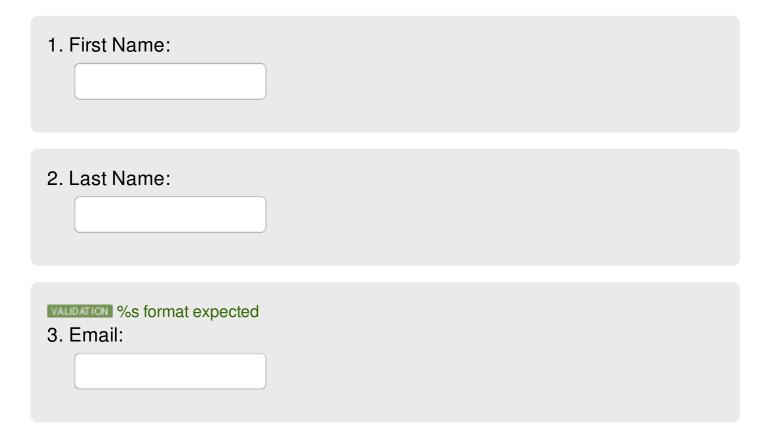
#### Landing Page

Welcome to the 2019 Bloomington Transportation Survey!

Your answers to this short survey will help develop strategies to improve transportation in Downtown Bloomington. By taking the survey, you will be entered into a prize draw to win:

We respect your privacy. Your personal information will only be used by the City of Bloomington and assigned consultants for transportation planning improvements and commute assistance purposes. We will not disclose your personal information to any other organization.

#### **Collect: Contact Info**



\*Contact information required for entry into prize drawings.

In order to ensure that the City of Bloomington has a transportation system that is inclusive and based on a representative sample, we need to collect the following demographic information.

#### 4. Where do you work?

- O Bloomington Hospital
- City of Bloomington
- O Monroe County
- C Monroe County Public Library
- Other Downtown Employer
- Cook/Ivy Campus
- O Other non-Downtown Employer

#### **Collect: Home Address**

What is your Current Residence?

Your current residence address is only needed to help understand your commute experience and improve it.

Street addres	SS		
City			
State	Zip code		
Country			
Collect: Mode	Split		

#### Choose the mode of transportation you used to **ARRIVE** at work last week: \*

Monday

Drove Alone	
Bike	
Bus (ie Bloomington Transit)	
Carpool/Vanpool	
Electric Scooter (ie Bird, Lime, Lyft, etc)	
Shuttle	
Taxi/Uber/Lyft	
Walk	
Worked from home	
Off (Didn't Work)	
Other	

Tuesday

Drove Alone Bike Bus (ie Bloomington Transit) Carpool/Vanpool Electric Scooter (ie Bird, Lime, Lyft, etc) Shuttle Taxi/Uber/Lyft Walk Worked from home Off (Didn't Work) Other

#### Wednesday

Drove Alone	
Bike	
Bus (ie Bloomington Transit)	
Carpool/Vanpool	
Electric Scooter (ie Bird, Lime, Lyft, etc)	
Shuttle	
Taxi/Uber/Lyft	
Walk	
Worked from home	
Off (Didn't Work)	
Other	

-

#### Thursday

Drove Alone	
Bike	
Bus (ie Bloomington Transit)	
Carpool/Vanpool	
Electric Scooter (ie Bird, Lime, Lyft, etc)	
Shuttle	
Taxi/Uber/Lyft	$\equiv$
Walk	
Worked from home	
Off (Didn't Work)	
-	

#### Other

# 

#### Friday

Drove Alone Bike Bus (ie Bloomington Transit) Carpool/Vanpool Electric Scooter (ie Bird, Lime, Lyft, etc) Shuttle Taxi/Uber/Lyft Walk Worked from home Off (Didn't Work) Other

#### Saturday

Drove Alone	
Bike	
Bus (ie Bloomington Transit)	
Carpool/Vanpool	
Electric Scooter (ie Bird, Lime, Lyft, etc)	
Shuttle	
Taxi/Uber/Lyft	
Walk	
Worked from home	
Off (Didn't Work)	
Other	
	~

#### Sunday

Drove Alone Bike Bus (ie Bloomington Transit) Carpool/Vanpool Electric Scooter (ie Bird, Lime, Lyft, etc)

Shuttle Taxi/Uber/Lyft Walk Worked from home Off (Didn't Work) Other	

#### **Demographic Data**

In order to ensure that the City of Bloomington has a transportation system that is as inclusive as possible of all stages of life and incomes, we need to gather the following demographic information. All information that we gather will be held in the strictest confidence and only used in the aggregate to help guide our planning efforts.

#### 10. What is your age?

- O Under 18 years old
- O 18-24 years old
- O 25-34 years old
- O 35-49 years old
- 50-65 years old
- 66-79 years old
- 80 years or older

11. Do you have to drop off or pick up a child or children as part of your commute?

- O Yes
- O No

12. Which type of housing do you live in?

- Single-family home
- O Mobile home
- O Townhouse
- Apartment
- O Duplex
- o Other

13. Which income group does your household fall under?

- Less than \$20,000
- \$20,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- Over \$100,000

14. What is the highest degree or level of school you have completed? If currently enrolled, the highest degree received.

- No schooling completed
- Nursery school to 8th grade
- Some high school, no diploma
- High school graduate, diploma or the equivalent (for example: GED)
- Some college credit, no degree
- Trade/technical/vocational training
- Associate degree
- Bachelor's degree
- Master's degree
- O Professional degree
- Doctorate degree

#### **Collect: Irregular User Past or Present**

#### Page entry logic:

This page will show when: ((((( Question "Monday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)") AND Question "Tuesday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Wednesday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Thursday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Thursday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Friday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Friday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Saturday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Sunday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Sunday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND

<ul><li>15. Have you ever tried traveling to work using an</li></ul>	nother option OTHER THAN DRIVING ALONE? *
© Yes ○ No	
<b>OTHER THAN DRIVING ALONE</b> ?" is one of the <b>16</b> . What form of transportation did you use? (Sel	following answers ("Yes")
Bike	Shuttle
Bus (ie Bloomington Transit)	Taxi/Uber/Lyft
Carpool/Vanpool	🗖 Walk
Electric Scooter (ie Bird, Lime, Lyft, etc)	C Other
<b>OTHER THAN DRIVING ALONE</b> ?" is one of the <b>17</b> . Do you still occasionally travel to work using a alone? *	following answers ("Yes")

○ Yes ○ No

#### Transportation Ranking

On a scale of 1 - 5, with 1 ranking lowest and 5 ranking highest, please rank the following:

18. The impact that transportation has on your decision to work in Downtown.

	1	2	3	4	5	
Lowest	0	O	0	O	0	Highest

19. How convenient transportation options for you to connect to, within, and around Downtown.

	1	2	3	4	5	
Lowest	0	0	0	O	0	Highest

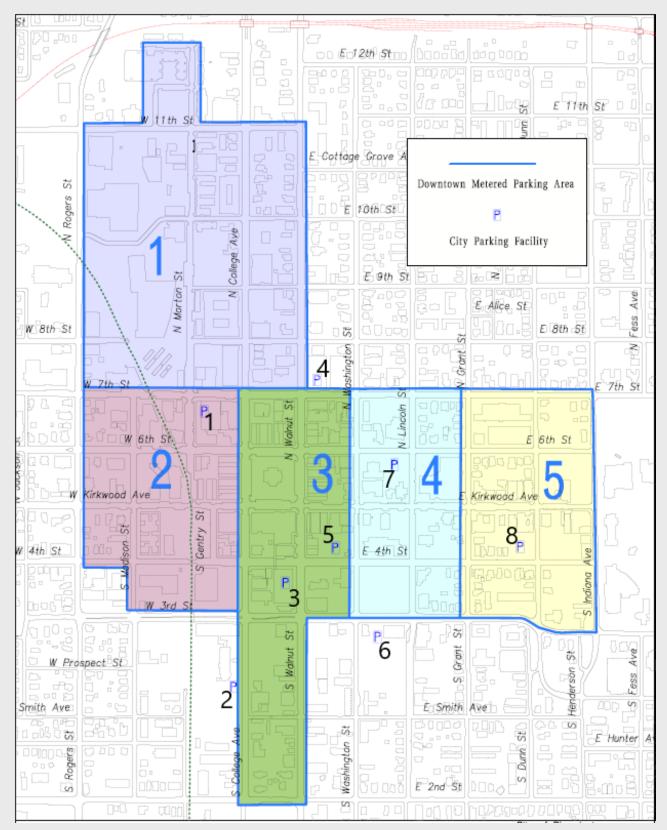
20. The safety of transportation options available to connect to, within, and around Downtown.

	1	2	3	4	5	
Lowest	0	0	0	0	0	Highest

#### **Parking Information**

#### Page entry logic:

This page will show when: ((((( Question "Monday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)") AND Question "Tuesday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Wednesday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Thursday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Thursday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Thursday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Friday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Saturday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Sunday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND Question "Sunday" is one of the following answers ("Drove Alone","Worked from home","Off (Didn't Work)")) AND



Downtown Bloomington Parking Areas

21. Using the Map above please identify where you park when you drive to work.

Where do you TYPICALLY park?

On-Street O

Off-Street Public Garage or C Lot

Off-Street Private Garage or C

**Parking Reasons** 

**Page entry logic:** This page will show when: Question "Where do you TYPICALLY park?"

22. What are the reasons you typically park where you do?

- Proximity to workplace
- Availability of space
- Price
- Other

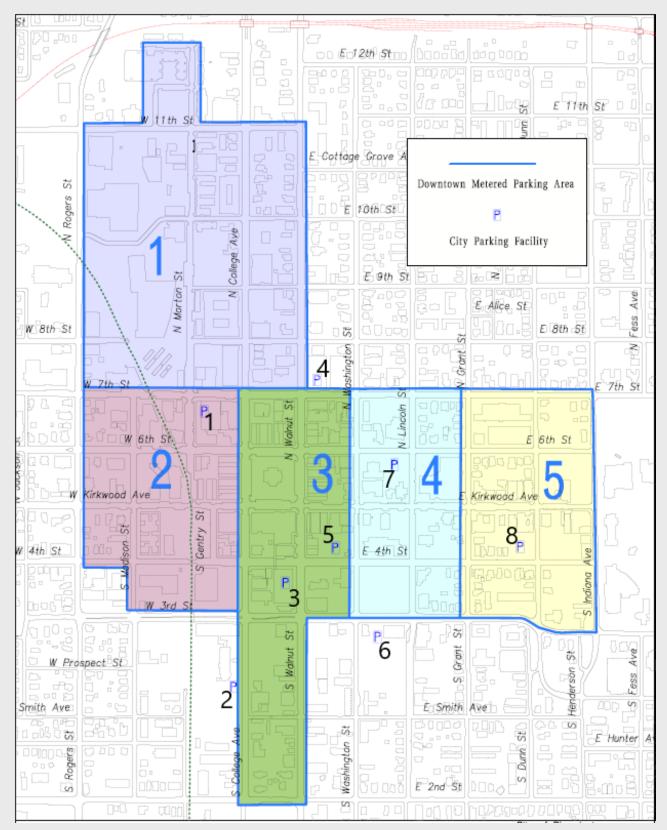
23. How frequently do you have to find an alternative place to park from your typical spot?

- Often
- Sometimes
- C Rarely
- O Never

#### **ALTERNATIVE Parking Information**

#### Page entry logic:

This page will show when: #23 Question "How frequently do you have to find an alternative place to park from your typical spot?" is one of the following answers ("Often", "Sometimes", "Rarely")



Downtown Bloomington Parking Areas

24. Using the Map above please identify where you park when you drive to work when you have to find an ALTERNATIVE space from where you typically park.

Where do you ALTERNATIVELY park?

On-Street O

Off-Street Public Garage or Lot

Off-Street Private Garage or Lot

#### Collect: Arrive/Depart + Outside Work + Second Choice

At what time do you typically **ARRIVE AT WORK/DEPART FROM WORK?**\*

5:00 AM	
5:30 AM	
6:00 AM	
6:30 AM	
7:00 AM	
7:30 AM	
8:00 AM	
8:30 AM	
9:00 AM	
9:30 AM	
10:00 AM	
10:30 AM	
11:00 AM	
11:30 AM	
12:00 PM	
12:30 PM	
1:00 PM	
1:30 PM	
2:00 PM	
2:30 PM	
3:00 PM	
3:30 PM	
4:00 PM 🔳	

Arrive at Work	4:30 PM 5:00 PM 5:30 PM 6:00 PM 6:30 PM 7:00 PM 7:30 PM 8:00 PM 8:30 PM
	5:00 PM
	5:30 PM
	6:00 PM
	6:30 PM
	7:00 PM
	7:30 PM
	8:00 PM
	8:30 PM
	9:30 PM
	10:00 PM
	10:30 PM
	11:00 PM
	11:30 PM
	12:00 AM
	12:30 AM
	1:00 AM
	1:30 AM
	2:00 AM
	2:30 AM
	3:00 AM
	3:30 AM
	1:00 AM 1:30 AM 2:00 AM 2:30 AM 3:00 AM 3:30 AM 4:00 AM 4:30 AM
	4:30 AM
	5:00 AM
	5:30 AM
	6:00 AM
	6:30 AM
	7:00 AM
	7:30 AM
	8:00 AM
	8:30 AM
	5:00 AM 5:30 AM 6:00 AM 6:30 AM 7:00 AM 7:30 AM 8:00 AM 8:30 AM 9:00 AM
	9:30 AM
	10:00 AM
	10:30 AM
	11:00 AM
	11:30 AM
	12:00 PM
	12:30 PM
	1:00 PM
	1:00 PM

Depart from Work	1:30 PM         2:00 PM         2:30 PM         3:00 PM         3:30 PM         4:00 PM         4:30 PM         5:00 PM         5:30 PM         6:00 PM         6:30 PM         7:00 PM         7:30 PM         8:00 PM         9:00 PM         9:30 PM         10:00 PM         10:30 PM
	10:00 PM
	10:30 PM 🧮
	11:00 PM
	11:30 PM
	12:00 AM
	12:30 AM
	1:30 AM 2:00 AM
	2:30 AM 3:00 AM
	3:30 AM
	4:00 AM
	4:30 AM

25. Do you use any of the following transportation options outside of work? (Select all that Apply) \*

E.g. I walk to the store; I take BT to basketball games.

Bike	Taxi/Uber/Lyft
Bus (ie Bloomington Transit)	Walk
Electric Scooter (ie Bird, Lime, Lyft, etc)	Other None of the Above
Shuttle	

Hidden unless: (((((( Question "Monday" is one of the following answers ("Drove Alone")) OR Question "Tuesday" is one of the following answers ("Drove Alone")) OR Question "Thursday" is one of the following answers ("Drove Alone")) OR Question "Thursday" is one of the following answers ("Drove Alone")) OR Question "Friday" is one of the following answers ("Drove Alone")) OR Question "Friday" is one of the following answers ("Drove Alone")) OR Question "Thursday" is one of the following answers ("Drove Alone")) OR Question "Friday" is one of the following answers ("Drove Alone")) OR Question "Saturday" is one of the following answers ("Drove Alone"))
26. If driving to work was not an option for you, what would be your second choice? \*

0	Bike	0	Shuttle
0	Bus (ie Bloomington Transit)	0	Taxi/Uber/Lyft
0	Carpool/Vanpool	0	Walk
0	Electric Scooter (ie Bird, Lime, Lyft, etc)	0	Other

#### **Parking Price Question**

#### Page entry logic:

This page will show when: (#22 Question "What are the reasons you typically park where you do?" is one of the following answers ("Price") AND #26 Question "If driving to work was not an option for you, what would be your second choice?" )

#### VALIDATION Must be currency

27. How much would parking need to cost <u>**PER MONTH</u>** before your second commute choice **''[question('value'), id='69']''** became your more regular choice to get to work?</u>

d	h.
J	D

per month

#### Collect: Awareness (not mode specific)

#### 28. How aware are you of your commute options? \*

For example, are you aware of the bus routes you could take from your home to work?

	Very Aware	Somewhat Aware	Not Aware	Not an Option
Walking routes from your home to work	O	0	О	0
Biking routes from your home to work	O	O	О	0
Transit routes (e.g. BT) from your home to work	O	0	0	0
Carpooling/vanpooling options from your home to work	O	O	0	O

#### Barriers

#### Page entry logic:

This page will show when: #15 Question "Have you ever tried traveling to work using another option **OTHER THAN DRIVING ALONE**?"

30. If you typically drive alone to work, which of these statements do you agree with? (Select all that apply)

- Other options are inconvenient
- Other options are too expensive
- □ I need a car to run errands
- □ I need a car in case of emergencies
- Other options are unrealistic due to work hours
- I enjoy having the freedom to arrive and depart whenever I want
- □ I enjoy the driving/the alone time
- My job requires me to use a car
- □ I am unaware of other travel options

#### LOGC Show/hide trigger exists.

31. Would you ever consider carpooling or vanpooling to work or school?

- O Yes
- O No

**LCCC** Hidden unless: #31 Question "Would you ever consider carpooling or vanpooling to work or school?" is one of the following answers ("No")

32. Please indicate why you would never consider carpooling or vanpooling to work or school. (Select all that apply)

- □ I don't have a carpool partner
- My work arrival/departure times are constantly changing.
- □ I lack flexibility in my schedule to carpool.
- I generally work outside of regular hours (Outside of 8 AM 5 PM).
- I lack information about using carpooling options to travel from my home to school/work.
- □ I enjoy the driving/alone time.
- $\Box$  I think carpooling is unsafe.

#### LOGC Show/hide trigger exists.

33. Would you ever consider taking the bus to work or school?

- O Yes
- O No

**Lize** Hidden unless: #33 Question "Would you ever consider taking the bus to work or school?" is one of the following answers ("No")

34. Please indicate why you would never consider taking transit to work or school. (Select all that apply)

- □ I have no transit access from where I live.
- □ I lack information to use transit to travel from my home to school/work.
- Transit would take too long for my commute.
- $\Box$  The transit route that goes to school/work is unreliable.
- The transit route that passes by my house doesn't run frequently enough for me.
- □ I think taking transit is unsafe.
- □ I generally dislike taking public transportation.
- The transit schedule doesn't align with my work schedule.
- □ I don't know how to use public transportation.

#### **Collection: Additional Comments**

37. If you have any additional comments, please provide your thoughts below:

Thank You!

Thank you for taking the 2019 Bloomington Transporation Survey. Your response is very important to us. Your responses and data will remain confidential and will only be used for the purpose of the City of Bloomington's downtown transportation and parking planning. **Our prize winners will be announced via email by DATE**.



## **Downtown Bloomington**

**Employee Transportation Survey Analysis** 

November 2019

## Content

- Survey Summary
- General Travel Behavior Questions
  - Employers
  - Mode Split
  - Home Distribution
  - Irregular User of Alternative Transportation
  - Work Arrival and Departure Times
  - Use Alternative Transportation Outside of Work
  - Alternative Mode if Driving Not Available
  - Familiarity with Alternative Mode Options
  - Desire and Interest in Using Alternative Transportation



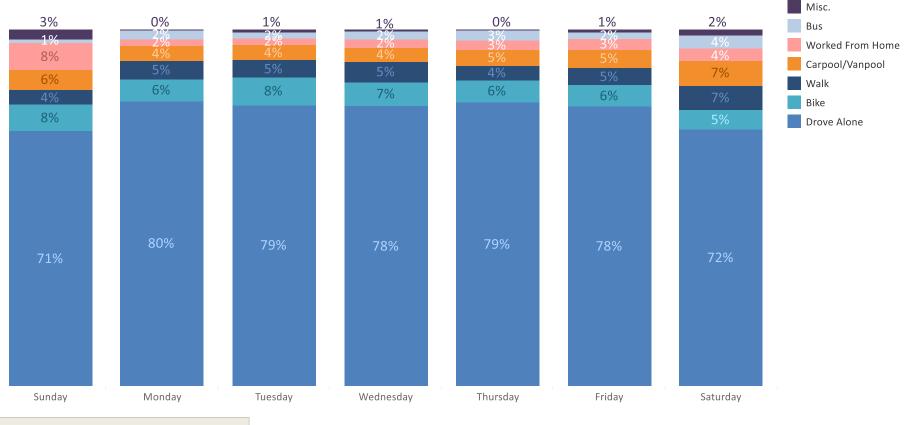
## **Survey Summary**

- Survey Dates: October 21 31, 2019
- **Communication Channels:** Downtown Bloomington, Inc. and the Bloomington Chamber of Commerce distributed to member employers to distribute to employees.
- Incentives: Visa Gift Card, Apple iPhone Watch, iPad /Keyboard and Pen

Category	Count/Percent
Survey Responses	1,110
Total Number of Employees	13,000
Response Rate	9%
Margin of Error	2.83%

# Choose The Mode Of Transportation You Used To <u>Depart</u> Home Last Week

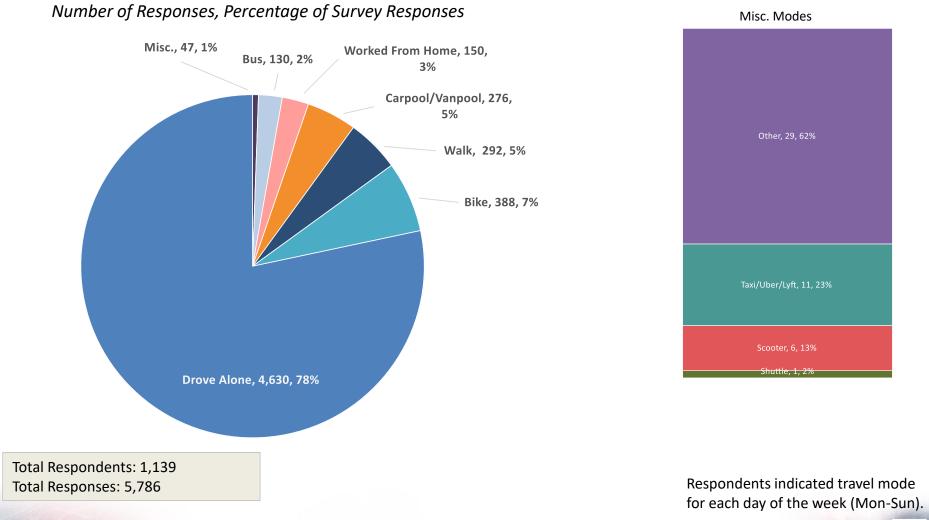
Number of Responses, Percentage of Survey Responses



Total Respondents: 1,139 Total Responses: 5,786

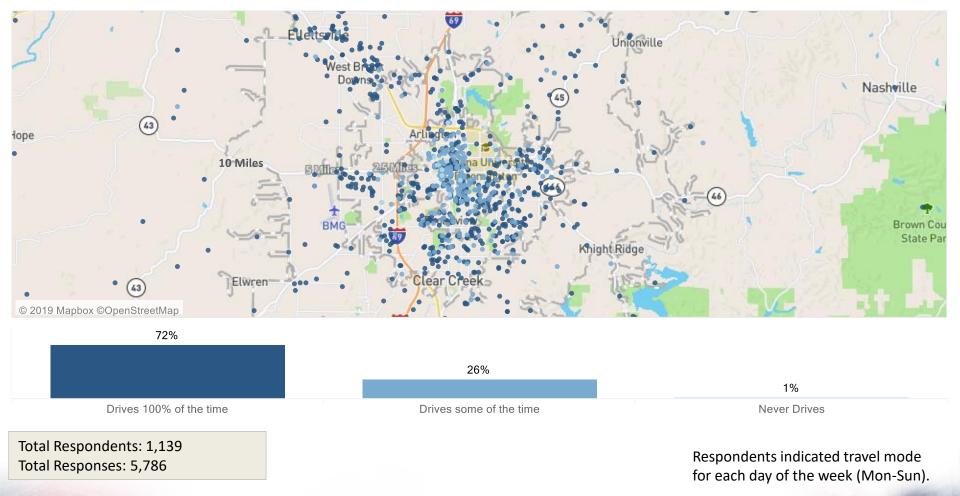
Respondents indicated travel mode for each day of the week (Mon-Sun).

# Choose The Mode Of Transportation You Used To <u>Depart</u> Home Last Week

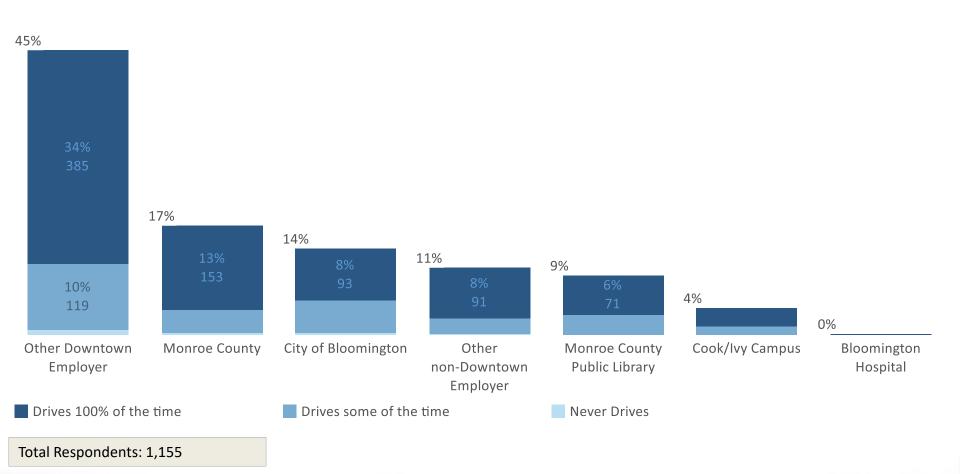


# Choose The Mode Of Transportation You Used To <u>Depart</u> Home Last Week

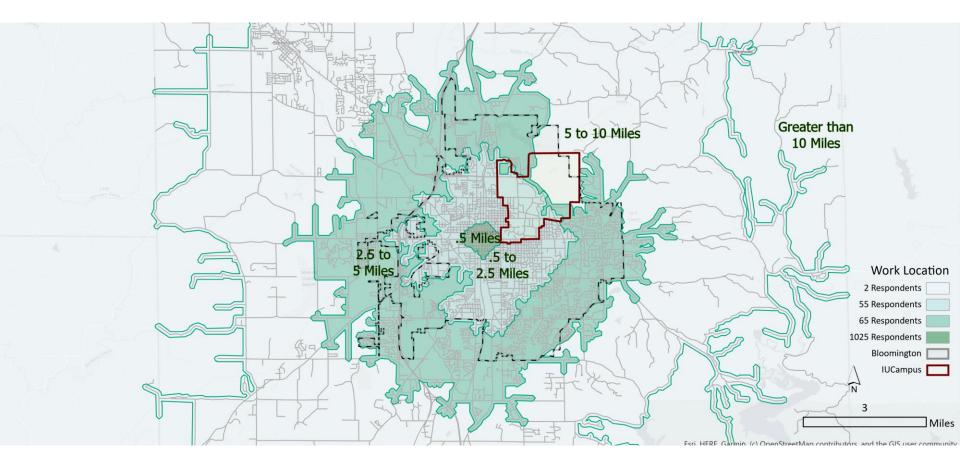
Number of Responses, Percentage of Survey Responses



## Respondents Employer (chart)

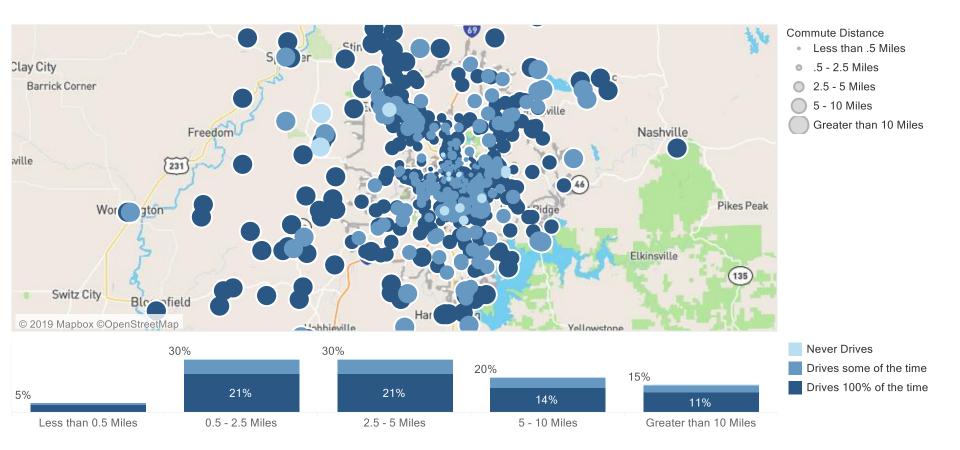


## Work Location / Distance from Downtown



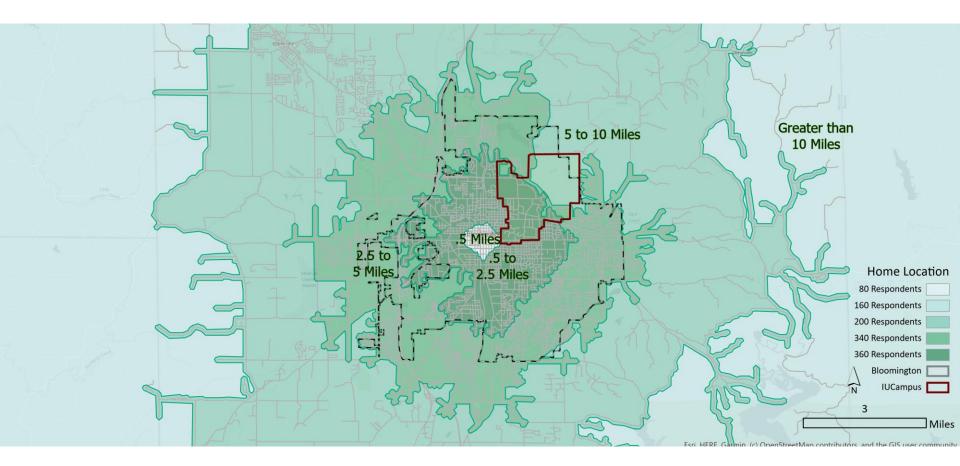
Total Respondents: 1,147

## Average Distance to Work



#### Total Respondents: 1,146

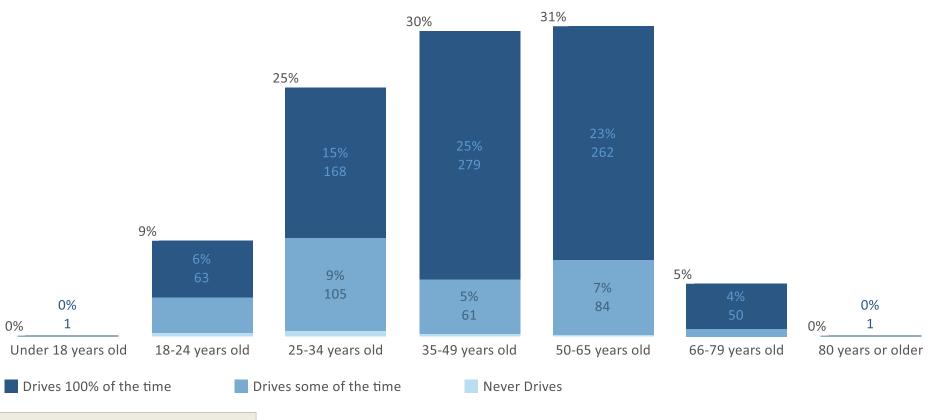
## Average Distance to Work



Total Respondents: 1,146

## Age

#### Number of Responses, Percentage of Survey Responses

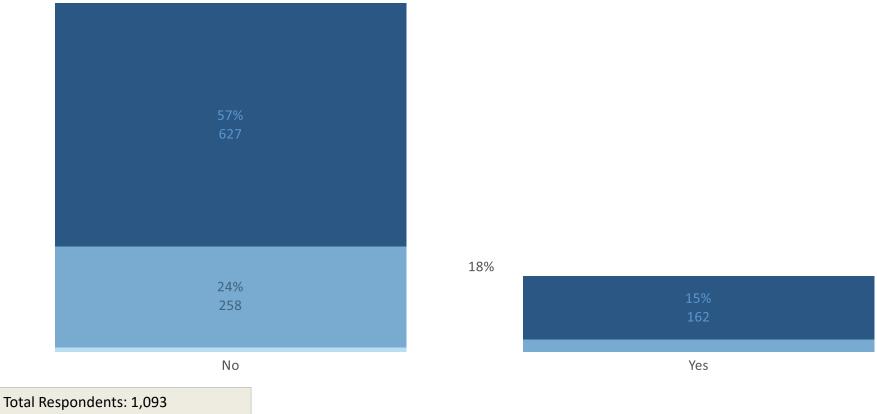


Total Respondents: 1,138

## Pickup Dropoff Child

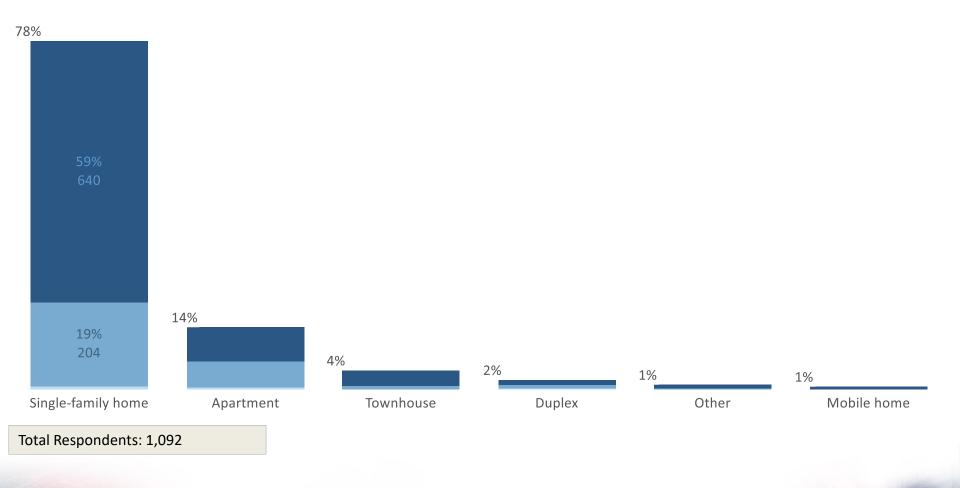
Number of Responses, Percentage of Survey Responses

82%



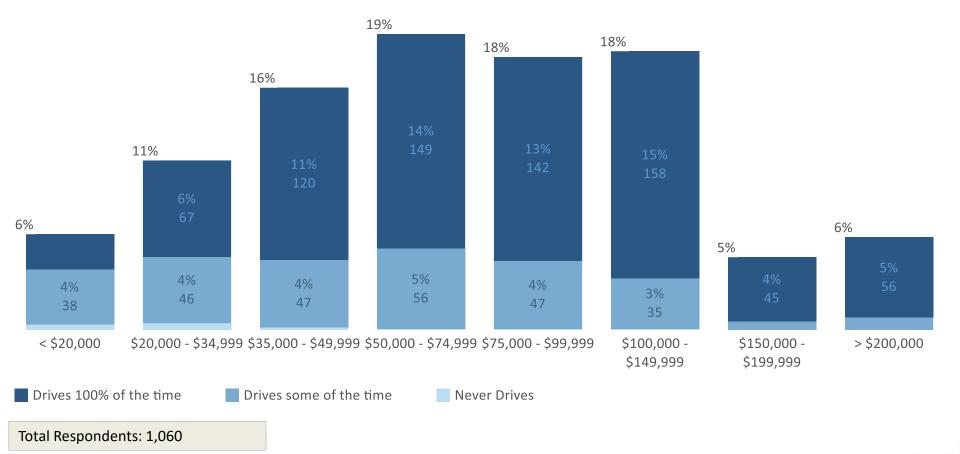
## Type of Housing

*Number of Responses, Percentage of Survey Responses* 



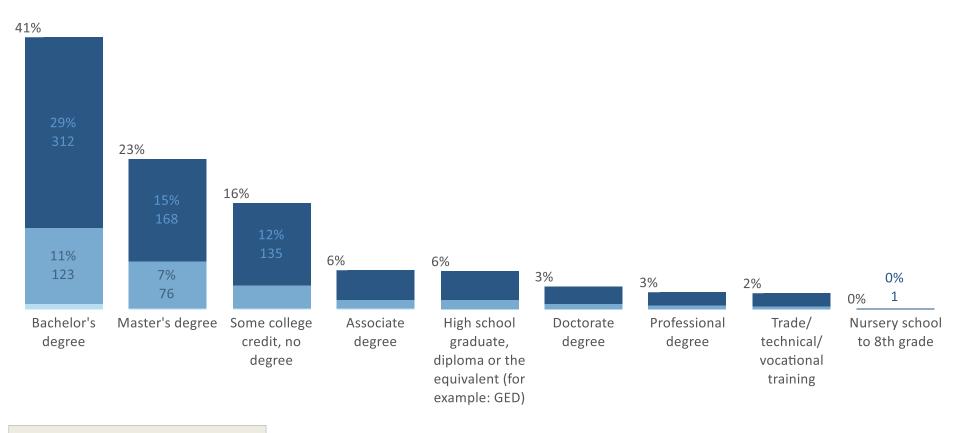
## Household Income

#### Number of Responses, Percentage of Survey Responses



## **Educational Attainment**

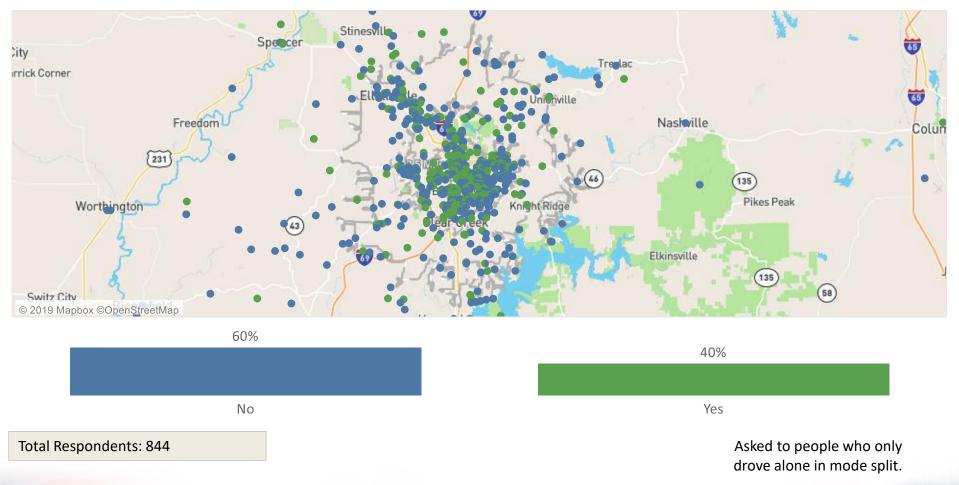
Number of Responses, Percentage of Survey Responses



Total Respondents: 1,085

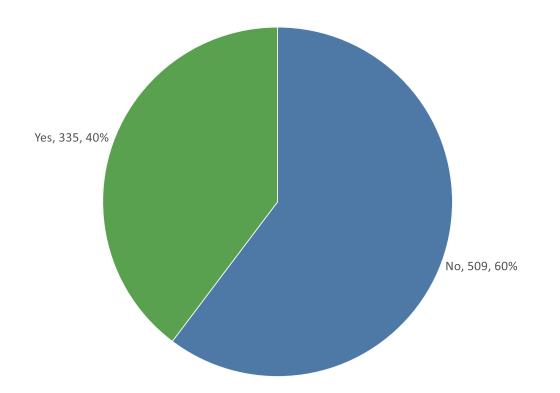
## Have You Ever Tried Traveling To Work Using Another Option Other Than Driving Alone?

Number of Responses, Percentage of Survey Responses



## Have You Ever Tried Traveling To Work Using Another Option Other Than Driving Alone?

Number of Responses, Percentage of Survey Responses



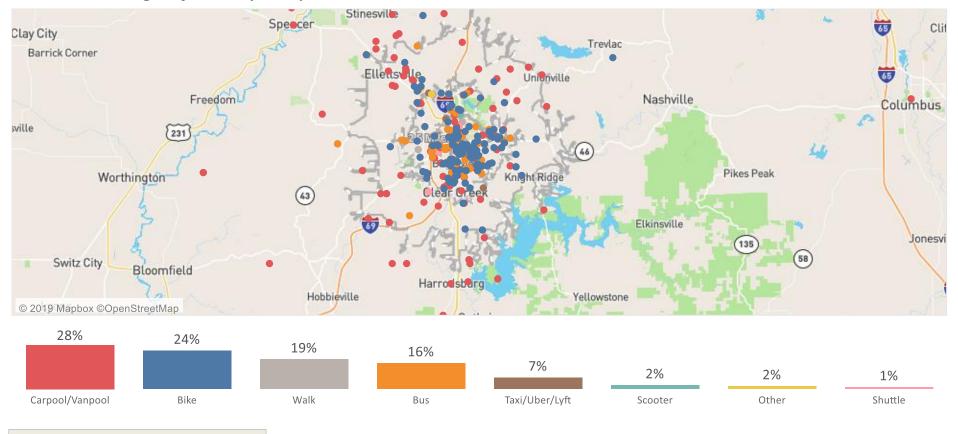
Total Respondents: 844

Asked to people who only drove alone in mode split.

M

## What Form Of Transportation Did You Use? (Select All That Apply)

Percentage of Survey Respondents

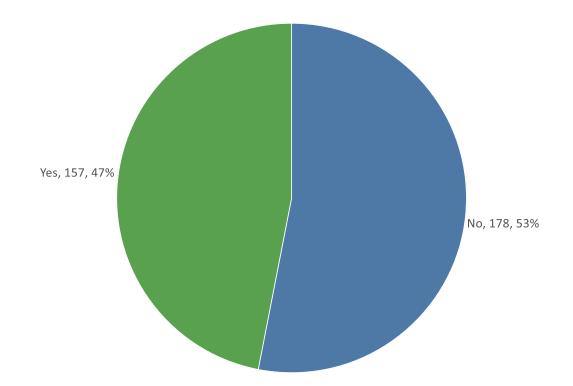


Total Respondents: 324 Total Responses: 535

Asked to people who have tried traveling with an option other than driving alone.

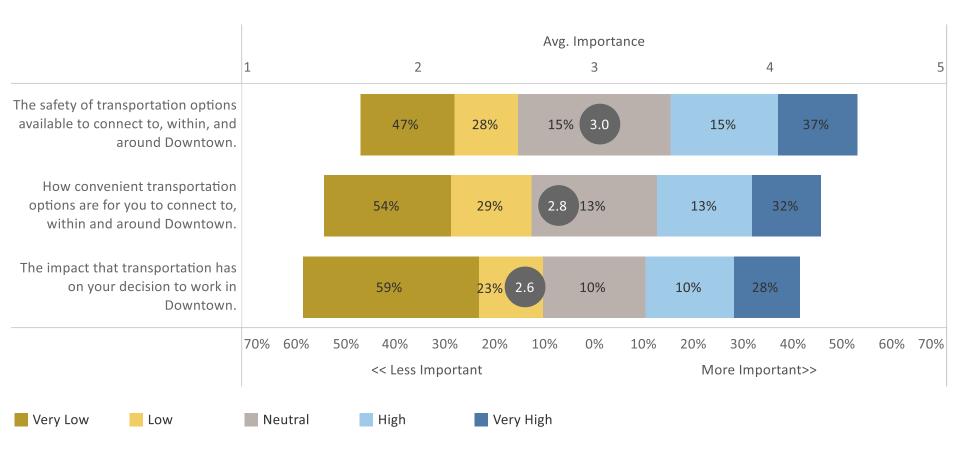
## Do You Still Occasionally Travel To Work Using Another Form Of Transportation Other Than Driving Alone?

Number of Responses, Percentage of Survey Responses



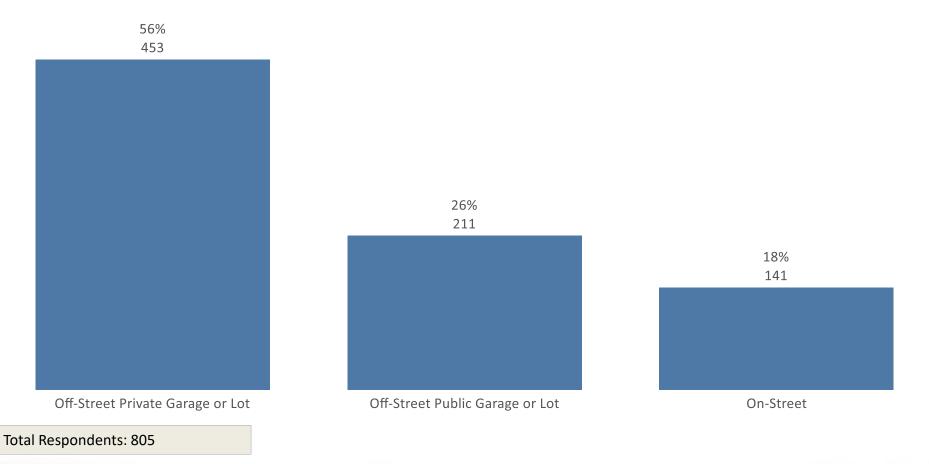
Total Respondents: 335

## On a scale of 1 – 5, with 1 ranking the lowest and 5 ranking the highest, please rank the following:



### Where do you typically park?

Number of Responses, Percentage of Survey Responses



#### Which On-Street Zone?

#### Number of Responses, Percentage of Survey Responses



#### Total Respondents: 105

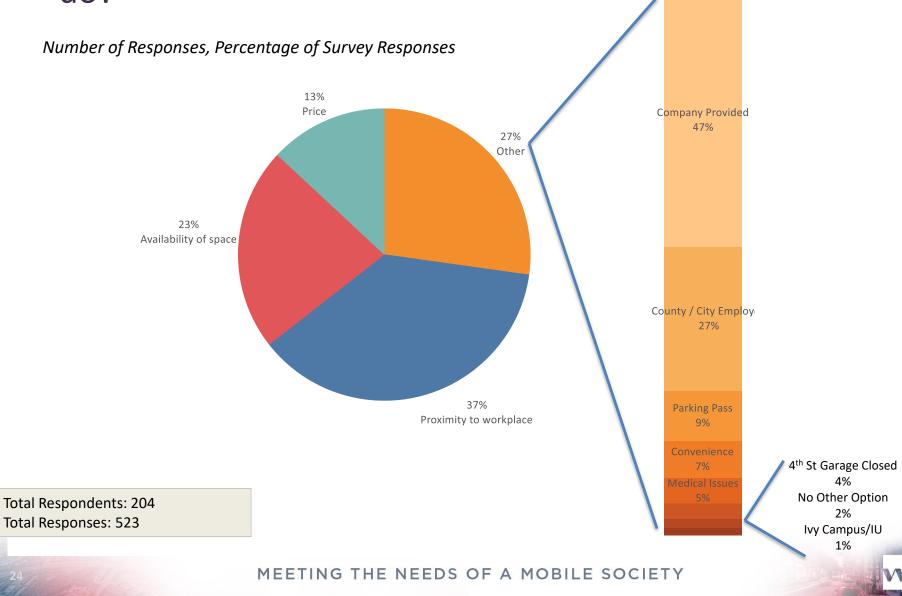
### Which Garage/Lot do you use?

#### W 8th St E 8th St N Indiana Ave 4 (Walnut Street Garage) N Maple St 5 N.Waldron St N.Elm.St 1 (Morton Street Garage) Grant. Z z z Loomington W Kirkwood Ave 7 (6th and Lincoln Lot) S.Fairview S 8 (4th and Dunn Lot) Jackson St S.Maple.St S Rogers St 3 (4th Street Garage) Grant St h.St VV.4tri 5 5 (4th and Washington Lot) W 3rd St W 3rd St 2 (Convention Center Lot) 6 (Waldron Hill Buskirk Park Lot) © 2019 Mapbox © OpenStreetMap 43% 22% 86 13% 9% 8% 5% 44 1% 25 18 15 10 2 1 (Morton Street 4 (Walnut Street 7 (6th and Lincoln 2 (Convention 3 (4th Street 5 (4th and 8 (4th and Dunn 6 (Waldron Hill Garage) Garage) Lot) Center Lot) Garage) Washington Lot) Lot) Buskirk Park Lot)

#### Number of Responses, Percentage of Survey Responses

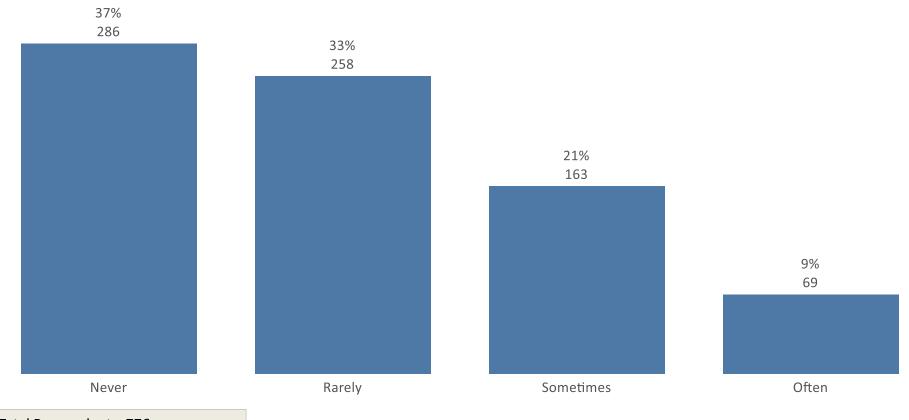
Total Respondents: 200

## What are the reasons you typically park where you do?



## How frequently do you have to find an alternative place to park?

Number of Responses, Percentage of Survey Responses



Total Respondents: 776

#### Alternative Parking: Which On-Street Zone?

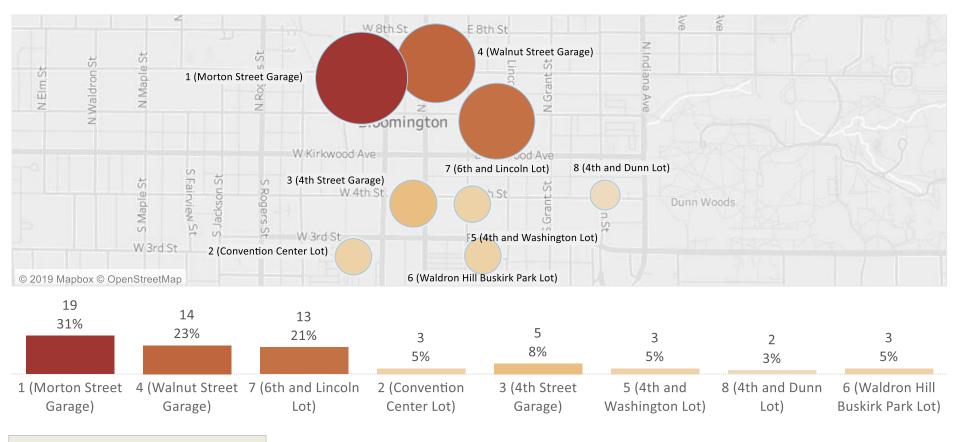
#### Number of Responses, Percentage of Survey Responses



**Total Respondents: 95** 

### Alternative Parking: Which Garage/Lot do you use?

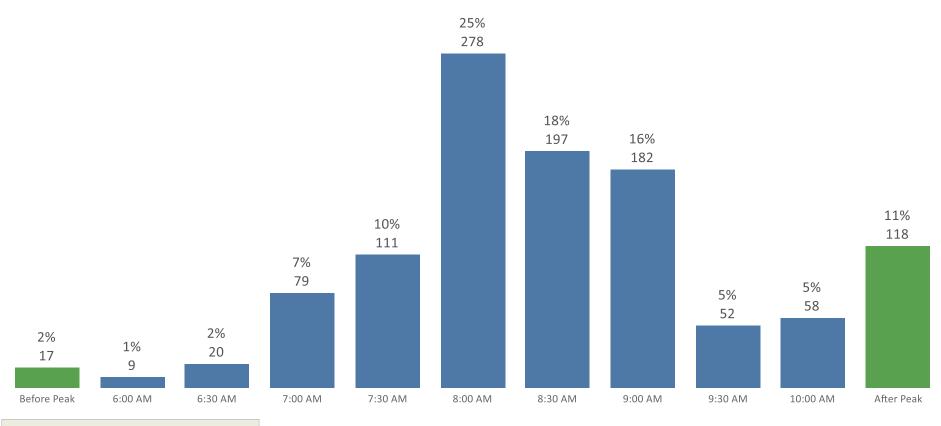
#### Number of Responses, Percentage of Survey Responses



Total Respondents: 62

## Arrive at Work (Peak Hour)

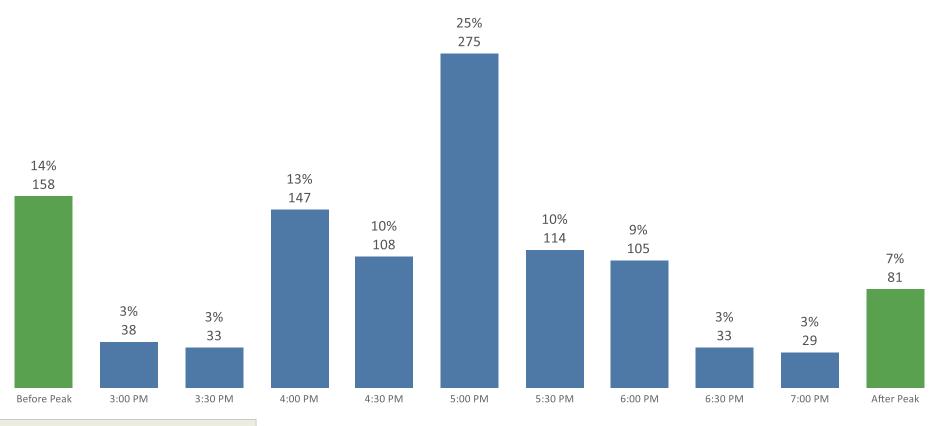
Percentage of Survey Responses



Total Respondents: 1,121

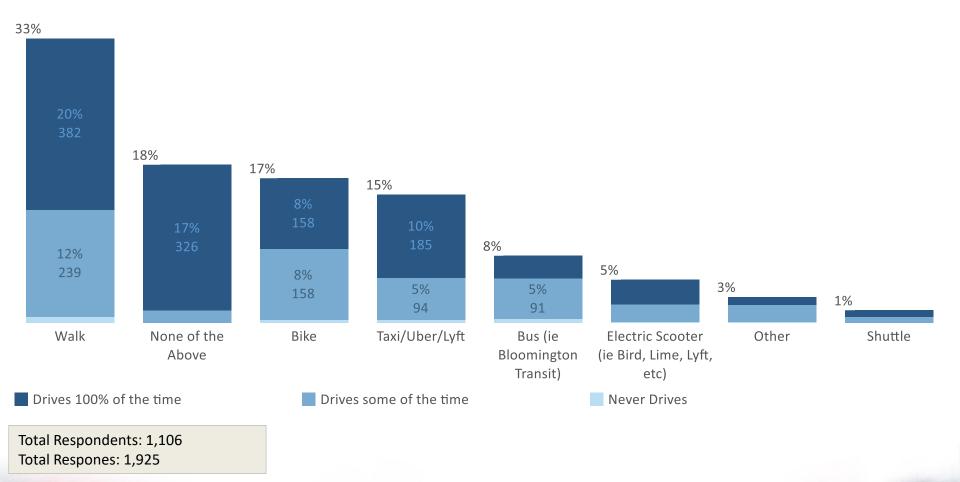
## Depart From Work (Peak Hour)

Percentage of Survey Responses



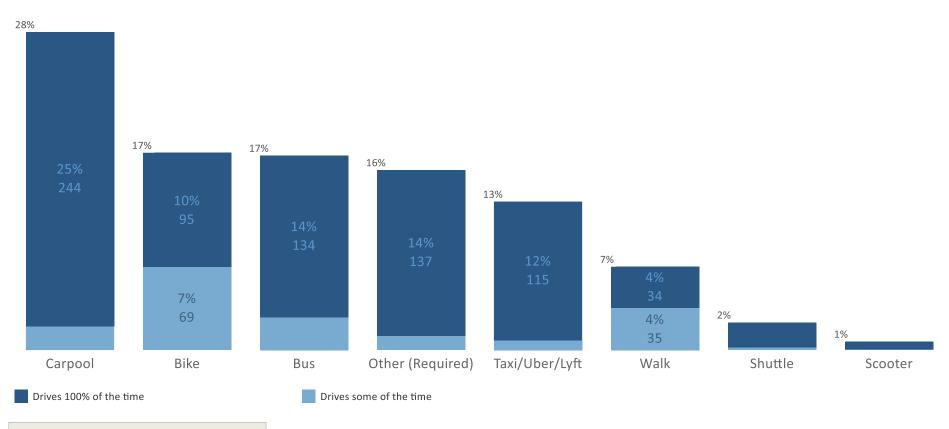
Total Respondents: 1,121

### Do You Use Any Of The Following Transportation Options Outside Of Work? (Select All That Apply) Percentage of Survey Respondents



## If Driving To Work Was Suddenly Not An Option For You, What Would Be Your Second Choice?

Percentage of Survey Responses



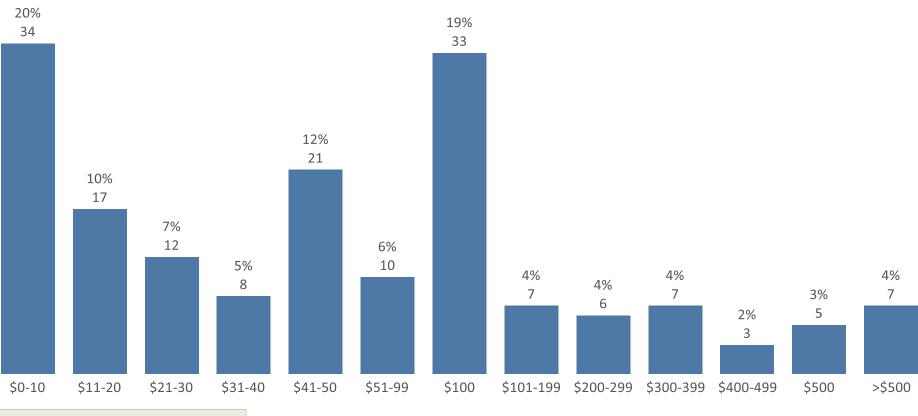
Total Respondents: 960

Asked to people who only drove alone in mode split.



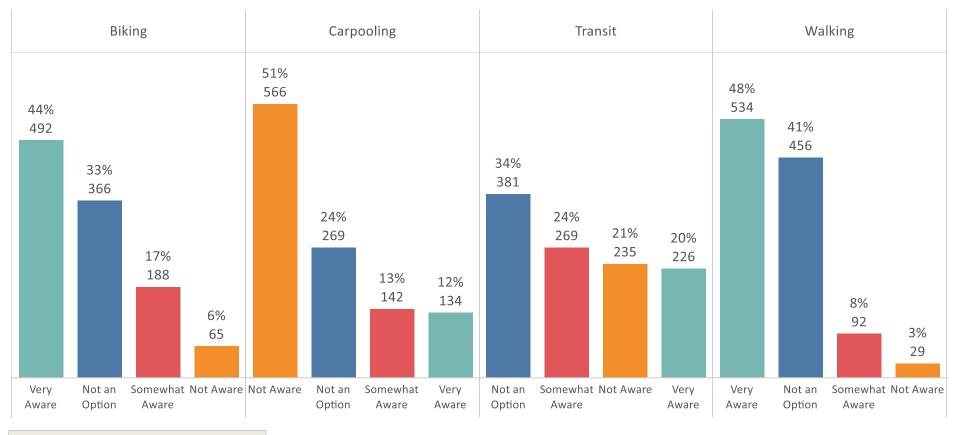
#### How much would parking need to cost PER MONTH before your second commute choice became your more regular choice to get to work?

Percentage of Survey Responses



# How familiar are you with the following routes from your home to work?

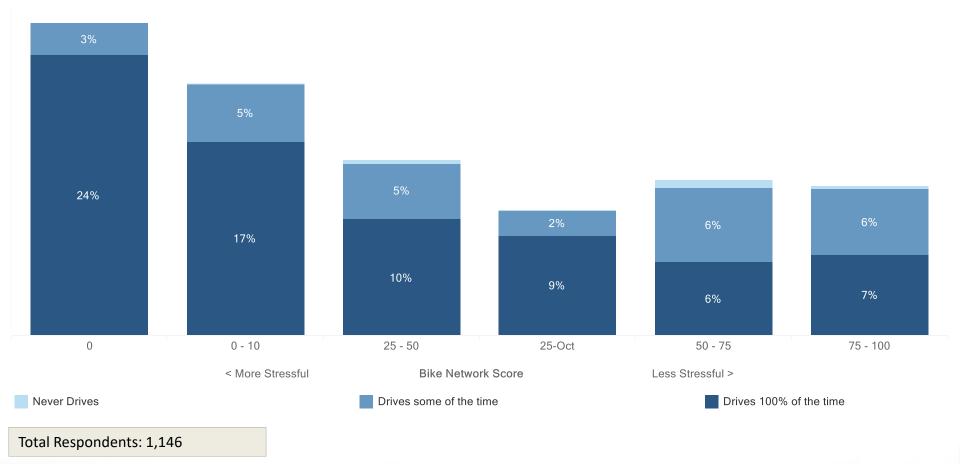
#### Percentage of Survey Respondents



Total Respondents: 1,096 Total Responses: 4,384

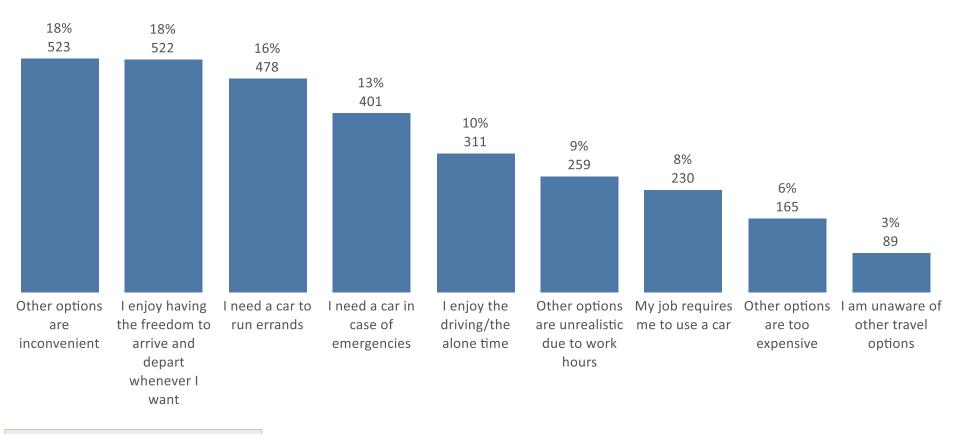
## **Bicycle Network Analysis Score**

#### Percentage of Survey Respondents



### If you typically drive alone to work, which of these statements do you agree with? (Select all that apply)

#### Percentage of Survey Respondents

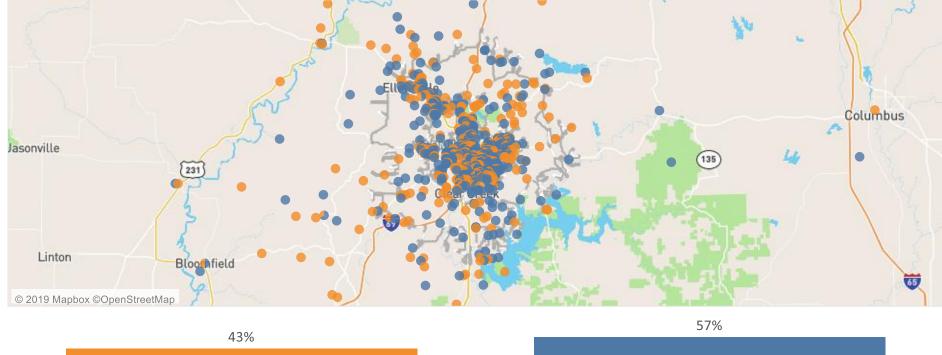


Total Respondents: 778 Total Responses: 2,942

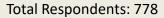


# Would you ever consider carpooling or vanpooling to work or school?

Percentage of Survey Respondents







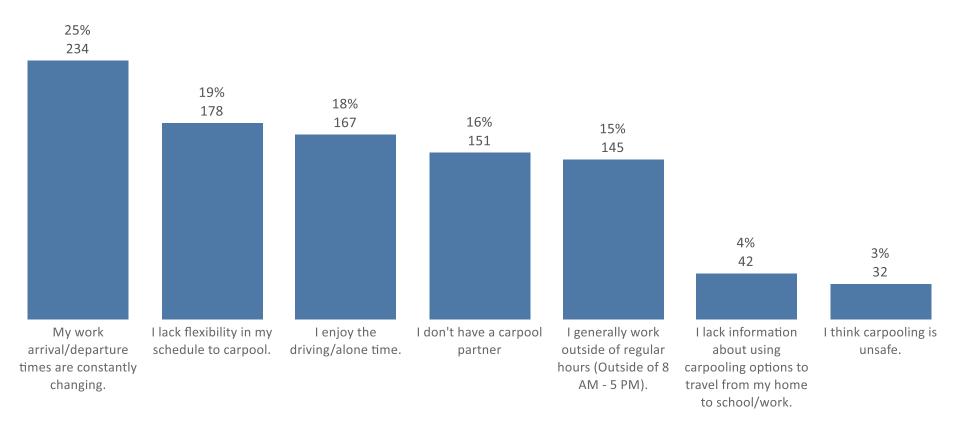
MEETING THE NEEDS OF A MOBILE SOCIETY

No

# Please indicate why you would never consider carpooling or vanpooling to work or school. (Select all

that apply)

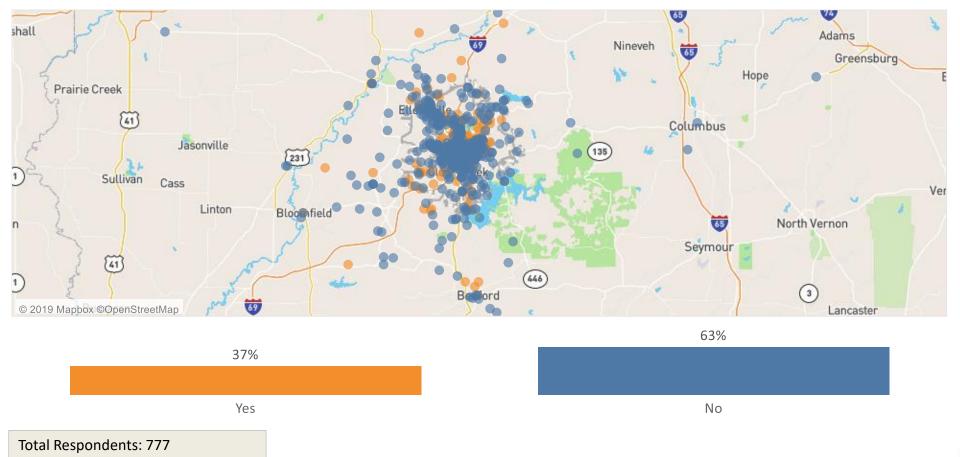
#### Percentage of Survey Respondents



Total Respondents: 433 Total Responses: 932

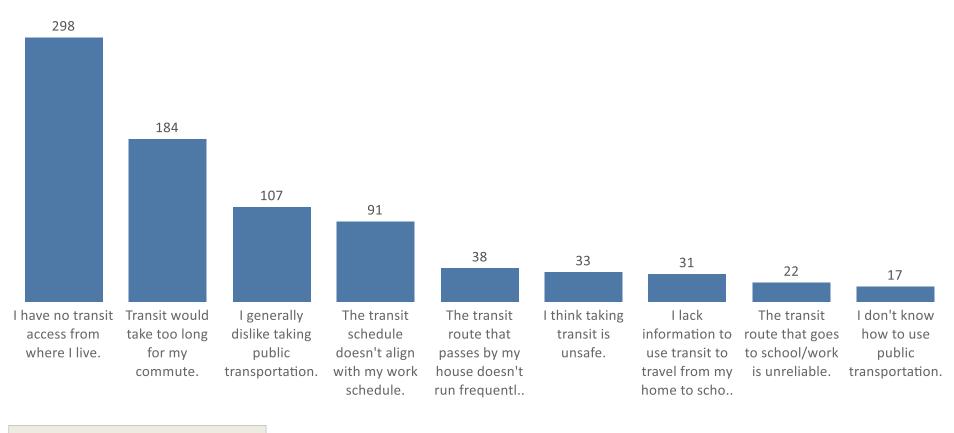
# Would you ever consider taking the bus to work or school?

Percentage of Survey Respondents



## Please indicate why you would never consider taking the bus to work or school. (Select all that apply)

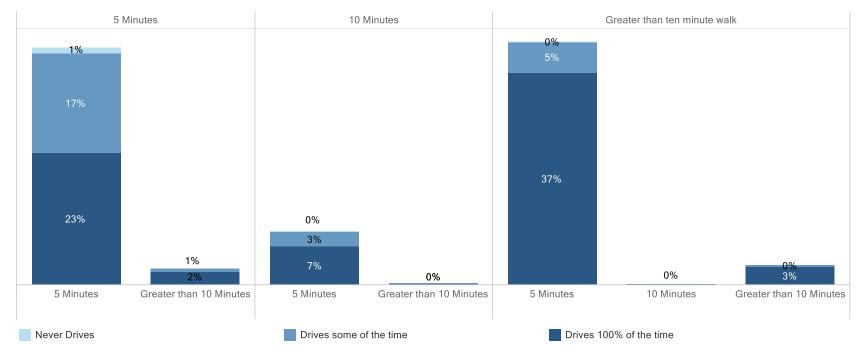
Percentage of Survey Respondents



Total Respondents: 441 Total Responses: 813

# Walking time from Home to a Bus Stop / Walking time from Work to a Bus Stop.

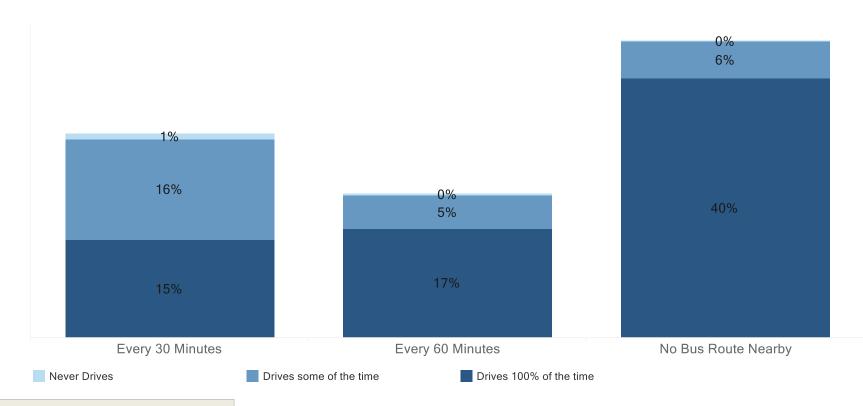
Percentage of Survey Respondents



Time from Home to Bus Stop / Time from Work to Bus Stop

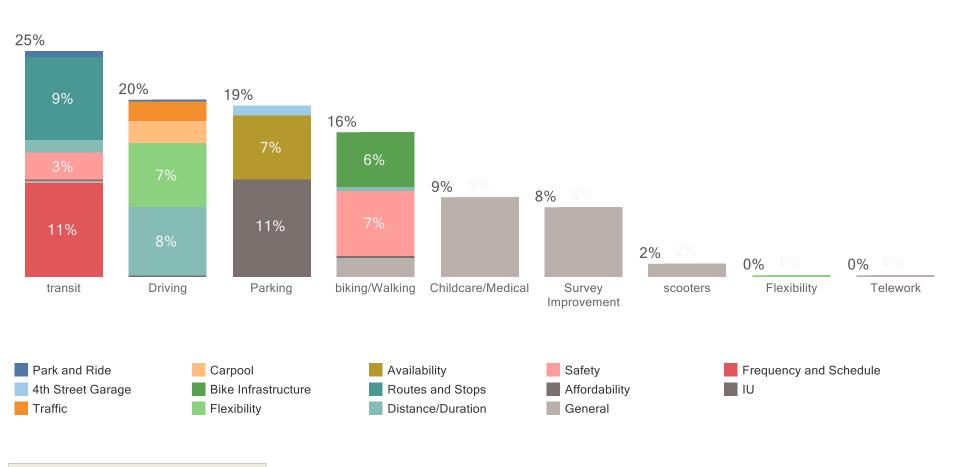
## Bus Frequency Near Respondent's Home

Percentage of Survey Respondents



Total Respondents: 1,146

## **Open Text Comments**



#### Total Comments: 455

## **Open Text Comments**

Driving/Parking

- Avoids Downtown because parking is "terrible"
- Won't give up "freedom" of having a car
- Childcare makes a car seem mandatory.
- People who live outside of Monroe County feel they have to other option than do drive.

Transit

- Bus is "difficult" and seems "inconsistent"
- People need more accurate and frequently updated bus information
- Some busses do not run during School breaks, making year round bus commuting not an option.
- Increase Weekend and Late Night Bus Service
- Lack of nearby bus routes makes driving a necessity
- Transferring from one bus to another is not popular. Walking/Biking
- Walking and Biking, even in downtown, do not "feel safe" College, Walnut, and 3rd Streets in particular. "One-Way Highways".
- B-Line is popular, there would be support for expansion of similar trails.
- Walking and biking trails can feel unsafe after dark.
- More Bike Racks

## Summary of Findings

Section	Findings
Travel Modes	71% of respondents are driving alone to work at least one day a week.
	Overall, 72% of respondents are driving alone every day of the week that they commute to work.
	Biking is the second most common mode, but only makes up 7% of weekly trips.
Distance to Work	The Majority of workers work within .5 miles of downtown
	Most live 2.5 miles or more outside of downtown, with 15% of downtown employees living greater than 10 miles away.
	They also live largely in lower density, single family homes in areas with a stressful bicycle network and more than a 10 minute walk from a BT stop.
	The majority of employers also live in areas where a bus comes only once an hour, or there is not a bus route at all.

## Summary of Findings

Section	Findings
Alternative Modes	40% of respondents have tried an alternative mode of transportation, with a little less than half of those respondents still occasionally using that mode.
	28% of those who have tried an alternate mode, carpooled, 25% biked, and 19% walked. Only 16% took the bus.
	Carpool, Bike, and Bus are the three highest second choice options.
Parking	For people who drive, Proximity to work and Employer subsidized spaces are the two main reasons for where people park.

## Recommendations

- Employer Sponsored/Subsidized Carpool Programs in exchange for not driving (pay-out parking benefits) could help shift people towards their second choice (Carpool).
- People are not familiar with carpool options (51% unfamiliar), in addition to subsidized programs, should create educational programs explaining the options and provide carpool matching services.
- **Parking cash-out in exchange for biking** could also prove popular, given that many people report biking outside of work and biking would be the second choice for 17% of respondents.
- People are aware of their Biking and Walking options, but many live too far away to make this realistic. Especially with stressful bike and pedestrian networks further from the downtown core.
- 34% of people feel transit is not an option, probably due to low frequencies and home distance from stops.