

Linking Sustainable Transportation in a University Community Final Report

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Sustainable Transportation in Kent, Ohio

This past year we embarked on a study of sustainable transportation options, attitudes, and behaviors in the city of Kent, Ohio, particularly in the downtown area and in the area that linked the community to Kent State University. We wanted to assess whatever obstacles and enhancements affect movement by bicycle and foot, the role of community attitudes, and whether these are amenable to greater investments in sustainable transportation facilities and infrastructure.

Sustainability has emerged as an important aspect of designing university campuses (Balsas 2003; Norton et al. 2007; Toor and Havlick 2004). In 2007, Ohio Governor Ted Strickland's administration called for more energy efficient university settings (State of Ohio 2007). The document produced by the Northeast Ohio Research Consortium entitled *Taking Steps Toward Sustainability: Higher Education in Northeast Ohio* (2004) argued that higher education institutions must assume a leadership role in creating a sustainable future for the communities in which they reside. It continued to describe a number of steps that might promote more sustainable development including enhancing cooperation between the campus and the larger community.

For university communities, especially in small towns, it is important to find a balance between the needs of the university and the goals of the town. On one hand, towns can easily be overwhelmed by increased automotive traffic brought about by tens of thousands of new residents during the academic year. At the same time, towns rely on university-related traffic to help support their businesses. Universities also have a vested interest in a town that promotes a spirit of community for its students and provides access to a number of nearby entertainment, shopping, and dining opportunities. We believe that many of these goals can be met through development of more sustainable transportation practices, particularly in the encouragement of non-vehicular transportation not only within campus, but between campus and the surrounding community. Many university towns have a central business district which relies on students and community residents, and would benefit from being more easily accessible to walkers and bikers.

The City of Kent and Kent State University provide an excellent laboratory for ascertaining ways in which sustainable transportation contributes to economic development, public health, and more livable communities. The student population on campus is less than a mile from the central business district of Kent (see Map 1). Yet this distance is seen as more of a barrier than a passageway between the two nodes. One of our goals was to assess how to facilitate more nonvehicular traffic between the downtown and the campus. Previous research indicated that any reduction in demand for vehicular traffic, particularly at peak times, could also dramatically ease overall congestion levels (Kaplan and Clapper 2007), which has been mentioned as a related problem during the academic year.

At the same time, the city of Kent has embarked on a program to improve the economic viability of the downtown Kent area. Kent's most recent Comprehensive Plan incorporated sustainability in its design (City of Kent 2004). Moreover, the Plan

specifically highlighted transportation planning as a major aspect of future sustainability. Since the Plan came out, Kent officials have been successfully trying to increase the number of commercial outlets, restaurants, and other services available in downtown Kent, and this requires an expansion of the customer base. The nearby presence of Kent State University – the second largest university in the state of Ohio – has the potential to create that additional demand for goods and services downtown. However, many residents (including students, faculty and staff from Kent State University) do not generally travel downtown even though it is fairly close to campus and could provide a walkable destination (Kaplan 2008). We believe that transportation decisions from the last several decades have discouraged students, staff and faculty from walking or bicycling from campus to other parts of the community and that this has had a particularly negative impact on the economic vitality of downtown Kent. At the same time both town and university leaders have professed a desire to work together to try to improve overall economic development. Likewise, residents of the city, in a series of community meetings, indicated that they are most interested in making Kent more pedestrian friendly and in managing traffic systems in a sustainable way (City of Kent 2004; Kaplan 2008).

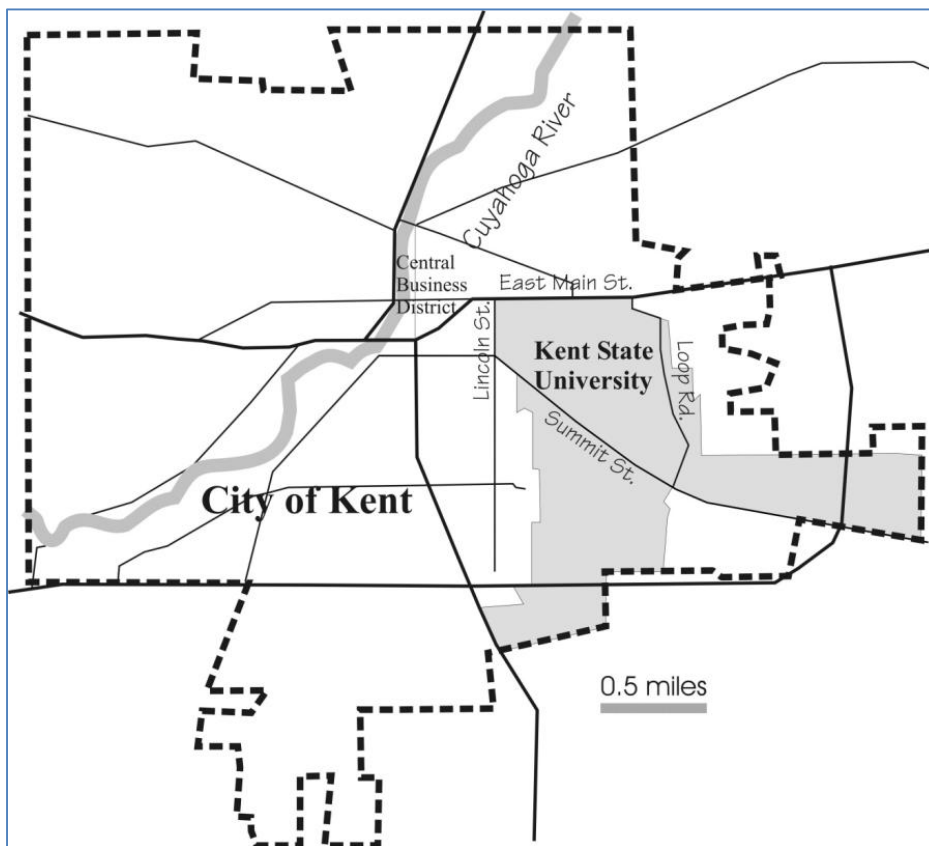


Figure 1

Methodology

We used the following steps in conducting our

Inventory of Transportation Infrastructure and Facilities:

We developed an inventory of the infrastructure and facilities that pertains to non-automotive transportation in the downtown, around the downtown, and in the neighborhoods within “inner” Kent (includes the area under 1 mile radius from Kent’s CBD and includes the connection to the university). This was accomplished through an inventory of bicycle lanes, bicycle racks, crosswalks, and bus stops that may create incentives or disincentives for people to walk or bike from one place to another. In this aspect, we looked for certain elements that may improve the comfort level for walkers and bikers alike (Moudon et al 1997; Sarkar et al 1997). These data and the map were added to existing maps that cover Kent State University’s campus as well as some surrounding environs. These new data will allow us to extend the coverage to include downtown Kent, the linkage between downtown and the campus, the areas within a ½ - 1 mile of downtown Kent, and specific corridors that are important to community transportation. From this, we produced some simplified schemas in CorelDraw that we hoped would be easier to read.

Pedestrian and Bicycle Counts:

Throughout the year, we undertook a series of pedestrian and bicycle counts for key intersections within the city. We already developed a series of counts for key gateways to campus (Kaplan 2008). This allowed us to extend this research to provide an accurate rendition of non-automotive traffic around the entire city.

Assessment of Resident Attitudes:

The major cost in this study consisted of a mail survey sent to 2000 households in Kent in order to gain a greater understanding of how people navigate the urban area and how easy it appears to travel without a car within the city itself. Unlike our student population, which we earlier surveyed and can be reached with Web surveys, an adequate representation of the community required mail surveys.

Focus Group:

A follow-up focus group held in September provided many additional insights into what hinders and facilitates sustainable transportation.

Project Components and Personnel

The Linking Transportation in a University Campus project consisted of four distinct components that were aided by specific personnel. The PI, Dave Kaplan, was involved in each component.

1. Inventory and Development of Map. We inventoried all of the infrastructure and facilities that encourage or hinder non-automotive traffic. This included all pathways, all street crossings, bike facilities, sidewalk and bikeway interruptions, and bus stops. From this, we created a map in Arc View that includes these elements.

Key Personnel: **Amy Rock**, Graduate Assistant in Geography, primarily responsible for developing this map in Arc View as well as collecting information on transportation facilities. **Michael Dunbar**, Graduate Assistant, helped the PI collect information on transportation facilities

2. Measurement of non-vehicular traffic. During the Fall 2009 and Fall 2010 semesters, we examined the degree of non-vehicular traffic at key intersections in the city of Kent. This consisted of both pedestrian traffic and bicycle traffic. These data were counted at the same basic time of day and then added to spreadsheets and maps.

Key Personnel: **Michael Dunbar**, **Megan Petroski (Graduate Assistant in Geography)**, and **Stephanie Messa (undergraduate student)** were all involved in acquiring these data.

3. Survey of Kent residents. In Spring 2010 we developed and distributed a mail survey that concentrated on how people use transportation, where they work, shop and dine, various attitudes towards transportation modes, and other factors we thought germane to the study.

Key Personnel: **Michael Dunbar** helped to develop and distribute the survey.

4. Focus group of Kent residents. In early Fall 2010, we assembled a focus group that helped us develop a better understanding of community attitudes. Approximately 14 residents attended the focus group.

Megan Petroski, graduate student in Geography, helped with the assembly, administration and interpretation of focus group results.

Inventory of Sustainable Transportation Infrastructure and Facilities

One of the primary objectives of this study was an effort to get a sense of what sorts of facilities and infrastructure might facilitate and impede sustainable transportation. Our specification of sustainable transportation in this case was straightforward, including walking, bicycling, and bus transit. Facilities refer to bike racks and bus stops whereas infrastructure refers to sidewalks, bicycle paths, crosswalks, median islands, and bus routes.

Before producing the overall map, we went out and inventoried all of the items listed above. A previous inventory had been conducted within the boundaries of Kent State's main campus at Kent, the parts of Kent adjacent to campus, and an area of land stretching from the west of campus to the downtown and bounded by the Cuyahoga River. This time, we supplemented this information with data from the downtown of Kent and the link area between Kent downtown and the western edge of Kent State University. Much of the transportation information was gathered through field work and simply walking the area. The information was gathered over several months and encompassed several different factors related to sustainable transportation.

To create the map itself, a pair of AutoCAD DWG files provided by Kent State's architect's office serves as the foundation for the project map. This detailed the immediate area surrounding the university. These maps were brought together in Arc Map and aligned using GIS data. Because ArcMap can be somewhat inelegant as a graphic program, I traced over the primary features using CorelDraw.

Figure 2 demonstrates the extent to which Kent enjoys facilities that facilitate sustainable transportation. We can break down some of the infrastructure and facilities related to sustainable transportation.

Sidewalks: With a few exceptions (noted in the map), all of the streets have sidewalks. The quality of the sidewalks does vary though. Along East Main, the northern edge has fairly narrow sidewalks that make walking somewhat uncomfortable. Kent State University recently developed new sidewalks and landscaping along the southern edge of East Main. Walking along many sections of Haymaker Parkway is not permitted, which makes access more difficult along this stretch.

Crosswalks: The western and northern edge of campus has a large number of crosswalks that are spaced in a fairly convenient manner. Crossing East Main in particular was enhanced by the development of three pedestrian islands a few years ago. Within the downtown itself, crosswalks appear to be plentiful. The biggest problem, not reflected in this map, is that many vehicles do not stop when a pedestrian is in the crosswalk. More signs, stronger enforcement, a change of grade, or some other mechanism would be useful in these instances. Along the southern and eastern edge of campus there are some problems as has been addressed in our previous report (Kaplan 2008).

Bike Lanes: One area that Kent has excelled at in recent years has been through the development of dedicated hike and bike trails. These are often based on existing trails or railroad beds and allow people to bicycle and walk without worrying about any motorized distractions. Actual bike lanes, which run along the sides of existing roads and can be useful for commuting, are not as common as they might be. The Esplanade, running through Kent State's campus and scheduled to connect with the downtown, and the bike lanes along Main Street are exceptions. There are also bike lanes further west on Fairchild some others planned east on Summit.

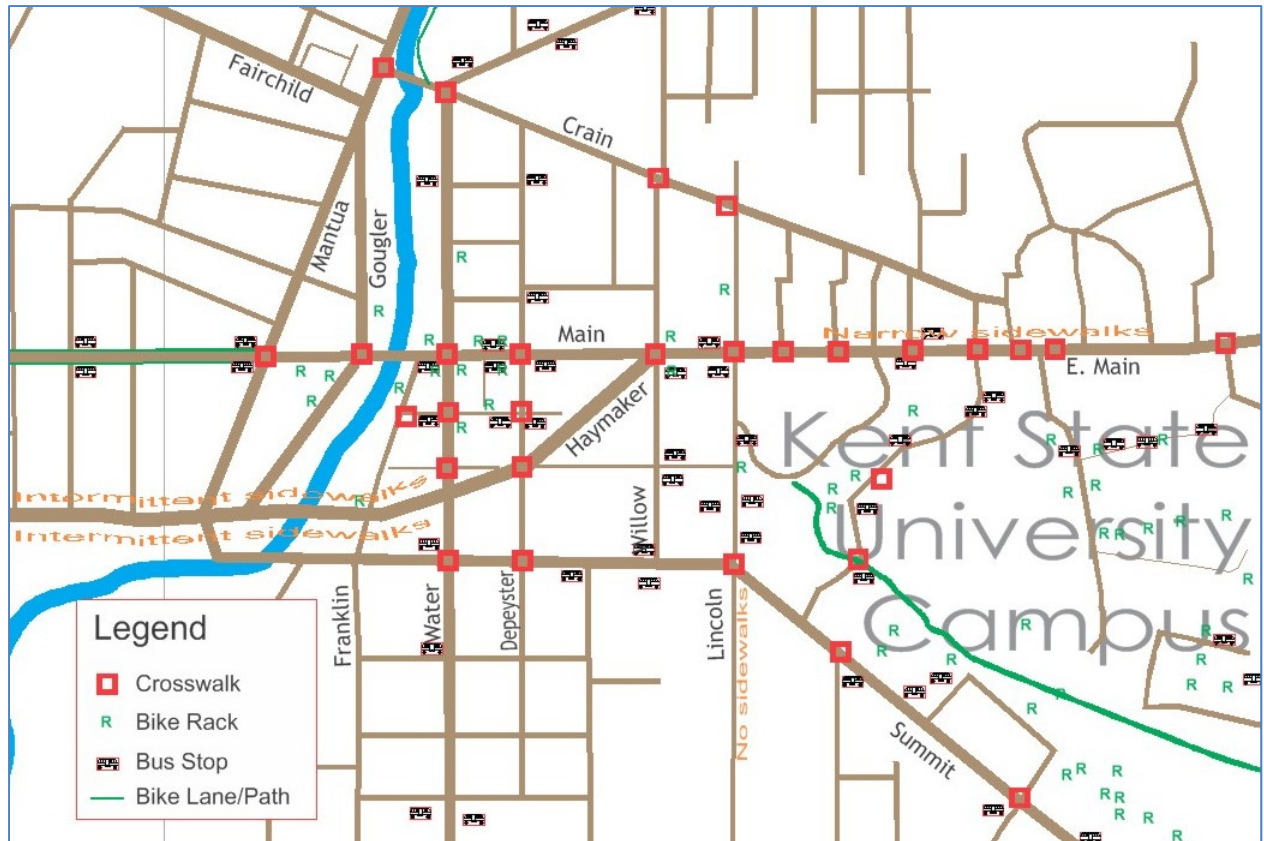


Figure 2

Bike Racks: Our inventory of bicycle racks, marked with an R on the map, shows good coverage in some areas. Still a large number of businesses do not have bike racks available right nearby. Although the coverage has improved in recent years, bike racks are sparse along Water, Franklin and Depeyster Streets.

Bus Stops: The coverage of PARTA bus stops was decent. Unfortunately these stops did not provide any information in the routes or on the schedule.

Measurement of Non-Vehicular Traffic

As with our 2008 study, we sought here to provide a measurement of non-vehicular traffic, for bicycles and pedestrians. Measuring vehicles can often be done effectively with a tube placed across the road, but measuring bicycles and walkers can be more difficult. In the 2008 study we outlined some of the issues involved in these measurements, which I can summarize below:

- 1) For pedestrians, one issue involves separating out those walking from parked automobile as well as those who are running/walking for recreation or fitness
- 2) Both biking and walking are heavily influenced by the weather conditions. Since these vary day by day and even within the day, we could not obtain comparisons where the weather was held constant. We conducted our counts in the Fall, prior to any bad weather and noted the weather conditions in our spreadsheets.
- 3) We had a fairly ambitious series of counts, and attempted to get counts both in the morning and early afternoon. The morning counts covered 9:30 am to 10:30 am and the afternoon counts covered 3:00 pm to 4:00 pm. Most of the days we counted were fairly pleasant but brisk, with temperatures from 38 to 60 degrees and only one period with light precipitation. For a variety of reasons, we were unable to complete all of the counts in Fall 2009 and so we also included counts from Fall 2010.

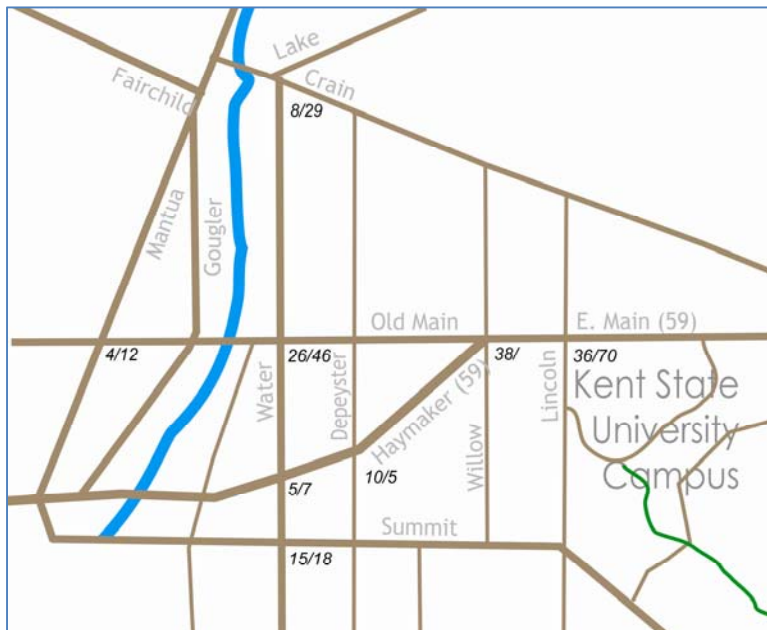


Figure 3: Pedestrian Counts

Figure 3 displays the pedestrian counts for both morning/afternoon. There are a few points to make about this map. The intersection of Main St. and Lincoln shows a lot of pedestrian activity, particularly in the afternoon. It is close to coffee shops and restaurants and near where several students also live. Just a block west, on the corner of Depeyster and Main, there is also fairly heavy morning traffic (we could not get afternoon traffic for

this one time spot). Another area of heavy traffic is at the corner of Main and Water, the central intersection of Kent, and a place where there are several amenities. Clearly downtown has a fair amount of activity even outside of the lunch hour and before happy hour. The pedestrian activity trails off however near Haymaker suggesting that there is little walking between the university and downtown. Likewise, there is not a whole lot of pedestrian activity in the neighborhood west of the river, near the library and a restaurant. On the corner of Water, Crain and Lake, walking in the afternoon spikes with high school students returning home.

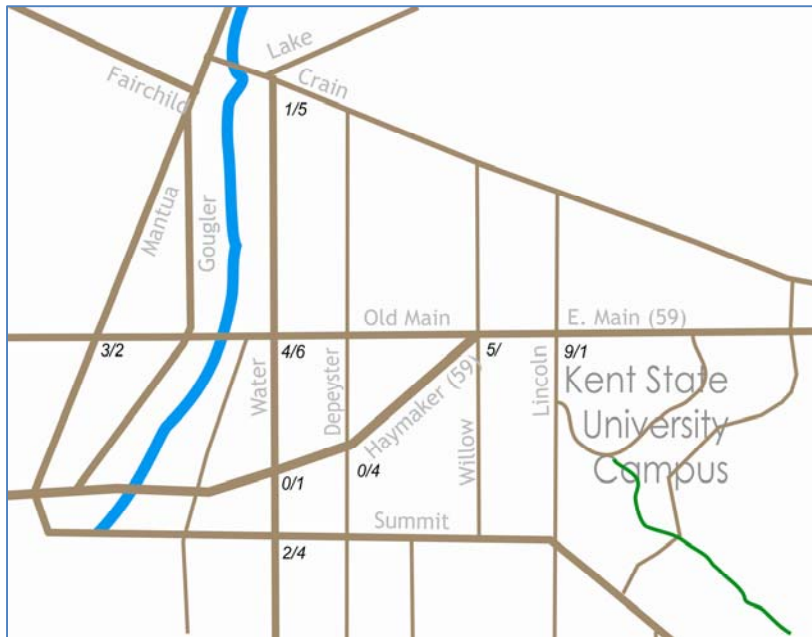


Figure 4: Bicycle Counts

Figure 4 shows the bicycle counts. There was some bicycle activity during the morning on Lincoln and East Main, morning/afternoon on Water and Main, and afternoon on Water/Crain/Lake. Otherwise there is not much evidence of bicycle activity. There were two Flashfleet bikes spotted on the corner of Summit and Water – for counts taken in Fall 2010.

Assessment of Resident Attitudes

Our 2008 study had sought to examine the behavior of students at Kent State. This was valuable information to gather and we felt confident in utilizing a web-based survey to capture a broad group of respondents. Each student has easy access to email and the internet. For this study, we wanted to look at the behaviors and attitudes of Kent residents. A web-based survey would have left out a large population of residents and would have skewed the sample in undesirable ways. A telephone survey, while solving the problem of bias, would have been prohibitively expensive with less opportunity to ask open-ended questions.

For this reason, we decided that we should utilize a mail survey. The mail survey is good when dealing with a relatively stable population (same addresses) and it is less expensive per respondent than a phone survey. But it does require a much greater amount of labor and the response rate can be fairly low. But this struck me as the best of all possible solutions.

We acquired 2000 names and addresses from the company USAData.com and mailed them out in March 2010 with a cover letter and an endorsement letter from Kent Service Director Eugene Roberts. From our 2000 mailed surveys, we had 136 returned due to a wrong address. Another 11 surveys were not applicable for the area we wished to study. A total of 369 surveys were returned providing a response rate of 20%. This is an excellent rate for mail surveys and probably reflects the interests Kent residents have in this survey.

Basic Demographic Information

In regard to some of the basic information, we feel comfortable with the breakdown of residents. We did capture a small number of students living in houses, but the percentages of declared students was only 3% and this did not necessarily point to Kent State students. The percentage of women and men is fairly even (Figure 3). The age distribution also reflects Kent's non-student population fairly well (Figure 4). In these data as in all data regarding Kent statistics, a comparison with US Census statistics would be misleading as the Census includes a large number of Kent State college students. There is a slight skew towards more elderly respondents with close to a quarter of the respondents over the age of 65. However, with an average of 52, it does allow for a nice breakdown between young adults (35 and under), young middle age (35-50), older middle age (51-65) and the senior population (over 65). The breakdown based on how long residents had lived in Kent demonstrated a very different distribution, with many more recent residents (Figure 5). All told, close to 38 percent of all non-student Kent residents have been in Kent 10 years or less whereas about 20 percent have lived in Kent between 10 and 20 years.

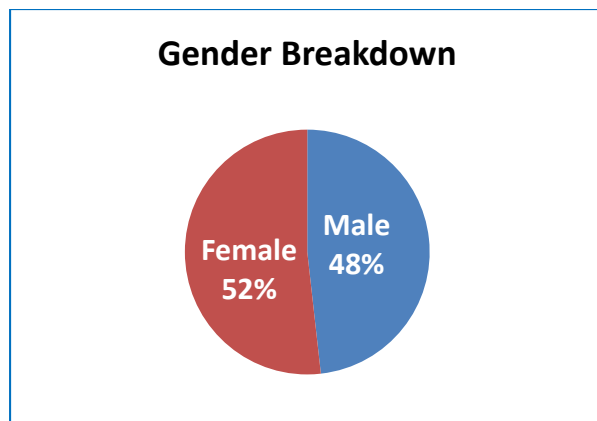


Figure 5

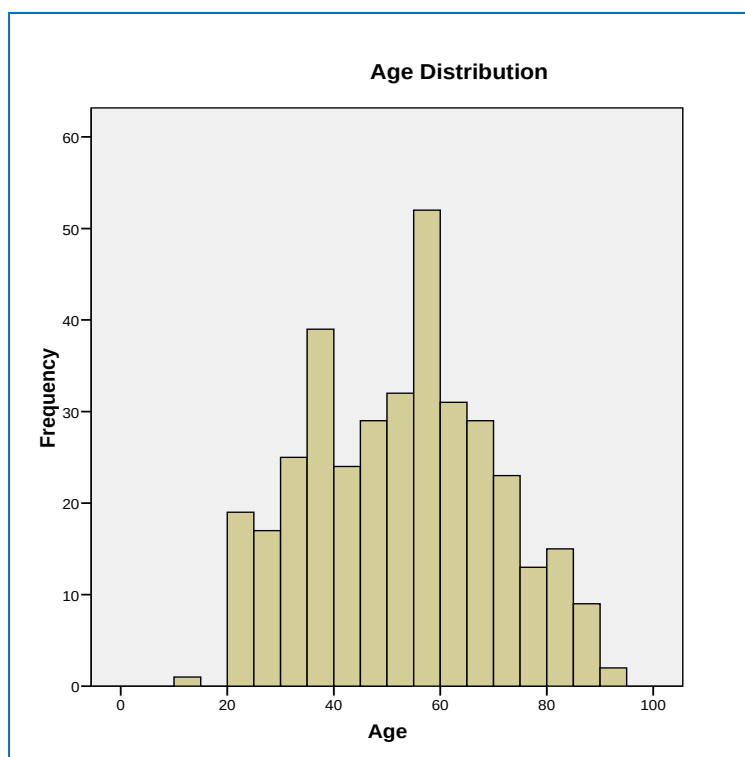


Figure 6

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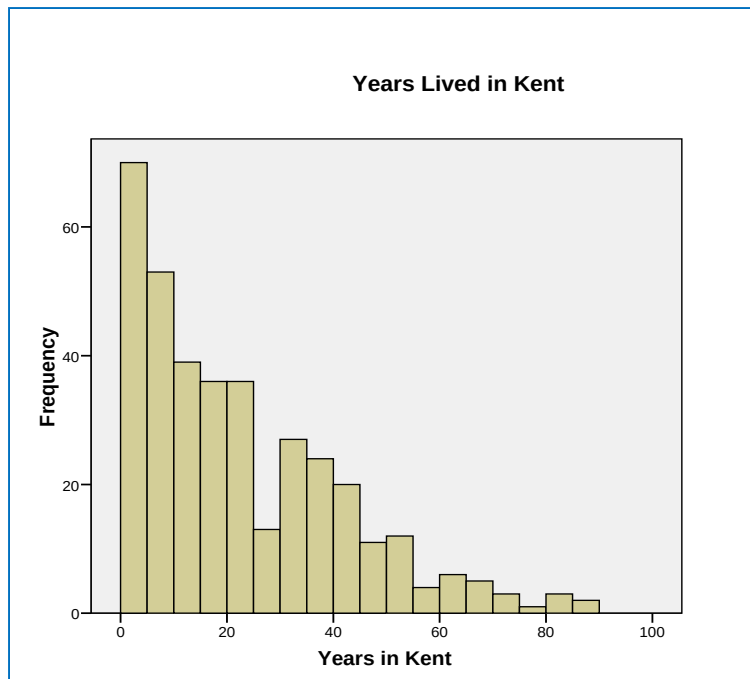


Figure 7

The final piece of demographic information relates to the workforce characteristics of the population. A little over half of the male and female respondents report full-time work. Close to a third say they are not looking for work, a group that is overwhelmingly over 65. Approximately 6 percent are unemployed, and the rest are distributed among the few students (mostly within the young adult population) and part-time workers.

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Table 1: Employment Status

	Not Looking	Unemployed	Student	Under 10 Hours	10-20 Hours	Full Time
Male	31%	8%	2%	3%	4%	53%
Female	30%	4%	4%	4%	6%	53%
35 and Under	5%	8%	12%	4%	4%	67%
36-50	8%	7%	2%	1%	7%	75%
51-65	24%	6%	0%	3%	5%	62%
Over 65	82%	1%	0%	6%	6%	6%

Transportation Behaviors

We separate the information gathered into actual behaviors and attitudes. 19 out of 20 respondents say that they either own a car or have access to one on a regular basis. As a result, only a sliver of the population is dependent on walking, biking, or busing to get around town. In terms of transportation behavior, most Kent residents use the automobile as the main mode of transportation. The other modes are split among the remaining ten percent of the population, with close to 5 percent reporting car-pooling, 2 percent

walking or busing, and less than 2 percent for biking. The car-pooling figure may be a bit deceptive since it appears that many “car poolers” may be getting regular rides from family members. Yet Kentites do utilize other forms of transportation on an auxiliary basis. Of the respondents, 43 percent said they would walk to get places. This is followed by bicycling and car-pooling. Surprisingly few Kent residents use the bus under any conditions, a large departure of from Kent State students who are regular users of the bus system.

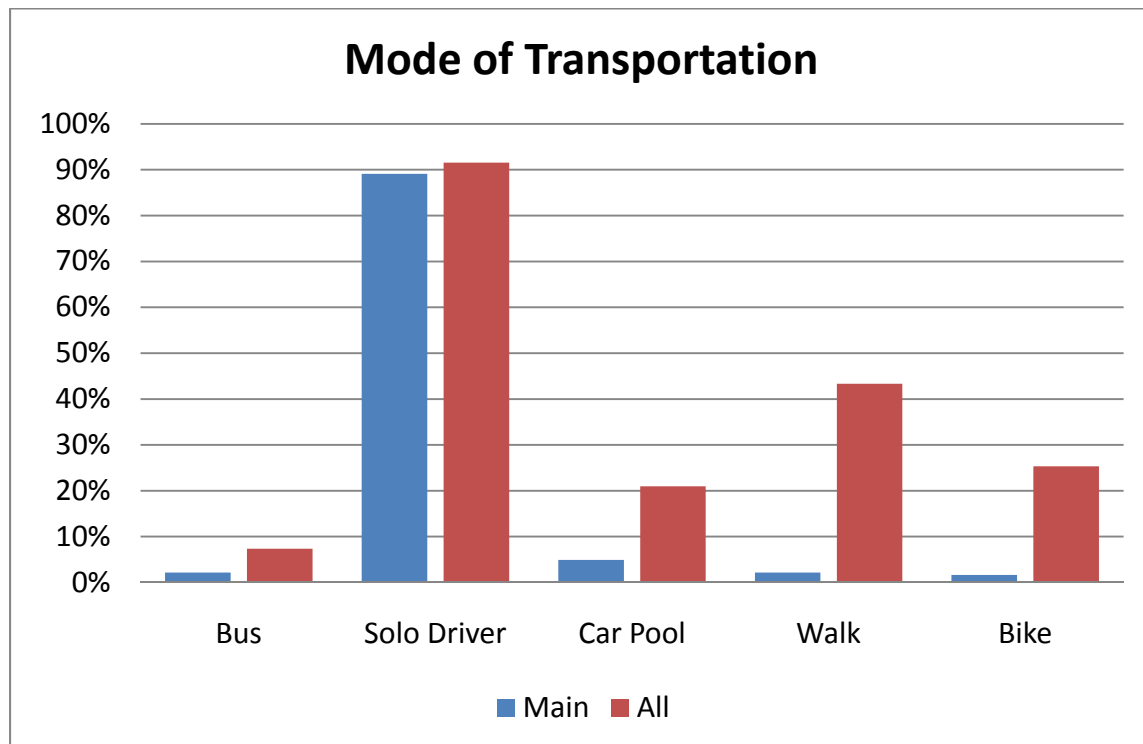


Figure 8

Part of the reason behind the high proportion of Kent resident relying on the automobile has to do with where they work, dine and shop (see Figure 7). The main factor driving transportation mode is workplace, and the data we received indicates that just about one-quarter of residents work within 2 miles of their home (a comfortable mileage for bicycling) and 15 percent work within a mile of their residence (a comfortably mileage for walking). Beyond 5 miles, both walking and biking become fairly impractical to all but diehard commuters and 58% of the population work more than five miles from their home.

The survey does uncover some interesting findings in regard to where Kent resident choose to shop and eat out. In this case, many people reported multiple places and all of these were noted. In indicating mileage, several respondents reported a range. In this case, I would take the midpoint in order to be able to use the response. Nearly half of all shopping takes place within two miles of the home, which bodes well for Kent’s retail potential and for the future of sustainable transportation. In fact, 50 percent of the respondents mentioned Kent as their shopping destination (multiple answers were

allowed), although Stow was mentioned by a few more (54%). Streetsboro was a distant third at 9 percent.

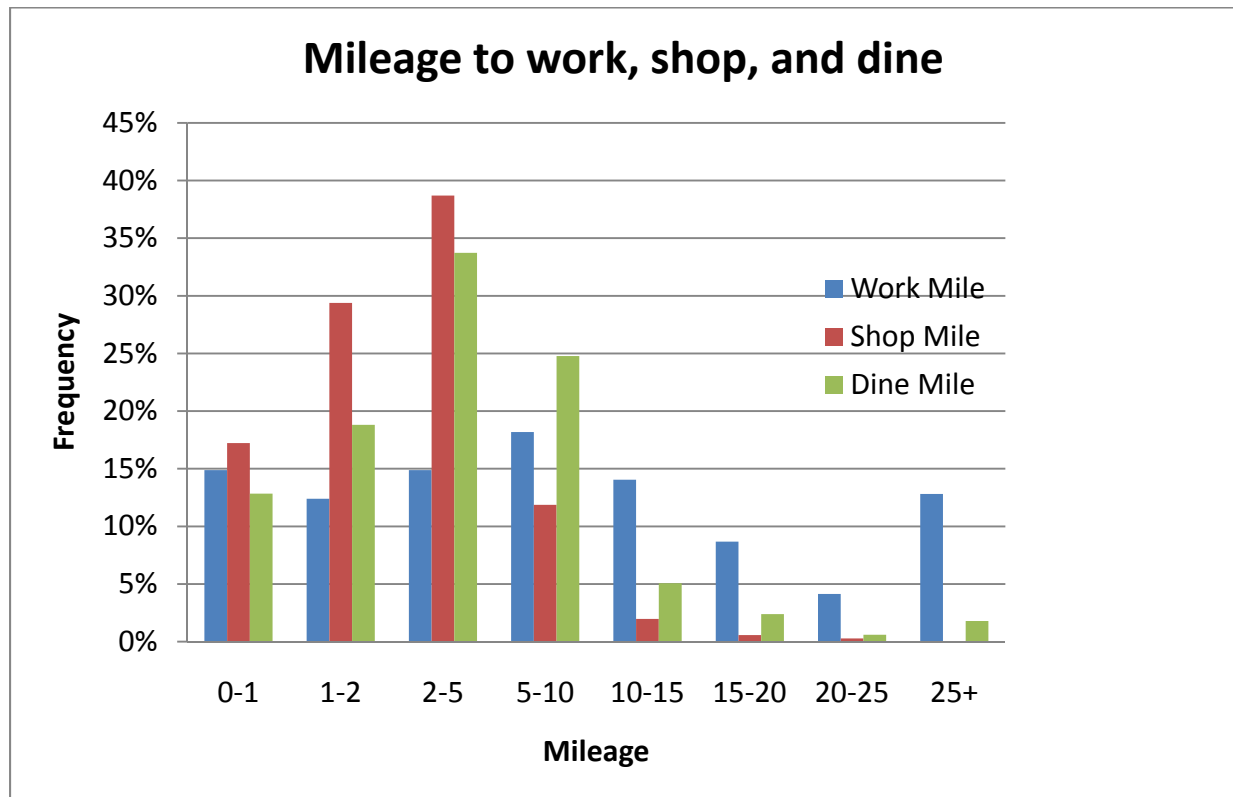


Figure 9

The figures for dining are similar to those for shopping. A few respondents indicated that they had no money to eat out. But of those that mentioned a city, Kent prevailed over Stow and Akron. But diners are also more inclined to venture farther afield and over a third traveled over five miles to eat out. One in ten even traveled over ten miles. Still the shopping and dining figures suggest a local proclivity among about half of Kent residents. However much of that shopping and dining activity takes place outside of Kent's downtown (Table 2). Only 12 percent say that they "often" eat or shop downtown. Most Kent residents, with the exception of those over 65, are likely to eat or shop downtown at least once a week. Table 3 shows that residents are looking for an improvement in stores and restaurants, with a few suggesting better parking opportunities.

Table 2: How Often Shop/Dine in CBD?

	35 and Under	36-50	51-65	Over 65	Total
Never	8%	3%	5%	9%	6%
Rarely	29%	35%	35%	44%	36%
Weekly	52%	49%	45%	38%	46%
Often	11%	13%	15%	8%	12%
Average	2.65	2.71	2.70	2.45	2.63

Table 3: Ideas to Improve CBD Number

Stores	90
Parking	47
Restaurants	36
Other	34
Renovate	12
Safety	11
Clean	11
Activities	9
Publicity	7

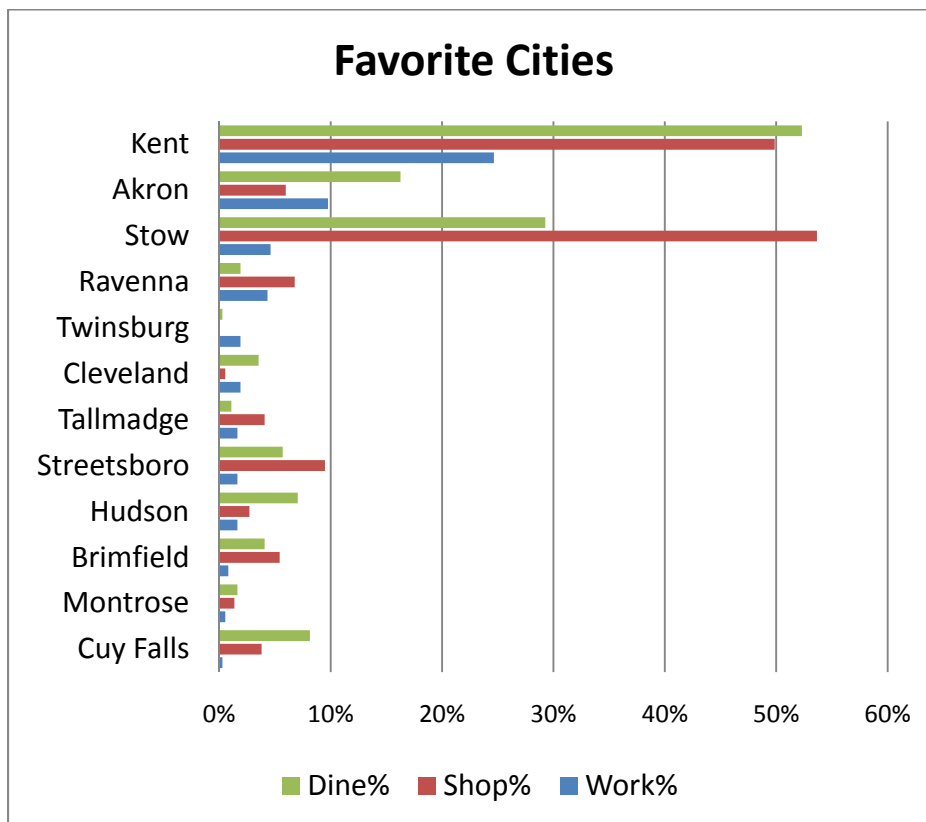


Figure 10

In regard to availability and use of bicycles and buses, the survey reports a mixed response. About two-thirds of Kent residents have a bicycle available; three-quarters of those in the two middle age groups. For more elderly people, the percentages drop but it is more surprising that fewer younger residents have a bike available. Since only about a third of the population under 65 uses a bicycle some of the time for transportation, there does appear to be some potential in getting more people to ride bicycles if there are better bike facilities and places that people can go on bicycle.

Table 4: Is a Bike Available?

	35 and Under	36-50	51-65	Over 65	Total
Yes	60%	72%	77%	34%	62%
No	40%	28%	23%	66%	38%

Bus use is much less utilized in general. There are a small percentage of people in Kent who use the bus as their main mode of transportation but less than one of ten residents use the bus at all. This is much different from the student responses, where about one-third of students report using the bus as a mode of transportation (Kaplan 2008). So beyond the transit dependent population, who likely rely on the bus, the use of buses is seen as a mostly student thing.

Table 5: How Often do you take Bus?

	35 and Under	36-50	51-65	Over 65	Total
Never	85%	93%	89%	99%	92%
Monthly	7%	2%	7%	1%	4%
Weekly	5%	2%	1%	0%	2%
Daily	0%	1%	2%	0%	1%
Constantly	3%	1%	1%	0%	1%

Transportation Attitudes

The survey elicited Kent resident attitudes towards various transportation choices. We asked about walking, biking, and busing. We also solicited attitudes about parking downtown and about what could be used to improve downtown as a destination. Finally we asked one questions regarding transportation policy. We offered both closed and open ended questions and so developed a fairly comprehensive sense of what residents think about transportation.

For pedestrian activity, which is second only to solo driving as a transportation choice, we asked first what prevented people from walking and for some ideas on how to improve walkability. The responses are in Table 6.

Table 6: What Prevents Walking?	Pct of Total	Ideas to Improve Walkability	Number
Weather	47%	Better Sidewalks	60
Time	31%	More businesses	40
Busy streets	30%	Snow removal	21
Snow Removal	27%	Clean up	16
Personal Safety	18%	Better crossings	14
Other	17%	Police/safety	14
Physical Limits	16%	Aesthetics	14
Inconvenient	13%	Other facilities	10
Too far	12%	Parking	9
Nothing	7%	Fewer Nuisances	8

Weather always appears as a factor impeding walking and biking. But there is not a whole lot that can be done about this in northeast Ohio. Walking also is seen as taking too much time or that things are “too far” or too “inconvenient”. These are a function of how many shopping and dining opportunities are available within a mile or so. Likewise, several respondents reported physical limitations.

Table 7: Would Better Sidewalks Affect Walking?

	35 and Under	36-50	51-65	Over 65	Total
Great Deal	42%	29%	23%	16%	27%
Somewhat	35%	34%	38%	21%	32%
No	23%	37%	39%	63%	41%

In regard to items that the city may have some control over, there is the issue of snow removal, mentioned by 27 percent of respondents and also mentioned in the open questions on ideas to improve walkability. Several people commented on the difficulty in walking on unshoveled sidewalks and clambering over piles of snow. Busy streets were indicated by a fair number of people and in open comments several mentioned the need for better sidewalks, cleaning up existing sidewalks, better and more crossings, and aesthetic considerations. These are all issues that could be resolved, but would require additional money and time. As to whether this might lead to more walking, the consensus was that it would at least somewhat, but it varied by age (Table 7). Many young adults thought it would make an enormous difference while elderly respondents were fairly negative about the prospect that it would change their behavior. Another concern shared by a few respondents, mentioned in both closed and open comments, was personal safety and a desire for a greater police presence.

For bicycling activity, we asked similar sets of closed and open ended questions. The results are in Table 8.

Table 8: What Prevents Biking?	Pct of Total	Ideas to Improve Bikeability	Number
Weather	36%	Bike Lanes	106
Busy Streets	33%	Bike Racks	35
Personal Safety	27%	Other	16
Time	22%	Safety	13
No bike	22%	Driver Awareness	8
Physical Limits	20%	Safer Crossings	6
No Bike racks	20%	Rental/ Bike Shop	3
Inconvenient	19%		
Other	13%		
Too Far	11%		
Nothing	2%		

As with walking, weather considerations were mentioned by the largest number of respondents. Others mentioned the lack of a bicycle, time considerations, physical considerations, or inconvenience. However, the response “busy streets” was the second most popular and in regard to steps the city could take, the development of bike lanes was by far the most mentioned. About one out of five respondents indicated a lack of bicycle racks and more bike racks was the second most mentioned improvement. This is probably the least expensive fix that can be accomplished.

More respondents than not thought that adding more bike lanes would have an impact on their bicycling activity (Table 9) Of those younger than 65, about one-third thought it would make a big difference, one-third thought it would make no difference, and one-third were in the middle. Those older than 65 were less likely to say that bike lanes would have an effect.

Table 9: Would More Bike Lanes Affect Biking?

	35 and Under	36-50	51-65	Over 65	Total
Great Deal	32%	32%	30%	10%	26%
Somewhat	36%	33%	36%	12%	30%
No	33%	35%	34%	78%	44%

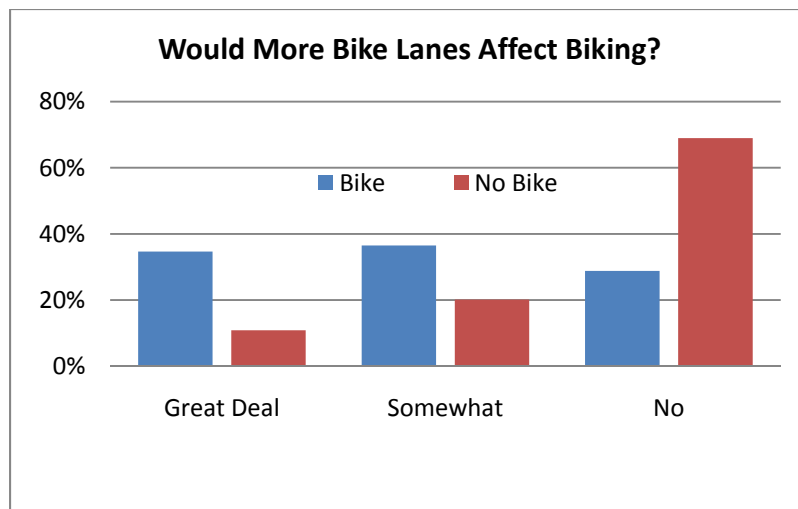


Figure 11

The division between bicycle owners and non-owners on this question is stark (Figure 9), since 71 percent of owners think bike lanes will make at least some difference in their biking habits, while 69 of non-owners believe it will make no difference.

Busing is the final transportation mode, and one that seems to find the least favor with many respondents. Buses are used by many fewer respondents than biking or walking, but those who do use it often need adequate bus service. Table 10 reports on some of the factors listed prevent people from taking the bus. The placement and scheduling of bus routes is listed. Some of the issues are probably easier to tackle than others. Clearly there is a desire for more understandable schedules and better publicity.

Table 10: What Prevents Busing?	Pct of Total	Ideas to Improve Bus Service	Number
Schedule Does not fit needs	28%	Better Routes	36
No Nearby Service	27%	Better Times	26
Don't Understand Schedule	25%	Better Publicity	22
Don't like bus	21%	Better Shelters	15
Worry about getting to right place	16%	Other	12
Other	15%	Better Fares	10
Infrequent Service	15%	Nicer Buses	4
Bad shelters	10%		
Bus too full	1%		

Another issue relates to the quality of bus shelters, mentioned by some respondents. Since we asked a specific question about this, tables 11 and 12 show the results. Overall two-thirds of our sample indicates that bus shelters would not make any difference, with young adults more open to it. But among the 10 percent who do use buses at least some of the time, there appears to be a great deal of support that better facilities will result in

greater use. The new multimodal center in downtown Kent will help prove whether this indeed makes a significant difference.

Table 11: Would Better Bus Facilities Affect Bus Use?

By Age	35 and Under	36-50	51-65	Over 65	Total
Great Deal	11%	11%	10%	4%	9%
Somewhat	30%	23%	25%	16%	23%
No	59%	67%	66%	80%	68%

Table 12: Would Better Bus Facilities Affect Bus Use?

By Bus Use	Never	Some or a lot	Total
Great Deal	5%	50%	9%
Somewhat	22%	34%	23%
No	73%	16%	68%

Table 13 asks whether people feel that parking is a consideration in going downtown. Two-thirds of respondents thought that parking was at least somewhat important, though people under 35 were less likely to consider it very important than the other age groups.

Table 13: Is Parking a Consideration Downtown?

	35 and Under	36-50	51-65	Over 65	Total
Great Deal	23%	37%	40%	38%	35%
Somewhat	44%	32%	32%	30%	34%
No	33%	31%	28%	32%	31%

The final question involved transportation policy. It was a general question related to how the city should deal with transportation. By and large Kentites are split down the middle as to whether transportation policy should emphasize vehicular traffic or whether it should emphasize bicycle and pedestrian traffic. There are some clear differences by age and sex however. Younger people and women are more likely to favor policies that emphasize sustainable transportation whereas older people prefer policies that favor vehicles.

Table 14: Transportation Policy Question

	35 and Under	36-50	51-65	Over 65	Male	Female	Total
Emphasize Vehicles	16%	24%	19%	30%	26%	17%	22%
Equal Focus	49%	48%	54%	55%	49%	55%	52%
Emphasize Bike/Ped	34%	29%	27%	15%	25%	27%	26%

Focus Group Summary

We convened our focus group on September 9, 2010. We had a total of 14 people who came to participate and the meeting lasted about two hours. Most of the participants did not work for Kent State University. A few more worked in Kent, but several other participants picked Kent because it was a nice place to live, it has good schools, the environmental amenities (bicycle trails) are attractive, and because of the bus system.

It should be noted that focus groups do not offer a representative sample of public opinion. Participants are likely to attend because they feel strongly about the issues involved. However, they do allow us to pick out specific items that at least some participants feel are important.

The conversation rested on two basic themes: the attractiveness of downtown and sustainable transportation. What follows are some responses to these two issues.

Resident reactions to downtown

Overall, most of the focus group members had a fairly positive impression of downtown. They felt that there had been a great deal of “progressive” thought in downtown development. They liked the existing mix of retail, especially its non-chain quality, some of the dining options, and the Kent Stage. They were happy about the improvements, particularly Acorn Alley.

A lack of nicer restaurants and ethnic restaurants was most cited as a deficit in the downtown area. Many mentioned the need for more outdoor patios. Also, participants wanted to see more basic retail: a grocery store, a bookstore, and a fair trade store. There was a sense that Kent should continue with community events, and that more community support and incentives would be desirable. Inebriated college students were cited as a problem, and some suggested a bus to get the students back home more safely.

Transportation came up in discussing downtown. Several attendees mentioned the lack of a natural flow from the university to the downtown, and were happy to hear that the Esplanade extension would help correct this. One participant suggested turning the downtown into a pedestrian mall. Reaction to parking issues was mixed, with some participants saying that Kent needed parking decks, better enforcement of two hour parking spots, better landscaping in existing parking lots, and more lighting. One participant suggested it was too easy to park downtown but a few mentioned that it was difficult to park close to where they wanted to go.

Sustainable Transportation

We had a long discussion on walking, biking and busing. In regard to walking, most participants walked at least some of the time, and the general consensus was that 1-2 miles was an okay distance to walk. Wintertime brought challenges of unshoveled sidewalks which all agreed impeded walking. Bad sidewalks, lack of interesting views, and terrible crosswalk enforcement were also mentioned as impediments. There was much discussion on the issue of crosswalks, and how Kent needed to instill more respect

for pedestrians. Among the suggestions: bigger pedestrian crossing signs, more aggressive ticketing for motorists who pass a crosswalk with a pedestrian in it, enforcement of jaywalking, and pedestrian bridges. There were also suggestions of walking maps to show people where they need to go. With enough pedestrian activity, it was felt the culture could change considerably.

About half of the focus group had access to a bicycle. One participant biked everywhere, but several of the participants were afraid of bicycling on Kent roads. They cited a lack of respect from motorists, a lack of bike lanes (as opposed to trails), a scarcity of bike racks, facilities at the work place, and better safety at night. Some mentioned that incentives should be given to people who bicycle. We also discussed the bike sharing program, and there was a desire to see this extended downtown.

The final discussion on busing was a bit more limited since most of the participants did not utilize the bus service. But within this, there were some complaints related to the fact that bus stops should be more visible with more information, the need for an evening Cleveland or Akron bus, a bus that goes to Stow, and especially the importance that the buses adhere to their schedule. Better advertising of schedules was also cited as helpful.

Summary of Findings

Several findings emerged from this study. Among the most significant are the following:

- Solo automobile commuting prevails among residents of Kent. Many residents walk or bicycle some of the time, but rarely as a main mode of transportation.
- Our inventory of the Kent downtown and near campus areas indicates that there is a fair amount of infrastructure to promote bicycling, busing, and walking. There are many good facilities and infrastructure within the campus itself, highlighted by the east-west Esplanade. But the connections between campus and the surrounding community are sporadic. There are few bike lanes, and even some of the sidewalks are intermittent. Crossing can be difficult in spots. Focus group participants mentioned a lack of flow between campus and downtown.
- Actual pedestrian traffic patterns show fairly robust activity on Main between Lincoln and Willow. There is also a fair amount of pedestrian traffic in the downtown intersection of Main and Water. Activity across Haymaker and Mantua/Main is fairly sparse. The previous study (Kaplan 2008) indicated that the pedestrian islands on East Main were remarked on favorably.
- While two-thirds of Kent residents have a bicycle available, bicycle usage is low across the board. There is little observed traffic and the greatest spotted activity was nine bikes in the space of a morning hour at Main and Lincoln.
- In reporting on resident behaviors, nine out of ten report solo driving as their main mode of transportation, with a solid minority reporting that they sometimes walk (about 40%) and sometimes bike (about 25%). Few residents use the bus.
- While distance to work varies a great deal among residents, many residents prefer to shop and dine in Kent, though much of that activity takes place outside of downtown. Survey and focus group participants called for more types of retail and restaurants
- The weather was cited as a large factor impeding walking and biking. In regard to items the city may have some control over, issues mentioned included snow removal, better crossings and sidewalks, more bike lanes, and driver awareness. Most pedestrians felt that better sidewalks would increase their walking and more bike lanes would increase their use of bicycles.
- While few residents use buses, there is a population of people who depend on them and use buses a great deal. Among these folks, better bus shelters would be most welcome.
- Residents seem fairly split on whether transportation policy should favor vehicular or sustainable transportation, with some difference by age. In general, it appears that younger adults are more open to the use of sustainable transportation than those who are older. I cannot determine whether this is a matter of age, or a true generational shift.

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Appendix 1: Spreadsheet of Counts

Intersection	ID	Date	Time	Weather	Vehicle Traffic Density	Ped- estrian	Biker	Comments
Lincoln and Main	MD	11/6/2009	9:30 to 10:30	Sunny 38	Steady	36	9	None
Lincoln and Main	SM	11/16/2009	3:00 to 4:00	grey overcast and 40s	heavy	70	1	ambulance and cop
Water and Main	MD	10/23/2009	9:30 to 10:30	Intermittent Sprinkle 56	Light	26	4	None
Water and Main	SM	11/2/2009	2:00 to 3:00	gray overcast	steady	46	6	one scooter
Summit and Water	MD	10/28/2009	9:30 to 10:30	Cloudy/Misty 51	Steady	15	2	None
Summit and Water	MP	10/22/2010	3:00 to 4:00	sunny, 60's, clear skies	heavy	18	4	2 FlashFleet bikes, one ambulance
Mantua and Main	MP	10/21/2010	9:30 to 10:30	50, crisp with clear skies	steady	4	3	2 people with dogs, 1 motorcycle, 1 moped
Mantua and Main	MP	10/30/2010	3:00 to 4:00	50s clear skies	steady	12	2	none
Water and Crain	MD	10/30/2009	9:30 to 10:30	Cloudy 57	Light	8	1	Peds don't appear to be students
Water and Crain	MP	10/27/2010	3:00 to 4:00	Sunny, windy 60s	steady	29	5	Many students (high school) walking home, 2 motorcycles, 2 pedestrians with dogs
Depeyster and 59	MD	11/13/2009	9:30 to 10:30	Sunny 45	Light	10	0	None
Depeyster and 59	MP	10/28/2010	3:00 to 4:00	overcast, 50s	steady	5	4	none
Water and 59	MP	10/28/2010	9:30 to 10:30	50s cold, sunny, windy	steady	5	0	no buses, 3 motorcycles
Water and 59	MP	10/29/2010	3:00 to 4:00	50s clear and cold	steady	7	1	none
Haymaker and 59	MD	10/21/2009	9:30 to 10:30	Sunny 52	Heavy	38	5	None
Haymaker and 59	MD	10/21/2009	3:00 to 4:00					

Appendix 2: Survey Questions (about 30 simple questions)

1. What street and block do you live on (address is fine)?
2. What is your age?
3. How long have you lived in Kent?
4. What is your gender?
5. Are you currently employed?
6. If you have a job, about how far (in miles) do you travel to work/school one way? (e.g. ½ mile, 1 mile, 2 miles etc.)
7. What city or community do you work in?
8. About how far (in miles) do you travel to shop for basic items such as groceries? (e.g. ½ mile, 1 mile, 2 miles etc.)
9. What city or community do you frequently shop in?
10. About how far (in miles) do you mostly travel to eat out? (e.g. ½ mile, 1 mile, 2 miles etc.)
11. What city or community do you frequently dine out in?
12. Do you own or have a car available to use around Kent?
13. What modes of transportation do you use? (check all that apply)
14. What is your main mode of transportation (use more often than others)?
15. Do you own or have access to a working bicycle?
16. If you are within a mile of your destination, what prevents you from walking in Kent? (Check all that apply)
17. Would better sidewalks and crosswalks alter your walking frequency?
18. How can Kent make it more attractive for people to walk within town?
19. Is parking a consideration when you use downtown businesses?
20. If you are within 4 miles of your destination, what prevents you from biking in Kent? (Check all that apply)
21. Would more bicycle trails and adding bike lanes to roads alter your biking frequency?
22. How can Kent make it more attractive for people to bicycle within town?
23. How often do you take a bus?
24. What prevents you from taking a bus to get to where you need to go? (Check all that apply)
25. How can PARTA make it more attractive for people to take the bus?
26. Would better bus facilities alter the frequency by which you take the bus?
27. How often do you now shop or dine in nearby businesses in the downtown area (except bars)?
28. What (if anything) can the city of Kent and Kent State do to make it attractive for people to frequent nearby businesses and downtown (except bars)?
29. Do you think that as a matter of policy, the city of Kent should put more emphasis on expanding and fixing streets for vehicles or should place more emphasis on sidewalks, crosswalks, and bikeways for pedestrians and bicycles?
30. If you would be willing to participate in a focus group, please leave your name and email below: