

The Madison County Walkability Final Report

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Executive Summary

In May and June 2017, Berea College's Entrepreneurship for the Public Good Program participants completed a set of ten Community Walkability Studies across five Kentucky counties as part of a partnership between the National Park Service, Friends of the Boone Trace, and the Madison County Health Department. The Community Walkability Surveys were completed through the use of a Walkable Community Checklist developed by the Pedestrian and Bicycle Information Center, which is a US Department of Transportation site run by University of North Carolina.

The Walkable Community Checklist assessed four main components associated with a walkable community from the perspective of the walker (see Appendix A) how easy the walk was, the variety of places the "trained walkers" (the respondents) saw or could get to during the walk, and how easy the street was to cross; observable driver behavior; how enjoyable or pleasant the walk was; and how easy it was to follow safety rules. This report summarizes the findings and conclusion for Madison County.

The findings have been shared with local and regional decision-makers such as mayors and judge executives in each county, Kentucky regional development districts, and county health department staff. The findings have also been shared with citizens groups that work towards making their municipalities more walkable. Each of the communities have a relationship with the multi-state, multi-county, and multi-use Daniel Boone Trace Trail. It is hoped that these decision-makers will be able to use this local data to support budget and policy decisions that improve the built environment to better support residential walking and cycling on corridors and spurs aligned with the Daniel Boone Trace Trail.

The most common potential built environment and infrastructure changes that respondents commented on included: sidewalks -- ensuring sidewalks are in good repair on both sides of streets, streetscape -- improving the condition or type of shops and businesses that people can walk to, street furniture -- adding places for pedestrians to rest along walking routes, safety -- improving safety of walking routes by using traffic calming methods, and street lighting -- improving street lighting for visibility and safety of pedestrians.

By combining municipal data with other local data collection procedures such as traffic studies, Madison County municipal decision makers can better quantify their citizen's support for infrastructure changes that could help reduce barriers that make it difficult for residents to walk to many local destinations. The intention of the Madison County Walkable Final Report is to provide directly applicable data that decision makers in the area cities can consider during prioritization of infrastructure projects. Furthermore, continued promotion and use of the Community Walkability Checklist by residents will provide a growing pool of data that will show community support for walkable communities along the Madison County and those segments of the Daniel Boone Trace Trail located in the County as well as the areas of the respective build environments that are perceived to need improvement.

The checklist may also help to build awareness about the importance of walkable communities, physical activity in general, and build positive attitudes towards the idea of walkable communities.

Background

Some commentators and decision-makers have long assumed that biking and walking are strictly a “big city” phenomenon, and that rural America can’t benefit substantially from bicycling and pedestrian infrastructure (Knowles, et. al. 2011, Maher, 2009 and Myers 2009). Previous research has found that rural Americans walk and bicycle at 58 percent of the rate that urban Americans do (Pucher and Renne, 2005). However, the most recent data from the U.S. Department of Transportation (DOT) tell a different story. For some categories of rural communities, active transportation—human-powered mobility, which includes biking and walking—is as common as in urban areas. The share of work trips made by bicycle in small towns is nearly double that of urban centers, and biking and walking count as significant means of transportation across the countryside. In coming years assuming it continues to grow, active transportation can play an even bigger role in making small town America more attractive for young families and business investment—improving economic vitality, public safety and overall health in smaller communities in every U.S. region.

Growing evidence from across America documents the beneficial effects of walking and biking. People who live in communities where it is safe and convenient to engage in active transportation enjoy better overall health (Rodriguez, 2009; Pucher, et al., 2010), greater economic opportunities (Rails-to-Trails Conservancy (2007a), a cleaner environment (Rails-to-Trails, 2007b) lower energy bills (Cortright, 2008), and numerous personal and social gains associated with a strong sense of community (Rogers, et al. 2011).

Physical activity has been associated with a risk reduction for premature death and a number of chronic diseases. Estimated risk reductions between the most active and the least active groups are substantial, i.e., about 30 percent for all causes of death; 20–35 percent for cardiovascular disease, coronary heart disease and stroke; 30–40 percent for type 2 diabetes; about 30 percent for colon cancer; about 20 percent for breast cancer; a reduction of the risk of mortality by 10 percent; and cardiovascular diseases reduction by 16 percent for people who walk 3 hours per week (Physical Activity Guidelines Advisory Committee, 2008; Kelly et.al., 2014; Oja, 2011; Saunders et.al., 2013; and Woodcock, et.al., 2011). Unfortunately, most people think these advantages apply only to metropolitan areas. The belief is that low-density communities such as small cities, towns and rural areas will never sustain more than a few walkers and bike riders.

As part of efforts to establish walkable communities as the social and cultural norm, the Madison County Health recommended the Daniel Boone Trace Trail Walkability survey be adopted by the Friends of the Boone Trace to fulfill the requirements of the National Park Service. The Walkability Survey was adapted from the Community Walkability Checklist from the Pedestrian and Bicycle Information Center, which is a US Department of Transportation site administered by University of North Carolina. The checklist contains information designed to raise awareness about walkable communities and their associated health benefits. Perhaps most importantly, it provides a means for “trained walkers” to identify infrastructure strengths and weaknesses regarding the walkability of the local neighborhoods. The purpose of this investigation is to summarize the compiled data collected to date to identify existing support for walkable communities as required by the NPS as well as to identify those areas in need of improvement. The data was taken from observational checklists returned by “trained walkers” within each of the ten communities/municipalities between May and June 2017.

The report may be of interest to Madison County decision-makers such as mayors, judge executives, regional planning districts, health departments and staff. It is the hope of the members of Boone Trace Project that these decision-makers will be able to use this local data to support budget and policy decisions that improve the built environment, which in turn will better support walking and cycling. This report will also be shared with citizens groups that work towards making their cities more walkable.

Data Collection and Analysis

Data Collection Tools

A Walkability Checklist was developed with support from the Madison County Health Department. The Madison County Health Department implemented a formative evaluation of the tool to determine if the checklist was an effective tool for raising awareness amongst the public and elected officials about walkability in their neighborhoods. Formatting changes were made to the checklist following this formative evaluation to make it easier to use. The checklist was designed to measure four main categories associated with a walkable community: ease of use, driver behavior, enjoyment, and safety rules.

To measure how a locality rated regarding the individual categories, the checklist consisted of a few questions that aimed to capture the “trained walkers’” opinions about the various aspects that make up each individual topic. The checklist was photocopied and distributed to each set of trained walkers, who then mapped their assigned locality and included the map with the completed checklists.

Data Collection Procedures

Two groups of “trained walkers” were deployed for this research. Dr. Derek Holcomb, Recreation and Parks Department, Eastern Kentucky University, served as the supervisor for Joseph Caldwell. Dr. Holcomb and Joseph Caldwell designed an online survey on SurveyMonkey.com for the Richmond Kentucky community in the spring 2017. Dr. Peter Hackbert, a Berea College faculty member recruited “trained walkers” as members of the Entrepreneurship for the Public Good Program.

The “trained walkers” were introduced to the checklist through the Safe Routes to School Program administered by the Madison County Health Department in May 2017. The campaign activities was designed to create a general awareness about the elements that support or prevent walking in an individual’s locality and encouraged civic leaders to gather this data using the checklist. Trained walkers participated in the three step training program. First, 81 residents were encouraged to reflect on a 15 minute walk to visit a destination such as a campus building, store, business, school or friend’s home. After reflecting on the walk, student-residents were encouraged to complete the checklist to identify what could be done to make that area more walkable. After completing the checklist, student-residents were encouraged to rate their walk by adding together the number of items they checked off. Student-residents were instructed to complete the checklist after walking in either the City of Berea or the City of Richmond within Madison County.

Second, a group of 20 student-residents were selected and qualified as “trained walkers” to provide a description of the walkable areas near where they resided and survey various zones in the City of Berea. The combined checklist and maps were reviewed for details, consistency and cross validated with observations of other residents. The data from the checklists were stored in a searchable database that

was exported to Excel and compiled for analysis. Walkers observed the area and drew a local map of the assigned areas.

Third, data from the survey and checklists were added to the SurveyMonkey.com spreadsheet by a research assistant and Andrew J. Farrey, Madison County Health Department analyzed the data and developed the graphs.

Limitations.

Before discussing the implications of the findings and suggestions for the future, the limitations of the checklist and method of data collection are addressed.

First and foremost, there are some limitations regarding the method of data collection used. Due to resource constraints, it was necessary to implement a method in which the completion and submission of the checklist was left to the responsibility of the individual who received the checklist. As such, the data collected is subject to selection bias. The individuals who completed and submitted the checklists may represent a population that has a greater interest in the walkability of their locality than the general population, or may have a specific infrastructure need that they want addressed. In addition, some respondents may have participated simply because they wanted to earn a good grade in the summer school session. Therefore, the method of data collection resulted in a relatively small sample size and the nonrandomized method of data collection produced data that more than likely does not accurately represent the thoughts and opinions of all Madison County residents. Consequently, this data cannot be generalized beyond the population. In addition to the data collection method, there are also limitations with the checklist itself that should be addressed.

The checklists were completed in daylight, and the checklist does not include questions that ask the date and time of day (i.e., am or pm) a respondent took their walk. Without this deeper context, this information does not provide sufficient information to pinpoint exact walking conditions for the respondent such as weather conditions and amount of daylight. These factors could influence some of the responses by the walker, such as the number of people seen and whether the path was well lit. Therefore, caution should be taken when reviewing these responses. Finally, the checklist is designed for use in urban and suburban areas and the downtown or core areas of rural communities. Therefore, infrastructure changes referred to in this report are not intended for all sections of rural areas. While there are limitations to the data collected, it provides a starting point for identifying existing community support for walkable communities as well as areas in need of improvement.

Results

The following data indicates overall responses from the 354 respondents within Madison County. The result a graphs and response distribution are found in Appendix B. The Madison County Survey Checklist and map are found in Appendix C.

Question 1 – Respondents were asked to rate the question: Did you have room to walk? Forty-eight percent of the respondents checked “yes”, and no problem to question of room to walk; 28% of the respondents reported that the sidewalks start or stop abruptly; 27% of the respondents reported that the sidewalks were broken or cracked; 9% of the sidewalks were blocked by poles, signs, bushes, dumpsters, etc.; 11% reported no sidewalks or shoulder or paths at all; 8% of the respondents reported

that there was too much traffic; and 3% of the respondents reported that something else prevented room or walk.

Question 2 – Respondents were asked to rate the experience with the topic from the previous question: Did you have room to walk? On a scale of 1 to 6 with 1 being poor and 6 being excellent, 4.3 percent of the respondents rated the experience as poor; 25% of the respondents rated the experience as needed many improvements; 26% rated the experience as needs some improvements; 25% of the respondents rated the experience as good; 14% of the respondents rated the experience as very good; and 6% the respondents rated the experience as excellent.

Question 3 – Madison County residents were asked: Was it easy to cross street? Forty-four percent of the respondents rated that it was no problem to cross the street. Five percent of the 353 respondents rated the road as too wide; 35% rated that the trafficked signals made the respondents wait too long or did not give the respondents enough time to cross the street; 16% of the respondents rated that the streets needed stripped crosswalks or traffic signals; 10% percent reported that parked cars blocked the respondents view of traffic; 3% of the respondents reported that trees or plants blocked the respondents view of traffic; 4% of the respondents reported that the street needed curb ramps or ramps needed repair; and 4% rated something else.

Question 4 – Respondents in Madison County were asked to rate the ease to cross the street and to expand on the ease to cross the street on a scale of 1 to 6 with 1 being poor and 6 being rated excellent. Three percent rated crossing the street as poor; 19% of the respondents rated crossing the street as needs many improvements; 29% of the respondents rated crossing the street as needs some improvements; 30% of the respondents rated crossing the street as good; 12% of the respondents rated crossing the street as very good; and 7% of the respondents rated crossing the street as excellent.

Question 5 – Three hundred and fifty Madison County respondents responded to the question: Did drivers behave well? Thirty-five percent rated the Madison County drivers presented no problem. The 350 respondents expanded on how well the drivers behave in Madison County. Eleven percent rated that drivers backed out of driveways without looking; 33% rated that the drivers did not yield to people crossing the street; 17% of the respondents rated that drivers turned into people crossing the street; 38% of the respondents rated the drives as driving too fast; and 27% of the respondents reported that driver sped up to make it through a traffic light or drove through traffic lights.

Question 6 – Three hundred and twenty-five Madison County respondents expanded on the experience of driver behavior in Madison County. On a scale of 1 to 6 with 1 being poor, 7% of the respondents reported no problem with driver behavior; 22% of the respondents reported that driver behavior needs many improvements; 37% of the respondents reported that driver behavior needs some improvements; 24% of the respondents reported that driver behavior was good; 7% of the respondents reported that driver behavior was very good; 7% of the respondents reported that driver behavior was excellent.

Question 7 – Three hundred and forty-eight Madison County respondents responded to the question: Was the walk pleasant? Fifty-eight percent of the respondents reported no problem when asked to rate the pleasantness of the walk. Nineteen percent of respondent rated that the pleasantness of the walk needed more grass, flowers or trees; 12% of respondent rated that the pleasantness of the walk experienced scary people and 3% scary dogs; 19% of respondent rated that the pleasantness of the walk was not well lighted; 15% of respondent rated that the pleasantness of the walk was dirty, with lots of

litter or trash; and 6% of respondent rated that the pleasantness of the walk experienced dirty air due, to automobile exhaust.

Question 8 – Three hundred and twenty-one respondents expanded on the rating of the pleasant experience of the walk on a scale of 1 to 6 with 1 being poor. Three percent of the respondents rated the pleasantness as poor; 15% of the respondents rated the pleasantness as needed many improvements; 21% of the respondents rated the pleasantness as needs some improvements; 30% of the respondents rated the pleasantness as good; 20% of the respondents rated the pleasantness as very good; and 11% of the respondent rated the pleasantness as excellent.

Question 9 – Three hundred and forty-seven to 349 Madison County respondents rated the question: Was it easy to follow safety rules? Eighty-five of the respondents rated that they could cross at crosswalks or cross the streets where they could see and be seen by drivers; 95% of the respondents reported that they stopped and looked left, right and then left again before they crossed the streets; 78% of the respondents walked on the sidewalk or shoulder facing traffic where there were no sidewalks; and 83% crossed with the light.

Question 10 – Three hundred and fifty-three Madison County respondents were asked to select from the map of Madison County where they usually walked or where they collect the walkability observations. Five percent were from Zone 1; 68% from Zone 2 which include Eastern Kentucky University; 3% from Zone 3; 3% from Zone 4 including western Berea; 20% include eastern Berea and Berea College from Zone 5; and less that 1% from Zone 6.

Discussion

A return rate of over 350 checklists using trained walkers suggests a positive informed response to the Madison County Walkability Survey. The data supports municipal and regional efforts to compile data on existing support for walkable communities and areas in need of improvement in Madison County. The discussion that follows provides some suggestions based on the data that was summarized above.

Given 52% of Madison County respondents indicated one of several problems with the room walk and 54% of the respondents rated the experience a poor, needs many or some improvements. These percentages on the “room to walk” would suggest that much can be done to improve this aspect of the built environment to increase pedestrian access to existing walkability infrastructure, subsequently increasing walkability and physical activity within communities. Research indicates that people cite lack of adequate sidewalks as a barrier for allowing children to walk to school (Ahlport, 2008). According to a study published in the American Journal of Preventative Medicine, “...the biggest single factor influencing physical activity around the world is accessibility to sidewalks,” (Sallis, 2009).

While 54% of Madison County respondents rated that it was no problem to cross the street, however, 51 percent of the respondents described that in the walk across the street the experience as poor, needs many or some improvements. Thirty-five percent of the respondents rated the Madison County drivers as presenting no problem when asked if drivers behave well. The explanations of the driver behavior identified specific actions that could contributed to a safer perceived Madison County environment.

Fifty-eight percent of the respondents reported no problem when asked to rate the pleasantness of the walk offering specific actions to improve the pleasantness of the walking experience. Eighty-five percent

of the respondents rated that they could cross at crosswalks or they could cross the street where they could see and be seen by drivers. Further, the specific expanded indicators of the respondents rating on “room to walk,” “ease to cross the street,” “driver behavior,” and “the pleasantness of the walk” would suggest that much can be done to improve build environment to increase pedestrian access to existing walkability infrastructure, subsequently increasing walkability and physical activity within communities.

More recently, streets where walking is safe and easy are streets where businesses usually thrive. A number of studies have confirmed this conclusion over the last several years. The Australia’s Heart Foundation concludes that making streets more walking and cycling friendly will: increase retail rental values, increase sale prices of nearby homes, significantly increase pedestrian cyclist activity, generate more business and stimulate the local economy, revitalize 'drive-through' districts into lively places that people want to visit, encourage people to spend time outside of their homes and reduce noise level (Tolley, 2011).

Some rural and city planners and health officials have assumed that only millennials and Generation X prefer walkability and rural living for all the right reasons: social cohesion and community, better access to entertainment, services, and jobs. So why is it assumed that older Americans and senior citizens, who also value connectivity, community, and healthy living, wouldn’t prefer the same living arrangement? A recent survey of older American reveals that they value walkable centers. The survey asked 1,000 respondents nationwide about their living preferences, and a majority said it was very important or somewhat important to live in a walkable neighborhood, as well as one with low crime that was close to family (Sisson, 2017). Furthermore, not only is walkability of value to people with a wide range of ages and incomes, it’s also important to stress that walkability doesn’t only benefit people who walk. It also means destinations closer together, safer sidewalks, and intersections that are easier to cross—all of which also benefit people who use wheelchairs, walkers and other mobility aids, as well as vision-impaired people.

Recommendations

Use of local data

This community walkability data collected from completed Madison County Walkable Survey combined with other local data collection procedures such as traffic studies can help the Madison County decision makers to prioritize infrastructure projects. The results can serve as a guide for what Madison community residents are concerned about and they would like to be improved within their communities in general. Design changes that seem to require the most attention include ensuring sidewalks are in good repair on both sides of streets, improving the condition or type of shops and businesses that people can walk to, adding places for pedestrians to rest along walking routes, improving safety of walking routes by calming traffic, and improving overall lighting along walking routes.

Madison County has begun its commitment to invest in good places to walk. However, Madison County and the communities of Berea and Richmond have not designed and committed to a complete network that supports people comfortably walking and bicycling throughout the Madison County communities. A Madison County Network (MCN) is envisioned as an interconnected pedestrian and/or bicycle transportation network that create safe, comfortable, and accessible multimodal routes for people walking and bicycling. The MCN may comprise of varying facilities that appeal to a range of ages and

abilities, such as shared use paths, sidewalks, and bike lanes. These facilities also provide equitable transportation for people of all income levels.

As Madison County health planners and civic engineers think creatively they too may envision a future to establish connected facilities within the local communities, and consider how all roadway types and independent connections can be used to create access to key locations. A MCN is not developed by a single trail, sidewalk, or bike lane but is comprised of many facilities that support walking and bicycling throughout the community. Connections near schools should provide increased separation of walking and biking facilities that are more appropriate for younger users. Highlighting the multiuse trails that a popular to residents within the City of Berea Trail Town system motivates connections and multimodal routes. Rural cores throughout Madison County should support walking and biking on main commercial corridors and main streets. As the street transitions out of the core area, the MCN facility design could accommodate people walking and biking differently than current practices. Adjacent roadways or shared use paths may complement the transportation function of a primary roadway. Some facilities may only span short distances to provide connections and fill gaps along a greater network or facility corridor. Transitions between facility types are critically important and should not be overlooked. When the walkability assessment is reviewed and combined with best practices opportunities for build environments improvement may appear in crossing enhancements, curb extension, pedestrian lanes, bicycle boulevards, bike lane, advisory shoulders, paved shoulders, cycling route markings, and yield roadways.

If Madison County residents can continue to use the checklist to perform regular walkability “updates,” the additional data over time will allow policy makers to track change in their residents’ perception of the walkability of their communities over time, and show continuous, increasing community support for walkable communities in Kentucky. Additional walkability data over time will also allow policy makers and health officials to align infrastructure issues that can be linked to historical assets similar to the Daniel Boone Trace Trail. If infrastructure issues across the Madison County community are prioritized it can be expected to see gains in health, the economy and the overall quality of life in Kentucky municipalities. It is recommended to local officials that they continue to use of the Community Walkability Survey to actively engage constituents in creating a healthy community and include them in the process of improving the walkability of their communities.

Notes

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Madison County Walkability Final Report

Appendix A

Walkability Checklist

How walkable is your community?

Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go. The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall. After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.



Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk

Rating Scale:



1. Did you have room to walk?

- Yes Some problems:
- Sidewalks or paths started and stopped
 - Sidewalks were broken or cracked
 - Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 - No sidewalks, paths, or shoulders
 - Too much traffic
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

4. Was it easy to follow safety rules? Could you and your child...

- Yes No Cross at crosswalks or where you could see and be seen by drivers?
- Yes No Stop and look left, right and then left again before crossing streets?
- Yes No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- Yes No Cross with the light?

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

2. Was it easy to cross streets?

- Yes Some problems:
- Road was too wide
 - Traffic signals made us wait too long or did not give us enough time to cross
 - Needed striped crosswalks or traffic signals
 - Parked cars blocked our view of traffic
 - Trees or plants blocked our view of traffic
 - Needed curb ramps or ramps needed repair
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

5. Was your walk pleasant?

- Yes Some problems:
- Needed more grass, flowers, or trees
 - Scary dogs
 - Scary people
 - Not well lighted
 - Dirty, lots of litter or trash
 - Dirty air due to automobile exhaust
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

3. Did drivers behave well?

- Yes Some problems: Drivers ...
- Backed out of driveways without looking
 - Did not yield to people crossing the street
 - Turned into people crossing the street
 - Drove too fastp
 - Sped up to make it through traffic lights or drove through traffic lights?
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

How does your neighborhood stack up? Add up your ratings and decide.

1. _____ **26-30** Celebrate! You have a great neighborhood for walking.
2. _____
3. _____ **21-25** Celebrate a little. Your neighborhood is pretty good.
4. _____
5. _____ **16-20** Okay, but it needs work.
- 11-15** It needs lots of work. You deserve better than that.
- Total: _____ **5-10** It's a disaster for walking!

Now that you've identified the problems,
go to the next page to find out how to fix them.

Now that you know the problems, you can find the answers.

Improving your community's score

1. Did you have room to walk?

Sidewalks or paths started and stopped
Sidewalks broken or cracked
Sidewalks blocked
No sidewalks, paths or shoulders
Too much traffic

What you and your child can do immediately

- pick another route for now
- tell local traffic engineering or public works department about specific problems and provide a copy of the checklist

What you and your community can do with more time

- speak up at board meetings
- write or petition city for walkways and gather neighborhood signatures
- make media aware of problem
- work with a local transportation engineer to develop a plan for a safe walking route

2. Was it easy to cross streets?

Road too wide
Traffic signals made us wait too long or did not give us enough time to cross
Crosswalks/traffic signals needed
View of traffic blocked by parked cars, trees, or plants
Needed curb ramps or ramps needed repair

- pick another route for now
- share problems and checklist with local traffic engineering or public works department
- trim your trees or bushes that block the street and ask your neighbors to do the same
- leave nice notes on problem cars asking owners not to park there

- push for crosswalks/signals/ parking changes/curb ramps at city meetings
- report to traffic engineer where parked cars are safety hazards
- report illegally parked cars to the police
- request that the public works department trim trees or plants
- make media aware of problem

3. Did drivers behave well?

Backed without looking
Did not yield
Turned into walkers
Drove too fast
Sped up to make traffic lights or drove through red lights

- pick another route for now
- set an example: slow down and be considerate of others
- encourage your neighbors to do the same
- report unsafe driving to the police

- petition for more enforcement
- request protected turns
- ask city planners and traffic engineers for traffic calming ideas
- ask schools about getting crossing guards at key locations
- organize a neighborhood speed watch program

4. Could you follow safety rules?

Cross at crosswalks or where you could see and be seen
Stop and look left, right, left before crossing
Walk on sidewalks or shoulders facing traffic
Cross with the light

- educate yourself and your child about safe walking
- organize parents in your neighborhood to walk children to school

- encourage schools to teach walking safely
- help schools start safe walking programs
- encourage corporate support for flex schedules so parents can walk children to school

5. Was your walk pleasant?

Needs grass, flowers, trees
Scary dogs
Scary people
Not well lit
Dirty, litter
Lots of traffic

- point out areas to avoid to your child; agree on safe routes
- ask neighbors to keep dogs leashed or fenced
- report scary dogs to the animal control department
- report scary people to the police
- report lighting needs to the police or appropriate public works department
- take a walk with a trash bag
- plant trees, flowers in your yard
- select alternative route with less traffic

- request increased police enforcement
- start a crime watch program in your neighborhood
- organize a community clean-up day
- sponsor a neighborhood beautification or tree-planting day
- begin an adopt-a-street program
- initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times)

A Quick Health Check

Could not go as far or as fast as we wanted
Were tired, short of breath or had sore feet or muscles
Was the sun really hot?
Was it hot and hazy?

- start with short walks and work up to 30 minutes of walking most days
- invite a friend or child along
- walk along shaded routes where possible
- use sunscreen of SPF 15 or higher, wear a hat and sunglasses
- try not to walk during the hottest time of day

- get media to do a story about the health benefits of walking
- call parks and recreation department about community walks
- encourage corporate support for employee walking programs
- plant shade trees along routes
- have a sun safety seminar for kids
- have kids learn about unhealthy ozone days and the Air Quality Index (AQI)

Need some guidance? These resources might help...

Great Resources

WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)

UNC Highway Safety Research Center
Chapel Hill, NC
www.pedbikeinfo.org
www.walkinginfo.org

National Center for Safe Routes to School

Chapel Hill, NC
www.saferoutesinfo.org

For More Information about Who Can Help Address Community Problems

www.walkinginfo.org/problems/help.cfm

State Bicycle & Pedestrian Coordinators

<http://www.walkinginfo.org/assistance/contacts.cfm>

FEDERAL POLICY, GUIDANCE AND FUNDING SOURCES FOR WALKING FACILITIES

Federal Highway Administration

Bicycle and Pedestrian Program
Office of Natural and Human Environment
Washington, DC
www.fhwa.dot.gov/environment/bikeped/index.htm

PEDESTRIAN SAFETY

Federal Highway Administration

Pedestrian and Bicycle Safety Team
Office Of Safety
Washington, DC
http://safety.fhwa.dot.gov/ped_bike/

National Highway Traffic Safety Administration

Traffic Safety Programs
Washington, DC
www.nhtsa.gov/Pedestrians

SIDEWALK ACCESSIBILITY INFORMATION

US Access Board

Washington, DC
Phone: (800) 872-2253;
(800) 993-2822 (TTY)
www.access-board.gov

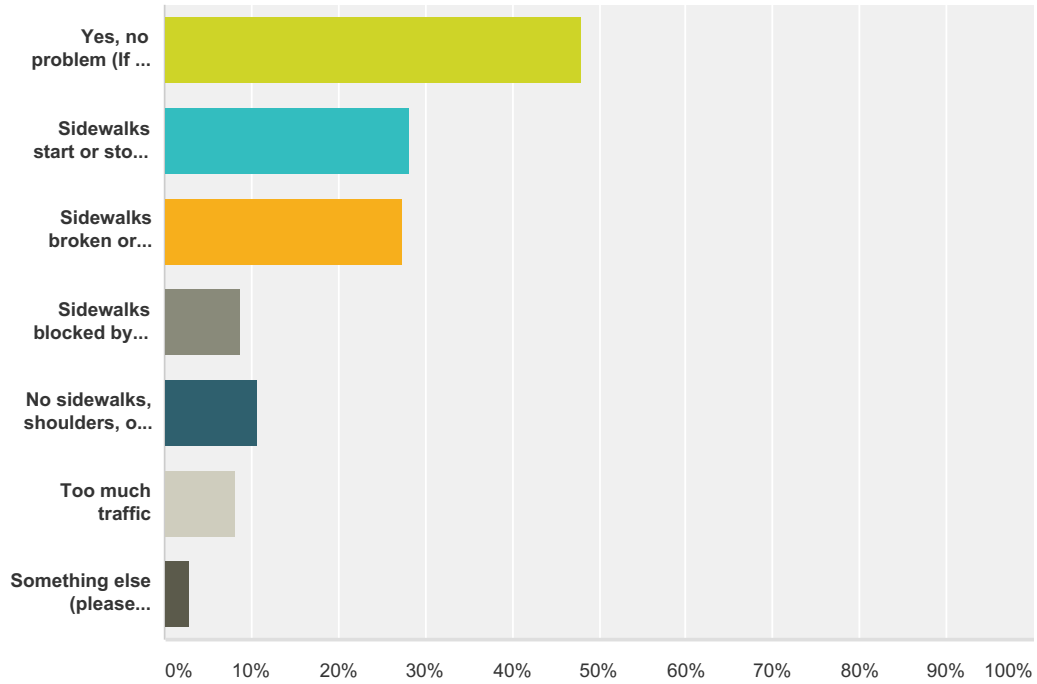


Madison County Walkability Final Report

Appendix B

Q1 Did you have room to walk?

Answered: 354 Skipped: 0

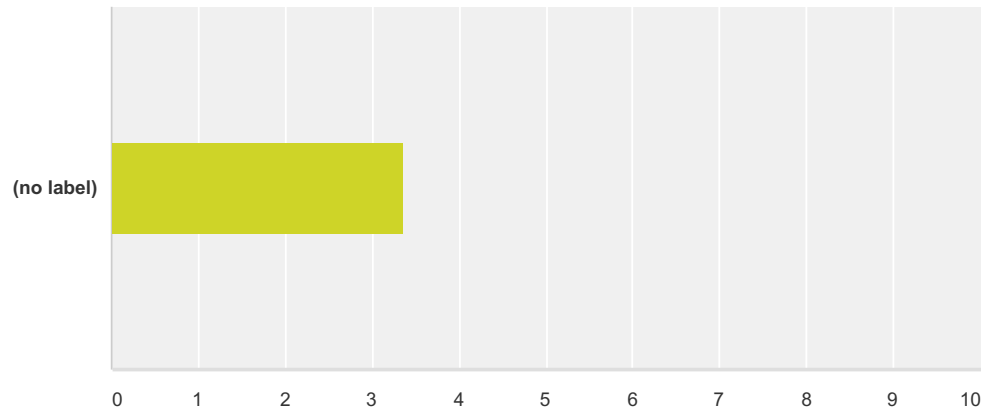


Answer Choices	Responses
Yes, no problem (If you checked Yes, please skip to question 2)	48.02% 170
Sidewalks start or stop abruptly	28.25% 100
Sidewalks broken or cracked	27.40% 97
Sidewalks blocked by poles, signs, bushes, dumpsters, etc.	8.76% 31
No sidewalks, shoulders, or paths at all	10.73% 38
Too much traffic	8.19% 29
Something else (please specify)	2.82% 10
Total Respondents: 354	

Madison County Walkability Survey Walking needs to be safe and easy. Using this tool, take a walk with friends or family and decide if the neighborhood is a friendly place to walk.

Q2 Rate your experience with the topics from the previous question (Select One)

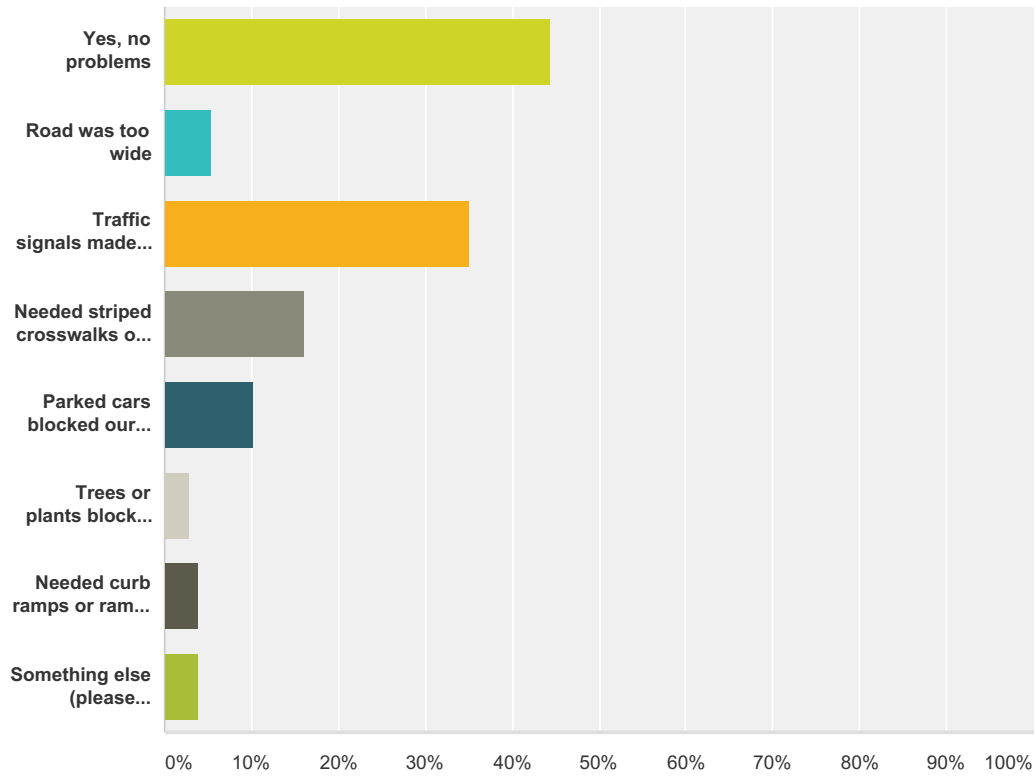
Answered: 324 Skipped: 30



	1: Poor	2: Needs many improvements	3: Needs some improvements	4: Good	5: Very Good	6: Excellent	Total	Weighted Average
(no label)	4.32% 14	24.69% 80	26.23% 85	24.69% 80	14.20% 46	5.86% 19	324	3.37

Q3 Was it easy to cross streets?

Answered: 353 Skipped: 1

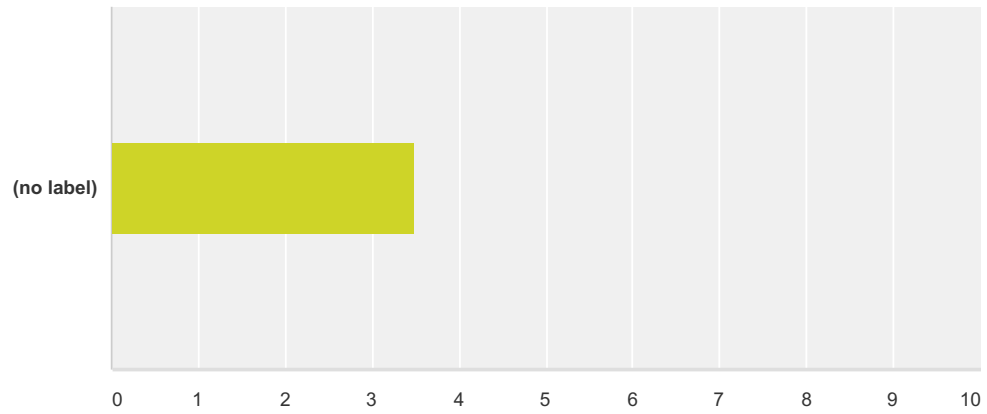


Answer Choices	Responses
Yes, no problems	44.48% 157
Road was too wide	5.38% 19
Traffic signals made us wait too long or did not give us enough time to cross	35.13% 124
Needed striped crosswalks or traffic signals	16.15% 57
Parked cars blocked our view of traffic	10.20% 36
Trees or plants blocked our view of traffic	2.83% 10
Needed curb ramps or ramps needed repair	3.97% 14
Something else (please specify)	3.97% 14
Total Respondents: 353	

Madison County Walkability Survey Walking needs to be safe and easy. Using this tool, take a walk with friends or family and decide if the neighborhood is a friendly place to walk.

Q4 Rate your experience with the topics from the previous question (Select One)

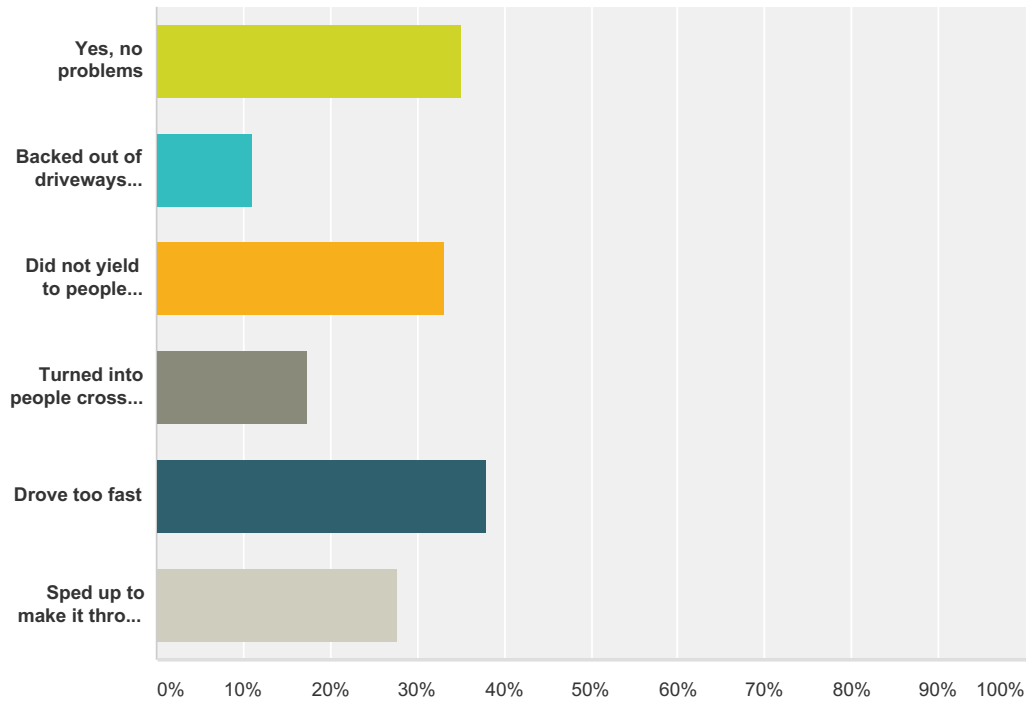
Answered: 335 Skipped: 19



	1: Poor	2: Needs many improvements	3: Needs some improvements	4: Good	5: Very Good	6: Excellent	Total	Weighted Average
(no label)	2.69% 9	19.40% 65	29.25% 98	30.45% 102	11.64% 39	6.57% 22	335	3.49

Q5 Did drivers behave well?

Answered: 350 Skipped: 4

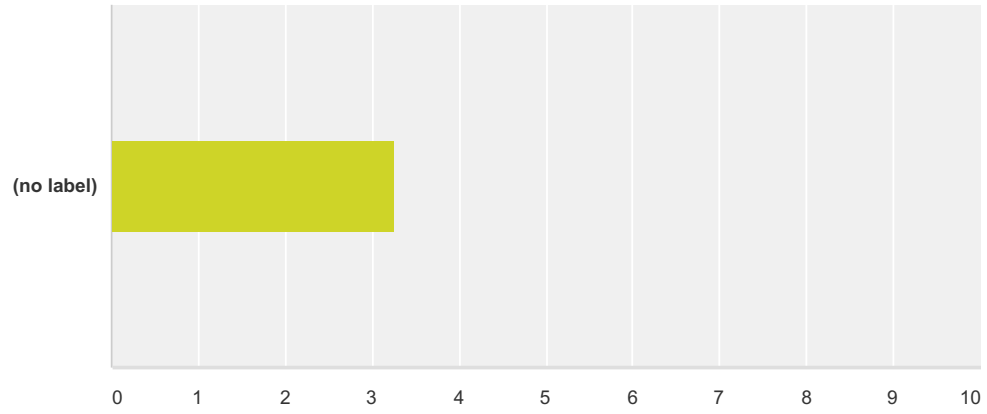


Answer Choices	Responses
Yes, no problems	35.14% 123
Backed out of driveways without looking	11.14% 39
Did not yield to people crossing the street	33.14% 116
Turned into people crossing the street	17.43% 61
Drove too fast	38.00% 133
Sped up to make it through traffic lights or drove through traffic lights	27.71% 97
Total Respondents: 350	

Madison County Walkability Survey Walking needs to be safe and easy. Using this tool, take a walk with friends or family and decide if the neighborhood is a friendly place to walk.

Q6 Rate your experience with the topics from the previous question (Select One)

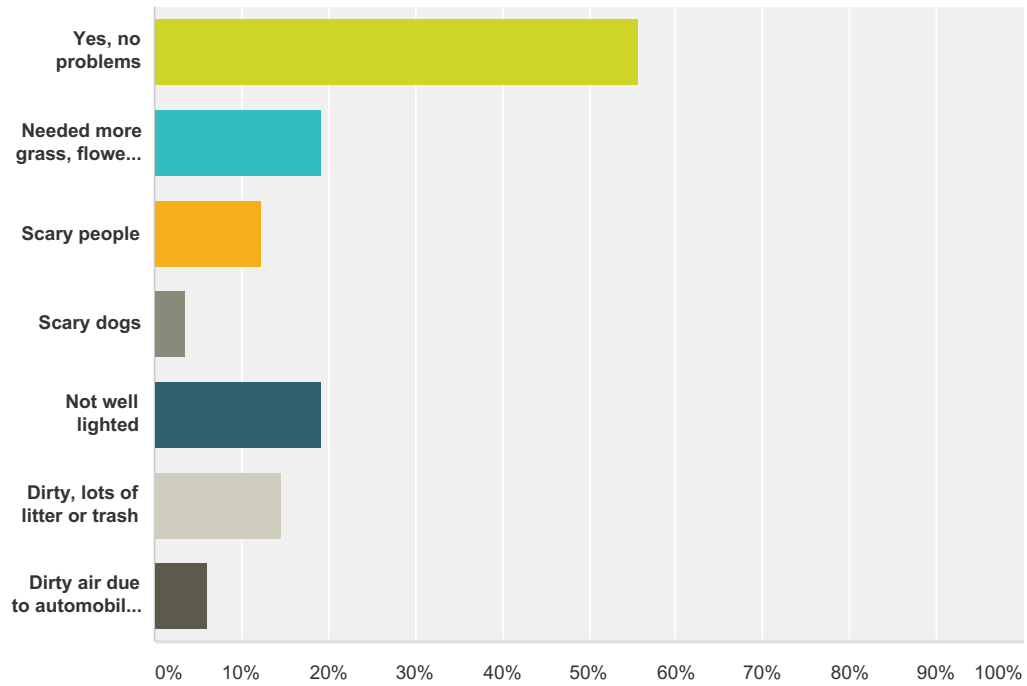
Answered: 325 Skipped: 29



	1: Poor	2: Needs many improvements	3: Needs some improvements	4: Good	5: Very Good	6: Excellent	Total	Weighted Average
(no label)	6.46% 21	22.46% 73	32.62% 106	23.69% 77	7.38% 24	7.38% 24	325	3.25

Q7 Was your walk pleasant?

Answered: 348 Skipped: 6

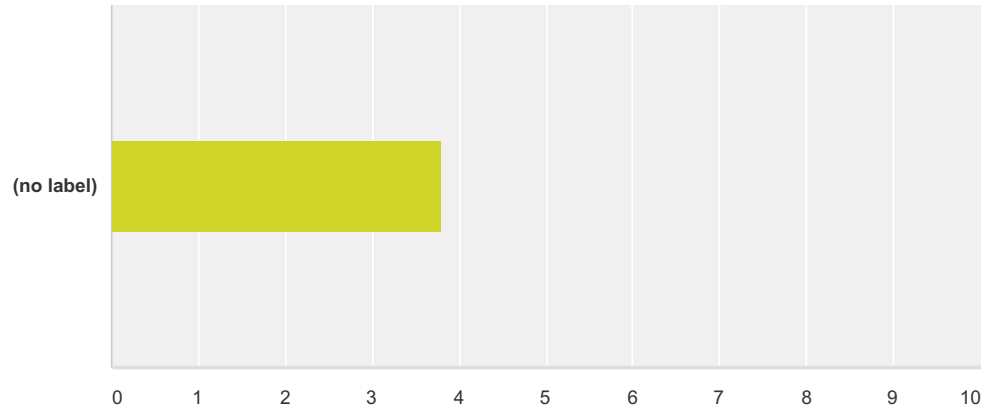


Answer Choices	Responses
Yes, no problems	55.75% 194
Needed more grass, flowers, or trees	19.25% 67
Scary people	12.36% 43
Scary dogs	3.45% 12
Not well lighted	19.25% 67
Dirty, lots of litter or trash	14.66% 51
Dirty air due to automobile exhaust	6.03% 21
Total Respondents: 348	

Madison County Walkability Survey Walking needs to be safe and easy. Using this tool, take a walk with friends or family and decide if the neighborhood is a friendly place to walk.

Q8 Rate your experience with the topics from the previous question (Select One)

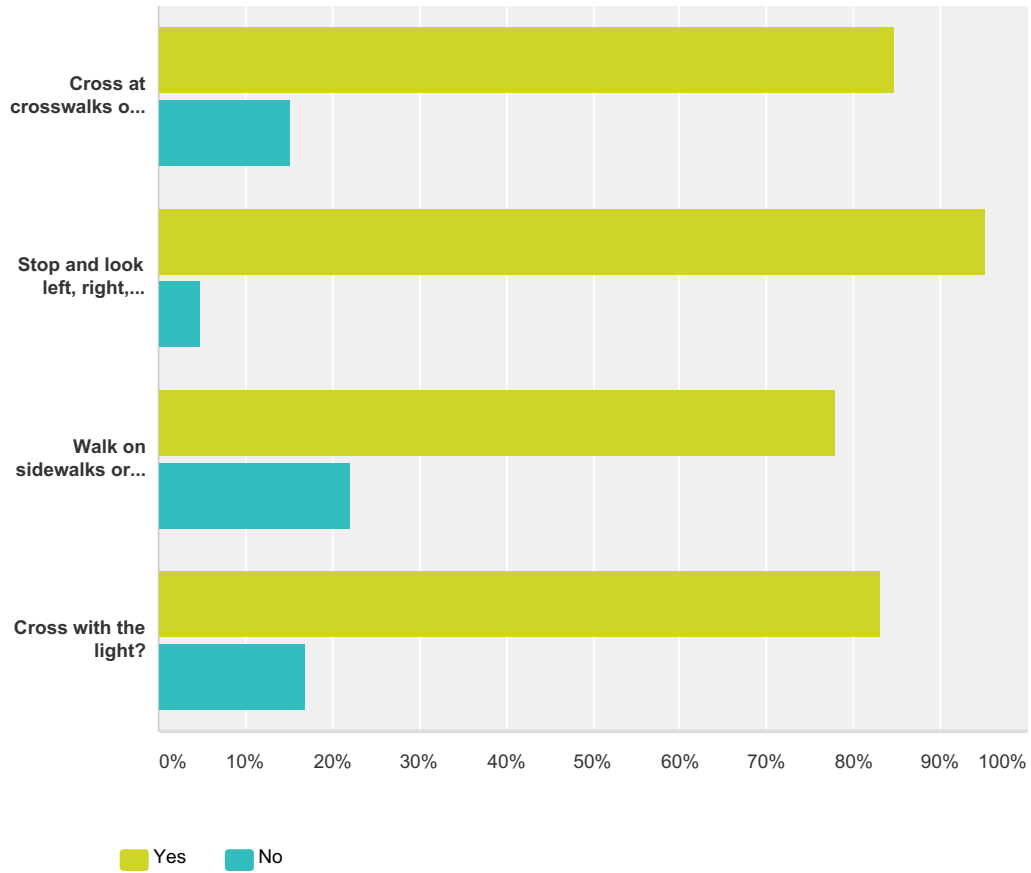
Answered: 321 Skipped: 33



	1: Poor	2: Needs many improvements	3: Needs some improvements	4: Good	5: Very Good	6: Excellent	Total	Weighted Average
(no label)	3.43% 11	14.95% 48	20.87% 67	29.91% 96	20.25% 65	10.59% 34	321	3.80

Q9 Was it easy to follow safety rules? Could a child or senior citizen follow these safety rules?

Answered: 349 Skipped: 5

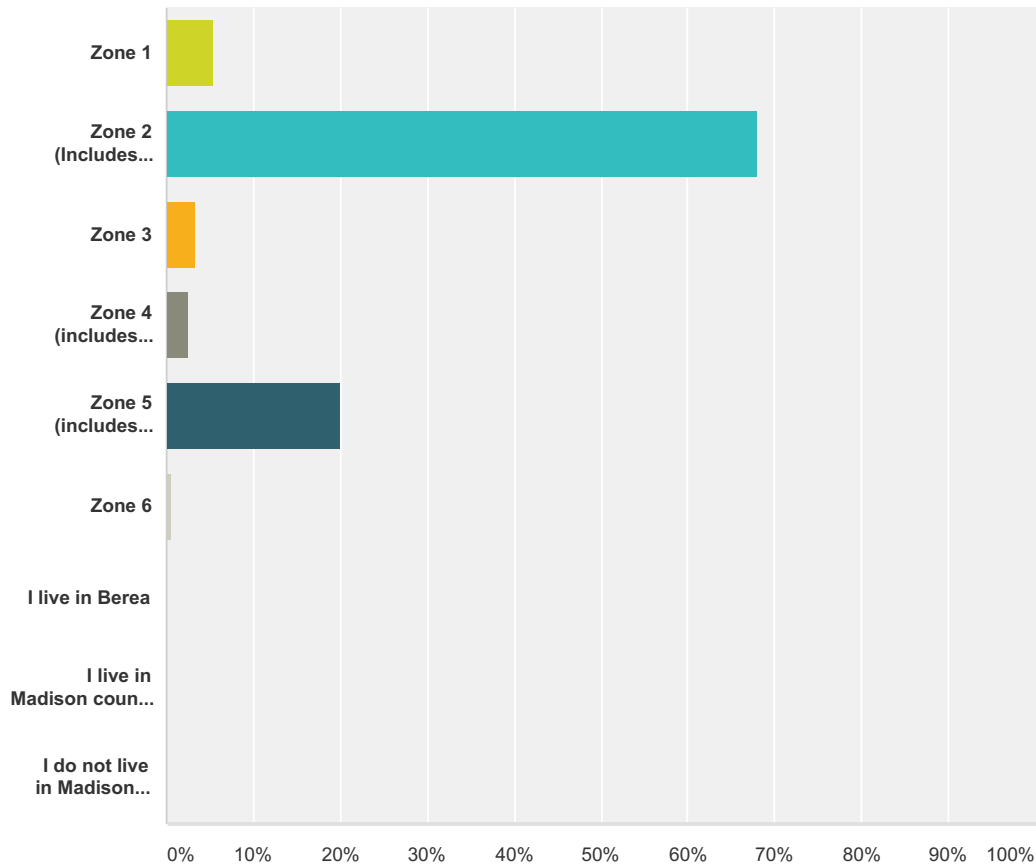


	Yes	No	Total Respondents
Cross at crosswalks or where you could see and be seen by drivers?	84.81% 296	15.19% 53	349
Stop and look left, right, and then left again before crossing streets?	95.11% 331	4.89% 17	348
Walk on sidewalks or shoulders facing traffic where there were no sidewalks?	77.81% 270	22.19% 77	347
Cross with the light?	83.00% 288	17.00% 59	347

Madison County Walkability Survey Walking needs to be safe and easy. Using this tool, take a walk with friends or family and decide if the neighborhood is a friendly place to walk.

Q10 Please select from the map of Madison County above the area where you usually walk or where you collected your walkability observation

Answered: 353 Skipped: 1



Answer Choices	Responses	Count
Zone 1	5.38%	19
Zone 2 (Includes Eastern Kentucky University)	67.99%	240
Zone 3	3.40%	12
Zone 4 (includes western Berea)	2.55%	9
Zone 5 (includes eastern Berea and Berea College)	20.11%	71
Zone 6	0.57%	2
I live in Berea	0.00%	0
I live in Madison county but not in Richmond or Berea	0.00%	0
I do not live in Madison County	0.00%	0
Total		353

Madison County Walkability Final Report

Appendix C

Madison County Walkability Survey

Walking needs to be safe and easy. Using this tool, take a walk with friends or family and decide if the neighborhood is a friendly place to walk.

1. Did you have room to walk?

- Yes, no problem (If you check Yes, please skip to question 2)
- Sidewalks start or stop abruptly
- Sidewalks broken or cracked
- Sidewalks blocked by poles, signs, bushes, dumpsters, etc.
- No sidewalks, shoulders, or paths at all
- Too much traffic
- Something else _____

2. Rate your experience with the topics from the previous question (Circle One)

1: Poor 2: Needs Improvement 3: Needs some improvement
4: Good 5: Very 6: Excellent

Please describe locations of problems

3. Was it easy to cross streets?

- Yes, no problems (If you check Yes, please skip to question 4)
- Road was too wide
- Traffic signals made us wait too long or did not give us enough time to cross
- Needed striped crosswalks or traffic signals
- Parked cars blocked our view of traffic
- Trees or plants blocked our view of traffic
- Needed curb ramps, or ramps, needed repair
- Something else _____

4. Rate your experience with the topics from the previous question (Circle One)

1: Poor 2: Needs Improvement 3: Needs some improvement
4: Good 5: Very 6: Excellent

Please describe locations of problems

5. Did drivers behave well?

- Yes, no problems (If you check Yes, please skip to question 6)
- Backed out of driveways without looking
- Did not yield to people crossing the street
- Turned into people crossing the street
- Drove too fast
- Sped up to make it through traffic lights or drove through traffic lights
- Something else _____

6. Rate your experience with the topics from the previous question (Circle One)

1: Poor 2: Needs Improvement 3: Needs some improvement
4: Good 5: Very 6: Excellent

Please describe locations of problems

7. Was your walk pleasant?

- Yes, no problems (If you check Yes, please skip to question 8)
- Needed more grass, flowers, or trees
- Scary people
- Scary dogs
- Not well lighted
- Dirty, lots of litter or trash
- Dirty air due to automobile exhaust
- Something else _____

8. Rate your experience with the topics from the previous question (Circle One)

1: Poor 2: Needs Improvement 3: Needs some improvement
4: Good 5: Very 6: Excellent

Please describe locations of problems

*Please flip to backside of page to finish the survey

