Daniel Boone Trace Trail Walkability Final Laurel County Report

Yabsira Ayele, R'mon Harvell, Anna Heremes, Alexyss Lindsey, Evy Perler-Tomboly

Executive Summary

In May and June 2017, the members of the Entrepreneurship for the Public Good Program at Berea College in partnership with the civic leadership of five Kentucky Counties, the Madison County Health Department, The National Park Service and Friends of the Boone Trace worked together to complete a set of 10 community Walkability Studies. This was completed by the Madison County Health Department's recommendation of a walkable community checklist developed by the Pedestrian and Bicycle Information Center, which is a US Department of Transportation website run by the University of North Carolina.

The Walkability Checklist assessed four main components associated with walking in the community from the perspective of the walker (see checklist in Appendix A and B). The components were: a) how easy the walk was, b) the variety of places participants saw or could get to during the walk, c) ease to cross the street; d) observed driver behavior; e) how enjoyable or pleasant the walk was, and f) ease to follow safety rules. This report is a compilation of that data for each of the five counties and the 10 municipalities contained within the five counties that compose of the Daniel Boone Trace Trail.

The findings are shared with civic decision-makers such as mayors, judge executives in each county, Kentucky regional development districts and county health department staff members. The findings are also 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 civic 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.

Infrastructure changes that respondents commented on most often include: 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, municipal decision makers can add to their knowledge of residents' support for infrastructure changes and barriers that make it difficult for residents to walk to many local destinations. The intention of the Daniel Boone Trace Trail Walkable Final Report is to provide useful data that decision makers in the area cities can consider during prioritization of infrastructure projects. Continued promotion of the walkability checklist by residents will provide a growing base of data on existing supports for walkable communities along the Daniel Boone Trace Trail as well as those areas in need of improvement.

The checklist may also help to build awareness about the importance of walkable communities and to build positive attitudes towards walkable communities.

Introduction

Rural and small town America is diverse and varied throughout the country. According to the Federal Highway Administration's Planning for Transportation in Rural Areas, 75 percent of America's 3,000 counties qualify as rural and cover 81 percent of the land area. Approximately 19 percent of the population live in rural areas (Administration NHTS, 2013).

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, including 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. Further, biking and walking count as significant means of transportation all across the countryside. In coming years, 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 (Urban Land Institute, 2016).

The Urban Land Institute (ULI) has found that, "In recent years, investments in infrastructure that accommodates those who walk and ride bicycles have begun to reshape communities" (Zibers, 2016). The ULI cites in 2015 report, stating that half of U.S. residents say walkability is important in deciding where they live, and the U.S. Census has determined that bicycling is the fastest growing form of transportation among commuters.

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., 2011), greater economic opportunities (Rails-to-Trails Conservancy (2008a), a cleaner environment (Rails-to-Trails, 2008b) lower energy bills (Cortright, 2008), and numerous personal and social gains associated with a strong sense of community (Rogers, 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 Daniel Boone Trace Trail Walkability survey be adopted by the Friends of the Boone Trace to fulfill the requirements of the National Park Service (NPS). The Walkability survey was designed from the Pedestrian and Bicycle Information Center, which is a US Department of Transportation site administered by University of North Carolina (UNC).

What is "walkability"? The quality is widely referred to, but poorly defined. A search on Google Scholar for journal articles with the "walkable neighborhood" yields over 18,000 entries, 54% of which were published since 2013. If we are to design more walkable cities, it will be necessary to define the term and make it operational through performance criteria. We offer the following definition: Walkability is the

extent to which the built environment supports and encourages walking by providing for pedestrian comfort and safety, connecting people with varied destinations within a reasonable amount of time and effort, and offering visual interest in journeys throughout the network (Talen and Koschinsky, 2013).

A Walkability Checklist contains information designed to raise awareness about walkable communities and their associated health benefits. Most importantly, it provides a means for "trained walkers" to identify infrastructure strengths and challenges regarding the walkability of the local neighborhoods. The purpose of this investigation is to summarize the compiled data collected to date to identify existing supports 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 cities between May and June 2017.

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

To measure how a locality rated in regards to the individual categories, the checklist consisted of questions that aimed to capture the "trained walkers'" opinions about the various aspects that make up each individual topic. The checklist was photocopied. Each set of "trained walkers" first mapped a locally assigned neighborhood. The "trained walkers" mapped the neighborhood. The walkability results and map were reviewed by academic and health experts, for accuracy and completeness. Finally, the trained walkers" were certified a observers and assigned to neighborhoods along the five counties of the Boone Trace Trail.

Data Collection Procedures

Trained walkers were members of the Berea College Entrepreneurship for the Public Good Program. The observers were introduced to the checklist through the Safe Routes Program administered by the Madison County Health Department in May 2017. Observers participated in the three step training program. First, 81 student-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.

Second a group of 20 student-residents were

selected and qualified as “trained walkers” to provide a description of the walkability area where they resided and map various zones in neighborhoods of their city. The completed checklist and neighborhood 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 were exported to excel and compiled for analysis.

Third, the trained walkers, were certified and assigned to walk and map eight additional neighborhoods in communities along the four remaining counties of The Daniel Boone Trace Trail including Rockcastle, Laurel, Knox and Bell. Trained walkers were driven into each local community and provided boundaries of the neighborhood areas. Walkers observed the neighborhood areas and drew local map of the assigned areas, and service directory of local businesses of interest to cyclists. Each community was assigned five walkers. Data from the checklists were added to the excel spreadsheet by a research assistant.

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 in regards to 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 “trained walkers” who were assigned to communities as observers and who received the checklist. As such, the data collected is subject to selection bias. The observers who completed and submitted the checklist may represent a population that has a greater interest in the walkability of their locality than the general population of each of the five counties or may have a specific infrastructure needs that they want addressed. In addition, some observers 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. The produced data may not accurately represent the thoughts and opinions of all local neighborhood residents. Consequently, this data cannot be generalized to beyond the five county population as a whole. In addition to the data collection method, there are also limitations with the checklist itself that need to be addressed. The checklists were completed in daylight. While the checklist does include questions that ask the date and time of day (i.e., am or pm) the observers took their walk. This information does not provide sufficient information to pinpoint exact walking conditions for the observers, such as weather conditions and amount of daylight. These factors could influence some of the responses by the observers, such as the number of people seen and whether or not 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 supports for walkable communities as well as areas in need of improvement.

County Community Walkability Results

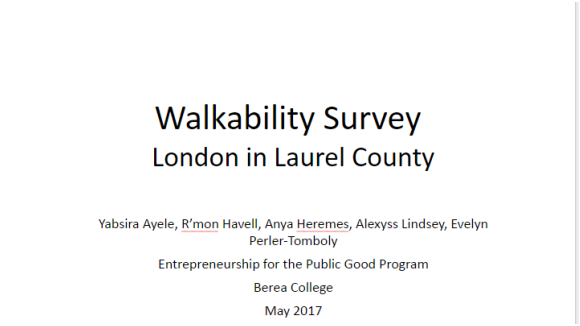
The following table indicates the overall responses from the 5 respondents in Laurel County.

Summary the number of observations in a table below:

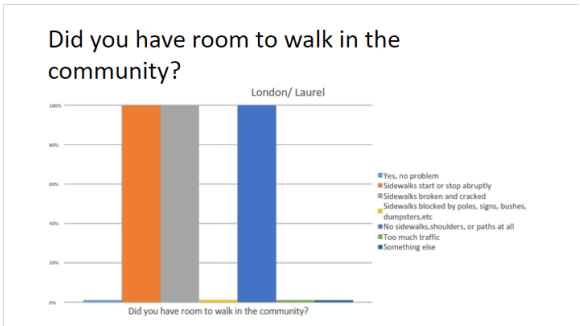
City	No. of Observations
London	5
Levis State Park	5
Total	10

Part 1: London, Laurel County

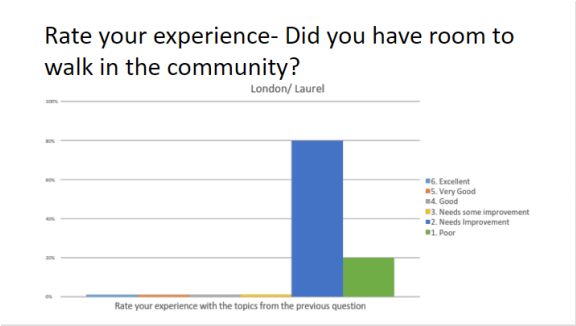
Table 1 - The number of checklists submitted from London is 5.

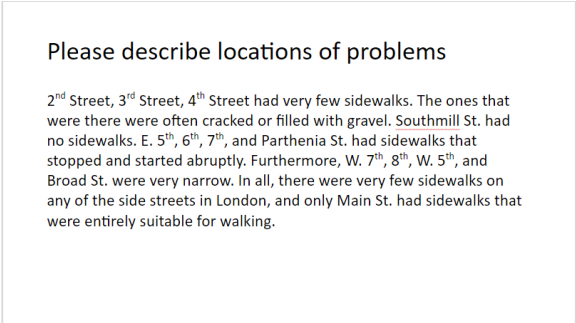


Section 1 – Ease The first section of the checklist asked people to consider how easy their walk was.

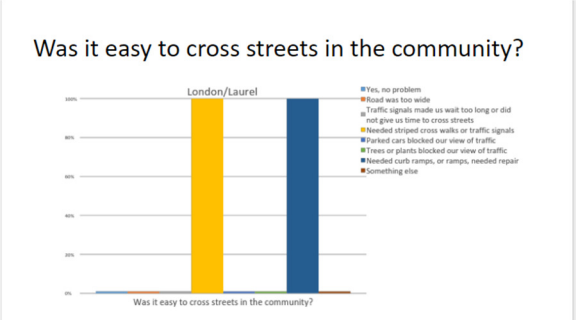


Section 2 – Rate the ease of walking





Section 3 – Ease to cross the street



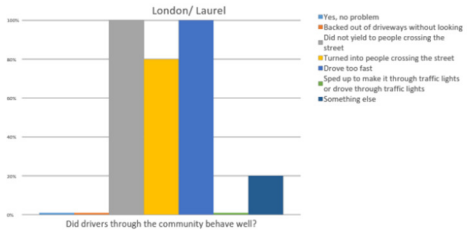
Section 4 – Rate the ease to cross the street

Please describe locations of problems.

The advantages we saw were the feeling of big town due to the small amount of traffic on the streets and we did not notice litter. The disadvantages we noticed on the day we were there were that the only person we saw walking was the post officer and not well-maintained sidewalks on all of the streets off of Main street. On Mill St the sidewalks start and stop abruptly, E. 4th St, E.8th - the sidewalks are in need of repair. There is no sidewalks on the E. 5th from the Dyche to Parthenia as well as on the W. 5th and South Mill Street, W.4th and W.8th, 3rd and 2nd Streets. On the N. Main Street the crosswalks are too far apart as well as on the 4th and Broad St the crosswalks are faded. The traffic signals on the Main St were well-timed and visible. However, the cars were too fast.

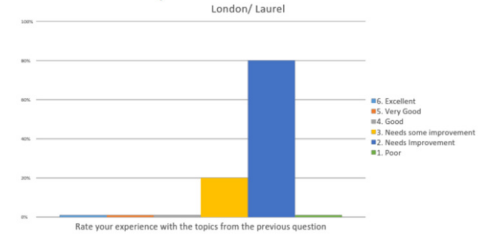
Section 5 – Did drivers behave well?

Did drivers through community behave well?



Section 6 – Rate how well the drivers behave

Rate your experience- Did drivers through the community behave well?

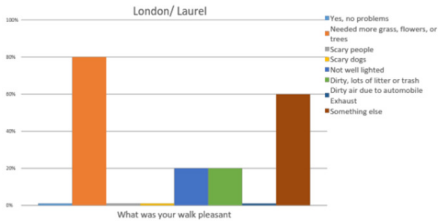


Please describe locations of problems

" E. 4th Street and N. Main Street were very busy. Drivers were very fast and impatient when turning left. They did not yield for pedestrians at the few crosswalks that are in the city."

Section 7 – Was the walk pleasant?

Was your walk pleasant?

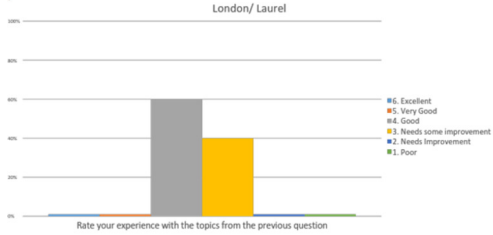


Please describe your feelings that jumped out at you on the walk and elaborate please.

We were sad that the people did not know their town and did not have information to provide us with the insight into their town. The many empty shop fronts on the Main street made us feel less welcome, however, the owners of the open businesses such as Weaver's Hot Dogs or 4th street Cafe and the Abbey were very friendly and talkative. Walking on the street, we felt out of place because there weren't other walkers on the street. We felt safe and mostly comfortable for a diverse group in the small community. We enjoyed that the community was quiet due to the pace of life that is very relaxed.

Section 8 – Rate the pleasant experience of the walk

Rate your experience- Was your walk pleasant?



Section 9 - Was it easy to follow safety rules? Could you and your child… Cross at crosswalks or where you could see and be seen by the drivers? Stop and look left, right, and then left again before crossing streets? Walk on sidewalks or shoulders facing traffic where there were no sidewalks? Cross with the light? Yes or No

Section 10 – When was the survey taken? May 24, 2017

Section 11 – Map the local community.

Here is a map that one of the observers drew of London walkability area that they traversed.

Part 2: Levi Jackson State Park

Table 1 - The number of checklists submitted from Levi Jackson State Park is 5.

Walkability Survey

Levi Jackson in Laurel County

Evelyn Perler-Tomboly, R'mon Havell, Yabsira Ayele, Alexyss Lindsey, Anya Heremes

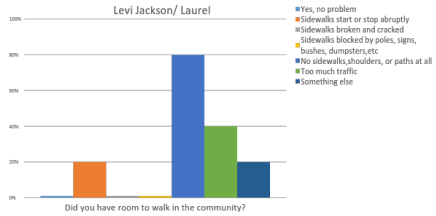
Entrepreneurship for the Public Good Program

Berea College

May 2017

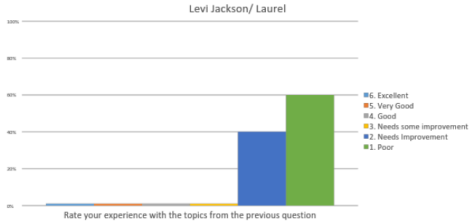
Section 1 – Ease The first section of the checklist asked people to consider how easy their walk was.

Did you have room to walk in the community?



Section 2 – Rate the ease of walking

Rate your experience- Did you have room to walk in the community?

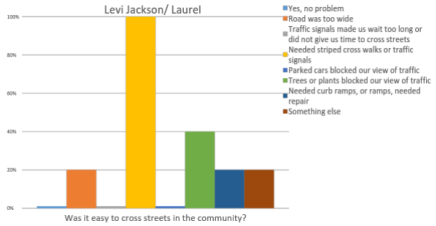


Please describe locations of problems

The main road and campground had no sidewalks, making Levi Jackson completely unwalkable if one was to try to get to a destination in this manner. Roads like Levi Jackson Road are entirely unwalkable due to sharp curbs and no sidewalks. It was also surprising at how much traffic was on Wilderness Road. There was entirely too much traffic to walk safely. Altogether, it is necessary for pedestrians to take the trails to arrive at different locations in the park. It is unsafe for them to use the main road. While it does not have sidewalks, the campground seems relatively safe to walk with grassy areas along the road and slow speed limits.

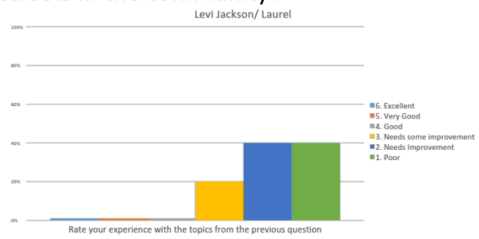
Section 3 – Ease to cross the street

Was it easy to cross streets in the community?



Section 4 – Rate the ease to cross the street

Rate your experience- Was it easy to cross streets in the community?

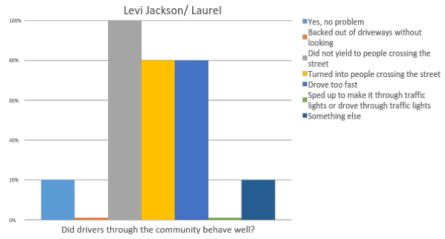


Please describe locations of problems.

The advantages to this area were the nature and the lack of heavy traffic. The trails provide a good footpath system to walk, and are well-connected throughout the park. The disadvantages were that the area was not safe to walk along the roads due to the sharp curves and the lack of sidewalks on Levi-Jackson Rd. and the main highway. The area was clean and there was no visible trash. No sidewalks were in need of repair due to the fact that there were no sidewalks except to main attractions from parking lots. Those sidewalks were well maintained. There were not enough sidewalks to walk safely. The crosswalks were visible in certain areas, but not in all areas. For example, the crosswalks near the park office (Fariston Rd.) and the Boone Club House (Levi Jackson Rd.) were faded and uncrossable. There were no crosswalk signals and traffic when it went through was a little too fast for pedestrians to move safely without sidewalks.

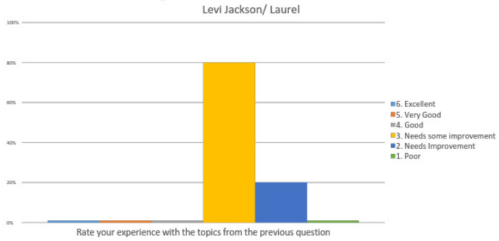
Section 5 – Did drivers behave well?

Did drivers through community behave well?



Section 6 – Rate how well the drivers behave

Rate your experience- Did drivers through the community behave well?

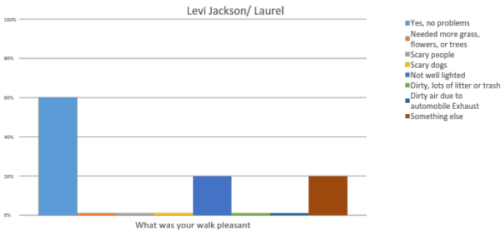


Please describe locations of problems

People on Fariston Rd and Levi Jackson Rd drove too fast around curbs, making it impossible to walk without being perpetually in fear of getting hit by oncoming cars. The main entrances to the park were also a source of danger. The cars drove entirely too fast entering and exiting the park, and did not yield when we attempted to cross the faded crosswalk at the Levi Jackson Dirt Trail Marker #1. When we finally did cross, very few cars looked like they were going to yield for us.

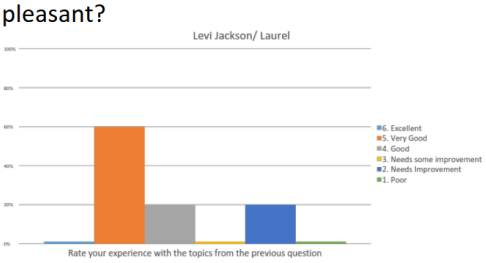
Section 7 – Was the walk pleasant?

Was your walk pleasant?



Section 8 – Rate the pleasant experience of the walk

Rate your experience- Was your walk pleasant?

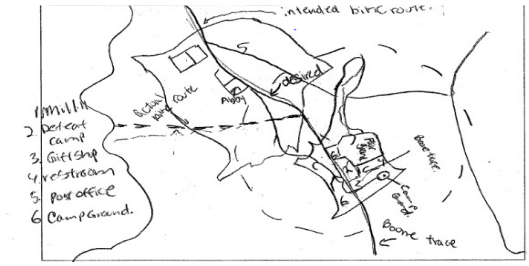


Section 9 – Was it easy to follow safety rules? Could you and your child… Cross at crosswalks or where you could see and be seen by the drivers? Stop and look left, right, and then left again before crossing streets? Walk on sidewalks or shoulders facing traffic where there were no sidewalks? Cross with the light? Yes or No

Section 10 – When was the survey taken? May 5th, 2017

Section 11 – Map the local community.

Here is a map that one of the observers drew of Levi Jackson State Park in concerns to the walkability area that they traversed.



Discussion

A return rate of 5 checklists using trained observers suggests a positive informed response to the walkability checklist requirement. The data will support municipal and regional efforts to compile data on existing supports for walkable communities and neighborhood areas in need of improvement. The discussion that follows provides some suggestions based on the data that was summarized above. This discussion is broken down by the four sections of the checklist and the overall walkability scores that were calculated.

Section 1 -- Ease and Ease to Cross the Street

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).

Part 1: Given that none of the respondents indicated that the sidewalks were well maintained and all of respondents (100%) noted that sidewalks were not present on both sides of the street where they walked, this would suggest that much can be done to improve this factor that has a significant impact on the walkability of communities.

Part 2: Given that none of the respondents indicated that the sidewalks were well maintained and 80% noted that sidewalks were not present on both sides of the street where they walked, this would suggest that much can be done to improve this factor that has a significant impact on the walkability of communities.

Section 2 – Driver Behavior

Part 1: 80% of the respondents mentioned that the drivers' behavior needed improvement. The remaining 20% commented that it needed some improvement. There were issues with drivers not yielding to people crossing the streets according to 100% of the respondents. There were also issues with drivers turning into people who were crossing the streets, as indicated by 80% of the respondents. Finally, 100% of the respondents mentioned that people were driving faster than the posted speed limit. All of this would indicate that something is in need of being done with this to make the community more walkable.

Part 2: 20% of respondents indicated that they had no problem with the driver behavior. However, 100% of participants stated that the

drivers did not yield to people crossing the street. 80% of respondents reported that the drivers turned into people crossing the street and drove too fast.

Making a community more walkable can also make it safer for all who live and work there. The primary safety benefit of increased pedestrian activity is that drivers, seeing pedestrians, often become more cautious and alert and may reduce their driving speeds. Researchers have long argued that driver behavior outweighs physical elements (such as road design) as a causal factor in motor vehicle collisions (Evans, 2004, Boston University, 1976). A fundamental causal component of pedestrian–vehicle collisions is also behavior: that of the driver and that of the pedestrian (Worthington, 1991; Spainhour, et.al., 2006). Most reported pedestrian injuries are the result of collisions with motor vehicles. In 2003, 4,827 pedestrians were killed nationwide while walking down the street (Ernst 2004). Most of the fatalities occurred in urban areas at non-intersection locations at night. "Pedestrian injury is the third-leading cause of unintentional injury-related death among children ages 5 to 14," even though fewer children are walking (Ernst, 2004). On Delaware state highways in 2006, 26 pedestrians were killed, up from 10 in 2005 (Sanginiti, 2007).

Assuming the presence of adequate pedestrian facilities, when the number of pedestrians increases, walking becomes safer; drivers see the pedestrians and become more alert and cautious, and in time acclimate to their presence. In rural communities that do not provide adequate pedestrian facilities, fewer people walk, and those who do are in far more danger of pedestrian injuries and fatalities because motorists are not accustomed to watching for them. The lack of adequate facilities (sidewalks and crosswalks) also means that pedestrians are physically competing with cars for the same space. Safer streetscapes put the pedestrian first, raising the pedestrian profile through signage, lighting, and clear lines of sight. Other methods of increasing safety include slowing traffic in residential neighborhoods and near schools, maintaining safe walkways separate from the road, providing ample, well designed crosswalks, and teaching children to cross the street safely

Section 3 – Pleasantness of the Walk

Part 1: Sixty percent of the respondents ranked the pleasantness of their walk as 'good'. The remaining 40% ranked the pleasantness of their walk as needing improvement. The respondents listed that there are opportunities for improvement in the planting of more grass, trees, and/or flowers (80% made this comment). Sixty percent of the respondents made the comment that there were not enough trash bins and park benches for walkers. Less than fifty percent (20%) of respondents commented on the presence of trash and lack of lighting in the area.

Part 2: Sixty percent of respondents reported that they had a pleasant walk and there were no problems. 20% said that the path was not well-lighted. Therefore, it is suggested that actions are taken to provide better lighting at night for the pedestrians in the area.

Research specifies that distance to destinations affects pleasantness as the single factor that most affects whether or not people decide to walk or to take the car, and is more of a determinant than weather, physical difficulty, safety or fear of crime (Funihashi 1985; Komanoff and Roelofs 1993; Handy 1996; Smith and Butcher 1994). Research to date on pedestrian walking behavior is very limited.

Several studies have found that the distance Americans will walk for typical daily trips is quite limited, ranging from 400 ft to about 1 4 mi (Weinstein 1996). Untermann found that 70% of Americans would walk 500 feet for daily errands and that 40% would walk 1/ 5 mi; only 10% would walk 1 2 mi (Untermann 1984).

A pleasant walk has several of the following important attributes: 1. Connectivity of path network, both locally and in the larger community setting; 2. Linkage with other modes: bus, streetcar, subway, train; 3. Fine grained and varied land use patterns, especially for local serving uses; 4. Safety, both from traffic and social crime; 5. Quality of path, including width, paving, landscaping, signing, and lighting; and 6. Path context, including street design, visual interest of the built environment, transparency, spatial definition, landscape, and overall exportability.

Section 4 - Ease to Follow Safety Rules

Part 1: 100% of the respondents found it easy to follow safety rules. There were no problems in this area whatsoever.

Part 2: Answering the question of whether the pedestrians and their children could cross at crosswalks or other designated area, 80% of them said yes and 20% said no. 40% of respondents could stop and look left, right, and left again before crossing the streets, but 60% could not. 80% of the people surveyed could walk on sidewalks or shoulders facing traffic where there were no sidewalk as well as to cross with the light. However, 20% of them were not able to do so.

Pedestrians are prone to higher risk of injuries and fatalities when involved in traffic crashes 22 compared with vehicle occupants. In 2013, 66,000 pedestrians were injured and 4,735 were killed by 23 traffic crashes in the United States, accounting for about 3% and 14% of the total roadway injuries and fatalities, respectively (Administration NHTS, 2013). Research identifies that residential pedestrians perceived safety and walker protection as the most important criterion. This further validates a number of significant scholarly works which has consistently identified that pedestrians are deterred from walking because of the perceived danger in their walking environments. For example, a national level survey illustrated that 62% of survey respondents identified “danger from motorists” as one of the leading reasons pedestrians feel unsafe while walking (Royal and Miller-Steiger, 2008). In addition, perceived and actual lack of safe and secure environment is a strong deterrent to walking, significantly influencing pedestrian decision to walk, when and where to walk (McMillan 2010). Furthermore, Ziesel (1975) affirmed that an important human need is security which refers to the need to feel safe in a residential environment. Jacobs (1961) reiterated that the presence of strangers within an urban setting would contribute towards the feeling of safety in residential neighborhoods (Loukaitou-Sideris, 2006). As such, while pedestrians consider a multitude of factors when deciding to walk, perceptions of safety and security can strongly encourage or deter walking. Therefore, the provision of safer and secure pedestrian environments is important and potentially critical characteristic of making walking environments more pedestrian friendly.

According to Pacione (2009), the elderly found security, safety and friendliness of a neighborhood as important contributory attributes towards residential satisfaction while ease which refers to the condition of being emotionally and mentally secure, comfortable and stress-free is an essential condition to achieve pedestrian satisfaction. Being at ease in

a pedestrian environment allows stress-free participation in such a setting. For example, mentally and emotionally perceiving an environment to be secure from crime would result in a stress-free walk while the perceived knowledge that accidents usually happen along an intersection would make one feel cautious, constantly stressed or even threatened while plying the route. Therefore, ease refers to the need to be relieved from constraints within the walking environment so as to make walking easier. The feeling of relaxation, free from anxiety, and having peace of mind are key phrases, which illustrate relief from constraints or ease of walking

Recommendations

Use of local data

Civic decision makers and local citizens groups interested in infrastructure changes that will improve local walking conditions can review their community's data. This community data collected from completed checklists combined with other local data collection procedures such as traffic studies can help decision makers to prioritize infrastructure projects. 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 lighting.

Continued use of the checklist by residents will provide a growing base of data on existing supports for walkable communities in Kentucky as well as those areas in need of improvement. Kentucky municipalities are encouraged to promote use of the checklist as a way to engage constituents in creating a healthy community.

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Rockcastle, Laurel, Knox, and Bell County Walkability Survey

Walking within a community 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 in the community?

- ☐ 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 in the community?

- ☐ Yes, no problems (If you check Yes, please skip to question4)
- ☐ 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 through the community 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

9. Was it easy to follow safety rules? Could you and your child… (Circle Yes or No)

Cross at crosswalks or where you could see and be seen by the 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?

Yes No

Draw a map of the assigned community, labeling the county and community with north at the top. Sketch the bike route. Label cultural features/assets, Boone Trace historic features, and service directory

10. Please select from the map above the area where you walked in the county or where you collected your Walkability observation. Use the Madison County model to sketch the county. Label cultural features and community assets. Mark Boone Trace historical features in the community. List every service provider based on the UGGR model. (Obtain entity's name, phone number and address on a separate sheet).

11. When was this survey taken?

- ☐ Spring
- ☐ Summer
- ☐ Fall
- ☐ Winter

___/_____ (MM/YYYY)

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.

U.S. Department of Transportation
Federal Highway Administration

U.S. Department of Transportation
National Highway Traffic Safety Administration

United States Environmental Protection Agency

SafeRoutes
National Center for Safe Routes to School

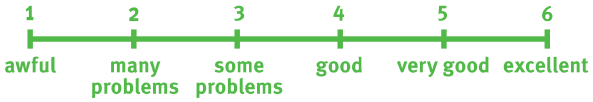
Pedestrian and Bicycle Information Center

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)
1 2 3 4 5 6

Locations of problems:
_____

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)
1 2 3 4 5 6

Locations of problems:
_____

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)
1 2 3 4 5 6

Locations of problems:
_____

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)
1 2 3 4 5 6

Locations of problems:
_____

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)
1 2 3 4 5 6

Locations of problems:
_____

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

1. _____
2. _____
3. _____
4. _____
5. _____

Total: _____

26–30	Celebrate! You have a great neighborhood for walking.
21–25	Celebrate a little. Your neighborhood is pretty good.
16–20	Okay, but it needs work.
11–15	It needs lots of work. You deserve better than that.
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 wih 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

U.S. Department of Transportation Federal Highway Administration

U.S. Department of Transportation National Highway Traffic Safety Administration

SafeRoutes National Center for Safe Routes to School

Pedestrian and Bicycle Information Center