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Walkable Gettysburg— How Pedestrian Friendly is the Borough of Gettysburg, Pennsylvania?

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Abstract
Walkability is a measure of how easily pedestrians can reach a variety of destinations via walking. Greater walkability has been linked to several benefits, including improvements in human health, economic stimulus, and improved air quality. We surveyed 37 blocks in Gettysburg, Pennsylvania to record the presence of 13 design factors such as street trees and pedestrian oriented amenities that have been shown to encourage walking. These results were then compared with the Walk Score from walkscore.com, a common measurement tool of walkability. Based on the surveys, we calculated a design quality score (DQI) for each block. There was no correlation between DQI and Walk Score. The highest scores for aesthetics were recorded near Gettysburg College, the highest scores for ease of use were recorded around the traffic circle at the center of town, and the highest scores for safety were recorded near the traffic circle and the College. We believe that this discrepancy can be attributed to the focus of walkscore.com on the proximity of a location to various destination while our DQI score considered aesthetics, ease of use, and safety. Based on the results of this study, we recommend that the borough of Gettysburg invest in alternatives to automobile transport such as bicycle oriented amenities in order to increase walkability.

Keywords
Walkability, Gettysburg, Pedestrian

Disciplines
Environmental Education | Environmental Indicators and Impact Assessment | Environmental Sciences | Natural Resources and Conservation | Sustainability | Tourism

Comments
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Abstract: Walkability is a measure of how easily pedestrians can reach a variety of destinations via walking. Greater walkability has been linked to several benefits, including improvements in human health, economic stimulus, and improved air quality. We surveyed 37 blocks in Gettysburg, Pennsylvania to record the presence of 13 design factors such as street trees and pedestrian oriented amenities that have been shown to encourage walking. These results were then compared with the Walk Score from walkscore.com, a common measurement tool of walkability. Based on the surveys, we calculated a design quality score (DQI) for each block. There was no correlation between DQI and Walk Score. The highest scores for aesthetics were recorded near Gettysburg College, the highest scores for ease of use were recorded around the traffic circle at the center of town, and the highest scores for safety were recorded near the traffic circle and the College. We believe that this discrepancy can be attributed to the focus of walkscore.com on the proximity of a location to various destination while our DQI score considered aesthetics, ease of use, and safety. Based on the results of this study, we recommend that the borough of Gettysburg invest in alternatives to automobile transport such as bicycle oriented amenities in order to increase walkability.

Introduction

Walkability is a measure of how easily destinations can be reached using walking as a means of transportation. Cities and towns that are planned in a manner that favors pedestrians are more walkable, and exhibit several advantages over cities modeled around easy use of the automobile. The benefits of a higher walkability include: greater health and safety of residents, cleaner air, greater opportunity for local economic development, and a greater number of opportunities for social connections

Walkable areas exhibit several features that make them walkable. There has been extensive research conducted on the role of these factors, and walkable areas are clean, and contain attractive buildings, sidewalks and trees. They also are well lit, have signs built on a human rather than automotive scale, and contain various pedestrian oriented amenities such as benches, trash cans, and water fountain, hat make walking a comfortable pedestrian experience. Walkable areas contain buildings that serve many functions, such as providing residence, businesses, and social areas. In addition, the impact of automobiles in discouraging pedestrians is minimized through features such as metered on street parking, narrow street width, and impediments to reduce speed.

These features of walkable design result in several benefits for walkable areas, such as improvements in the health of residents. A 2005 study executed in Atlanta studied four separate groups of people, each living within a different stratum of walkability, and recorded how much walking people within each group did on a daily basis. The results of this study display that 37% of people living within the highest rated area for walkability walked 30 minutes a day, while only 18% in the bottom quartile walked as much as 30 minutes a day (Frank et al. 2005).

There are also economic benefits to promoting the walkability of an area. A 2011 economics study found that a 10 point increase in walk score correlated with increases in property values by as much as 9% (Pivo and Fisher 2011).

In addition to the economic and health benefits walkability can induce, greater walkability can also result in greater pedestrian safety. Streets designed for automobiles create a dangerous environment for pedestrians. For example, the presence of on street parking and street trees creates a buffer zone between people walking on sidewalks and cars on the road (Dumbaugh 2005, Speck 2012). In 2005, accidents involving motor vehicles claimed a total of 43, 510 lives (U.S Census Bureau 2012). Research has shown that the presence of properly placed trees and pedestrian oriented amenities reduce the likelihood of roadway incidents (Dumbaugh 2005).

An additional benefit of reducing an areas reliance on automobiles through implementing walkable design is promoting more environmentally benign patterns of behavior. For example, if groceries and other commodities are available in a walkable sphere around an individual's home (through the principle of mixed use), instead of driving long distances to procure goods, people are instead afforded the ability to walk to stores and businesses. This makes walkable cities much more energy efficient than other patterns of living . Walkable design also espouses alternatives to automobiles, such as public transit services like subways, trolleys and buses, which use less energy per capita over a given distance when sufficiently occupied (Schäfer et al. 2009).

The number of social connections made in an area has been shown to increase with walkability. The authors of a 2014 study of two New Hampshire communities claim that residents in the more walkable of the two communities have larger social networks as a result of living in an area that encourages public gathering and meeting face-to-face. (Rogers et al. 2014). In addition, residents of more walkable areas are likely to spend less time in cars, which frees up leisure time. A 2004 study found that 23 additional minutes of commuting had the same effect on happiness as a 19% reduction in income (Stutzer and Frey 2008).

There have been several efforts made to quantify walkability. In the 2013 study "How Does Design Quality Add to our Understanding of Walkable Communities?" by Cook et al., a 26 item protocol was developed for assessing walkability in an urban context (Cook et al. 2013). This protocol included features such as on street lighting, building aesthetics, and sidewalk condition. This protocol sought to evaluate design quality, and thus ignored proximity to destinations which is a major component of walkability. This protocol developed by Cook et al. on design quality factors informed the creation of the protocol used in this study.

The widely used web-based service "walkscore.com" provides a 0-100 walkability score to users based upon the proximity of the address entered to various potential recreational and functional destinations. Specifically, walkscore evaluates how far the point entered is from nine different categories, including transit, parks, schools, dining, and shopping (Speck 2012). However, this evaluation of walkability fails to measure several other factors that influence the walkability of an area, such as block length, whether or not there are sidewalks, and the average speed at which vehicles travel. While the algorithm walkscore uses to evaluate walkability is quite simple as it is based on the average proximity of a point to a variety of other points that represent potential destinations, quantifying how factors other than proximity contribute to walkability is a much greater challenge.

This study evaluates 13 criteria that have been demonstrated in scientific literature to contribute to walkability such as block length, presence of street trees, sidewalks, and lighting.

The setting for this study was Gettysburg, Pennsylvania, and through applying 13 criteria of walkability, a score was created for individual blocks that reflects the presence of these 13 factors of walkability. The trends in this score were contrasted with walkscore in an attempt to answer the research question "How walkable is Gettysburg?"

Methods

The first step in assessing the walkability of Gettysburg through design quality indicators other than proximity was identifying specific criteria for evaluation through this study. Through examining existing literature, 13 criteria were selected to be included in this evaluation of walkability. In selecting criteria, the aim was to choose things that would be observable within the allotted timeframe of one month and in just one visit, and factors that could be observed with the greatest degree of objectivity possible. The study "How Does Design Quality Add to our Understanding of Walkable Communities?" by Cook et al. served as a template for assessing walkability quantitatively (Cook et al. 2014). Other literature such as the book *Walkable City* indirectly informed the protocol used to assess walkability quantitatively by highlighting features that significantly contribute to walkability (Speck 2012). The instrument developed can be viewed in the appendix (Fig.8).

This survey was administrated along commercial streets within the borough of Gettysburg. These streets present the greatest variety of uses and experience the greatest degree of pedestrian and automotive activity. Within the time period of this study (1pm -4pm), surveying each block along each commercial street within the borough of Gettysburg was not practicable, although doing so would have provided a dataset that better reflects the whole of Gettysburg.

Alternating blocks along the six major commercial streets of rt. 30, rt.116, rt.15, Washington St., Stratton St., and High St., were surveyed, totaling 37 blocks (**Fig. 1).** Based on the category each block belonged to for each criterion included in the survey protocol, 0-3 points were awarded for a final score of 0-36 for each block surveyed (**Fig. 2).**

In order to determine block length, spatial analysis was performed using Google earth, and an additional 0-3 points were awarded based upon the length category of a given block. After all of the data was aggregated into a single table, we used ArcGIS software to join our data to a map of Gettysburg and used this to conduct further spatial analysis.

The survey data collected was then separated in to three categories: aesthetics, safety, and ease of use. The category of aesthetics included: cleanliness, street trees, building condition, and sidewalks. The category of safety included: lighting, parking, and street width. The ease of use category included: block length, pedestrian amenities, signage, mixed-use, and alternatives to automobile travel.

In order to create a spatial scale at which to observe the results, three maps were created to display the score for each block for each major category of aesthetics, safety, and ease of use. Larger points on the map were designed to represent blocks that represent higher scores for a given category.

In order to better understand the relationship between the data collected using the study protocol and Walk Score, a scatterplot was created. The Walk Score value was determined using a sample address from each block surveyed. This value was then plotted against the score assigned in this study to examine potential relationships between the two metrics of walkability.

Results

The 37 blocks surveyed are represented by each point on the map of the borough of Gettysburg. (**Fig. 1)**. For both our protocol and walkscore.com, we found that blocks located near the center of town scored highest (**Fig. 2**, **Fig. 3**). However, we found that the score assigned using the DQI protocol was uncorrelated with walkscore (**Fig**. **4**).

The average score awarded for the 37 blocks surveyed using the protocol developed in this study was 47/100. The average score assigned by walkscore.com using a sample address from each of 37 blocks studied was 81/100. The lowest recorded DQI score was 28.2/100 and the highest recorded DQI score was 76.92/100. The lowest score assigned by walkscore.com was 60/100 and the highest score assigned by walkscore.com was 97/100.

Places that scored high marks in the aesthetics category tended to be clustered around the traffic circle located by the Borough's center, by the College, and by Steinwehr Avenue. Blocks that scored a low cumulative tally for the aesthetics category tended to be located around the periphery of the town (**Fig. 5**).

Blocks that scored high in the safety category tended to be clustered around the traffic circle located by the Borough's center and by the College. Areas along the periphery of town and by Steinwehr Avenue scored a low cumulative tally for the safety category (**Fig. 6**).

Blocks that scored high in the ease of use category tended to be clustered around the traffic circle located by the Borough's center and by Steinwehr Avenue. Areas along the periphery of town and by the College scored a low cumulative tally for the ease of use category (**Fig.7**).

Blocks located near the periphery of town and also blocks found around the college are located in zoning districts that were primarily residential (Borough of Gettysburg 2008).

Discussion

Perhaps the most noticeable difference between our results and the findings reported on walkscore.com is the significantly low score sour methodology produced when compared to the scores generated by walkscore. However, this difference can be attributed to the different qualities that each design assesses and does not necessarily represent conflict between the two methods of assessing walkability. While our study focused on aspects of street design and aesthetics (the Design Quality Indicators or DQI), Walkscore measures solely the proximity of an address to a variety of destinations (Walkscore 2014). Both sets of criteria for evaluating walkability comprise what makes an area walkable (Ewing and Handy 2009, Speck 2012, Cook 2013). Walkscore provides a baseline assessment of how practical a means of transportation walking is from a given address, and the design quality protocol evaluates other factors that contribute to the experience of the pedestrian and may influence the decision one makes on whether or not to walk.

While walkscore and the design quality score were uncorrelated (**Fig. 4**), the differences between the scores provide useful information in assessing how effective planning strategy has been in encouraging walking in the borough of Gettysburg. In blocks with a high walkscore but a low design quality score, it is suggested that insufficient attention has been given to promoting walking through design. The proximity of such a block to destinations suggests that walking would be a practical choice based on distance, but the low rating assigned using the design quality protocol suggests that walking may be discouraged by the aesthetics, feeling of safety, and ease of pedestrian use (Dumbaugh 2005, Frank et al. 2005). As urban planner Jeff Speck argues in *Walkable City*, it should be the priority of urban planners to encourage walking, and in doing so planners should “pick their winners,” selecting areas that are likely to have the highest marginal utility on investment to encourage walking. Areas with a high walkscore are close to a variety of features which provides a direct impetus to encourage walking, and investment to further encourage walking in these areas through improving factors of design quality can further cement walking as a preferred means of transport within a region (Frank et al. 2005, Speck 2012)

By looking at specific points, it becomes possible to examine how definite criteria affect the overarching score and how the score from walkscore.com and our DQI protocol can be so different. For example, point 7 has a walkscore of 80, but a design quality score of just 28.This block is longer than 600 feet, features just two categories of uses, has no pedestrian oriented amenities, and has only sparse on street trees. Given the walkscore of 80 for this block, it is nearby a variety of destinations reachable using walking as transportation, yet walking may still be discouraged along this segment by the negligence of aesthetics and ease of use.

Conversely, in areas with a relatively low walkscore but a high design quality score, it is suggested that the investment into encouraging walking has been incommensurately high given the limitations to the practicality of walking posed by proximity. Investment into encouraging walking such as investing in a costly sidewalk material like brick is money poorly spent if potential pedestrian destinations are distant.

Furthermore, point 23 has a design quality score of 62 and a walkscore of 66. This street has lighting every 50 feet, brick sidewalks on both sides of the street, and pedestrian amenities. A walkscore of 66 suggests that the investment into design quality along this block was too great given the distance of this location to potential destinations. The investment into encouraging walking applied to this location would theoretically have had a greater utility in inducing walking in an area closer to potential destinations.

Disparity in the investment of capital is one explanation for this pattern. The College has invested heavily in the maintaining the aesthetics of its streets, and it benefits by improving nearby areas in order to attract students and create a safe environment. The Borough may be more likely to invest in improving blocks around the traffic circle because it forms the central hub for many of the roads in the county, and is contains many important economic and civil buildings. When faced with the question of where to disperse limited amounts of funds, it makes sense that city planners would choose to invest in such an important area and invest less in peripheral neighborhoods where rates of commerce are significantly lower.

We found that no blocks qualified for inclusion in our ease of use category cluster, while =once again the areas that received a low ease of use score were located away from the Borough center near the periphery of town (**Fig. 8**). However, just because no blocks qualified for inclusion in our use category, this does not suggest that there are no parts of Gettysburg that excel in this category. We can attribute these results to the manner in which we aggregated the data. In order to qualify for inclusion in our ease of use category, a block had to attain a score greater than or equal to two in all five of the criterions that constitute the ease of use group. Even if a block scored highly in all criteria of ease of use but one, it still was not identified as best representing ease of use. Perhaps if the method for identifying blocks most successful in the three categories of aesthetics, ease of use, and safety were selected based on total score for each category, rather than fulfilling a minimum requirement for each criterion, maps could have been created that better represent success in the three categories.

Another factor that could have skewed the results of this study was the one block scale at which walkability was assessed. For example, if a block contained strictly residences, it scored 0 points in the “mixed-use” criterion, and if no pedestrian oriented amenities were present, it scored a 0 for that category as well. However, it is possible that the next block over contained a variety of uses, and several pedestrian oriented amenities. The presence of these factors one block away from the sampled block still contribute to the walkability of the block surveyed, yet are not included in the score awarded for the design quality walkscore of that block.

There are several additional limitations to this study worth noting. Seasonality limited our ability to gauge levels of pedestrian activity. Although this was not critical to our study, it is important to take this into consideration as a potential next research topic. We were only able to survey during November, and the cold weather may have discouraged pedestrian activity. It would have also been beneficial to visit each site multiple times but due to time constraints were not able to visit each site more than once. Lastly, we surveyed only on weekdays between one and four p.m., and as Gettysburg is a tourist town, its central business district is likely to experience greater activity on the weekends.

While the data collected in this study could have been improved by surveying all blocks along commercial streets rather than alternating blocks, and through visiting each site on multiple occasions at different times of the year and day, this dataset still provides a functioning groundwork for further study. The data collected in this study at the block scale can stand alone, and it could also be utilized in a more expansive study evaluating walkability in Gettysburg using larger base segments. Using larger base segments could address any issues that we encountered in this study that resulted from the one block unit of measurement.

Conclusion

Our results indicate that while Gettysburg offers a variety of destinations clustered around the core of town, there remain several ways in which walking could be further promoted as a method of transportation. One criteria of walkability which demonstrated a major need for improvement was alternatives to automobile travel. The borough of Gettysburg contained few, if any amenities oriented towards the use of bicycles, and bus stops were sparsely distributed throughout the borough.

Additionally, on some blocks, it is suggested that the investment in design quality to encourage walking has been insufficient given the proximity of the block to potential destinations, such as along High St. and Stratton St.. On other blocks, such as along Steinwehr Avenue, it is suggested that the investment in design quality to promote walking has been too high given the proximity of the block to potential destinations, and that this investment would have a greater effect in inducing walking if applied to blocks with a higher walkscore.

Ideally, planners would be able to invest in features designed to promote walkability throughout the entire Borough. However, financial constraints make it wise to attempt to achieve the greatest impact in encouraging walking when investing in walkable design. Thus, as urban planner Jeff Speck says, planners should “pick their winners” and invest heavily in walkable design in concentrated mixed-use areas that are likely to achieve high rates of pedestrian activity, because several blocks within Gettysburg demonstrated high mixed use but low investment in design quality, or high investment but low mixed use.

Literature Cited

Borough of Gettysburg. 2008. Exhibit “A” - Zoning Map <http://www.gettysburg-pa.gov/images/zoning36> Accessed December 2, 2014.

Boarnet, M.G., A. Forsyth, K. Day., and J.M. Oaks. 2011. The Street Level Built Environment and Physical Activity and Walking: Results of a Predictive Validity Study for the Irvine Minnesota Inventory. *Environment and Behavior* (43): 735- 775.

Brownson, R.C., C.M. Hoehner, L.K. Brennan, R.A. Cook, M.B. Elliot, and K.M. McMullen. 2004. Reliability of 2 Instruments for Auditing the Environment for Physical Activity. *Journal of Physical Activity and Health* (1): 191- 208.

Dumbaugh, E. 2005. “Safe Streets, Livable Streets”. *Journal of the American Planning Association* (71): 283- 300.

Ewing, R. and S. Handy. 2009. Measuring the Unmeasurable: Urban Design Qualities Related to Walkability. *Journal of Urban Design* (14): 65- 85.

Cook., J.A., M. Bose, W. E. Marshall, and D.S. Main. 2013. How Does Design Quality Add to our Understanding of Walkable Communities? *Landscape Journal* (32): 151- 166.

Frank, L., T. Schmid, J. Sallis, J. Chapman, B. Saelens. 2005. “Linking Objectively Measured Physical Activity with Objectively Measured urban Form: Findings from SMARTRAQ.” *American Journal of Preventive Medicine* (28): 117- 125

Frank, L.D., J.F. Sallis, T.L. Conway, J.E. Chapmon, B.E. Saelens and W. Bachman. 2006. Many Pathways from Land Use to Health: Associations between Neighborhood Walkability and Active Transportation, Body Mass Index, and Air Quality. Journal of the American Planning Association (72): 75- 87.

Loukaitou- Sideris, A. 2006. Is it Safe to Walk? Neighborhood Safety and Security Considerations and their Effects on Walking. *Journal of Planning Literature* (20): 219-232.

Pivo, G. and J.D. Fisher. 2011. The Walkability Premium in Commercial Real Estate Investments. *Real Estate Economics* (39): 185- 219.

Rogers, S.H., K.H. Gardner, and C.H. Carlson. 2014. Walking builds community cohesion: Survey of two New Hampshire communities looks at social capital and walkability. *New England and New Hampshire Issue Brief* (38): 1-6.

Schäfer, A., J.B. Heywood, H.D. Jacoby, and I.A. Waitz. 2009. Transportation in a Climate Constrained World. The MIT Press, Cambridge, MA, USA

Speck, F. 2012. Walkable City: How Downtown Can Save America, One Step at a Time. North Point Press, New York, New York, USA.

Stutzer, A. and B.S. Frey. 2008. Stress that Doesn't Pay: The Commuting Paradox. *Scandinavian Journal of Economics*. (110): 339- 366.

U.S. Census Bureau. 2012. Table 1105. Fatal Motor Vehicle Accidents—National Summary: 1990 to 2009. <http://www.census.gov/compendia/statab/2012/tables/12s1105.pdf> Accessed November 20, 2014.

Walkscore. 2014. How Walk Score Works. <https://www.walkscore.com/live-more/> Accessed December 3, 2014.

Fig. 1- 37 blocks surveyed along rt. 30, rt.116, rt.15, Washington St., Stratton St., and High St.

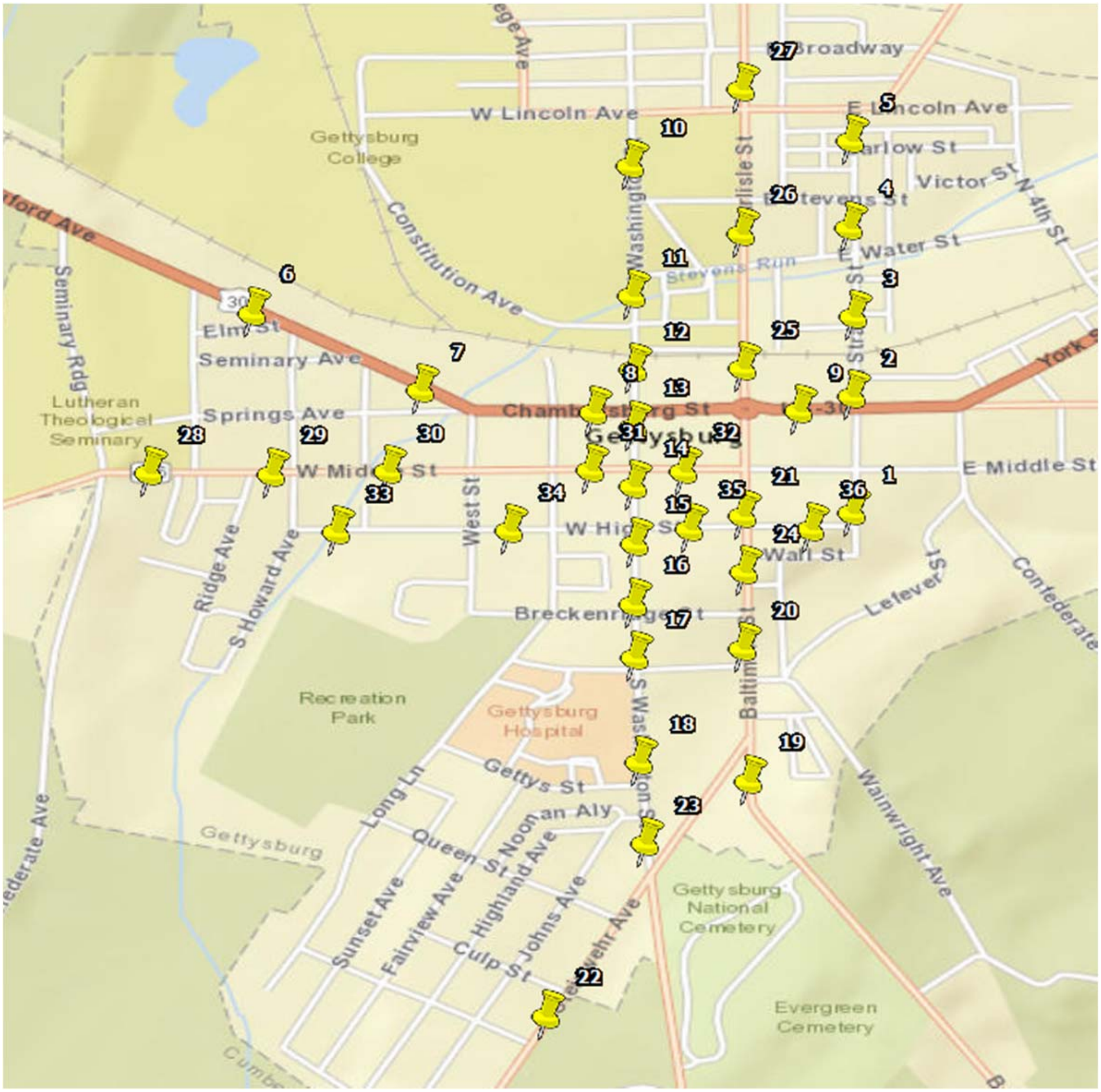


Fig. 2- Walkscore.com score for each block. Low scores are represented by small circles, and high scores by large circles.

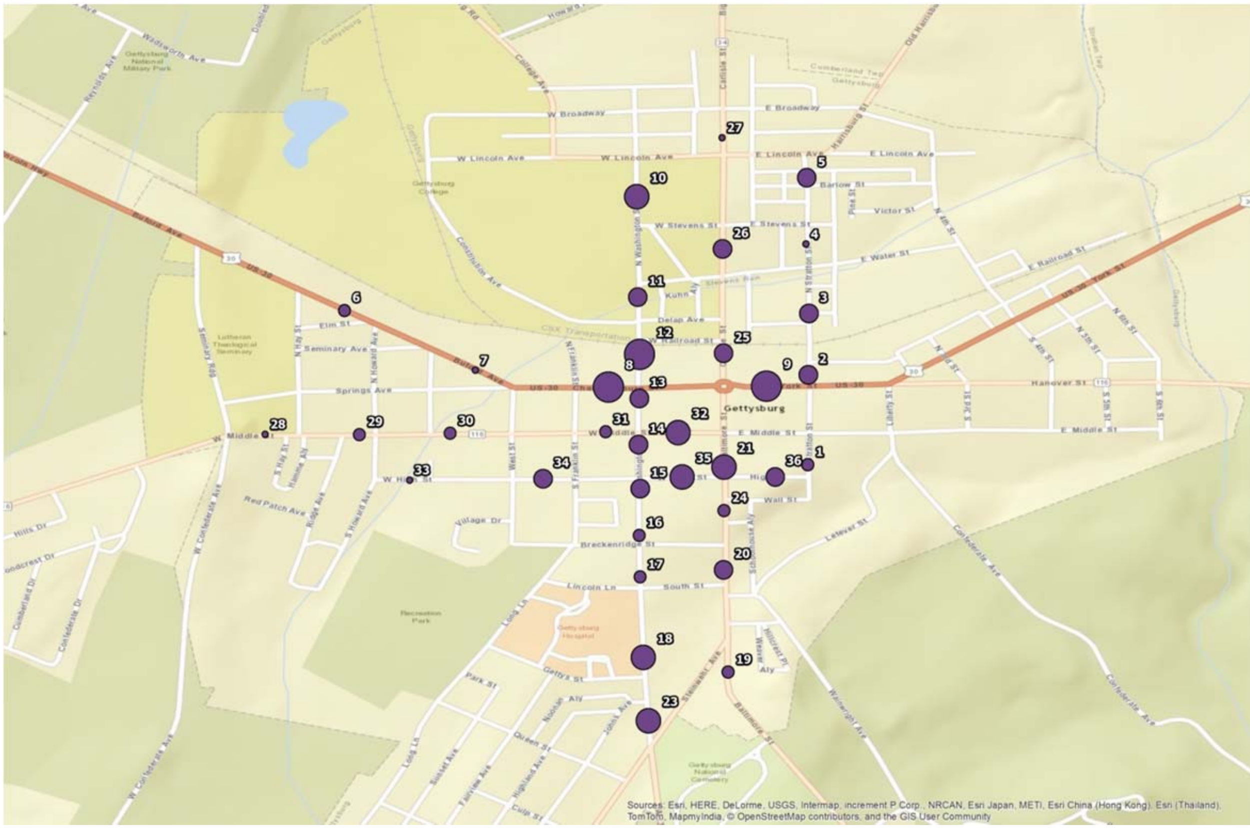


Fig. 3- Cumulative DQI score for each block. Low cumulative scores are represented by small circles, and high scores by large circles.

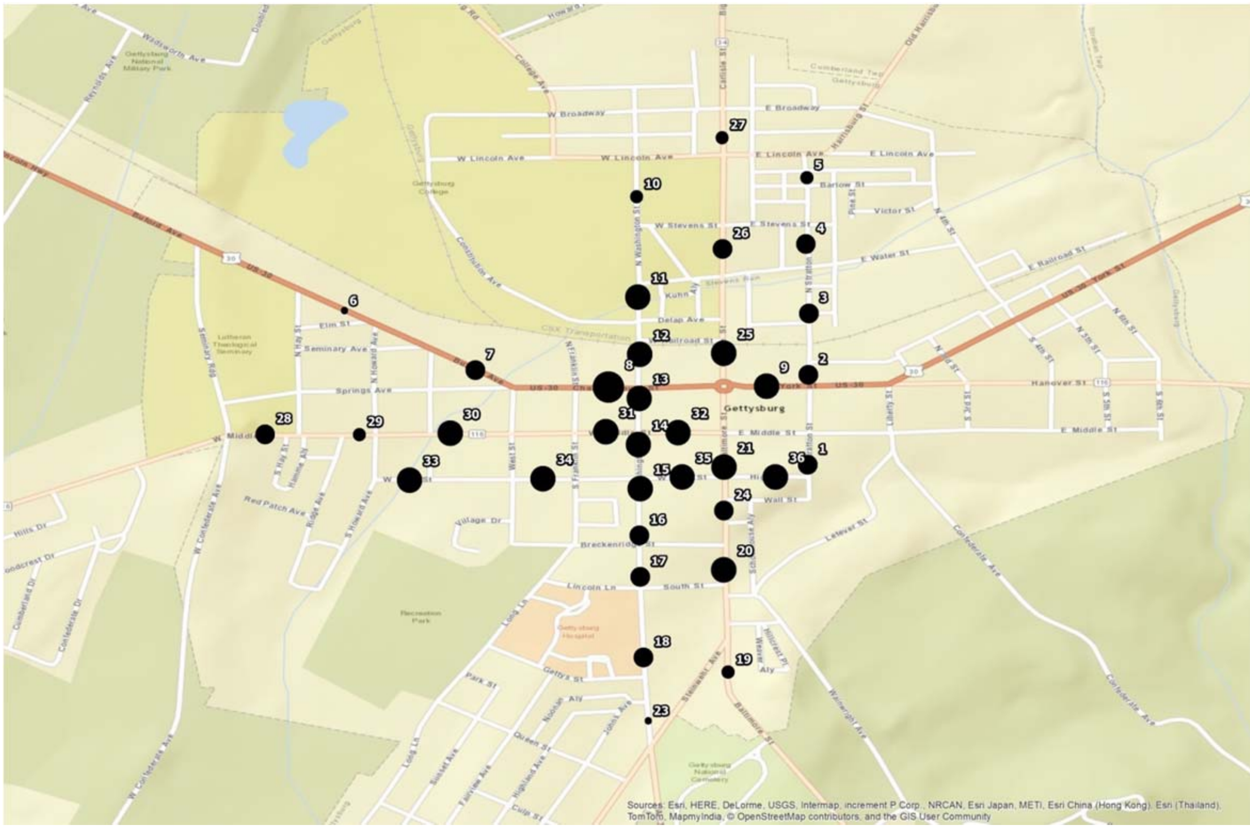


Fig.4 - Scatterplot comparing the walkscore and survey score of each block

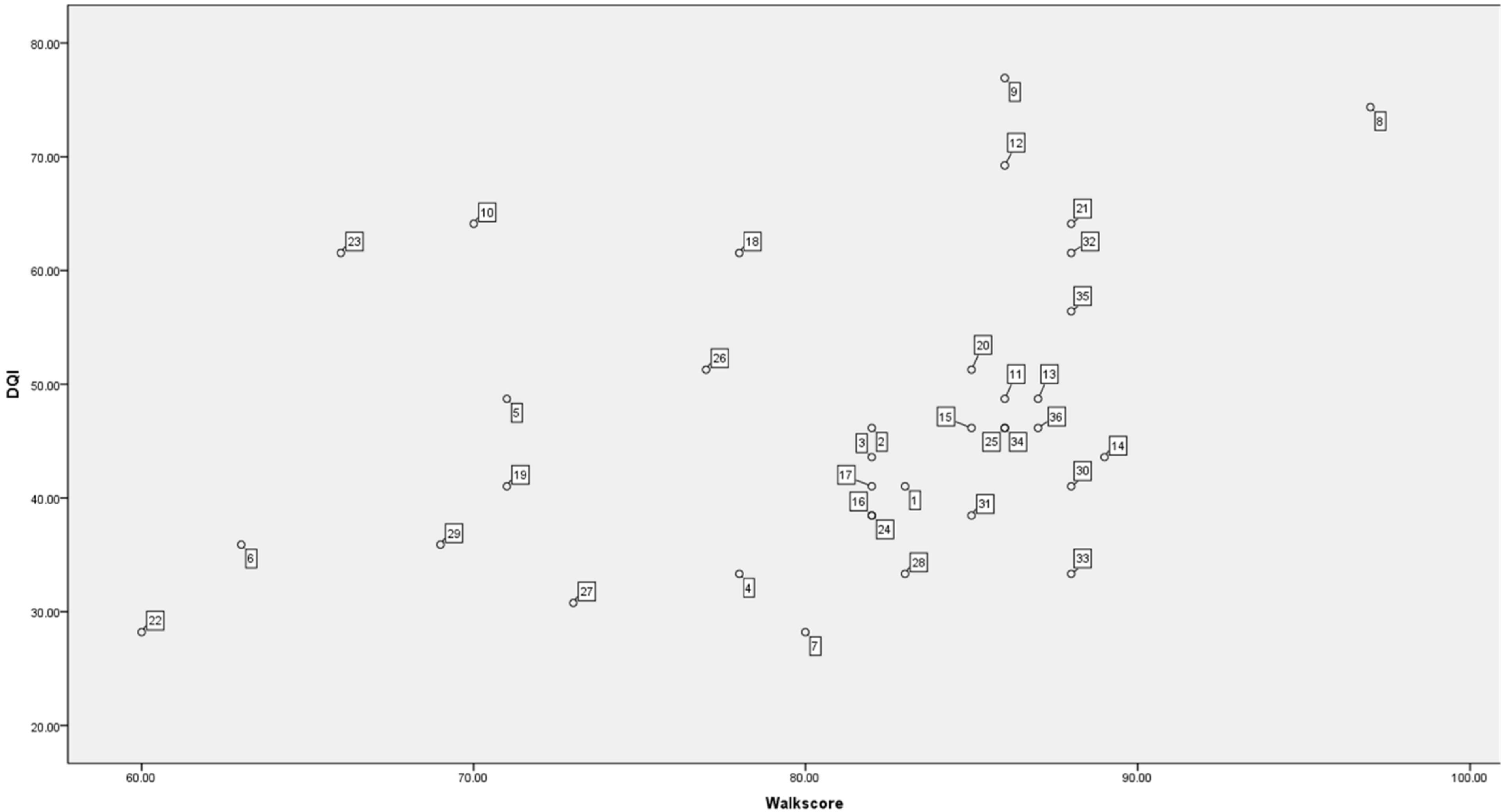


Fig.5 - Tally of the combined score that each block received for criterions in the aesthetics category. Low cumulative scores are represented by small circles, and high scores by large circles.

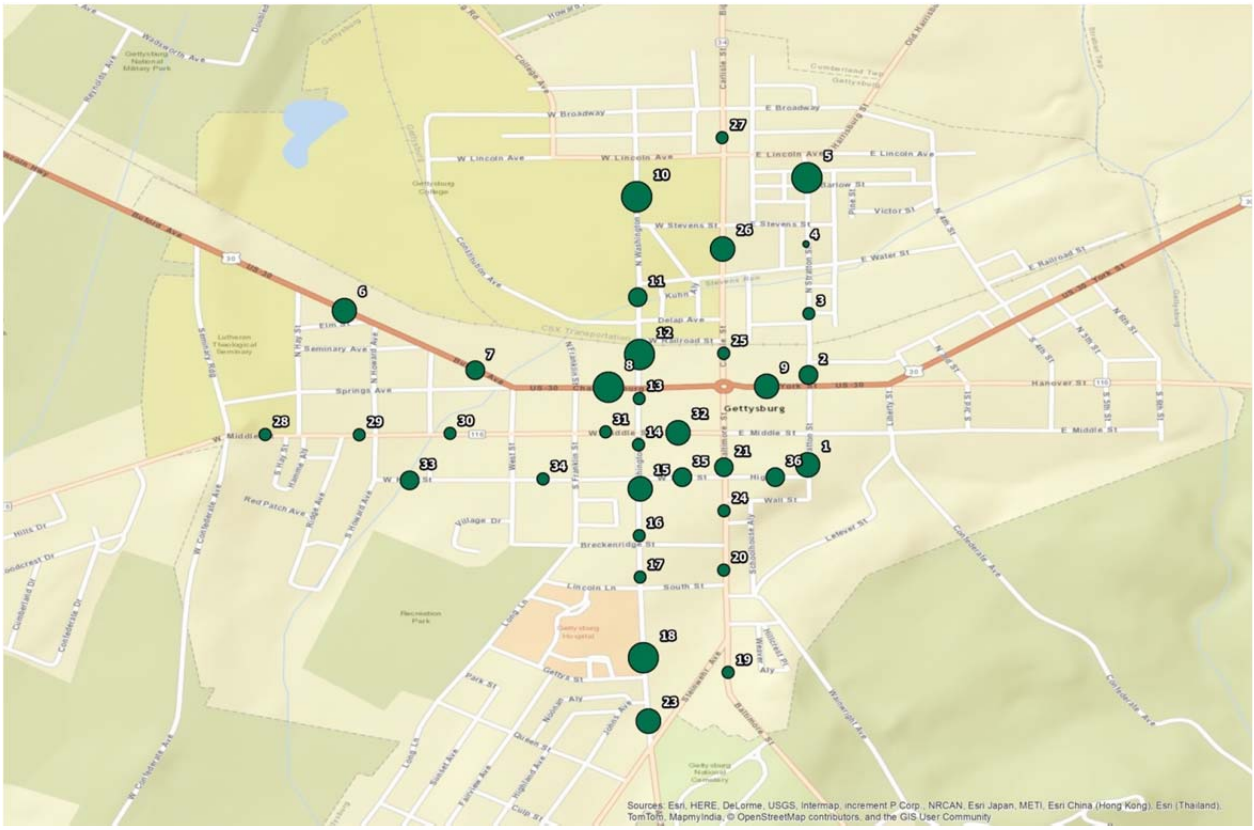


Fig.6- Tally of the combined score that each block received for criterions in the safety category. Low cumulative scores are represented by small circles, and high scores by large circles.

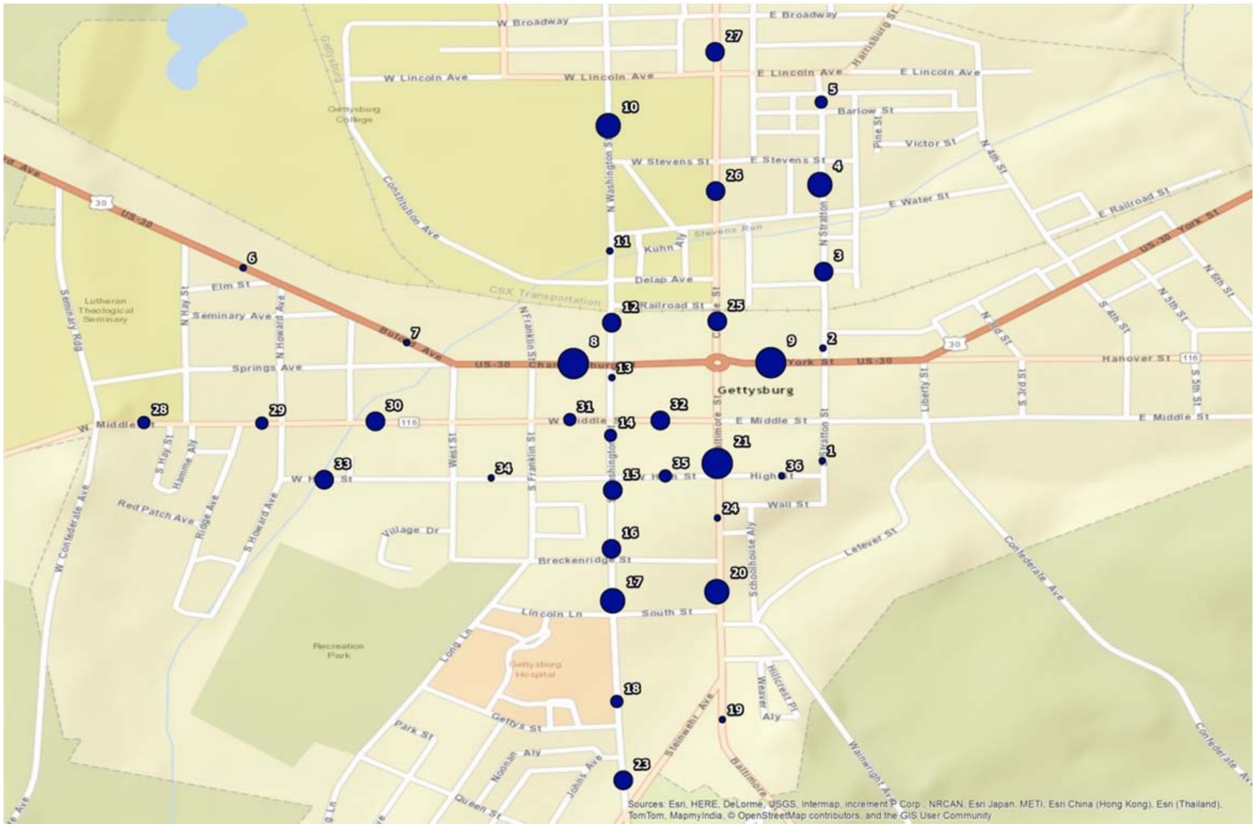
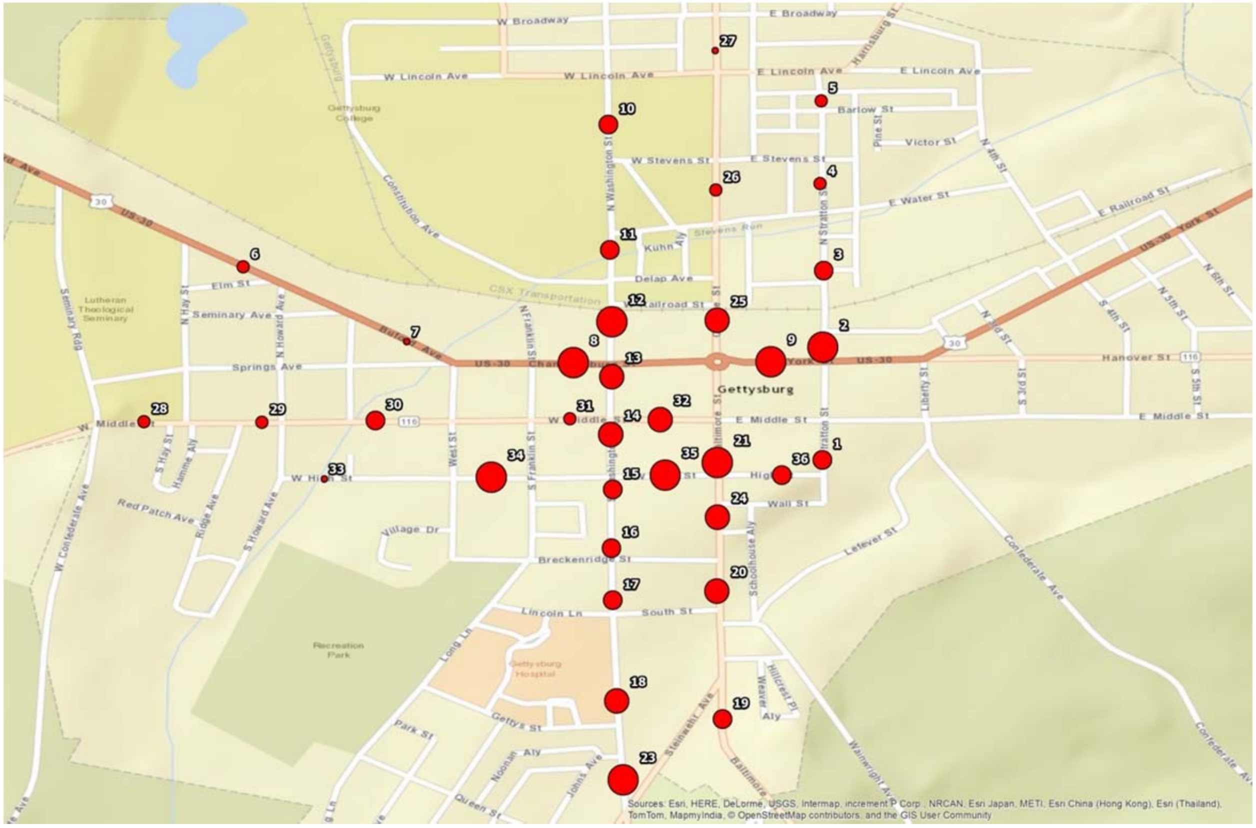


Fig. 7- Tally of the combined score that each block received for criterions in the ease of use category. Low cumulative scores are represented by small circles, and high scores by large circles.



Appendix

Fig. 8- Survey Protocol used during field walkability survey.

Walkability Field Survey Protocol

Pedestrian safety

Lighting __/3

0 points- There is no lighting on this block
1 point - There is one streetlight every 100' or more
2 points- There is one streetlight every 75'
3 points- There is at least one streetlight every 50'

Parking __/3

0 points- There are off street parking lots present along this block
1 point- There is no on street parking
2 points- There is free on street parking
3 points- There is metered on street parking

Street width __/3

0 points- This Street is 4 lanes wide or wider than 4 lanes
1 point- This Street is 3 lanes wide
2 points- This Street is 2 lanes wide
3 points- This Street is 1 lane wide

Aesthetics and pedestrian use

Cleanliness __/3

0 points- Trash or debris are present along nearly this entire block
1 point- Trash or debris are present along most of this block
2 points- There is little trash or debris along this block
3 points- There is no trash or debris along this block

Street Trees __/3

0 points- There are no street trees present on this block
1 point - There are few trees present along this block, or the present trees are small
2 Points -There are large trees every 50 feet along this block
3 Points -There are large trees every 25 feet

Building condition __/3

0 points- Almost all buildings on this block display evidence of neglect or disrepair (graffiti, damage, paint chipping)
1 point- At least one third of the buildings along this block display evidence of neglect or disrepair

2 points- Less than one third of the buildings along this block show evidence of neglect or disrepair
3 points- No buildings along this segment show evidence of neglect or disrepair

Sidewalk condition __/3
0 points- There are no sidewalks along this block
1 point- There is a sidewalk on one side of the road
2 points- Both sides of the road have sidewalks; but they are constructed of unattractive material (concrete, asphalt)
3 points- Both sides of the road have a sidewalk, and they are constructed from attractive material (brick, cobblestone)

There are pedestrian oriented amenities (such as street furniture, benches, tables, trash cans, public green spaces or gardens, artwork, and fountains) on this block __/3
0 points- There are no pedestrian oriented amenities on this block
1 point- There is 1 pedestrian oriented amenity on this block
2 points- There are 2 pedestrian oriented amenities on this block
3 points- There are 3 or more pedestrian oriented amenities on this block

Signage __/3
0 points- There are no signs present
1 point- Signs are present but they are at an automotive scale (billboards, large street signs)
2 points- Signs are present at both a pedestrian scale (community banners, posters) and automotive scale; but more than 50% are automotive
3 points- Signs are present at both a pedestrian and automotive scale; but more than 50% are pedestrian

Indicators of pedestrian use __/3
0 points- There are no people present and no indications that people frequent this block
1 point- There are 1 or 2 people present and no indications that people frequent area
2 points- There are small crowds of people (3-10) or evidence of moderate pedestrian activity
3 points- There are large crowds (10+) or evidence of high pedestrian activity

Alternatives to automobile travel __/3
0 points- There are no evidence of biker oriented amenities (such as bike lanes or bike racks) and there is no bus stop on this block
1 point- There are bicyclists present but no evidence of biker oriented amenities, or there are amenities but no evidence of cyclist use
2 points-There are two of the following: bicyclist amenities, evidence of bicyclist use, or a bus stop
3 points- There are bicyclist amenities present, evidence of bicyclist use, and a bus stop

Mixed Use (*residential, service, commercial, community, recreational*) __/3
0 points- All buildings along this block serve the same use

1 point- 2 uses are served
2 points- 3 uses are served
3 points- 4 or more uses are served

Block Length __/3
0 points-Blocks is 600ft or more
1 point- Block is between 501 and 599ft
2 points- Block is between 401 and 499ft
3 points- Block is less than or equal to 400ft

Total: __/39
Converted grade: __/100

Walkscore grade: __/100

Observations

Speed Limit

Parking

Number of Amenities