

Research Notebook

Source 1:

Research Question: What are the policies to promote walking in Worcester?

Database/ Search Engine: Google Chrome

Search Terms: "Policies", "Promote", "Walking", "Worcester"

Citation: Pooley, C. G., Horton, D., Scheldeman, G., Mullen, C., Jones, T., Tight, M., Jopson, A., & Chisholm, A. (2013). Policies for promoting walking and cycling in England: A view from the street. *Transport Policy*, 27, 66–72. <https://doi.org/10.1016/j.tranpol.2013.01.003>

Summary: Transport policies mainly look at persuading people of the health benefits of walking and cycling for short trips and have assumed that if people can be persuaded that more active travel has personal benefits then behavioral change will follow. The attention is given to three sets of factors: perceptions of risk; constraints created by family and household responsibilities; and perceptions of normality. Actions to promote walking and cycling have focused mainly on making this form of travel easy and attractive through the development of new infrastructure and the provision of cycle training, especially for children. Recent policies have been reluctant to adopt more interventionist approaches relying instead on persuasion and promotion of active travel mainly on health grounds. In London, investment in cycle lanes, the introduction of a cycle hire scheme, and the promotion of cycling for utility travel both by the Mayor of

London and by a number of active campaign groups has caused the reduction in car use and an increase in levels of walking and cycling for short journeys. The increase in cycling in London remains concentrated in a relatively narrow socio-economic and demographic band and is focused mainly on the central city. Many respondents said that they would find walking enjoyable, that it would benefit their health and that it would reduce pollution. For cycling most felt travel by bike would be good for their health, would save money and would contribute less to pollution, but very fewer said they would find cycling enjoyable. Many respondents considered that it was unsafe to cycle on most urban roads due to the dangers from motorized traffic. Safety concerns were more muted from walkers but were also present—especially from female respondents—with many respondents varying their routes according to the time of day and avoiding quiet streets where they felt more at risk of assault.

Source 2:

Research Question: How to increase safety in a neighborhood?

Database/ Search Engine: Google Chrome

Search Terms: “Increase”, “Safety”, “Neighborhood”

Citation: Pitner, R. O., Yu, M., & Brown, E. (2012). Making neighborhoods safer: Examining predictors of residents’ concerns about neighborhood safety. *Journal of Environmental Psychology*, 32(1), 43–49. <https://doi.org/10.1016/j.jenvp.2011.09.003>

Summary: Community violence continues to plague the lives of residents who live in our nation's most vulnerable, high-crime neighborhoods which leads to resident disengagement, and often erodes away their overall perceptions of neighborhood safety. Research suggests that increased neighborhood incivilities (physical incivilities – vandalism, graffiti, and debris in yards – and social incivilities – noisy neighbors, prostitution, drug trafficking, and gang-related activity) invoke perceptions of crime and disorder among residents and potential offenders, which could potentially lead to higher neighborhood crime. A study showed that children who live in high crime areas were more likely to make harm attributions about places that they perceived as undefined. Research shows that residents who display high levels of place attachment often show strong territorial commitment. Among the subtypes of physical incivilities, a greater percentage of participants reported that decayed buildings made their neighborhoods less safe (59%), followed by abandon buildings (58%), poor lighting (54%), vacant lots (50%), debris (41%), and graffiti (25%). Among the subtypes of social incivilities, a greater percentage reported that drug traffickers and addicts made their neighborhoods less safe (71%), followed by gangs (51%), nuisance and problem neighbors (39%), and homeless people (24%).

Source 3:

Research Question: How is the safety like at pedestrian crossing?

Database/ Search Engine: Google Chrome

Search Terms: "Safety", "Pedestrian", "Crossing"

Citation: Chen, Z., Chen, X., Wang, R., & Gao, M. (2022). Characterization of Pedestrian Crossing Spatial Violations and Safety Impact Analysis in Advance Right-Turn Lane. *International Journal of Environmental Research and Public Health*, 19(15), 9134.

<https://doi.org/10.3390/ijerph19159134>

Summary: Urban development brings a rapid growth in traffic volume, and a series of problems such as traffic congestion and traffic safety, which are becoming more and more serious. In recent years, approximately 200,000 traffic accidents have occurred in China. As a vulnerable group of road users, pedestrians are more likely to be injured in traffic accidents. According to statistics, nearly a quarter (23%) of the 1.35 million deaths due to road traffic collisions worldwide each year are pedestrians, with urban roadway casualties accounting for approximately 73% of the total. Most studies on pedestrian–vehicle conflicts focus on pedestrians who do not obey traffic rules and who run red lights illegally, causing pedestrian–vehicle conflicts. For urban traffic, the problem of pedestrian–vehicle conflicts without signal control is common, especially in the advance right-turn lane. Some pedestrians use crosswalks irregularly to cross the street because they want a closer crossing path, which has significant impact on pedestrian–vehicle conflicts. Two studies found that 29.8% of the 1102 pedestrians showed distraction activities when crossing the road, such as eating snacks, using handheld devices, reading, and listening to music. The paper’s result show that average speed of pedestrians crossing the street is 1–1.8 m/s. Compared with female pedestrians (39.71%), male pedestrians’ spatial violations are more frequent (45.56%). An increase in age leads to an increase in irregular pedestrian use of crosswalks, especially for the elderly. The degrees of influence of technological devices on pedestrian crossing space violations in descending order

are: call (57.15%), listening to music (50%), no device (42.35%), and looking down at the phone (35.14%).

Research Reflection:

Now that we have understood our problem quite effectively in the time period that we had and have some possible lists of solutions, I figured that I should focus on policies that have been implemented to promote walking. Though the article didn't specifically address this issue in only Worcester, it gave good understanding of a previously implemented policy and how that impacts walkability.

While researching about the promotion of walking in Worcester, it became apparent that crime fear was deterring pedestrians. Hence, I researched about how crime fear could be reduced in a neighborhood setting as Worcester is made up of neighborhoods. There were many crimes and how it would impact crime fear of people. It also gave some solutions to reduce crime fear.

While researching about crime and crime fear, I remembered that one of the TAs talked about accidents at intersecting roads. This would be a big issue while raising awareness about pedestrian walking as this would come under pedestrian safety. Hence, I researched about pedestrian – vehicle conflicts at turn. This article gave a lot of facts and figures and talked about

people's behavior while crossing the road and how gender, age, and other factors could affect this behavior.

I also found more Worcester specific data research to understand the problem more effectively by doing spatial analysis on water bodies, free spaces, biking areas, parking, train stations and street centerlines in Worcester.

All of this could suggest that we might need to focus on incentivizing people to walk/bike through reducing crime fear and increasing pedestrian safety. Along with this, research could be done on finding more solutions by looking at more case studies.

Some questions that may arise are how willing would people be to change to pedestrian walking and how much would it cost to improve pedestrian safety by adding advance turn lanes to increase the possibility of pedestrian walking? In order to address this, we would need to look at Worcester and do some library research about our location and the costs related to the road improvements to make informed decisions on how people might react to our solutions.