

Active Transportation and Perceptions of Safety: A Case Study of a Regional Trail and a Transit Corridor in Salt Lake City, Utah.

Ivis García

*PhD; Assistant Professor, Department of City &
Metropolitan Planning, University of Utah.*

Shabnam Sifat Ara Khan

Data Analyst, Mathnasium.

In this article, Garcia and Ara Khan discuss their study on the relationship between perceptions of safety from crime and active transportation with a regional bike and pedestrian trail system in Salt Lake City. Based on community surveys and focus group discussions, the study concludes on important suggestions on how to increase the perception of safety in low-income neighborhoods that go beyond streetscape improvements.

In this article we discuss a study on the active transportation connections between the Jordan River Parkway Trail (primarily used for recreational purposes) and the North Temple corridor (used for shopping and taking public transportation) on the west side of Salt Lake City, Utah. Our purpose is to evaluate the connection between active transportation and perceptions of safety by employing surveys and focus groups with residents. A physical divide between the west side and the east side of the city has developed historically and led west side neighborhoods to suffer from stigma, negligence, and economic malaise. It has also affected their collective sense of community, with local media coverage focusing on crime activity and poverty even while other community areas—even more, affluent ones—have higher crime rates. As one focus group participant put it:

"In the news the west side has this bad reputation, that is poor, that is criminal, but there is more crime in Downtown and Sugarhouse. They say that because there are immigrants and refugees here. The reason is that they are racist. There is Latinos, Black people here...so that is all it takes. Racist do not know they are racist, but they are. This is the only neighborhood in the city I would tolerate living in. Because is diverse. My neighborhoods are from Thailand, Ethiopia, Tonga, Mexico...you cannot find this kind of cultural diversity anywhere else in all of Utah! This place feels urban. I can interact with all kinds of people, and I enjoy that."

Negative perceptions of safety are not constrained to outsiders alone. People living in west side neighborhoods repeat similar narratives, even if not regarding race, but regarding

poverty more generally. They echo the idea that reductions of undesirable land uses (e.g., motels or low-income apartment complexes) would improve perceptions of safety. As another neighbor explained:

"The west side is a place full of diversity, great ethnic restaurants, and great people. But there is a lot of poverty and that is reflected in unkept homes, the amount of trash in the streets and the trail. Homeless people leave their things abandoned as well as others and there is no trash cans in the area. In North Temple, you see also a lot of predatory lending, motels, drive-through fast food restaurants, and if you put a lot of this together, it makes it an unsafe and unpleasant place to walk. You basically walk out of necessity, sometimes you just really want to walk, and this is what you are given, but is unenjoyable."

Literature Review

The role of the built environment in facilitating active transportation in a neighborhood has garnered considerable attention in the planning realm (Frank et al. 2007, Saelens et al. 2003, Ewing and Cervero, 2001). In their research, Cervero and Kockelman (1997) as well as Frank and Pivo (1994) have brought forth evidence into the relationships between accessibility and connectivity as seen in compact neighborhoods—positing that compact neighborhoods facilitate higher numbers of walking trips than sprawling ones. Ewing and Cervero (2010) identified qualities in urban design that influence walkability and theorized a relationship between the "5Ds" of compact design (density, diversity, design, distance to transit and distance to opportunities) and the likelihood of citizens walking.

In support of these findings, public health research shows that physical and environmental factors do, indeed, influence behavioral patterns related to health and especially in regards to the choice of mode of transportation (Salmon et al. 2003, Bargh and Ferguson 2000, Bargh and Chartrand, 1999, Sallis et al. 1999). In their examination of how environmental attributes influence physical activity generally, Sallis and Owen (2002) demonstrate that availability of factors such as aesthetics, convenience, and access result in incrementally higher uses of active travel. In framing the context for design choices from an urban planning research perspective, Saelens et al. (2003) studied the factors mentioned above and demonstrated their impacts on biking and walking as utility choices beyond their simple entertainment value.

Importantly, Sallis et al. (1999) have argued that greater access to such resources result in higher levels of participation in active transportation regardless of socioeconomic status. The authors find that low-income individuals are living in resource accessible neighborhoods engaged in active transportation at the same rate as their wealthier counterparts. Conversely, other studies have found that, after controlling for personal vehicle accessibility, socioeconomically depressed neighborhoods generally have poor access to such resources and, thus, have lower numbers of people participating in active transportation (Macintyre et al. 1993).

Research into active living has also taken into consideration conceptions of safety and the corresponding impact on walking behavior. Empirical findings from Gilderbloom et al. (2015), Mason et al. (2013), and Handy (2006) support the idea that walking behavior is related to safety—being either from crime or car accidents. Moreover, Wood et al. (2008) and Loukaitou-Sideris (2006) demonstrate that some land uses such as liquor stores and motels may discourage walking while, conversely, improving lighting or mixed-use development encourages walkability. Mixed land uses, and lighting facing the street reduced walkers' fears by creating corridors with more community surveillance—similar to the Jacobsian conception of "eyes on the street." Tracing the linkage between these factors, Hong and Chen (2014) quantified connections within the built environment to perceptions of safety and walking behavior. In their study, they found that people living in safe and accessible areas are more likely to walk. However, the authors also reported that density could have a negative effect on perceptions of safety if there is a corresponding perception of criminality in an area.

Place quality is interpreted as being formed in various dimensions; it is the sensorial experience that a place provides to its residents as a combination of social, physical, environmental, and economic features (Kloosterman and Trip

2011). Thus, pleasurability reflects the social, economic, and safety dimensions of their respective qualities of life. All of these factors generate a complex array of interlocking features influencing the overall quality of life and personal satisfaction with residential characteristics. Hence, Myer (1988) regards quality of life to be a shared characteristic that residents in a community experience and subjectively evaluate communally.

Often regarded interchangeably with quality of life, the place quality has been explored in similarly varied dimensions. For example, McCrea et al. (2005) investigated quality of life and the subjective evaluations therein at different spatial levels. He found services such as access to health and higher education gained the highest satisfaction at a regional level, while neighborhood satisfaction was found to be associated with social interactions, perceptions of crime, and urban amenities such as parks. It is important to consider culture, social contexts, spatial attributes and the built environment holistically to see how they affect travel behavior (Sauter and Huettenmoser 2008). Thus, the objective of this study is to assess the perceptions of safety in the Jordan River Parkway Trail and the North Temple corridor to gauge their capacity to offer quality of life to low income neighborhoods while encouraging activity and public transportation.

Methods

As part of a studio course at the University of Utah, focus groups and community surveys were conducted with neighborhood residents. Residents gave feedback on a number of social, economic, and environmental issues as well as planning topics like accessibility, walkability, and signage. While the focus groups evaluated the use of active and public transportation along North Temple and the Jordan River Parkway Trail, this article is limited to the presentation of data primarily related to safety issues.

Survey data was collected Spring of 2016. A convenience sample of 292 users out of about 19,000 adults who could potentially participate in the survey was administered, representing about 1.6% of potential participants. The study area bordering the communities of Rose Park, Fairpark, and Poplar Grove, was bounded by the space between Interstate 15 and Redwood Road (west to east, respectively), and between 900 South and 600 North (figure 1). Students went to transit stations, the trail, community centers, and supermarkets. These locations were strategically chosen beforehand to reach out to as large a variety as possible in respondents age, race, gender, and user groups. Attitudes toward the quality of the neighborhood were measured by the frequency of their usage of the Jordan River Parkway Trail and the North Temple corridor.

A total of five focus groups were conducted and included between three and nine participants per session. The focus groups were organized by students, faculty members, and neighborhood partners in Spring 2016. Participants came from a variety of ethnic/racial backgrounds and socioeconomic groups. To be inclusive of Latino voices (a significant demographic in the study area), one focus group was conducted entirely in Spanish and for Spanish language speakers. The participants represented a diverse variety of backgrounds and travel modes including bikers, transit users, walkers, renters, and homeowners. Participants represented a number of professional backgrounds such as real estate developers, legal service holders, students, non-profit organizations staff, construction workers, business owners, public land management employees, just to name a few.

The group brought together 32 participants who were urban planning professionals that work/live in the area, and community leaders elected to boards and commissions and west side residents across neighborhoods. Questions included: (1) What do you feel makes the area bikeable or walkable?, (2) What do you think would prompt more people to walk or bike to North Temple or the trail?, (3) How do you and your friends and family use the Jordan River Parkway Trail and North Temple?, and 4) What types of services or activities would encourage you to walk and bike more in these two areas?

Findings

Community Survey

To better evaluate assets and potential improvements along the Jordan River Parkway Trail and the North Temple corridor, surveys were distributed to residents about their use of active transportation options like biking and walking and what

obstacles might deter them from such choices. The surveys were collected in March 2016 from 292 local respondents. The following is a highlight of survey results that pertain to safety issues. Except where noted, questions allowed for multiple answers and some answers have been omitted or combined.

Significant impediments to using the trail

- 32% feel unsafe
- 8 % hard to access on foot or bike
- 8 % hard to follow, insufficient wayfinding
- 8% limited parking
- 44% other

Environmental concerns

- 65.4% litter
- 45.3% water quality

Desired trail enhancements

- 44.5% bathrooms, water fountains, trash cans
- 31.4% accessibility improvements
- 24.4% landscape improvements
- 20.4% safety improvements (e.g. more lighting)

Ways to encourage walking, biking, and transit on North Temple

- 47.5% entertainment options
- 42% retail shopping
- 33.2% community spaces
- 32.5% landscape improvements
- 24.1% safety improvements

Barriers to walking or biking along North Temple

- 40.6% it's unpleasant
- 37.2% don't feel safe
- 34.1% not much to walk or bike to

The survey sheds light on residents' views of the North Temple corridor and the Jordan River Parkway Trail (JRPT), along offers

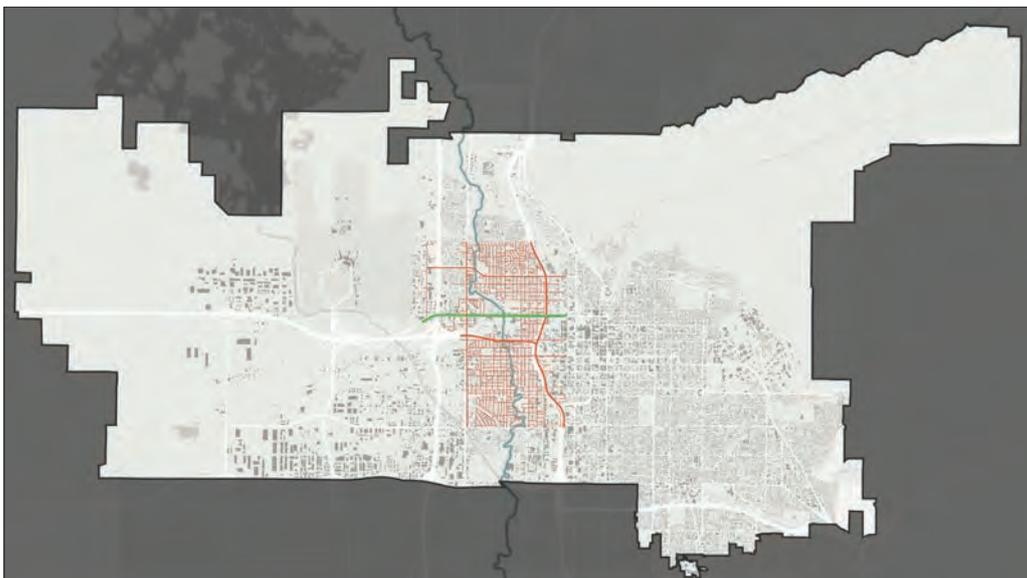


Figure 1: Map of the west side of Salt Lake City. (source: Westside Studio)

avenues for future improvements. About 32% of the respondents felt unsafe while using the Jordan River Parkway Trail. Others would like to see accessibility improvements (31.4%), landscape improvements (24.4%), and safety improvements such as more lighting (20.4%).

One of the questions pertained to what respondents felt would encourage people to walk, bike, and take transit in North Temple. The majority (47.5% of the respondents) would like to see entertainment options, 42% retail shopping, 42% retail shopping, 33% community spaces, 33% landscape improvements, and 24% safety improvements such as more lighting in the area. Survey respondents reported the major barriers to walking or biking along North Temple: 41% it's unpleasant, 37% don't feel safe, and 34% not much to walk or bike to.

An earlier study by McLeroy et al. (1988) showed how the presence of parks in urban areas could influence encouraging physical activities, while a lack of access to parks can discourage physical activity. In the survey, we found out that about 40% of people who live in the neighborhood (which is about 1 mile from the furthest respondents' home/office) have never been on the trail. About 40% of those who have used the trail, use it at least one a week. This indicates that accessibility to parking is not enough to attract people to the park.

Fewer individuals were found to take advantage of the community assets—the Jordan River Parkway Trail and the North Temple corridor—even when they lived within 1 mile or 1.5 miles. About one-third of those who use the trail had as their

destination another place in the neighborhood, including along North Temple.

A total of 51% of those who indicated safety as their primary concern in the trail also reported “almost never” or “never” visiting the Jordan River Parkway Trail, while 50% of those who felt safe went to the trail at similar rates. This indicates that the frequency of use is not strongly related to perceptions of safety. About 49% of those who indicated concerns about safety in North Temple use transit while 40% of those who do not indicated safety as a primary concern regarding their choice. It follows that the perception of crime does not deter transit users from using transit either.

Focus Groups The primary concern of focus group participants was the feeling of safety, especially on the trail. This includes spots that are under-lit and concerns about the homeless that congregate and camp in certain areas. A Hispanic woman said:

"I was walking in the middle of the day with my husband and kids we went by a tent. This homeless American older woman came out of the tent and she started to yell at us, she seemed very upset...she was obviously mentally ill. I know she is vulnerable to perhaps other homeless people, men, attacking her, because she is a woman. No one should be homeless, but especially women. I still walk there even if she yelled at me and my husband and children because I enjoy walking in the trail after dinner. But I can see how her presence would deter others from walking by, especially women walking alone or children."



Figure 2: A typical station along the trail.
(courtesy: Jeremiah Cox/SubwayNut.com)



Figure 3: Walking barriers and variables go walking.

A female runner expressed:

"I always go running south to where I live on the trail because I know that north is close to North Temple, where there are more homeless people. They camp under several of the bridges on the river. So, I know to avoid the north side and always go south. I don't even try to go north anymore."

Some respondents seem to feel that the homeless have a right to use public spaces and residents' concerns and opinions on the issue differed within the focus groups. Other people commented about illegal behavior in the park. For example, people getting drunk in the park. One gentleman discussed his opinion on the matter:

"I am not afraid of walking in the area. I know where they hang out. A lot of them are not even homeless. You see close to the park in Rose Park. Right there in front of the playground, these Latino men that are always hanging out under the tree, in the benches. They get there with their bikes. They just hand out and drink and play loud music. Sometimes in the middle of the day, you would see someone pass out on the bench. They are not harming anyone, just themselves. I still do not like it because there are children around and they are not a good example."

A similar theme of people not feeling safe emerged when discussing the North Temple corridor. One participant added to the conversation,

"So, during the day, I am fine, I would walk to restaurants near my house or to the supermarket. I would not walk later than 9 or 10 at night. I would prefer to drive than to walk at that time. I would drive to the closest restaurant—which is about a block and half from my house after dark. I feel unsafe to walk. There is a high homeless population. I am not sure if to say they are homeless because many of them are living in the motels. North Temple is full of these motels, and something needs to be done about them, because they attract crime and prostitution. The amount of prostitution going on contributes to the crime in the area, with pimps, drug dealers and so on."

A young woman added:

"I am afraid to be mugged and assaulted. One time this guy stole my phone. It was not a big deal it could have been worse. But there are all these people always asking for a quarter, for something to eat and I have been harassed, men yell this and that...and I have been followed before when I am walking by myself. As a young woman is kind of scary [...]. This is why a long time ago I got a running buddy, because you cannot be by yourself late or early in a supposedly busy street."

Another young woman added:

"I would not walk around when is dark unless I am with my boyfriend. The other day two men were fighting in the middle of the street. One was on top of the other one just beating him up; they were obviously drunk or high. All kinds of people from the motels were just staring in a big circle, like in high school. My boyfriend and I just kept walking on the sidewalk, like nothing was going on. No sign of police around. Is not like is the first time I see something like this going on. So, thank God that it was not some kind of shooting. I am afraid to be at the wrong place at the wrong time; you know what I mean?"

Also related to safety is cleanliness, with participants concerned that some sections of the trail feel run down or dirty, or have uneven or broken pavement. One person who lives near the trail commented:

"The place gets full of trash and there are trashcans anywhere, at least that I can see. Some of my neighbors at the school organize a clean-up once a year in the summer. We come and clear about a mile of the trail near the school and invite parents to join us, lots of people come. Last time we got like 20 big trash bags! I wish we could get into the river; there are things that people thought in there, near where I live there are at least two shopping carts. One time someone left a boat, and I had to call the city, so they came and removed it."

Some of the same issues take place in North Temple, as one man that lives in the new development near 600 West and North Temple, which is close to a freeway underpass commented:

"I see a lot of trash under the underpass, there is tons of trash there, clothes, shopping carts you name it. There is a lot of those red caps for needles too, so you know that people are shooting up, right? The health department and a volunteer neighborhood watch group every couple months clean up the area. I think they clean it up a couple months ago and if you go now, it looks like it has not been clean in a year."

Discussion and Conclusion

Safety was a theme that repeatedly arose in both surveys and focus group discussions, with some respondents indicating that perceived safety issues already affect how they use the Jordan River Parkway Trail and North Temple.

One issue is with limited lighting along the trail. Currently, the trail gets very dark after the sun goes down with little lighting along significant portions of its length. This may be, in part, a deliberate strategy to limit the use of the trail after dark (most

city parks are closed at night), but poor lighting can also deter the use of the trail in the evening if users fear to feel stranded after dark. A recommended solution is to implement more lighting along the trail, particularly around trail entrances and common gathering places. Better lighting would also help with wayfinding and keeping cyclists on the trail. Also, improved lighting around trail entrances on North Temple will promote a transition between the trail and the street that feels safer.

Some respondents expressed concerns about homeless populations congregating along the trail. By nature, any new amenities that improve the comfort of the trail may also draw more homeless individuals. While resolving this is beyond the scope of this article, it is an issue that should be handled sensitively and in partnership with other city and nonprofit organizations. Improved lighting should alleviate many safety concerns and can be augmented with amenities like police call boxes or clearly marked trail exit points.

The North Temple corridor also suffers from high levels of transitory populations living in the nearby motels. These aspects might detract some pedestrians from using North Temple after dark. Given these conditions and based on previous research, high-density residential zoning and a mixture of uses facing the street would contribute to more watchful “eyes on the street” by creating more opportunities for recreation, dining, and entertainment in the area (Jacobs, 1961; Newman, 1972). This would intrinsically make the North Temple corridor feel safer for all users. The focus groups confirmed that such design principles could facilitate surveillance of the street and promote a sense of safety. A few businesses like the Red Iguana restaurant are popular, and it was suggested that more businesses along the corridor would draw pedestrians and cyclists:

"The one thing that we have that is attractive to the rest of Salt Lake City is Red Iguana. That is the only place that would make people come from the east side to the west side. People are willing to make a line for hours to eat there, even if it is next to that crappy motel. The motel is not a detractor for people to be there at all. All we need are more places like Red Iguana! People then would say, hey, the west side is the place to be. They would not just drive to Red Iguana, they might drive there, sure, but then they would walk to other attractive places. As of right now, we only have the Red Iguana, that's it."

A major barrier to the pedestrian experience in the study area—for both the Jordan River Parkway Trail and North Temple—is the perception that it is unsafe regarding criminal activity. This finding is similar to other studies in low-income areas where there might be homelessness or land uses that are associated with criminality, like motels. The streetscape

improvements (sidewalks, landscaping, light rail, etc.) are all great amenities, but people still find that North Temple lacks business and destinations. The area has a number of vacant buildings, huge parking lots and empty lots as well as uses that do not support walkability (e.g., quick loans shops, and fast food drive-throughs). These spaces do not add much to the perception of safety or walkability in the neighborhood.

Even if there are a lack of destinations, widespread and well-maintained sidewalks (incidentally, both ADA-compliant features), visible traffic signals, paved trails, and street furniture did invite people to walk and bike in the daytime, but soon after it gets dark, people are reluctant to take advantage of the few amenities that exists. Drug activity and prostitution outweigh the attractions of the improvements for some community members. When residents prefer to drive to the area instead of walking, it further contributes to the problem of surveillance. The underutilized North Temple corridor affects the pedestrian experience by lowering the amount of activity on the street.

The mere physical improvements to the street do not add to the livability of a neighborhood if the resident's real challenges are not addressed (lack of businesses, amenities, etc.) and integrated as part of the planning process. This is supported in the literature, when compared to driving, people decide to take a walking trip to a destination based on more than a few factors. Ewing et al. (2005) identified five contributing factors of active transportation and transit use, including density, diversity (mix of land uses), design, destination accessibility, and distance to transit.

Data from the focus groups and the user surveys suggest that, although streetscape improvements enhanced the neighborhood aesthetics and increased accessibility somewhat along North Temple, it is not enough to serve the broader purposes of attracting people to walk, bike or take transit in the area. Although residents may indicate that safety in regards to crime is one of their concerns, these concerns may not affect their likelihood to increase levels of walking, biking, or using public transit in the neighborhood. For participants who live in a low-income area and with fewer amenities than the average neighborhood in the same city, crime may not be so high as to serve as an actual barrier, even while narratives and perceptions of criminality. If safety perceptions are not addressed in the community, it will fail to bring in the desired sense of place. While access to light rail stations and amenities (particularly grocery stores and restaurants were viewed positively) may induce active transportation, the perception of safety and crime were of high importance to residents.

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