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Building on previous Kinder Institute work about how to improve safety for all road users, this report uses input from residents to highlight problem areas and safety concerns in Houston’s Gulfton neighborhood. The information revealed through this input can complement the city’s Complete Communities work in Gulfton. It also dovetails with local organizations’ efforts to improve street safety and address mobility issues. The findings provide a more in-depth understanding of critical transportation safety issues and highlight what areas residents see as key issues. These primary findings can be used to prioritize street safety improvements.

**Methodology**

Between December 2017 and April 2018, researchers conducted surveys at key locations around the Gulfton neighborhood with people who live and/or work in the area. The survey included questions about perceptions of infrastructure and facilities such as sidewalks, METRO services and bike paths. Respondents were also asked to identify problem areas such as places to which they will not walk. Additionally, they were asked to provide information about any near-miss or crash incidents they witnessed or experienced on neighborhood streets over the last six months. The Kinder Institute worked closely with community partners such as the Gulfton Superneighborhood Council, Connect Community, LINK Houston, Baker-Ripley and Alliance for Multicultural Services to shape and distribute the survey. Based on feedback from our community partners, the survey was available in four languages: English, Spanish, Arabic and Urdu.

We collected a total of 306 responses. Of those, 157 (51 percent) reported living in Gulfton or adjacent neighborhoods (zip codes 77081, 77074 and 77057). The remaining respondents either worked in Gulfton, frequently visited, or did not provide any address. The discussion on the perception of the existing transportation infrastructure and service only uses responses from those living in the neighborhood and adjacent zip codes. The discussion on near-miss or crash incidents within the community includes all responses. We also analyze detailed comments provided by respondents and present those findings.

**Key Findings**

- This study also highlights an important connection between street safety and infrastructure and perceptions of safety from crime and unpleasant contact with others.
- Areas near the neighborhood’s social service hub at Hillcroft Avenue and High Star Drive, schools throughout the community and large apartment complexes at the northern end of Gulfton were all identified as prone to crashes and dangerous walking environments.
- Most reported near-miss incidents involve automobiles and pedestrians. Incidents frequently impact vulnerable populations, young children, older adults and people who use wheelchairs.
Gulfton’s rate of walking and transit usage is higher than that of the city overall. Of respondents in this study, about 40 percent of those who live in Gulfton and adjacent areas did not drive, relying instead on walking, biking, taking the bus or carpooling. This compares to the city’s overall rate of 9 percent.

Four out of five respondents agree that sidewalks are available on most neighborhood streets. However, safety concerns, including worries about traffic crashes and crime, discourage walking.

While more than half of respondents report satisfaction with bus connections to important destinations, respondents also raise concerns with transit service reliability and safety while walking to and waiting at bus stops.

Those residents who regularly use the bus report lower satisfaction with service reliability (68 percent) than those who mainly drive or walk to places (79 percent, 75 percent).

For those who answered questions about access to bicycle infrastructure, fewer than half agree that they can access bus stops and other important destinations using bike routes. Similarly, fewer than half agree that bike routes are in good condition.

Forty-two percent of strategies identified by respondents as ways to address issues pertaining to investments in the built environment that can enhance transportation safety. Many strategies would also promote transportation modes other than driving.
Motor vehicle traffic crashes, one of the leading causes of death in the United States according to the Centers for Disease Control and Prevention, constitute a major public safety issue. While all other traffic deaths decreased between 2007–2016, pedestrian deaths increased by 27 percent nationally. Of the 104 largest metropolitan areas in the United States, the Houston area ranked 15 on the list of most dangerous for walking. The region has seen increases in pedestrian fatalities since 2010 and has also witnessed a steady rate of bicycle fatalities. Neighborhoods that lack safe street infrastructure more acutely feel this danger. This report utilizes responses collected in Gulfton, Houston’s densest neighborhood, to highlight how safety, perceptions of safety and built-environment conditions impact the ability of residents to carry out daily activities and access important destinations such as work and school.

This study seeks to address several questions. First, what challenges do people in Gulfton who walk, bike, and use public transportation face when using street facilities and infrastructure? Second, which key strategies emerge from residents about transportation infrastructure and services? Finally, how can resident input around street safety and perception of safety in Gulfton complement other efforts to improve safety, including those identified by the city’s Complete Communities initiative?

Background

A dense and diverse neighborhood of over 47,000 people, Gulfton is one of the five neighborhoods identified in Mayor Sylvester Turner’s Complete Communities initiative, which began in April 2017. The Kinder Institute selected Gulfton to resident transportation needs and safety issues partly because of its inclusion in this initiative and because of its persistently high number of traffic deaths and fatalities as well as perceptions of inadequate transportation infrastructure. This report builds from a previous Kinder Institute study which collected near-miss data to complement official crash data.

Between 2010 and 2017, a total of 149 people were either killed or injured while walking on Gulfton streets according to TxDOT. During that same period, half of the 56 crashes that involved bicyclists in the neighborhood resulted in either injury or death. This report uses community input collected through a survey to locate dangerous areas, including locations of near-miss incidents. Additionally, it connects safety and perceptions of safety issues with reported access to existing transportation infrastructure and services.

Collecting community-based input is critical to paint a complete picture of street safety. Official crash data reported by public agencies typically undercounts pedestrian and bicyclist crashes, despite the greater vulnerability
of those road users. Official crash data only captures incidents on public roads and leaves out incidents that occur in private roads, driveways or parking lots. Additionally, the historically tenuous relationships between some communities and law enforcement agencies likely contribute to underreporting. For example, if people fear the police or worry that calling them could threaten their immigration status they may not contact authorities in the event of a crash. This gap between the officially reported crash data and reality is important to address because government entities traditionally use official crash data to identify future investments and to set priorities for capital improvement projects. Furthermore, there is a need to gain a deeper understanding of how the built environments of different neighborhoods contribute to higher crash incidents and fatalities. Surveys with residents can help shed light on both where crashes occurred and what street designs are presenting problems.

The Gulfton neighborhood has experienced persistent street safety issues for years, especially along major thoroughfares and near schools. Our study shows that people who live and work in Gulfton face a high risk of injury or death in traffic crashes. Studies have shown that lower-income neighborhoods like Gulfton more often lack adequate pedestrian infrastructure. At the same time, those neighborhoods tend to have higher concentrations of people of color and people with lower-incomes, groups that face a higher risk of pedestrian injury and death. Gulfton residents also depend highly on public transit. Therefore, it is critical to explore opportunities for improving pedestrian and bicyclist safety while going to and from bus stops. Finally, too frequently, students at Gulfton schools have been hurt and killed in crashes, highlighting a need for safer routes to and from schools.

**Methodology**

The City of Houston’s Complete Communities planning process involved several public meetings during which residents and other interested parties provided input on existing needs of each neighborhood and future strategies to address those needs. In line with this process, this study aims to capture additional information about transportation needs from community members. Additional local knowledge can provide information about local settings, characteristics, circumstances, events and relationships from daily life experiences.

Between December 2017 and April 2018, we conducted surveys at key locations around the Gulfton neighborhood with people who live and/or work there. Of the 306 responses, 157 people reported living in the Gulfton neighborhood or adjacent neighborhoods. The survey included questions about daily travel modes to work and non-work places, perceptions of infrastructure and facilities including sidewalks, METRO services and bike paths. Respondents were also asked to identify problem areas and places to which they will not walk. They were also asked to list strategies that would lessen their dependence on private automobile travel. Additionally, they provided information about any near-miss or crash incidents that they witnessed or experienced in the last six months within the community.

At every stage, from developing survey questions to strategizing outreach, we worked closely with community partners. Based on feedback from those partners, we provided the survey in four languages: English, Spanish, Arabic and Urdu. We collected the survey in public places, at events and during classes held by neighborhood service organizations. In asking for home addresses, we allowed for respondents to be as specific or general as was comfortable for them. We also provided one-on-one assistance to residents who only spoke Spanish, as well as to those who were not able to write their responses.

Locations of past near-misses and places identified as dangerous were geocoded and mapped using ArcGIS. Each segment identified by respondents was counted and mapped. Analysis of detailed comments in the survey on Dedoose, a program for systematic analysis of text, revealed common themes and supporting comments related to safety issues.

Although we also conducted surveys during the evening at an apartment complex and alongside the Complete Community public meetings, we largely worked with partnering organizations to identify events and classes at community centers where we could reach residents. Therefore, the responses from this survey mostly come from people who go to these events during the day and may represent those that have more flexible time compared to full-time workers. Regardless, respondents are active members of the community with valuable local knowledge about neighborhood conditions.

**Neighborhood Characteristics**

The Gulfton Super Neighborhood is located in southwest Houston just south of US 59 (see Figure 1). Compared to the city of Houston, the Gulfton neighborhood has a significantly lower median household income and a much higher poverty rate. The already
higher percentage of renters compared to the city also struggle more with housing cost burden.\textsuperscript{16} Furthermore, the neighborhood has a significantly higher Hispanic population than the city overall, as well as a much higher foreign-born population.\textsuperscript{17} Known for its culturally diverse businesses and households, this neighborhood has grown into one of Houston’s main gateway neighborhoods for immigrant families.

On the western edge of the neighborhood, a cluster of city and nonprofit resources provide much needed, culturally sensitive services for residents. The City of Houston’s Southwest Multi-service Center houses, amongst others, a satellite permitting center; a Houston Public Library express branch; and a Women, Infant, and Children (WIC) program office. A Legacy Health Clinic and a Baker-Ripley Neighborhood Center are located adjacent to the Multi-service Center.

The neighborhood has the highest population density in the city of Houston with over 14,600 people per square mile in 2015 compared to the city’s overall density of 3,699 people per square mile.\textsuperscript{18} Large multifamily complexes developed prior to 1984 comprise 93 percent of the Gulfton community’s housing supply.\textsuperscript{19} Commercial uses concentrate along thoroughfares with high-speed, high-volume traffic. The streets have especially long distances between signalized crossings, deep setbacks on buildings and front-facing parking, and industrial uses sit adjacent to multifamily housing in many parts of the community.\textsuperscript{20}

People in Gulfton rely heavily on public transit as evident in the neighborhood’s high bus ridership rates.\textsuperscript{21} The neighborhood has more than twice the rate of people taking public transit to work compared to the city.\textsuperscript{22} Additionally, nearly 16 percent of households in Gulfton do not own cars.\textsuperscript{23}

Despite this reliance on non-automobile transportation, the community is lacking street infrastructure and facilities for walking and biking. A preliminary sidewalk assessment corroborates clear issues with underinvestment in infrastructure.\textsuperscript{24} While planners frequently cite short block lengths (around 200 feet) as important elements to support walkability,\textsuperscript{25} the average block length in Gulfton is nearly 800 feet making walking a long, arduous journey.\textsuperscript{26}

For people who do bike in Gulfton, there are currently dedicated bike lanes on Renwick Drive from the Westpark Tollroad to Beechnut Street, connecting users to bus stops on Gulfton Street, Bellaire Boulevard and Bissonnet Street. While the City of Houston recently committed roughly $4 million through its Capital Improvement Plan for bike infrastructure, it is unclear as of now whether any of the 50 miles of initial bike lane projects slated for construction will be located in Gulfton.\textsuperscript{27}

Lastly, investments in infrastructure will be essential to ensuring that people in Gulfton can feel safe on the streets as pedestrians. Crime remains an issue in the neighborhood.\textsuperscript{28} Between April 11 and May 11, 2018—16 aggravated assaults\textsuperscript{29} were reported in the neighborhood, a figure which does not account for likely underreporting. All these add up to a hostile environment for pedestrians and cyclists.
Neighborhood Safety Concerns

Identified Problem Areas

The following section highlights problem areas identified by respondents on the survey. These identified areas overlap with the locations of police-reported crashes in many places, but also shed light on information that is lacking in official statistics. Respondent’s answers highlighted two locations as concentrated issue areas. Residents also identified particular streets where they felt unsafe. In general, respondents highlighted the need for increased safety around apartments and schools. Local partners also emphasized that issues around lack of shade, difficulties crossing wide streets safely, lacking crosswalks and problems with poor lighting and fear of crime contributed to the challenge of walking and biking in the community.

Figure 2 shows locations where people were injured or killed while walking or biking between 2010 and 2017, according to TxDOT data. Fatal crashes tend to occur along high-speed streets such as Southwest Freeway (I-59), Hillcroft Street and Bellaire Boulevard and at intersections between these streets. Data from TxDOT shows that 26 percent of the 244 crashes recorded between 2010 and 2017 occurred along these service roads of highways. Other crashes have happened at Chimney Rock Road, Renwick Drive and Gulfton Street and its intersections with other local streets in the neighborhood.

Bellaire Boulevard has the second highest incidence of crashes during that period. Gulfton Street and Rampart Street come in third and fourth.

The survey asks residents to list streets where they felt unsafe walking or had other issues. Each time a resident mentioned a street name it was counted. Figure 3 below shows where these streets are in the neighborhood. The darker line represents the number of times residents identified them as an issue.

As one of the Complete Communities, the city has developed the Gulfton Complete Communities Action Plan as an organizing document for moving forward with the mayor’s initiative. Of the resident-identified streets in Figure 3, the Action Plan mentions only Dashwood Drive and Renwick Drive among its sidewalk improvement priorities. Our survey results and TxDOT data mirror this need. Between 2010 and 2017, TxDOT recorded 30 pedestrian and eight bicyclist deaths or injuries on Renwick and 10 pedestrian and three bicyclist deaths or injuries on Dashwood. In the survey, 24 respondents pointed...
Locations of pedestrian and bicyclist crashes

Identified dangerous street segments
to Renwick as an issue and two respondents identified Dashwood. However, Renwick and Dashwood are not the only places in need of attention. Other residents-identified streets are Hillcroft Street, Bellaire Boulevard, Gulfton Street, Chimney Rock Road, Southwest Freeway, Glenmont Drive, Rampart Street and Tarnef Drive. The streets and priority areas identified by residents can be used to direct future street infrastructure investments.

Figure 4 above shows the two areas with high concentrations of respondent-reported incidents and concerns. The map represents with a dot any responses that mentioned specific street intersections, addresses or landmarks such as schools, grocery stores and neighborhood parks. Places that residents would not walk to and where they have either witnessed near-miss and crash incidents or been hit themselves are also included.

The first concentration area is near the neighborhood’s resource hub that includes the Southwest Multi-Service Center, Baker-Ripley and Legacy Health Clinic; and schools such as KIPP, Yes Prep and Jane Long Academy. Some of the most mentioned streets here are Hillcroft Street, Bellaire Boulevard and Tarnef Drive. As the city moves forward with its Complete Communities initiative, these identified areas could complement priorities set by the Planning Department and the Public Works and Engineering Department.

The second concentration area of identified dangerous locations is near large apartment complexes at the northern side of the neighborhood. Some of the most mentioned streets here are Rampart Street, Renwick Drive, Gulfton Street and Glenmont Drive. Residents reported getting hit while crossing the street in front of apartment complexes. Reflecting the vulnerability of pedestrians near apartment complexes, one resident said, “I tried to cross the street and a car hit me from the back.”

Beyond the concentration areas, many responses expressed concern with areas around schools. Respondents provided details of near-miss incidents and dangerous areas near the 16 community schools (both public and private). One respondent commented that, “Cars turn the corner too fast or run the stop sign and [drivers] don’t stop for buses or children crossing.”

Several area school staffers who regulate traffic during daily drop-offs and pick-ups echoed these sentiments. One school staff member who also lives in Gulfton said, “Several of my students have almost been hit. In
December, a student was critically injured in a hit-and-run.” Others expressed concerns about high-traffic areas during rush hour in school areas.

Highlighting these problem areas can be useful in developing project priorities to improve safety for all road users in Gulfton. Community leaders and residents in Gulfton also recognize the importance of working with the city to identify locations for sidewalk improvement, starting with areas adjacent to schools and green space. Analysis of respondents’ detailed comments also brings out other priorities such as addressing dangerous driving behaviors, frustrations about repeated near-miss incidents on some streets and a need to better enforce school zone speed limits.

**How Safety Concerns Affect Future Travel Experiences**

The experience of witnessing or being involved in near-miss or crash incidents can potentially affect decisions about future travel choices. Likewise, quality of travel experiences such as perception of safety, comfort and aesthetics can either encourage or discourage future walking and biking trips. Unsafe or unwelcoming streets can feed into a cycle where problematic streets lead people to walk less, which reduces the number of residents calling for improving the streets for pedestrians, which, in turn, leads to less investment to improve the streets.

Figure 5 below shows that the majority of our respondents who either experienced or witnessed near-miss or crash incidents decided to take more precautions either by paying more attention to other road users’ behavior, making themselves more visible by wearing safety gear or by minimizing walking and biking trips. Those who either avoid a route or minimize walking or biking trips make up 19 percent of responses.

Residents that have witnessed either near-miss incidents or crashes attributed the cause to a combination of road user behavior and lack of safe street infrastructures. On one hand, several respondents pointed out that some pedestrians do not always cross at designated crosswalks. On the other hand, a Gulfton resident recalled how a woman was nearly hit while crossing the street due to the nearly impossible timing to cross wide streets, “[The] distance between crosswalks was too far, she can’t cross without running out of time and cars start coming at her.”

Pedestrians might be able to wait on the pedestrian refuge island when crossing some intersections on Hillcroft Street and Gulfton Street, but the walk signals still do not always provide enough time for crossing. If pedestrians feel vulnerable at designated crosswalks, they may be more likely to cross elsewhere or not walk at all.

> “The man in the wheelchair was crossing the street at a 4-way stop. A car almost hit him, but then the driver got out of the car and attacked the man in the wheelchair.”

~A Gulfton resident
The following section details key findings related to how people living in Gulfton commute to work and other important locations. It also looks at their satisfaction with walking, biking and using public transportation. This section then examines differences by travel mode to understand how experiences and concerns vary across those groups. Finally, it discusses safety and infrastructure issues that deter people from walking to key locations and insights into what would make getting around without a car easier.35

Means of Transportation to Work

Figure 6 shows that people in Gulfton walk and use public transit at greater rates than the city as a whole. Survey respondents relied on alternative transportation modes at an even higher rate than average. Most respondents drive to work alone or in a carpool (59 percent) or used some combination of public transit (22 percent), walking (17 percent) or biking (2 percent). The percentage of respondents that use transit is approximately two times higher than the neighborhood and five times higher than the city. Combined with the high percentage of the foreign-born and Hispanic population in the neighborhood, this pattern follows findings from other analyses showing that, in Texas, Hispanic immigrants tend to drive less and rely more on public transit.37
Walking
This study shows that Gulfton respondents feel very positively about sidewalks being present on most neighborhood streets and that sidewalks connect to bus stops. For example, 48 percent of Gulfton respondents agree that most neighborhood streets have sidewalks and 32 percent strongly agree. However, opinions about sidewalks are not entirely positive. Respondents split when asked whether sufficient streetlights were present and about sidewalk conditions (see Figure 7).

Over half of respondents indicate that the behavior of other road users discourages walking while only 31 percent mention issues with pedestrian infrastructure itself (see Figure 8) 39 Breaking that down, when asked about dangerous locations, including places they will not walk to, respondents cite fear of crime or unpleasant encounters, fear of being hit or nearly hit by a car, lack of safe crossings and obstructions or barriers making it difficult to use a stroller or wheelchair as the key barriers to walking.

In general, respondents feel that most streets have sidewalks but that having access to these sidewalks may not necessarily mean residents feel comfortable using them. For example, major thoroughfares like Hillcroft Avenue and Bellaire Boulevard have existing sidewalks, but likely need other safety measures such as more visible crosswalks or better signaling to allow for safe crossings. Respondents also cite public safety concerns around crime and vehicular traffic as reasons why they do not walk to important destinations. The prevalence of public safety concerns in addition to issues with the availability and conditions of existing infrastructure and services may limit the ability of residents to walk, bike and use transit in this neighborhood.

Using Public Transit
Figure 9 shows that Gulfton respondents overwhelmingly agree that bus services are reliable and that routes connect to important destinations. However, worries about safety and comfort both walking to and waiting at bus stops discourage use. Half of the respondents feel safe walking or biking to bus stops (53 percent agree or strongly agree, 47 percent disagree or strongly disagree). Respondents are similarly split on feeling safe waiting at bus stops (51 percent either agree or strongly agree that they feel safe and comfortable at bus stops).

Safety continues to undermine first- and last-mile routes to bus stops for several reasons. First, sidewalks and bike-lanes that do not connect to bus stops inhibit public transit use. Second, road safety concerns make residents wary of using transit. Third, witnessing instances of pedestrian-vehicle collision can be traumatic. Several respondents have witnessed fatalities of pedestrians walking to bus stops both in and outside of the Gulfton neighborhood boundary. One Gulfton resident recalled witnessing a fatal crash, saying, “A woman was walking to the bus stop to get to work when she was run over at the intersection. She died.” While Gulfton residents continue to walk and take transit, they are acutely aware of danger on the road and this could contribute to lower rates of alternative transportation use.

Biking
Bicycle safety is also a major concern in Gulfton, where bicycles provide a way to access important destinations for residents who may not be able to drive or who don’t own a car. The need for bikes is high enough that organizations have worked to provide free bicycles as an alternative transportation mode for refugees. 40 While the neighborhood lacks formal bike infrastructure, some residents may use self-identified bike routes not identified by the city. To reflect this reality we used the term “bike route” instead of “bikeways” or “bike lanes” when asking questions about bicycle facilities. It should be noted that only three respondents used bikes for getting to work and only six biked to other destinations. The overall negative view of the existing infrastructure might point to one reason why those numbers are so low. Additional data from a larger population of people who bike would also be helpful in assessing the situation for bicyclists and planning interventions.

Of the alternative modes of transportation analyzed in this study, bicycle infrastructure emerged as perhaps the one in most need of deep investment. In contrast to relatively positive sentiments about sidewalk and METRO services connecting them to key destinations, respondents are skeptical about their ability to go places using a bicycle. Figure 10 below shows that over 60 percent of the six respondents who bike to places feel negatively on all three questions pertaining to bicycling.

Figure 10 below also shows low opinions of bicycle facilities and their connections to important destinations. Most respondents who do bike feel that their bike routes are poorly connected to METRO and other destinations. One resident highlighted the need for both infrastructure and enforcement of laws to protect people riding bicycles, saying, “Residents are not familiar with [the] 3-ft law in Gulfton. [There are] no signs promoting required bike safety laws in the neighborhood.” Clearly, there is a need
Perceptions of walking facilities and safety\(^1\)

- There are sidewalks on most neighborhood streets
- Sidewalks are connected with minimal obstructions
- There are enough streetlights
- Sidewalks connect me to bus stops

Cited reasons for not walking\(^2\)

- Fear of crime/unpleasant contact with others: 23%
- Fear of being hit or nearly hit by a car: 18%
- I prefer to drive
- No convenient or safe street crossings: 14%
- Drivers don’t obey school zone speed: 12%
- Too many physical barriers to get there: 12%
- Not able to safely use wheelchair: 7%
- I have to cross highway I-59 to get there: 5%
- Other: 2%

Perceptions of bus service reliability and safety\(^3\)

- I feel safe walking or biking to bus stops
- I feel safe and comfortable at the bus stop
- I can rely on bus services
- I can take the bus to go to my most important destinations (e.g., work, school)

\(^1\) Includes responses of those who live in the Gulfton area who answered that question. Some respondents did not answer all questions.

\(^2\) Includes responses of those who live in the Gulfton area. Multiple responses allowed.

\(^3\) Includes responses of those who live in the Gulfton area who answered that question. Some respondents did not answer all questions.
to bike safety education as well as enforcement of the laws and regulations.

**Differences by Travel Modes**

To better understand how different road users perceive safety, access and quality of facilities, this section examines the results by road user type—transit riders, drivers and pedestrians. Figure 11 shows differences in perceptions of safety between different road users.

Overall, pedestrians tend to express the greatest satisfaction with the infrastructure that serves them. Those who rely more on walking reported greater satisfaction with the conditions of sidewalks and with being able to walk safely to important destinations than those who do not often walk. Meanwhile, public transit users tend to be more skeptical about the reliability and quality of those services than those who do not ride regularly.

Gulfton is often perceived as having relatively good transit access compared to other areas of Houston but analyzing the views of transit riders in Gulfton reveals opportunities for improving the user experience. Those who mostly take transit to work and key locations have more critical views of route availability and schedule reliability. Bus users are less likely to say that bus services are reliable (68 percent) than those who mostly drive or walk (79 percent, 75 percent). Additionally, transit riders’ suggestions for improving walkability are more evenly distributed than other modes. Because transit riders interact with the pedestrian environment as well as bus services, they may have a greater understanding of the whole ecosystem of alternative transit than their peers.

Carpoolers also feel less safe overall than those traveling by other modes. Our findings suggest that many residents of Gulfton turn to carpooling—sometimes through informal networks of coworkers and neighbors—perhaps due to the lack of adequate services or infrastructure to get them to work safely and comfortably using other modes. In our survey, 14 people (8 percent) said they carpool to work and 22 people (11 percent) carpool to other destinations. Only a third of carpoolers feel safe and comfortable at bus stops compared to over half of all Gulfton respondents who agreed with this statement. Carpoolers also are less likely to agree that bus routes go to important destinations (64 percent) than drivers, transit users or pedestrians (71 percent, 74 percent, 80 percent respectively). Additionally, very few carpoolers feel they can bike to key destinations or that routes are safe and in good condition.

In general, those who walk to work have better opinions of public safety and adequate lighting than those traveling with other modes, which may suggest that using pedestrian infrastructure corresponds to perception of safety. Figure 11 above shows that those who walk feel much safer walking or biking to bus stops (65 percent) than car drivers or bus users (49 percent, 56 percent). Perhaps, walking—whether by choice or due to lack of other options—leads to an increased understanding of which areas to avoid due to dangerous vehicular traffic and crime as they become more familiar with their surroundings.

Truly responding to resident needs requires not only an understanding of how preferences and perceptions vary across types of road users but also how lived experiences of road users drives those differences. For instance, respondents who walk to work in Gulfton have higher...
perceptions of public safety and infrastructure around walking than other road users while, by contrast, those who report using METRO to get to work have lower opinions of reliability and connectivity of METRO than other road users. Road users, then, perceive safety and access differently depending on which travel mode they rely on. Studying those differences can lead to mobility improvements that respond to current users’ needs as well as encourage others to consider alternative travel modes.

Figure 12 below shows responses on whether improvements to infrastructure, METRO service and public safety can make walking, biking and taking public transit safer and more comfortable. Responses from those who identify as residents of Gulfton follow a similar pattern as all others.

Unsurprisingly, 37 percent of all respondents want improvement in public transit services and facilities given their high reliance on public transit. Among the most highlighted areas for improvement are calls for increased frequency and reliability, a push for improved access to route and schedule information, and the training of bus drivers in cultural competency to help the wide range of riders they serve. Complementing access to transit, 32 percent of all respondents want safer walking and biking infrastructure. In line with the connection between traffic safety and crime previously discussed, respondents also want to be less worried about crime or unpleasant contact with others.

**FIGURE 11**

Perceptions of road safety comparing user type

<table>
<thead>
<tr>
<th>Safe riding a bicycle to my most important destinations (e.g. work, school)</th>
<th>Carpool</th>
<th>Bus</th>
<th>Car</th>
<th>Walk</th>
<th>All Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel safe walking or biking to bus stops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel safe and comfortable at the bus stop</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are enough streetlights</td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

*Bicyclists omitted due to low count

**FIGURE 12**

Ways to improve ease of getting around without a car among Gulfton residents

| Safer walking and biking infrastructure (more sidewalks, bikeways, lighting, crosswalks and separation from cars) | 32% |
| Improvement in bus services (more friendly bus drivers, dependable schedule, accessible information) | 37% |
| Less worry about crime or unpleasant contact with others | 18% |
| Slower car traffic | 11% |
| Support for non-car trips other | 2% |

<table>
<thead>
<tr>
<th>In Gulfton</th>
<th>Total</th>
</tr>
</thead>
</table>
Street safety, tied to both dangerous traffic and crime, are major issues in the neighborhood. While the Gulfton Complete Communities Action Plan touches on public safety strategies and mobility improvements in separate sections, this study finds important connections between the two. Specifically, barriers to walking, biking and using public transportation center on fears of vehicle collisions, crime and unpleasant encounters with others. Moving forward, strategies to overcome those barriers ideally need to focus on investment in infrastructure, educational campaigns aimed at creating responsible road users, broader police enforcement and more meaningful community engagement in each of these spaces.

Sidewalk and Other Projects

Much of the work around Gulfton's streets emphasizes a need for more investment in infrastructure improvements for pedestrians and people on bikes. Specific improvements include signage to increase awareness about pedestrians and people on bikes, more protection for vulnerable users when crossing streets, intersection treatments that slow down vehicles making turns and increased timing on walk signals to allow ample time for safe crossings. Such investments can also help overcome the unique behavioral and communication challenges of the community. Due to Gulfton's large population of immigrants and newly settled refugees learning or adjusting to U.S. traffic laws, regulations and practices, strategies to improve safety that rely on educating individual road users are going to be difficult. The diversity of languages spoken and the differing levels of educational attainment among residents only amplifies the challenge. In this context, then, safer street designs may be a more effective tool than attempting to change road users behaviors and justify even greater public investment.

With the Complete Communities initiative, the city has an opportunity to consider alternative funding mechanisms for building sidewalks. Currently in Houston, property owners can build sidewalks through the Privately Funded Sidewalk Program, in which residents pay for the infrastructure in front of their home or business, but the City of Houston Public Works and Engineering Department manages its construction and maintenance. The City of Houston, METRO and other entities could also consider additional funding mechanisms for sidewalk projects. A 50/50 cost sharing for sidewalks replacement and repairs between property owners and the city, as is in place in Dallas, could go a long way to improving walkability in the city.

Additional funding mechanisms should be put in place to pay for infrastructure throughout the region, with special consideration of addressing limitations in lower-income communities. For example, the Houston-Galveston Area Council of Government (HGAC) initiates a “call for projects” each year to allocate federal funding for all transportation projects. In this process, pedestrian improvements often compete with roadway or transit projects. However,
several successful requests pair pedestrian improvements with other major projects. Encouraging this type of connection could lead to more pedestrian investment. The city can further explore linking its existing Complete Streets Executive Order with planned and future transportation projects in Gulfton and other neighborhoods to ensure infrastructure improvements are paid for and installed when major capital improvement projects are brought forward. Finally, the city has identified the need to improve amenities near transit stops. Both the City and METRO should invest in these efforts and in creating safer first- and last-mile connections to the transit stops.

The survey results, particularly in the detailed comments, repeatedly stress the need for focused investment near schools. Strategies to reduce automobile reliance to school include safe routes programs, school shuttle services, crossing guards and other improvements to sidewalks and crossings.

To further increase accessibility for residents with disabilities and parents pushing strollers, safe street infrastructure projects that include crossing ramps should focus at clusters of schools, key bus stops, community service providers and large apartment complexes.

**Education Campaign and Enforcement**

The City, METRO and other entities have an opportunity to better serve residents by instituting public education campaigns and outreach for safe road user behavior in communities. Responses in this study emphasize that improving safety near school areas and large apartment complexes should also include raising awareness of existing traffic laws and regulations as well as enforcing them.

**Meaningful Engagement**

Finally, input from residents and community leaders can enhance specific strategies at the implementation stage. Future priority setting should take the data collected from the Complete Communities process and studies such as this into account. But decisions must also continue to be shaped by input from community leaders and other organizations. The Complete Communities planning process has initiated and increased enthusiasm for meaningful community engagement but more should be developed to overcome barriers to participation. Efforts by the City, METRO and other entities should consider the specific needs highlighted by Gulfton residents and integrate this local knowledge into the decision-making process.
While the survey and report mostly focus on street safety and infrastructure, the findings in this study also highlight a key link between those issues and perceptions of safety from crime and unpleasant contact. The study also illustrates the importance of getting community input and feedback to fully understand needs, particularly those arising from the daily experiences of low-income, immigrant and other vulnerable populations.

Assessing the safety and mobility challenges a community faces in their daily routines requires an understanding of where residents locate safety issues. While official crash data provides important information and accountability for reported crash incidents, it does not tell the whole story. In contrast to authorities and organizations looking from outside, residents and those working in Gulfton provide more detailed and contextualized information on safety issues.

The Complete Communities initiative has included public participation in its planning process. However, opportunities exist to build on these processes and overcome persistent challenges to public participation in neighborhoods such as Gulfton. Further outreach strategies that include collecting original data from residents is needed in order to include those who struggle to participate in more formal public input processes. The outcomes of this study support the idea that adding such approaches to the participation toolkit can further improve and democratize decision making in the future.

Future Work

Future similar studies in each Complete Communities neighborhood can complement the City’s effort by providing information based on local knowledge. Assessments of pedestrian, bicycle and public transit infrastructure could also be conducted in each neighborhood in order to capture the state of transportation infrastructure. The Kinder Institute has already undertaken a sidewalk assessment in Gulfton. All this information can contribute to decisions on project prioritization at the implementation stage.
Reference

1. The National Highway Traffic Safety Administration (NHTSA) Fatality Analysis


6. Incidents where road users have to take evasive action to avoid a crash


15. Our generous and supportive partners include staff at the Southwest Multiservice Center, Connect Communities, the students and administration of Liberty High School, staff at St. Luke’s Episcopal Gethsemane Campus, Baker Ripley, Legacy Health Clinic, the Alliance for Multicultural Community Services and others.

16. City of Houston. Gulfton Complete Communities Profile.


22. City of Houston. Gulfton Complete Communities Profile.


30. City of Houston. Gulfton Complete Communities Action Plan. The Action Plan sidewalk priorities are likely limited because the city has historically only built sidewalks in areas where people with disabilities request access, near schools or along major thoroughfares.


For questions about mode of transportation to work and other important locations, reasons for not walking, and changes to support walking, respondents were allowed to select all applicable answers.

Respondents can select multiple responses to this question.


Collapsing 3 responses: Drivers don't obey school zone speed, Fear of being hit or nearly hit by a car, Fear of crime/unpleasant contact with others.

Collapsing 4 responses: I have to cross highway I-59 to get there, No convenient or safe street crossings, Not able to safely use wheelchair, Too many physical barriers to get there.


City of Houston. Gulfton Complete Communities Action Plan.
The Kinder Institute thanks the following contributors for their transformational support of our mission to build better cities and improve people’s lives.

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