BEYOND sidewalks

A guide to what influences people to walk, bicycle, and access transit
Truncated domes are ground surface indicators designed to assist and warn pedestrians who are blind or visually impaired. Truncated domes feature a unique pattern of cones that are easily detected by a cane or foot, alerting a visually-impaired person to the presence of a street or sudden drop-off.
This guide was prepared by the Center for Urban Transportation Research at the University of South Florida. Funding for the guide was provided by the Florida Department of Transportation District Seven. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Florida Department of Transportation.
introduction

You can probably list several environmental characteristics that influence walking, bicycling, and transit ridership, but do you know how the citizens in your community perceive their environment? Few studies have investigated people’s perceptions of their environment and how these perceptions affect their choices about how they travel to work, school, and to the grocery store. By identifying and characterizing these perceptions, you can determine how to improve first-mile/last-mile connectivity to encourage transit ridership. This guide will show you how.
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This guide is based upon a research study conducted by the University of South Florida (USF) Center for Urban Transportation Research. The study results can help key community stakeholders better understand how the social and physical environment of a neighborhood affects how people think and feel about their travel choices. For community leaders that want to help their citizens walk, bicycle, and use public transportation more frequently, these study findings have been organized to help you determine what improvements can most encourage people to enjoy the benefits of walking and bicycling. Determining these improvements starts with knowing which specific factors influence whether people walk, bicycle, and/or use public transit. Once known, these factors may point to strategies no one has considered before—not just new sidewalks, but also approaches designed to change underlying attitudes.

The information presented within is designed for community leaders, neighborhood groups, transportation professionals, and others looking for ways to improve the comfort and safety of their neighborhood streets. By following the steps outlined in the guide, you will learn how to understand your community so you can better prioritize limited resources for transportation infrastructure, as well as what educational programs and services you can implement. The results will be especially beneficial in improving first-mile/last-mile connections to bus stops for people who want to walk or bike.

Included in this guide is a brief overview of a theoretical framework used to identify key considerations in devising community improvements based on social and environmental perceptions. The framework also provides the tools to enable you to do your own investigation to address the unique characteristics of the community you choose.
how to use this guide

You will be taken step-by-step through a process to replicate the research study. The theoretical approach used for the study is explained at the beginning of the guide, followed by an overview of the study methods. A link to the survey used along with worksheets containing easy-to-follow instructions and checklists are included to keep you on track.

A model of how the study was implemented is also included. Three Tampa area neighborhoods were studied based on several considerations including proximity to available transit and varying diversity of infrastructure, socio-economic status of residents, and residential home types. The results from the study are used as examples throughout the guide.

“I appreciate this opportunity to provide input for this topic; and, hope it will lead to necessary improvements for all concerned—especially for the elderly and disabled in this area.” —NEW TAMPA RESIDENT
applying a theoretical framework

The recommendations in this guide are based upon a theoretical framework used to identify perceived social and physical environmental factors related to walking and bicycling intentions and behaviors of adults. The Theory of Planned Behavior (TPB) states that behavior is the result of intentions created by three types of beliefs: **attitudinal**, **normative**, and **control**. See visual representation of TPB below.

Understanding which beliefs most strongly predict walking, bicycling, and transit intentions and behaviors will help when designing tailored solutions for your neighborhood.
perceptions & attitudes

Attitudes/personal beliefs

What facilitates walking, biking, and taking transit?

- Positive experience riding the bus.
- Belief that walking and bicycling are healthy activities.

What are barriers to walking, biking, and taking transit?

- Poor perceptions of the neighborhood environment.
- Low income; cannot afford bus fare or a bicycle.

Social norms: what others will think

What facilitates walking, biking, and taking transit?

- Seeing neighbors demonstrate walking, bicycling, and taking the bus.
- Having community leaders participate in active transportation and/or take transit.

What are barriers to walking, biking, and taking transit?

- Others are not walking or biking in the area.
- Everyone in the neighborhood owns a car.

Perceived level of control: self-efficacy

What facilitates walking, biking, and taking transit?

- Positive experience walking or biking promotes confidence.
- Shorter distances between home and destination or transit stop.

What are barriers to walking, biking, and taking transit?

- Built environment that lacks infrastructure and/or services (street lights, crosswalks).
- Heavy traffic without a barrier between vehicles and pedestrians/bicyclists.
- Poorly maintained streets and/or neighborhood environment.
The Social Ecological Model (SEM) is a multi-level model to help you further understand how different factors influence walking, bicycling, and transit behaviors. At the center of the SEM is the individual, surrounded by four additional bands of influence: the interpersonal, organizational, community, and structures/systems levels.

Identifying which factors most strongly influence walking, bicycling, and transit behaviors can help when designing systems to overcome the barriers that are present.
“Well when I was younger all my brothers and sister rode our bikes all the time growing up in Tampa, we walked a lot too…”
—NEW TAMPA RESIDENT

INDIVIDUAL Characteristics of an individual that influence behavior change, such as attitudes, knowledge, behaviors, beliefs, self-efficacy, and demographics. Barriers: Lack bicycling skills, nervous about riding the bus, do not know bicycle laws, negative beliefs about walking.

INTERPERSONAL Social networks and social support systems that can influence individual behaviors, such as family, friends, coworkers, peers, and cultural norms. Barriers: Family members feel bicycling is unsafe, negative social norms about who rides the bus, not trusting neighbors.

INSTITUTIONAL/ORGANIZATIONAL Organizations or social institutions with rules and regulations for operations that affect individual behaviors, such as schools and businesses. Barriers: Workplace does not allow bike parking, differing school/work start times prohibit walking child to school, neighborhood school closures.

COMMUNITY Relationships between organizations, institutions, and informational networks that influence individual behaviors, such as homeowners associations, transportation organizations and community leaders. Barriers: Lack of crossing guards, heavy traffic on residential streets, perception of crime.

SYSTEMS/STRUCTURES Federal, state and local laws and policies that influence individual behavior, such as the built environment. Barriers: Lack of bicycle lanes, bus policies that discourage walking, lack of complete streets policies.

TIP An intervention is any effort or policy that attempts to encourage behavior change among individuals or an entire population.
"I wish it were safer to walk in my neighborhood." —DOWNTOWN TAMPA RESIDENT

nine easy steps

1. Select Your Neighborhood
2. Document Neighborhood Characteristics
3. Develop a Survey
4. Determine Incentives
5. Get Neighborhood Leadership Support
6. Distribute the Survey
7. Compile and Analyze the Data
8. Select the Intervention
9. Evaluate the Results
Follow these steps to find out how to determine what improvements can encourage people to enjoy the benefits of walking and biking. “How to” for each step follows on pages 10 – 21.

1. Select Your Neighborhood – Identify your neighborhood boundaries. Various mapping tools are available online or print a map and mark your boundaries.

2. Document Neighborhood Characteristics – Use journey mapping or conduct a walking audit to document the current infrastructure and perceptions of walking and biking.

3. Develop a Survey – Develop a survey with questions based on the information you need. Pretest the survey with people in the neighborhood; make revisions based on their feedback and your analysis of the data collected.

4. Determine Incentives – Determine if you need to offer an incentive for completing the survey to help provide the desired response rates.

5. Get Neighborhood Leadership Support – Identify local leaders and other influencers in the neighborhood. Talk to them. Ask for their help with distributing the survey and the results.

6. Distribute the Survey – Determine the channels you will use to distribute the survey and establish a timeline. Send out the survey to your identified neighborhood. You may need to send the survey out several times to get the response rate needed.

7. Compile and Analyze Survey Data – Calculate the survey response rate needed to quantify your results. Generate the results of your survey.

8. Select the Intervention – Select specific solutions to improve the perceptions of or infrastructure for biking and walking based on survey responses. After the intervention has been implemented, send out another survey to measure any changes based on the solution.

9. Evaluate the Results – Analyze the data collected. Complete a report to distribute to stakeholders and the community.
SELECTING A NEIGHBORHOOD
Many communities are working to make their streets friendly for walking and bicycling. Safe and accessible routes to bus stops, shopping, work, and neighborhood parks provide enhanced livability for all community members. Physical features, like lighting, sidewalks, bicycle paths, crosswalks and landscaping, can greatly improve how community members perceive their travel options. The neighborhood you choose should be one where you have a vested interest or would like to see a change.

YOUR RESEARCH RESULTS COULD BE THE START TO

• Making positive changes that lead to a more accessible, comfortable, and safer walking and bicycling environment.

• Bringing community members together to discuss problems and find solutions.

• Determining problems that can be easily fixed.

• Identifying needed improvements to be included in funding asks, plans, and projects.
We chose three neighborhoods located in Tampa, Florida for the research study. The neighborhoods were selected due to their proximity to transit service, varying levels of infrastructure, and socioeconomic differences.
CONDUCT A WALKING AND BICYCLING AUDIT An audit is an unbiased examination of the walking and bicycling environment. The purpose is to identify and document concerns and solutions for pedestrians and bicyclists related to safety, access, comfort, and convenience. Informal audits can be performed by any individual or community group. More formal audits are usually performed by a multidisciplinary team of trained professionals, including engineers, planners, transportation researchers, pedestrian and bicycle specialists, and others.

Quick Start

1. Identify Your Route
2. Recruit People to Conduct the Audit
3. Choose a Date and Time
4. Gather Your Supplies (Audit worksheets, maps, pens, camera)
5. Conduct the Audit
6. Rate the Route
Conducting a walking and bicycling audit typically involves using a scoring system to identify and rank facilities along a specified route. The following are examples from an audit we conducted to give you an idea of how the process works. The audited elements are scored and later tallied at the conclusion of the audit. The results can be helpful in identifying and prioritizing future interventions.

**PRESENCE OF CROSSWALKS**
Crosswalks (high): presence and visibility of crosswalks on roads intersecting the segment. Traffic signals meet pedestrian needs with separate ‘walk’ lights that provide sufficient crossing time.

1. Crosswalks not present despite major intersections
2. 3.
3. 4.
5. No intersections, or crosswalks are clearly marked

**BIKE LANE OR BUFFERS**
Buffer (medium): space-separating path from adjacent roadway.

1. No buffer from roadway
2.
3.
4. > 4 feet from roadway
5. Not adjacent to roadway

**SHADE**
Shade (low): amount of shade, accounting for different times of day.

1. No shade
2.
3.
4.
5. Full shade

**PRESENCE OF SIDEWALK OR PATH**
Path Size (medium): measure of useful path width, accounting for barriers to passage along pathway.

1. No permanent facilities
2. < 3 feet wide, significant barriers
3.
4.
5. Several feet wide, barrier free

**SCORING CHART**

- Sum of high importance: \( \frac{10}{3} \times 3 = \frac{20}{3} \)
- Sum of med. importance: \( \frac{5}{2} \times 2 = \frac{10}{2} \)
- Sum of low importance: \( \frac{3}{1} \times 1 = \frac{3}{1} \)
- Total score: \( 33 / 40 \)
Apply your knowledge about the Theory of Planned Behavior (TPB) and the Social Ecological Model (SEM) to also measure the normative, attitudinal and control beliefs of your population of interest, with regard to their perceptions about walking, bicycling and accessing transit. There are many validated survey instruments already available. For this project, the abbreviated version of the Neighborhood Environment Walkability Survey (NEWS-A) was used, which assesses residents’ perception of neighborhood design features related to physical activity, including residential density, land use mix, street connectivity, infrastructure for walking/cycling, neighborhood aesthetics, traffic and crime safety, and neighborhood satisfaction. Additional questions were added to assess current walking, bicycling, and transit use behavior, and demographic information.

A survey can be developed in both printed form and as an online instrument. Both formats were used for this project; by developing an online survey that is compatible with mobile devices, users were able to access and complete the survey from a computer or mobile device using a web link that was provided in the recruitment materials.
Pilot testing is an important component of the survey development process. This step allows researchers to ensure that the survey questions capture the intended information to address the research questions, and that participants understand what each question is asking of them and are able to answer accurately. Based on the results of the pilot test, refinements to the survey should be made as needed. The research team pilot-tested our quantitative survey with a small representative sample of individuals to be included in this project. Assistance with pretesting was requested from the representatives of the three neighborhoods we evaluated. Each neighborhood representative was asked to send the survey to at least five individuals in their neighborhood as part of the pretesting process.

“Enjoy walking mostly to pick up some non-heavy items like bread or sandwich. About an hour round trip walk. See police in our area so it’s a safe place to walk.”—SULPHUR SPRINGS RESIDENT
choosing the right incentives for your survey

Offering incentives to people who complete the survey can positively impact your response rate. People most often take surveys when they are interested in the topic and want to be helpful, or for a tangible benefit, which typically comes in the form of an incentive. Understanding why people take surveys will help you determine the incentives you should choose.

In exchange for completing a survey, respondents are rewarded with an incentive, often cash or gift cards. Incentives come in many different forms and can increase response rates.

Getting support from neighborhood leaders is an important step in the survey process. They can help you determine the best ways to reach people and communicate the importance of the survey.

ASK LEADERS THESE QUESTIONS:

- Do people in the neighborhood feel more comfortable writing, speaking, or answering questions online?
- Will it be efficient to mail surveys or should another method be used to make sure residents receive one?
- Are there language barriers that need to be addressed?
- Will the leaders allow you to use their name to endorse the project?
The number of respondents you need depends on your survey goals and how confident you want to be in your results. The more confident you want to be, the less of a margin of error you should accept. To calculate your sample size, you will need to determine your sample size and the margin of error. Many online calculators are available to determine sample size based on margin of error or use the formula to do the calculation by hand.

### OUR EXAMPLE

<table>
<thead>
<tr>
<th>Downtown Tampa Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Size</td>
</tr>
<tr>
<td>Confidence Level</td>
</tr>
<tr>
<td>Margin of Error</td>
</tr>
<tr>
<td>Sample Size</td>
</tr>
</tbody>
</table>

**TIP** If you want a smaller margin of error and a higher confidence level in your data, you must have a larger sample size to represent the population.

### Calculating sample size

\[
\frac{z^2 \times p(1-p)}{e^2} \div \left(1 + \left(\frac{z^2 \times p(1-p)}{e^2N}\right)\right)
\]

- **Population Size = N**
- **Margin of error = e**
- **z-score = z**

*Note: e is a percentage expressed in decimal form (for example, 3% = 0.03)*

**OR FIND AN ONLINE CALCULATOR!** There are numerous automated calculators available online — just search for “calculating sample size.” Don’t forget to also factor in your margin of error.
Greetings,

Your household, along with others in your neighborhood, has been selected to participate in an important project conducted by the Center for Urban Transportation Research at the University of South Florida. The purpose of this project is to better understand your views regarding walking, bicycling and riding the bus in your neighborhood. Your participation will help to create a guide to help communities make improvements.

The Survey
To participate in this project, complete the survey online at the following link:
http://www.bikewalktampabay.org/beyond-sidewalks-dt-tampa/

All adult members of your household aged 18 years or older may complete a survey. If you would like to request a paper copy of the survey mailed to you, please leave a message for Julie Bond, project manager, at (813) 974-9799 or jmbond@cutr.usf.edu.

Compensation
You will receive a $10 Publix gift card for completing this survey. Each household is eligible to receive one gift card. To receive your gift card, you must complete the last page of the online survey and provide your name and address. Your gift card will be mailed to you.

Confidentiality
All information you provide in the survey will be treated as strictly confidential and used for statistical purposes only. Results relating to the survey may be used in reports or publications but your name will never be shared.

If you have questions regarding this project, please feel free to contact Julie Bond, project manager, at jmbond@cutr.usf.edu. Thank you for your time and consideration.

Sincerely,

Julie Bond, Senior Research Associate
Center for Urban Transportation Research
University of South Florida

Karen Kress, Director of Transportation and Planning
Tampa Downtown Partnership
CONSENT Before you distribute your survey, you may need to gain consent from the people taking the survey. Whether or not you need to follow informed consent guidelines, potential survey participants should always be given sufficient information to allow them to decide whether or not they want to take part in the survey.

- Provide the name of the person or organization conducting the survey.
- Ask respondents to agree to a consent statement, which outlines your data transfer practices, privacy policy, or any other relevant information.
- Provide an option to withdraw from the survey if they so choose.
- Provide details and terms and conditions of any incentives offered.
- Make it clear that consent is implied by participating in the survey.

DISTRIBUTION CHANNELS

- **Social Media Ads** – Target people in your chosen neighborhood through Social Media advertising. (See example of Facebook ad at left.)

- **Direct Mail** – Send the survey via U.S. mail. Include a postage paid envelope for easy returns along with an online option. (Examples of direct mail are on the left-hand page.)

- **Community Events** – Attend community events in the neighborhood and provide people with a paper survey and/or give them information on how to take the survey online.
what to do with your data

1. Cross-tabulate and filter the results
2. Analyze the data
3. Draw conclusions. What story does your data tell?
4. Identify and select interventions based on your findings
5. This is the fun part... Tailor your intervention(s) to each neighborhood based on the perceptions of barriers identified by those who completed the survey.
6. Send out the “after” survey
7. Conduct a second analysis
8. Identify any statistically significant changes your intervention(s) make

IDENTIFY THE BELIEFS ABOUT AND BARRIERS TO WALKING, BICYCLING, AND ACCESSING TRANSIT THAT PEOPLE PERCEIVE ABOUT THEIR NEIGHBORHOOD.

TIP Be sure to distinguish the difference between causation and correlation. Causation is when one factor causes another, while correlation is when two variables move together, but one does not influence or cause the other.

“Transporting my toddler by bicycle doesn’t feel like a safe option, so we go everywhere by car.”—NEW TAMPA RESIDENT
Here are some examples of possible resolutions based on the Theory of Planned Behavior (TPB):

<table>
<thead>
<tr>
<th>TPB LEVEL</th>
<th>EXAMPLE BARRIER</th>
<th>EXAMPLE INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes/Personal Beliefs</td>
<td>I cannot afford bus fare or a bicycle.</td>
<td>Transit fare discounts; “you repair it, you can keep it” used bike giveaways.</td>
</tr>
<tr>
<td>Social Norms</td>
<td>Americans do not use alternative modes of travel.</td>
<td>Social media campaigns: “everyone’s walking more.”</td>
</tr>
<tr>
<td>Perceived Level of Control</td>
<td>Traffic is too heavy to allow me to cross the street.</td>
<td>Installation of crosswalks &amp; traffic signals with pedestrian-actuated walk phase.</td>
</tr>
</tbody>
</table>

And here are possible solutions that could be made based on the Social Ecological Model (SEM):

<table>
<thead>
<tr>
<th>SEM LEVEL</th>
<th>EXAMPLE BARRIER</th>
<th>EXAMPLE INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>I do not know how to ride a bicycle.</td>
<td>Bike safety and riding workshops</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>I feel unsafe walking in my neighborhood.</td>
<td>Formation of neighborhood walking groups/walking buddies</td>
</tr>
<tr>
<td>Institutional/Organizational</td>
<td>My workplace does not allow me to bring my bicycle into the office.</td>
<td>Change policy to allow bikes to be parked inside.</td>
</tr>
<tr>
<td>Community</td>
<td>There is not enough room to bring my bike on the bus.</td>
<td>Installation of bike lockers at transit stops.</td>
</tr>
<tr>
<td>Systems/Structure</td>
<td>There is too much traffic to ride my bike.</td>
<td>Installation of protected bike lanes.</td>
</tr>
</tbody>
</table>

Following invention(s), conduct an “after” survey to assess your success.
DOWNTOWN TAMPA

Downtown Tampa is a historic and highly urbanized neighborhood in the city’s core. People who live in this area benefit from easy access to trails, transit, and Downtowner, a convenient ride service, but must also contend with high volumes of traffic, including an influx of daily commuters.

NEW TAMPA

New Tampa is a 24-square mile master-planned community on the edge of Tampa’s metro area and is one of the city’s largest neighborhoods. The area was established recently compared to many other parts of Tampa and most residents rely on automobiles to access services and the city center.

SULPHUR SPRINGS

Sulphur Springs is a small but historically significant and racially diverse neighborhood located five miles north of Tampa’s city center. It boasts several historic landmarks and parks. Its streets were primarily designed on a grid for easy navigation.
Residents from each neighborhood were surveyed about their preferences for different improvements to encourage bicycling and walking in their respective neighborhoods. Five different intervention options to encourage walking and five options to encourage bicycling were presented; residents ranked these options for walking and bicycling based on their preference. Several interventions were then implemented in each neighborhood based on resident preferences.

### SULPHUR SPRINGS NEIGHBORHOOD

**Biking**
1. Emergency Ride Home program (postcard with sign-up information).
2. DIY bicycle fix-it stations (two installed at HART bus stops).

**Walking**
1. Citizens were provided with pedometers.
2. Assistance in coordinating neighborhood walking groups (Facebook group created; postcards sent out with information).

### DOWNTOWN TAMPA NEIGHBORHOOD

**Biking**
1. Emergency Ride Home program (postcard with sign-up information).
2. DIY bicycle fix-it stations (two installed at HART bus stops).

**Walking**
1. Citizens were provided with pedometers.
2. Walking maps of the area were distributed to residents.
3. Free safety items (like reflective arm bands) were handed out.

### NEW TAMPA NEIGHBORHOOD

**Biking**
1. Emergency Ride Home program (postcard with sign-up information).
2. DIY bicycle fix-it stations (two installed at HART bus stops).

**Walking**
1. Citizens were provided with pedometers.
2. Free safety items (like reflective arm bands) were handed out.
The following is a snapshot of our survey results. The survey responses demonstrate the differences in perceptions of residents in each area when it comes to neighborhood safety, access to services, and places for walking and bicycling. A Forward Stepwise Regression method was used with the “before” and “after” surveys to identify and assess statistically-significant predictors of persons walking or biking. All results presented were found to be statistically significant.

**Neighborhood safety**

**SULPHUR SPRINGS** survey participants indicated that their personal perceptions of crime during the day and at night had a deterring effect on their decision whether or not to walk. In **NEW TAMPA** and **DOWNTOWN TAMPA**, survey respondents shared that their perceptions of crime did not affect their decisions about walking regardless of the time of day.

In **SULPHUR SPRINGS**, survey responders said that, when they perceive motorists speeding, they were less likely to walk.

In **DOWNTOWN TAMPA**, people expressed a positive correlation between an interest in walking and the availability of crosswalks.

**Access to services**

In **SULPHUR SPRINGS**, survey respondents indicated their interest in walking increased when they are able to walk to a bus stop.
Places for walking and bicycling

NEW TAMPA residents, when surveyed, had a positive association with traveling by bicycle when bike lanes are available to them.

Bicycling

In DOWNTOWN TAMPA, 86% of survey respondents indicated they like bicycling. In NEW TAMPA, 85% also expressed that they like bicycling. 78% of SULPHUR SPRINGS respondents said they like bicycling, however, this neighborhood also had the highest percentage survey respondents, at 14%, who “strongly disagree” with the statement that they like to ride a bicycle.

Walking

In DOWNTOWN TAMPA, 94% of respondents said they like walking. In NEW TAMPA, the number was 93%. In SULPHUR SPRINGS, it was 83%, but this neighborhood also had the highest percentage of residents who “strongly disagree“ with the statement that they like to walk (9%).

In NEW TAMPA and DOWNTOWN TAMPA, the residents surveyed shared that they felt walking is sometimes easier than driving and that, as a result, they do opt to travel by foot.

In all three neighborhoods, people that prefer to walk rather than drive are more likely to walk for personal trips whenever it is possible.

After the interventions were implemented, those in NEW TAMPA who participated in the “after” survey expressed perceptions that there are more places to go within easy walking and bicycling distance.

After survey respondents in NEW TAMPA also reported that they felt there were fewer major barriers to walking and bicycling.

In all three neighborhoods, survey data shows a strong statistical correlation between residents knowing where safe areas are to walk and bike and actually walking and biking.

For additional guidance and resources...

https://www.cutr.usf.edu/2018/07/beyond-sidewalks/
## DOWNTOWN TAMPA

<table>
<thead>
<tr>
<th>Mode</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
<td>22</td>
<td>4.80</td>
<td>4.80</td>
</tr>
<tr>
<td>Bus</td>
<td>21</td>
<td>4.59</td>
<td>9.39</td>
</tr>
<tr>
<td>Drive alone</td>
<td>274</td>
<td>59.83</td>
<td>69.21</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.22</td>
<td>69.43</td>
</tr>
<tr>
<td>Picked up by driver (Uber, Lyft, etc.)</td>
<td>11</td>
<td>2.40</td>
<td>71.83</td>
</tr>
<tr>
<td>Rode w/non household member</td>
<td>6</td>
<td>1.31</td>
<td>73.14</td>
</tr>
<tr>
<td>Rode w/a household member</td>
<td>66</td>
<td>14.41</td>
<td>87.55</td>
</tr>
<tr>
<td>Walk</td>
<td>57</td>
<td>12.45</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>458</strong></td>
<td><strong>100.00</strong></td>
<td></td>
</tr>
</tbody>
</table>

## NEW TAMPA

<table>
<thead>
<tr>
<th>Mode</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
<td>10</td>
<td>2.62</td>
<td>2.62</td>
</tr>
<tr>
<td>Bus</td>
<td>2</td>
<td>0.52</td>
<td>3.14</td>
</tr>
<tr>
<td>Drive alone</td>
<td>248</td>
<td>64.92</td>
<td>68.06</td>
</tr>
<tr>
<td>Picked up by driver (Uber, Lyft, etc.)</td>
<td>4</td>
<td>1.05</td>
<td>69.11</td>
</tr>
<tr>
<td>Rode w/non household member</td>
<td>5</td>
<td>1.31</td>
<td>70.42</td>
</tr>
<tr>
<td>Rode w/a household member</td>
<td>108</td>
<td>28.27</td>
<td>98.69</td>
</tr>
<tr>
<td>Walk</td>
<td>5</td>
<td>1.31</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>382</strong></td>
<td><strong>100.00</strong></td>
<td></td>
</tr>
</tbody>
</table>

## SULPHUR SPRINGS

<table>
<thead>
<tr>
<th>Mode</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
<td>5</td>
<td>1.67</td>
<td>1.67</td>
</tr>
<tr>
<td>Bus</td>
<td>61</td>
<td>20.33</td>
<td>22.00</td>
</tr>
<tr>
<td>Drive alone</td>
<td>132</td>
<td>44.00</td>
<td>66.00</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.67</td>
<td>66.67</td>
</tr>
<tr>
<td>Picked up by driver (Uber, Lyft, etc.)</td>
<td>1</td>
<td>0.33</td>
<td>67.00</td>
</tr>
<tr>
<td>Rode w/non household member</td>
<td>10</td>
<td>3.33</td>
<td>70.33</td>
</tr>
<tr>
<td>Rode w/a household member</td>
<td>64</td>
<td>21.33</td>
<td>91.67</td>
</tr>
<tr>
<td>Taxi</td>
<td>1</td>
<td>0.33</td>
<td>92.00</td>
</tr>
<tr>
<td>Walk</td>
<td>24</td>
<td>8.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td><strong>100.00</strong></td>
<td></td>
</tr>
</tbody>
</table>
acknowledgments

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