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Transportation and Tourism

Final Report

Katherine F. Turnbull and Greg P. Griffin

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16. Abstract This project explored the link between transportation and tourism in Texas. A session on transit and tourism was organized and conducted as part of the 2012 Texas Transit Conference. Speakers at the session described public transit services oriented toward tourists in San Antonio, Corpus Christi, and South Padre Island. Session participants discussed additional research needs, outreach activities, and possible demonstration projects. A meeting was also held with representatives from the Texas Department of Transportation and BikeTexas to discuss current bicycle and walking programs oriented toward tourists in the state and areas for additional research, pilot testing, and technology transfer.					
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Transportation and Tourism

by

Katherine F. Turnbull, Ph.D.
Executive Associate Director
Texas A&M Transportation Institute

and

Greg P. Griffin, AICP
Associate Transportation Researcher
Texas A&M Transportation Institute

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Executive Summary

Tourism is an important industry in Texas and throughout the U.S. In 2011, tourism accounted for approximately \$63.2 billion in spending in the state (1). Transportation is a key element supporting tourism. Visitors arrive in Texas by airplanes, trains, motor coaches, and personal vehicles. Tourists continue to use these modes during their stay in Texas, as well as public transit, bicycles, and walking. Some visitors plan their stays around biking and hiking events or trails, while others incorporate ferries, boats, and historical railroads as key parts of their vacations.

This project explored the availability and use of transit, bicycling, and walking by tourists in Texas. A session on transit and tourism was organized and conducted as part of the 2012 Texas Transit Conference held in McAllen. Session speakers described tourist-oriented transit services in San Antonio, Corpus Christi, and South Padre Island. Participants at the session discussed issues and opportunities, additional research topics, and possible outreach activities. As part of the project, a meeting was also held in Austin with representatives from the Texas Department of Transportation (TxDOT) and BikeTexas. Meeting participants discussed current research projects, issues, and opportunities to expand and improve biking and walking options for visitors, and topics for further research, outreach efforts, and pilot projects.

This report presents the highlights from the transit and tourism session and the meeting on bicycling, walking, and tourism. It outlines possible follow-up activities, including hosting a transportation and tourism conference, developing research problem statements for targeted sponsors, and exploring funding options for pilot testing and evaluation projects. These efforts build on previous and current research underway at the Texas A&M Transportation Institute (TTI).

Chapter One – Introduction

Background

Tourism is an important industry in Texas. As illustrated in Figure 1, expenditures on travel and tourism have continued to increase over the past decade. The Office of the Governor, Economic Development and Tourism reported that \$63.2 billion was spent on tourism in 2011 (1). Over a third of this total was travel by visitors from outside the state.

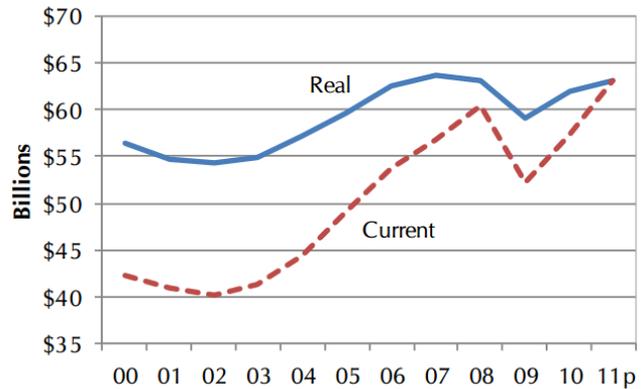
These figures indicated that spending on travel in Texas is on par with the microelectronics and agriculture industries in the state. Transportation and tourism are intertwined. Visitors to the state arrive by airplanes, trains, motor coaches, and passenger vehicles. They use these modes, as well as public transit, bicycles, and walking during their stay in Texas.

Tourism is an activity that drives demand for transportation. That is, transportation directly fulfills needs for mobility by moving people, freight, and information (2). The same reasons that motivate travelers to embark on a trip, such as new cultural experiences and discovering a unique sense of place, are both provided and shaped by the transportation experience. Most industries rely on only two key factors of transportation: safety and speed. Tourism is different in that traffic congestion, the roadside environment, and other factors affect the quality of people’s visits (the tourism *product*), and therefore the long-term bottom line for a tourism community.

Providing travel options for visitors, including public transportation, bicycling, and walking is important. Many tourists use these modes rather than driving. Further, transit, bicycling, and walking are key parts of many tourists’ itineraries and the reason for visiting the state. This project explored examples of transit, bicycling, and walking by visitors in Texas. It also identified areas for further research, outreach, and possible demonstration projects to enhance transit, bicycling, and walking options for tourists in the state.

Organization of this Report

Following the introduction, this report is divided into four chapters. An overview of related research on transportation and tourism is presented in Chapter Two. A summary of the transit and tourism session at the 2012 Texas Transit Conference is provided in Chapter Three. Chapter Four presents a summary of the meeting examining bicycle, walking, and tourism in the state. The report concludes with an overview of the key elements discussed at the conference session and the meeting, and the identification of possible follow-up activities.



Source: (1)

Figure 1. Texas Travel Spending in Real and Current Dollars

Chapter Two – Related Research

This project represents the continuation of research related to transportation and tourism conducted by TTI. It builds on a 2001 conference sponsored by the Southwest Region University Transportation Center (SWUTC) that included sessions on transportation and tourism. The results from that conference are documented in the *Proceedings from the Texas Rural Transportation Conference Transportation and Tourism Track* (3). Presenters in this track reviewed existing and future opportunities for tourism and rural transportation in Texas, TxDOT’s role, the Texas Historical Commission’s Heritage Tourism Program, the Great Texas Birding Trails, the Colorado River Trail, and the Presidential Corridor. Several issues and research topics were also discussed during the track. Table 1 summarizes a few of the issues and related topics identified during the conference sessions.

Table 1. Identified Transportation Issues and Research Needs.

Issue	Research Topic
Influence of new trails program is unknown	Evaluation and monitoring of trails programs, including effectiveness of roadside signs.
Traffic congestion at tourist and recreation sites is a major problem during peak visitor times	Examining traffic issues at specific sites and alternative approaches are needed. Developing a sourcebook outlining methods for addressing tourist-oriented transportation problems would be beneficial.
Multimodal transportation alternatives to alleviate tourism access and mobility need to be addressed	Research on issues and opportunities of improving multimodal services in the state is needed, including connections between modes, information needs and policy/institutional issues.
Transportation’s role in interpreting cultural and heritage sites is not understood	The role of various transportation modes in Texas’ history should be explored including transportation design elements and other features to enhance local tourism efforts.
Motorcoaches are under less demand with newer generations	Research is needed on the changing demographics of motorcoach tour markets and potential new markets and their desired tourism activities.
Safety issues of tourism trails are unknown	Potential safety concerns associated with birding, pedestrian/vehicle interaction, pull off areas and other issues.
Texas does not have a bicycling and hiking route system	Explore the potential of developing trails or routes linking visitor areas and scenic destinations, examining other states’ experiences.

Source: (3)

Another TTI research project, *Sustainable Tourism Planning and Transportation in Texas* (4), examined key transportation issues and opportunities associated with tourism in Texas. The study reviewed the economic impacts of the tourism industry, the role of transportation in the visitor experience, and the interrelationship between sustainable

development, transportation, and tourism. Three regions within the state – the Hill Country/Fredericksburg, the Gulf Coast/Port Aransas, and Big Bend National Park – were examined through literature reviews, on-site tours, and interviews.

The *National Cooperative Highway Research Program (NCHRP) Report 419: Tourism Travel and Transportation System Development* (5), reviewed practices of state travel offices and departments of transportation to identify institutional practices supporting tourism growth. The survey results indicated that written policies on interagency coordination facilitate the effective planning and implementation of transportation projects that support tourism. State departments of transportation are usually involved with tourism-supportive projects such as signage, rest areas, scenic turnouts, and scenic byways, but areas where they interface with state travel offices are most often welcome centers and tourist information maps. The report also noted that state departments of transportation and travel offices collect different data, and could support each other by sharing information. The report identified 11 key principles for consideration in the state transportation planning process to allow states to make more informed decisions on transportation projects focused on tourism growth. It further identified 13 guidelines for establishing a state department of transportation planning and project development process that incorporates tourism concerns (5). Several other products were developed in this study to support state departments of transportation in the selection, implementation, and funding of transportation actions that promote tourism.

The report, *Pathways to Prosperity: The Economic Impact of Investments in Bicycle Facilities* (6), presented a case study of the North Carolina Northern Outer Banks to locally quantify bicycle tourism. The project identified 680,000 bicycle visitors in the area a year, representing approximately 17 percent of all tourists in the area and contributing an economic impact of \$60 million per year. Approximately 53 percent of tourists surveyed reported bicycling as a strong influence in their decision to return to the area on a future visit. A total of 12 percent of the respondents indicated they stayed in the area an average of four days longer due to the quality of bicycling in the area. The results further indicated that bicycling tourists tend to be well educated and earn high incomes, with 87 percent reporting earning more than \$50,000 annually, and 78 percent having completed college. The study found that the annual economic impact of cyclists is nine times the initial costs of the bicycle facilities built in the region. Significant quality of life, environmental experience, and job production benefits were reported as well (6).

Trail Towns: Capturing Trail-Based Tourism (7) is a guidance document for organizing resources to capture trail-based tourism, focused on Pennsylvania communities. It recommends processes for defining trail corridors, building partnerships, dealing with design issues, and addressing economic restructuring. Promoting the local community and developing a master plan are also addressed in the document. The appendices include worksheets for documenting trail usage, physical elements, town self-assessments, and a meeting agenda template.

The report, *Reinventing the Wheel: A Definitional Discussion of Bicycle Tourism* (8), examines previous definitions of bicycle tourism, addressing the range of cycling activities and participation characteristics, which distinguishes bicycle tourists from other visitors. Definitions are noted as important to set the stage for further research. The study found the following characteristics of use for an operable definition of bicycle tourism.

- The cycling experience should take place outside a person's home region;

- Bicycle tourism may extend to single-day or multi-day trip durations;
- The nature of cycling should be non-competitive;
- Cycling should be the main purpose of the journey; and
- Participation in cycling should occur only in an active context.

After developing a distance and time-specific definition using Australia as an example, the author offers a general working definition of bicycle tourism as trips away from an individual's home region, of which active or passive participation in cycling are considered the main purpose for that trip.

The report, *Visitor Expenditure: The Case of Cycle Recreation and Tourism* (9), presents a case study of a bicycle network in Northeast England, UK, used for tourism, recreation and utility purposes. An expenditure model is developed based on the results from 383 cyclists' travel diaries. The report finds that expenditures are related to the duration of a trip, the group size and income level, trip characteristics, and the route. The relationships between these characteristics are also described. The authors noted that the results broadly suggest that longer trip types, and larger groups, are the key to generating higher expenditures (9).

The report, *Economic Impact Analysis of Orange County Trails* (10), reviewed the economic impact of the Little Econ Greenway, West Orange, and Cady Way Trails on Orange County's local economy and specifically, on the economy of Downtown Winter Garden. The results from a snowball-distributed Internet survey on trail users' spending habits were used, along with analysis using the Regional Economic Model, Inc. (REMI). The trails were generally concrete shared-use paths serving a variety of activities including walking and biking. In 2010, the three trails in Orange County supported 516 jobs and had an estimated positive economic impact of \$42.6 million. Trail survey results also provided information useful for local transportation planning and management.

TTI and Cambridge Systematics, Inc. completed an NCHRP project examining transit services, transportation planning, and National Parks. The report, *Innovative Transportation Planning Partnerships to Enhance National Parks and Gateway Communities* (11), includes case studies at 10 national parks highlighting different projects, approaches, institutional arrangements, and public and private sector partners. The report also discusses areas for additional research.

Chapter Three – Transit and Tourism in Texas

Researchers organized and conducted a session on transit and tourism at the 2012 Texas Transit Conference as part of this project. The 2012 Texas Transit Conference: Taking Charge of Change – Exploring Public Transit Innovations and Efficiencies, was held in McAllen, Texas, April 21-26.



From Left: Deborah Carpenter, South Padre Island; Priscilla Ingle, VIA Metropolitan Transit; Scott Neeley, Corpus Christi RTA; and Katie Turnbull, TTI

Figure 2. Session Participants

The session brought together conference participants from transit systems that serve tourists and visitors in Texas. Three speakers highlighted the role of transit in promoting tourism and serving visitors in San Antonio, Corpus Christi, and South Padre Island. Katie Turnbull, TTI, moderated the session and engaged participants in a discussion of issues, opportunities, research needs, and outreach activities to enhance and expand transit services to promote tourism throughout the state. The key points from the presentations and the discussion are summarized in this chapter.

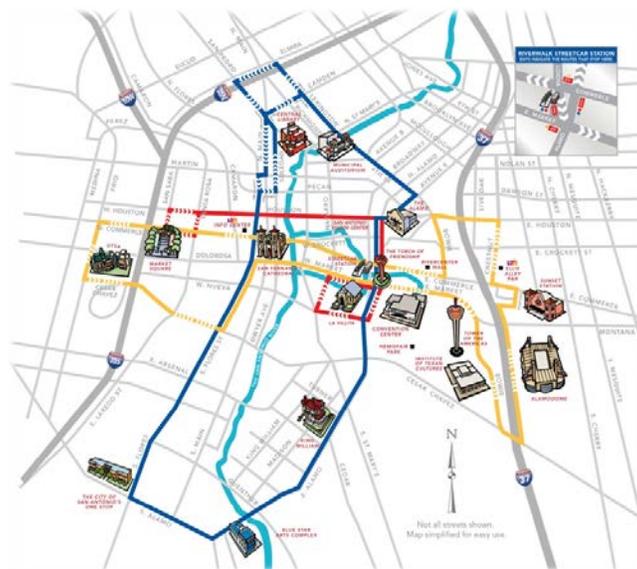
Tourism and Transit in San Antonio

Priscilla Ingle, Vice President Public Affairs, VIA Metropolitan Transit, San Antonio, Texas

Priscilla Ingle discussed transit services in San Antonio targeted toward tourists and visitors. She provided an overview of VIA Metropolitan Transit and San Antonio. She described the Downtown Streetcar service and other routes oriented to tourists, services focused on workers in the tourism industry, and the benefits from these services. Priscilla covered the following points in her presentation.

- The VIA service area covers 1,226 miles and includes all of San Antonio and 98 percent of Bexar County. Service hours are from 4:00 a.m. to 1:00 a.m., seven days a week. VIA operates 91 bus routes with a fleet of 441 buses, 14 streetcars, and 175 VIATran vans. The system includes eight park-and-ride lots and five transit centers. San Antonio is the largest city with an all bus transit system in the country. VIA carried approximately 44.1 million riders in Fiscal Year 2011.

- San Antonio is the third fastest growing city in the U.S. and the seventh largest in the country. San Antonio is centrally located between the east and west coasts and is a popular city for conventions, visitors, and tourists. *TRAVEL+ LEISURE* magazine named San Antonio one of America's favorite cities. With more than 26 million annual visitors, the economic impact of tourism is well over \$11 million a year.
- San Antonio is home to many of the state's most visited attractions and festivals. These attractions include the Alamo, the Riverwalk, SeaWorld San Antonio, Six Flags Fiesta Texas, and the San Antonio Zoo. FIESTA San Antonio is one of the most popular festivals in the state. VIA provides transportation to all these attractions, including regular route and special event services.
- In addition to visitors, there is a large tourism workforce, which VIA also serves. One in eight people employed in San Antonio work in tourism. This workforce exceeds 106,000 citizens. Employees, many of whom have non-traditional work schedules, need transportation options.
- The Downtown Streetcar service focuses on moving tourists between attractions, hotels, restaurants, shopping, and other venues. The Downtown Streetcar has been in operation since 1983. Three routes circulate throughout the downtown area, connecting hotels with sites of interest. In FY 2011, the Downtown Streetcar provided 1.1 million trips, with a weekday average of 2,993 trips. The one-way fare is \$1.10, which is the same as the regular bus fare. An all-you-can-ride day pass is \$4.00. The Downtown Streetcar Station serves as the focal point for the service, providing easy and identifiable access to the streetcar service.



Graphic by VIA

Figure 3. San Antonio Downtown Streetcar Routes

- VIA also operates a bus route designed for tourists. The sightseer bus route connects the downtown to cultural sites, including the Riverwalk, the Convention Center, the Alamo, and the San Antonio Museum of Art. The route also serves the San Antonio Zoo, the San Antonio Botanical Gardens, Brackenridge Park, the Japanese Tea Gardens, and the Witte Museum. VIA receives requests to extend the route to other sights on an ongoing basis.



Photo by VIA

Figure 4. San Antonio Downtown Streetcar

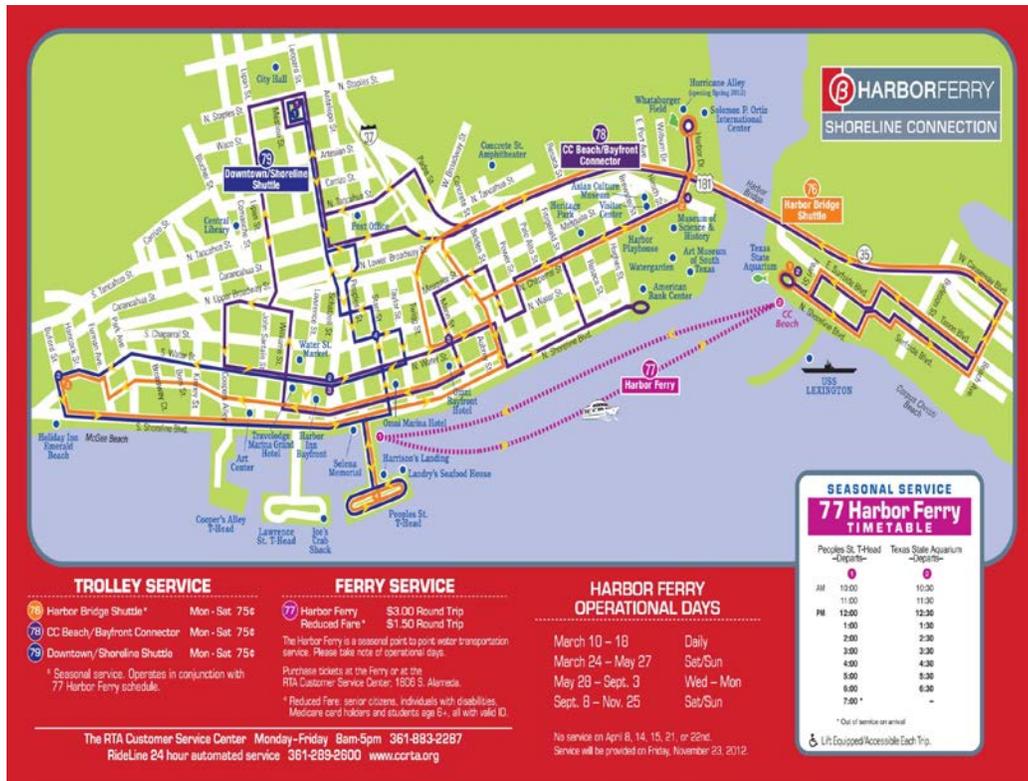
- The bus services provide numerous benefits for employees, especially hotel and attraction workers. Many employers support transit options for their employees. The Corporate Transit Benefit Program was established for area employers looking for affordable transit options for employees. The program offers two basic options. The first option is the BusinessPass Program, which includes monthly passes at \$30 a month. The second option is the EZ Ride Program, which provides annual passes for \$76 a year if an employer provides passes to all their employees, or \$365 a year if the employer does not provide passes to all employees. Vanpools represent a second popular choice for employees and employers in the area. VIATran vanpool service began seven years ago with approximately 30 vans. There are 175 vans in use today, including those serving the attraction work shifts ending at 1:00 a.m.
- VIA markets the Downtown Streetcar, sightseeing route, and other services to tourists and visitors through a number of methods. Information on routes and schedules is provided at hotels, attractions, and as part of convention materials. The transit services benefit tourists, employees, hotels, business owners, and the public.

The Corpus Christi Harbor Ferry

Scott Neeley, Chief Executive Officer, Corpus Christi Regional Transit Authority

Scott Neeley discussed the Harbor Ferry service operated by the Corpus Christi Regional Transportation Authority (RTA). He described the service, the attractions in the area, and marketing activities. Scott covered the following points in his presentation.

- Operated by the RTA, the Harbor Ferry provides seasonal point-to-point water transportation in the Corpus Christi harbor. Service began in the mid-1990s to meet both transportation needs and to promote economic development opportunities. The ferry was one element of an effort aimed at encouraging tourists to extend their stay for another day. The Harbor Ferry service is an attraction in itself and is visible operating in the harbor. Service was re-launched in 2011 with a new contract operator to address the poor service provided by the previous contractor.



Graphic by Corpus Christi RTA

Figure 5. Corpus Christi Harbor Ferry Route Map

- The ferry operates between the Convention Center/Texas State Aquarium and the Peoples Street T-Head downtown pier. It serves the major attractions in the area, including the Texas State Aquarium, the U.S.S. Lexington, the Convention Center, and the downtown pier. Both of the docking areas are accessible.
- The Harbor Ferry operates March through November, with daily service from Memorial Day to Labor Day. Service is offered from 10:00 a.m. to 7:00 p.m. The Harbor Ferry averages 1,100 service hours per year. The adult round trip fare is \$3.00. The system operator is HMS Global Maritime, which operates ferry services in other areas of the country.



Photo by THIRDCOASTPHOTO

Figure 6. Corpus Christi Harbor Ferry

- Both of the Harbor Ferry docking locations are served by trolley bus routes. The trolley routes provide links to additional destinations. The trolley routes also provide back-up service when weather interrupts operation of the Harbor Ferry.
- The improved service by the new operator has resulted in increased ridership. The 52,951 passengers carried in 2011 represent a record. To-date in 2012, ridership is up 73 percent.
- A number of marketing methods are used to promote the Harbor Ferry. Brochures are distributed at hotels, key tourist locations, and the Convention and Visitors Bureau. Ensuring that the hotel and attraction staff knows about the Harbor Ferry and can answer basic questions is important. The Harbor Ferry is also self-promoting, in that it is visible from the Bayfront. Stakeholder input is important and is used to help market the ferry. If visitors enjoy their experience on the Harbor Ferry, they will promote it to others.

The WAVE – Serving South Padre Island Visitors

Deborah Carpenter, Transit Coordinator, City of South Padre Island

Deborah Carpenter discussed the WAVE, the transit system serving South Padre Island and Port Isabel. She described the routes, operating hours, marketing methods, and some of the issues associated with serving tourists. Deborah covered the following points in her presentation.

- The WAVE offers fixed-flex route fare free service. Service is offered on three routes – the Padre Boulevard route, the Port Isabel route, and the Laguna Heights route. The Padre Boulevard route is oriented mostly toward tourists. It operates along Padre Boulevard, serving the major hotels, restaurants, and commercial areas, as well as the beach.
- The Port Isabel route links Port Isabel and South Padre Island, traveling across the Queen Isabella Causeway. The route provides a connection with Valley Metro service from the airport. The Laguna Heights route and the Port Isabel route serve workers commuting to the Island, as well as tourists.
- With over 1 million visitors a year, tourism is the economic engine of South Padre Island. The tourism seasons have a major effect on ridership. There are four major tourism periods – Winter Texans from December to March, Spring Breakers during March, Semana Santa during Holy Week–Easter Week, and family vacationers during the summer. March and July are the months with the highest ridership. In 2011, the WAVE carried approximately 525,000 riders.



Photo by City of South Padre Island

Figure 7. South Padre Island Small WAVE Bus

- The WAVE fleet includes two large buses with capacity for 50 riders and 11 small buses with capacity for 35 riders. Service operates from 7:00 a.m. to 9:00 p.m., 365 days a year. Extending service hours later in the evening is being discussed, along with providing service to the entertainment district on the Island.



Graphic by South Padre Island WAVE

Figure 9. South Padre Island WAVE Marketing Information

- Brochures and other methods are used to market the WAVE. In Port Isabel, brochures are distributed at the Historic Lighthouse, post office, City Hall, public library, Port Isabel Museum, and medical/healthcare facilities. On South Padre Island, the brochures are distributed at Isla Blanca Park, the visitors center, the public beach access along Gulf Boulevard, the Convention Centre, and the Whaling Wall. Brochures are also available at the South Padre Island Birding and Nature Center, Sea Turtle, Inc., the post office, City Hall, and the medical clinic. The free service is marketed heavily with students during spring break.
- Special efforts are made to target tourists with information on the WAVE. Examples of these efforts include advertising in Mexican magazines and newspapers; advertising in the spring, summer, fall, and winter Flight Guides distributed by the airlines; and advertising in the Coca-Cola Spring Break Guide distributed to over 100 colleges and universities. Other methods include distributing brochures at nearby airports, hotels, and the South Padre Island Visitors Center and Convention Centre. Information on the WAVE is also posted on the City of South Padre Island's website.
- The WAVE does encounter some issues serving tourists and visitors. Examples of these issues include difficulty running on time during spring break and Semana Santa due to traffic congestion and intoxicated riders during spring break. Riders bringing large items such as surf boards and ice chests on a bus when it is full of passengers represent another issue. South Padre Island is "dog friendly" for Winter Texans and the WAVE allows lap dogs on buses. Riders sometimes try to bring large dogs on the buses, which can cause problems. Discontinuing

operations during hurricane season represents another challenge that relates to serving visitors and residents.

Discussion

Session attendees asked questions and engaged in a dialog with the speakers. Topics benefitting from additional research were discussed, along with opportunities for further outreach and technology transfer. The following topics were discussed by session participants, as well as during other parts of the conference.

- The ongoing sharing of experiences serving visitors and tourists would be beneficial. Sessions at future conferences would be of interest, especially since tourism is important to all areas of the state. Developing a synthesis of best practice case studies would be of help.
- Developing and maintaining a centralized database on visitation trends would be of benefit for better targeting services and ensuring adequate service during peak times of the year.
- Serving tourists and visitors represents an important and growing market for many transit agencies in Texas. Research examining different sub-markets and the types of transit services that best match their needs would be beneficial. This research could document techniques to identify different sub-markets, present service options that best meet the needs of different sub-markets, and provide general cost ranges associated with different services.
- Examining transit options to serve workers in the tourism industry would also be beneficial. Providing case study examples of different approaches, such as the VIATran vanpool system, would be of help.
- Examining the use of the International Passenger Code of Conduct by transit systems in the state was also suggested. Some systems use it to help address rider behavior problems, including intoxication.
- Participants discussed the importance of examining transit systems from a tourism perspective and exploring opportunities to serve visitors with existing services and with new routes. Tourists can enhance the sustainability of transit systems and support the local economy.
- Another possible topic for further research and outreach efforts is coordinating transit with bicycling and hiking activities in some areas. Providing enhanced connections with non-motorized modes can enhance transit use and support ecotourism. A synthesis of current examples would be of benefit to transit systems, bicycle and hiking groups, and local communities. Additional research on how to enhance and promote these types of services and connections could build on the synthesis. Presentations on these best practice examples could be highlighted at future conferences.

Chapter Four – Bicycling, Walking, and Tourism in Texas

TTI has conducted a number of recent research projects focusing on bicycles and walking, including tourist use of those modes. A 2010 study was conducted for the Capital Area Metropolitan Planning Organization to expand bicycle and pedestrian monitoring programs and equipment, collect counts in the Austin-Round Rock area, develop a forecasting method for non-motorized modes, and provide recommendations for integrating the findings into the Austin area transportation planning processes. TTI is also currently conducting a project for the National Park Service (NPS) testing bicycle and pedestrian counting equipment for use in national parks.

Researchers organized a meeting on bicycling, walking, and tourism in Austin on July 27, 2012. Table 2 provides a list of individuals attending the meeting and the organizations represented.

Table 2. Participants in July 27, 2012 Meeting on Bicycling, Walking, and Tourism.

Name	Organization
Ed Collins	TxDOT
Greg Griffin	TTI
Joan Hudson	TTI
Phil Lasley	TTI
Elizabeth Prestwood	TxDOT
Charles Riou	TxDOT
Robin Stalling	BikeTexas
Mark Stine	BikeTexas
Shawn Turner	TTI
Teresa Qu	TTI

The discussion at the meeting focused on current activities, future research needs, possible outreach activities, and potential pilot projects. As summarized next, the discussion focused on the nine areas of tourism trails, economic perspectives and local efforts, perceptions of bicycle transportation and tourism, tourism-supportive infrastructure, defining active transportation tourism, economic impacts of tourism-supportive infrastructure, statewide tourism routes, rural transportation issues, and data sources for evaluation.

- **Tourism Trails.** It would be beneficial if the U.S. Bicycle Route System (USBRS) in Texas was connected and coordinated with the Texas Bicycle Tourism Trails. Tourism includes charity bike rides such as the MS150 and the

Hotter Than Hell 100, which may be overlooked. Bike-friendly communities such as Copenhagen or Boulder, Colorado are sought after by tourists. A statewide economic study of bicycling for tourism and bicycling in general would be beneficial. For example, snowbirders with bikes on RVs seeking a bike-friendly destination may represent an important impact. Bicycle sharing can also have a major, positive impact in tourism, and should be examined. The review conducted by the San Antonio TxDOT District on bicycling in May 2005 was discussed. This study examined the use of shoulder bicycle lanes related to tourism. Some projects in the Leakey area included widening roadways and adding shoulders. Potential research in this area includes developing a Texas definition of active transportation tourism, conducting economic impact assessments, analyzing the perception of bicycle transportation, developing statewide and local rates of bicycling and walking, planning tourism-supportive infrastructure, and developing statewide bicycle routing.

- **Economic Perspectives and Local Efforts.** Participants discussed the Marriott event in late September, which is a major Hill Country bike ride with tourism impacts. Marriott resort is the base of this major bicycling event, which is an example of a major corporate presence encouraging improvements in bicycle infrastructure. Good walking environments such as San Antonio's Riverwalk have tremendous positive impacts on tourism. Most special events associated with tourism require significant walking. It was noted that the San Antonio TxDOT District worked with local groups to plan for bicycling with 5-foot shoulders on state highways and that Marfa, Ft. Davis, and Alpine have parallel walking paths near state highways. Given a fatality in the Alpine area, more outreach is needed to facilitate safe use of bicycling facilities. Visitors do not think about good shoulders when they are seeking tourism destinations. They look for separated paths and picturesque mountain climbs.
- **Perception of Bicycle Transportation and Tourism.** Participants discussed if there was a bias in transportation regarding tourism or a bias against recreational cycling. If a bias could be measured against bicycling, then it could be managed. This exists across culture, not just in transportation or tourism. A survey of tourism transportation professionals could be conducted to help identify possible biases and approaches to mitigate any issues that could be identified and implemented.
- **Tourism-Supportive Infrastructure.** Participants discussed tourism-supported bicycle and walking infrastructures. It was suggested that research on optimal lane width and rumble strips would be beneficial. The research could examine user preferences between cyclists, such as mountain bikers, and costs. At Franklin Mountains State Park in El Paso, over 40 percent of visitors come for mountain biking. The need to better define bicycle and pedestrian tourism in Texas was discussed. For example, is it tourism if you drive an hour, or if you drive to San Antonio from Dallas? Hangzhou, China focused on promoting tourism through bicycling and walking infrastructure. This infrastructure also served to help preserve historic districts. Places such as San Antonio demonstrate the impacts of pedestrian and biking infrastructure for tourism; impacts are

manifestly experienced by visitors and seen as a benefit. It was suggested that Brownsville and Edinburg are on the cusp of major changes and would provide good examples to survey tourists to measure the impact of improvements to enhance bicycling and walking. McAllen and Edinburg are examining a cycle track network, but funding changes may impact their plans.

- **Defining Active Transportation Tourism.** Developing a definition of active transportation tourism was discussed. It was suggested that chambers of commerce may have definitions of tourism that could be used as part of this process. It was further suggested that these definitions may need to be updated to consider extended stays of walkable and bikeable places. Colorado communities such as Vail may have already examined factors to determine bicycling and walking needs. It was noted that research from New Zealand provides a framework for defining bicycle tourism, separating tourism that also includes biking. Distance and time thresholds were specified for New Zealand.
- **Economic Impacts of Tourism-Supportive Infrastructure.** Examining and documenting the economic impacts of tourism-supported infrastructure was noted as a research need. The Riverwalk in San Antonio provides an example of pedestrian infrastructure supporting development and tourism. Comparing rail-to-trail conversion in other states indicates that Texas is behind in this area. Allowing the decommissioning of railroads to revert to adjacent land owners is a concern. Brownsville, Paris, and Arlington are examples of opportunities in the rail-to-trail conversions. Research on the economic impact of tourism-supported infrastructure in Texas is needed. The Lake Mineral Wells State Park and Trailway was suggested as one successful example to evaluate. Dallas and Houston also have successful rail-to-trail conversions. It was also suggested that electric bikes for tourism could extend the season in Texas. Enhancing coordination with TxDOT's Travel Division, Texas Highways Magazine, the Texas Historical Commission, and the others groups related to bicycling and walking was suggested as beneficial.
- **Statewide Tourism Routes.** The use of different maps by tourists was discussed. It was noted that the Texas Travel Map is one of TxDOT's most popular products. Possible links with the USBRS were discussed. The Bicycle Advisory Council has recommended that Old Texas 20 be the first bicycle tourism trail. Studies are needed for other routes. Other possible options were discussed, including the Camino de Real. Partnering with Texas Historical Commission to help with their efforts on heritage trails was also discussed. It was noted that Copperas Cove is actively promoting bicycle tourism. Adventure Cycling Association's maps are a foundation for good long-distance touring routes. The Southern Tier route may be less popular than the Northern Tier; infrastructure could be an issue, in addition to heat and access to water.
- **Rural Transportation Issues.** The next update of the Texas Rural Transportation Plan, which will occur in 2013 and 2014, was discussed. Tourism and complete streets issues are reflected in the current plan. Ensuring that

bicycling, walking, and tourism are included in the next plan was suggested as important.

- **Data Sources for Evaluation.** Participants discussed the need to understand mode share better than just the data provided by American Community Survey's (ACS) focus on commute trips. Conducting travel surveys every 10 years was noted as beneficial. It was suggested that data use depends on geographic and time frame needs. The National Household Travel Survey (NHTS) is good for nation-wide data and the ACS is good for an annual evaluation of large areas, but local counts are still needed for small areas. The need for better crash data for bicycle and pedestrian trips was suggested. It was noted that Moving Ahead for Progress in the 21st Century Act (MAP-21) will impact BikeTexas through a reduction and consolidation of funding. There is a need to better understand other impacts of MAP-21 related to bicycling, walking, and tourism.

Chapter Five – Conclusions and Follow-Up Activities

This project organized and conducted a session on transit and tourism at the 2012 Texas Transportation Conference in McAllen and a meeting on bicycling, walking, and tourism held in Austin. The results of the session and meeting highlight the important roles transit, bicycling, and walking play in promoting tourism in Texas and enhancing the experiences of visitors. The results also identify research topics, outreach activities, and possible demonstrations or pilot projects that could be pursued to maximize the benefits of transit, bicycling, and walking to enhance tourism in the state. Possible follow up activities are outlined in this section.

- **Transportation and Tourism Conference.** There appears to be ongoing interest in the general topic of transportation and tourism, including the roles transit, bicycling, and walking play in promoting and encouraging tourism in the state. Conducting a conference that brings together the diverse public and private sector groups interested in tourism in Texas would be beneficial.
- **Research Problem Statements.** A number of topics for further research were identified during the transit and tourism session and the meeting on bicycling, walking, and tourism. These ideas can be developed into research problem statements and submitted to local, state, and national agencies and sponsors. Examples of possible sponsors include the TxDOT Research Management Committee (RMC), and TxDOT Implementation Program; the NCHRP; the Transit Cooperative Research Program (TCRP); and research programs funded by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Other state agencies may also have programs to support needed research. Private non-profit organizations, community groups, and other agencies represent other possible sources of support.
- **Outreach Activities.** In addition to hosting a conference on transportation and tourism, other outreach activities can be undertaken to help expand the use of transit, bicycling, walking, and other modes to enhance tourism in Texas. Examples of these outreach efforts include organizing sessions at conferences hosted by other organizations, developing and hosting workshops and training activities, writing news articles, and developing a speakers bureau. These efforts could be sponsored by public and private sector groups interested in promoting different modes of transportation to increase tourism in the state.
- **Pilot Projects.** Ideas for possible pilot projects were identified during this project. Examples of possible pilot projects include testing new transit services oriented toward visitors, developing and testing bicycle maps, and targeting bicycle rides or walks to specific groups. Funding to develop, test, and evaluate these and other pilot projects could be explored.

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University Transportation Center for Mobility™

Texas Transportation Institute

The Texas A&M University System

College Station, TX 77843-3135

Tel: 979.845.2538 Fax: 979.845.9761

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