Final	Subcommittee	Report
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# Pinellas County Metropolitan Planning Organization (MPO) Bike Share Feasibility Study

Pinellas County, Florida

## February 2016

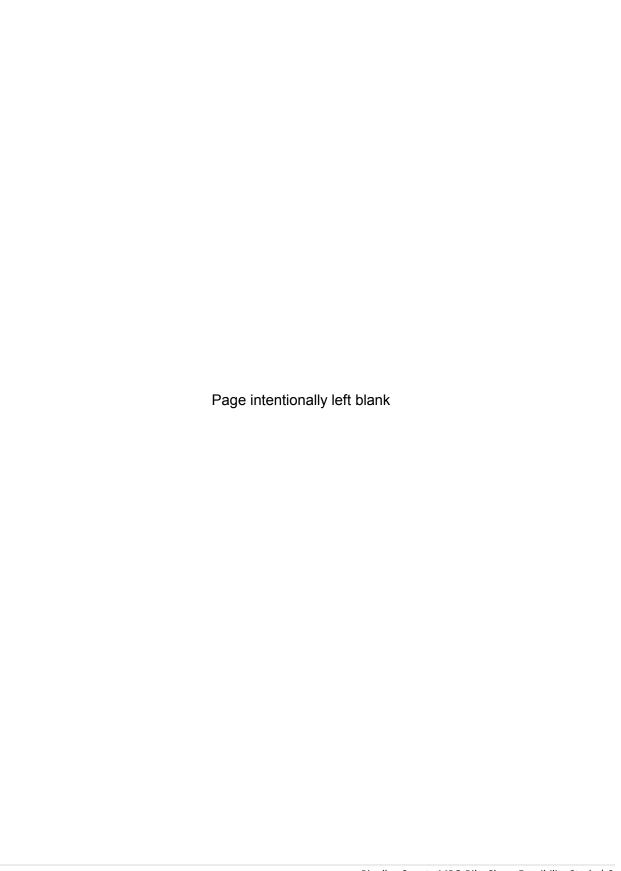
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**Pinellas County Metropolitan Planning Organization** 

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## Pinellas County Metropolitan Planning Organization Bike Share Feasibility Study

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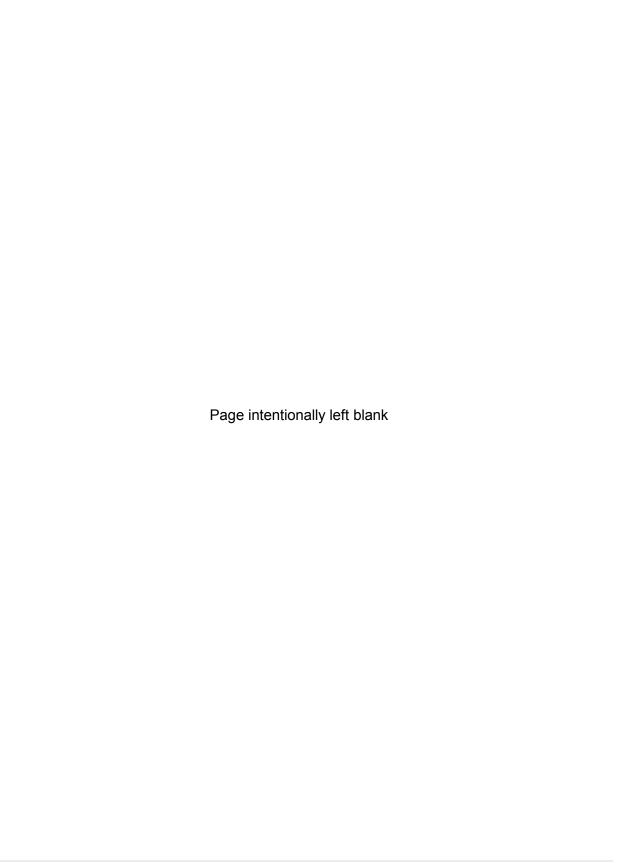
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## **Executive Summary**

Bike share is a network of bicycles and stations that allows users to make short trips (1-3 miles) quickly, conveniently and affordably. The simple act of getting more people on bikes benefits public health, reduces motor vehicle traffic congestion, and improves access to economic opportunity. A bike share system that is strategically deployed in Pinellas County achieves these goals and, would reinforce the county's commitment to alternative forms of transportation.

Bike share is a component of a strong transportation network, potentially moving thousands of people or more per year at relatively low cost, as compared to other transportation system investments. A small scale bike share system (e.g., 200 bicycles, 20 stations costs between \$1 million and \$1.5 million) could have a positive impact on Pinellas County's transportation network. If there is support to pursue bike share, a fourth-generation system is recommended because of its data gathering capabilities and station location flexibility which allows these systems to be moved, expanded, or reduced to meet demand.

Bike share can be operated under various governance models. Numerous cities around the world have implemented bike share systems with differing frameworks for ownership, operations, and maintenance. The original intent of this effort was to evaluate the feasibility of establishing a "countywide" bike share system to expand the transportation options for Pinellas County residents and visitors. Our careful examination of Broward B-Cycle, the only system identified through our research as a county-level system, concluded that this system is in fact, not "countywide" but is deployed in a strategic manner with stations primarily located along State Road (SR) A1A. SR A1A is the primary north-south state road along Florida's east coast and runs mostly parallel to the Atlantic Ocean coastline. Broward B-Cycle has a few stations inland but the vast majority of their 26 stations are located on the SR A1A corridor in cities such as Pompano Beach, Lauderdale by the Sea, Fort Lauderdale, Dania Beach, and Hollywood. Pinellas County's coastal geography and number of municipal jurisdictions are somewhat similar to Broward County so there is the potential for a similar system to be deployed along Gulf Boulevard that serves several of our beach communities. A fourth-generation bike share system deployed along Gulf Boulevard would also support the "Enhancing Beach Access" emphasis area that was established by the MPO Board in 2015.

The Pinellas County MPO was also concerned with the impact that any potential bike share system would have on existing bike shops. To that end, the subcommittee conducted a survey of bike shop owners to determine their opinions on bike sharing and whether or not it would negatively impact their businesses. Unfortunately, the response rate to the survey was low and the results were inconclusive. Of those bike shop owners that responded, a majority did not rent bikes or received only a small percentage of their annual revenue from bike rentals. We also contacted a national bike share vendor/operator to determine if they integrated existing bike shops in their operations and found that maintenance services was the primary means of their participation. In most other business models, bike

shops do not have a role in bike share and some of the survey respondents felt that it would have little to no impact on their bottom line.

This report recommends the following options for consideration by the Pinellas County MPO to bring bicycle sharing to the residents and visitors of Pinellas County:

### **Option A**

- 1. Continue to monitor the City of St. Petersburg's Bike Sharing initiative;
- 2. Engage local governments to determine their level of interest in implementing bike share; and
- 3. Work with the interested local government(s) to develop a Request for Information (RFI) and/or Request for Proposals (RFP) to find an experienced operator for a privately owned and operated bike share system with a concession agreement. (This business model is similar to Coast Bike Share in Tampa and requires no funding for capital or operations.)

#### **Option B**

- 1. Continue to monitor the City of St. Petersburg's Bike Sharing initiative;
- 2. Engage local governments to determine their level of interest in implementing a pilot bike share program; (i.e., approximately \$9,000/year for a 2-year contract for one (1) 5 bicycle station)
- 3. Engage local bike shops to determine their level of interest in providing maintenance services for the system;
- 4. Work with the interested local government(s) to secure funding for an appropriately-sized pilot system; and
- 5. Work with the interested local government(s) to develop a Request for Information (RFI) and/or Request for Proposals (RFP) to find an experienced operator for the pilot bike share system.

#### **Option C**

- 1. Continue to monitor the City of St. Petersburg's Bike Sharing initiative;
- 2. Develop a bike share system that builds upon the City of St. Petersburg's system (This system would be publicly owned by the cities, and operated by a private contractor. This business model is similar to Capital Bike Share in Washington D.C. and Hubway in Boston, allows multiple municipalities to contract individually or collectively with the St. Petersburg operator, and allows for expansion to serve additional communities.);
- 3. Coordinate the establishment of a regional compact to guide the regional program, establish regional guidelines, assist in securing funding for capital costs, as well as completion of advanced feasibility analysis and contractor selection;
- 4. Develop an intergovernmental compact (i.e., Memorandum of Agreement) to guide the bike share system's establishment and operation (Under this model, the City of St. Petersburg could serve as the "lead" community but the individual municipalities would be responsible for procuring and managing vendor services to operate the system and for marketing, and overall financial management. The lead community would be responsible for the administrative aspects of running the system, but not the operational aspects, which would be handled by a private

contractor. Equipment for the system could be procured regionally to save costs, but owned locally by each participating community. Each jurisdiction would act as a separate client to the operator and can have a different source of funding and different revenue sharing arrangements with the operator. In this model, the jurisdiction(s) will assume(s) responsibility for initial and ongoing funding for the system.);

- 5. Develop an implementation plan that includes strategies to:
  - Secure capital and rolling stock funding;
  - Build relationships with municipal agencies and transit authorities, gaining official support through tools such as a memorandum of understanding, city council action (an ordinance or resolution), and/or contract;
  - Secure sponsorship commitments from private and public funders; and
  - Develop a "sole source" justification to utilize St. Petersburg's operator and pricing structure;
- 6. Begin implementing the plan;
- 7. Identify a funding recipient for capital and rolling stock costs a municipal authority, nonprofit or municipality. (These could be the partner municipality, the Pinellas County MPO, the Pinellas Suncoast Transit Authority (PSTA), or nonprofit organization);
- 8. Identify an entity or municipal agency to issue the operator contract; and
- 9. Execute a contract with St. Petersburg's operator.

Based on our analysis of several bike share indicators, we believe that the City of St. Petersburg and portions of the greater Clearwater area are well-suited for bike share and should be the initial focus. By pursuing one of the options listed above, launching the first phase of a bike share system in 12-24 months is a not unreasonable. Upon the success of the first phase, future expansion could include sponsored stations or another capital campaign to expand into additional areas.

## **Acknowledgments**

The writing of this report was a collaborative effort of Pinellas County MPO staff and the Bike Share Subcommittee. The Pinellas County MPO staff would like to thank Lucas Cruse, Felicia Donnelly, Brian Smith, Scott Swearengen and Becky Afonso for their support, input, and guidance in the creation of this report.

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#### 1 Introduction

The Pinellas County Metropolitan Planning Organization (MPO) has an established goal of providing a balanced and integrated multi-modal transportation system to help meet the growing mobility needs in our communities. This commitment to multi-modal transportation is embodied in the numerous financial resources that have been invested in order to expand bicycle transportation. The 2040 Long Range Transportation Plan (LRTP) identifies 346 miles of planned bicycle lanes and 150 miles of multi-use trails in its Policy Plan. These new bicycle facilities will build upon the existing network of 170 miles of bicycle lanes and 100 miles of trail facilities throughout the county. As sharing technologies have evolved, the transportation sector is changing in order to capitalize on new ways to move people from place to place. Over the last several years, bike sharing has increased in popularity and been implemented in communities of all sizes across the United States. This relatively new transportation concept has been recommended to the MPO as a means of providing a highly accessible and affordable mobility option for residents and visitors throughout Pinellas County.

The typical bike share program consists of a fleet of publicly accessible bicycles typically used for short trips in urbanized areas, and often in combination with transit, which distinguishes this from traditional The Pinellas County MPO has commissioned this study to better understand the characteristics that make those systems successful and to determine if bike sharing is feasible at a countywide-level along the west-central coast of Florida. To assist in the development of the study, the MPO's Bicycle Pedestrian Advisory Committee (BPAC) established a subcommittee of knowledgeable and interested members who have dedicated their time and attention to this topic. Over the last several months, the bike share subcommittee has met to review all aspects of bike sharing programs including; the elements of a bike sharing system, various business models, potential funding sources and financing options, regional characteristics that support bike share, and local land development controls that are needed to regulate bike share systems. The subcommittee has also closely followed the City of St. Petersburg's bike sharing initiative in order to gain first-hand knowledge of the challenges and opportunities associated with procuring and implementing this type of transportation system. This Pinellas County MPO Bike Share Feasibility Study combines content from two surveys, three advisory committee presentations, and four bike share subcommittee meetings to provide an overview of what a potential Pinellas County bike share system could look like, and key factors that should be considered when deciding whether or not to pursue the implementation of a system.

The objectives of this study are to:

- Inform key decision makers, potential partners, and stakeholders about the benefits of bike sharing;
- Evaluate the framework for a regional bike share system that allows multiple communities to participate and provide a consistent user experience and a single pricing structure;
- Convey experiences from other systems around the United States and demonstrate potential demand areas in Pinellas County;
- Present various funding options and business models including those most applicable to Pinellas County.

The following Section 2 of the Bike Share Feasibility Study provides background context for bicycle sharing programs, including a brief history of the bike share technologies and a detailed listing of program elements and considerations. Section 3 outlines the benefits of a bike share program, while Section 4 lists the various business models and funding sources that have been employed around the United States. Section 5 includes an analysis of funding options related to the financing of bike sharing programs and Section 6 includes a geographic information system (GIS) based bike share demand analysis of Pinellas County. Section 7 outlines other potential regulatory challenges and Section 8 contains further details on a regional governance business model. Section 9 concludes the report with summary and potential next steps for system implementation.

The Pinellas County MPO Bike Share Feasibility Study is a planning document, and as such makes a number of assumptions. It will be the job of the program administrator, in conjunction with the chosen equipment vendor and operator, to refine the assumptions as necessary.

## 2 What is Bike Sharing?

#### 2.1 Overview and History

Bike sharing provides a cost-effective and convenient mobility option for trips too far to walk, but not long enough to justify waiting for transit. Other shorter trips that are usually made by private vehicle may also be replaced by utilizing bike sharing. A bike share system consists of a network of bikes placed at stations situated at key locations around a specific area and is an effective extension of an area's public transportation options. The industry has experienced significant growth over the last several years and now more than 600 cities around the world have invested in bike sharing.<sup>1</sup>

Bike sharing has been around, almost exclusively in Europe, for the last 40 years. Until recently, these programs experienced low to moderate success because of high rates of vandalism and poor organization. However, in the last five years innovations in system hardware and software have given rise to a new generation of technology-driven bike share programs. These improvements along with a renewed emphasis on healthy lifestyles have led to the growing implementation of bike sharing in the

United States.

CANADA

Figure 1 - Municipal Bike Share Systems around the United States

<sup>1</sup> Keeping Bike Shares Running Smoothly Requires Seriously Complex Math, Gizmodo, 27 August 2014

The history of bike sharing can be tracked with improvements in technology that support these programs. First-generation bike share programs began in the 1960's and were comprised of a fleet of bikes with a distinguishing feature (e.g., painted white) distributed around a city for free use. Locally, the Tampa Downtown Partnership initiated a first-generation program in 1997 and Eckerd College instituted its "Yellow Bike Program" in the spring of 2004. Both programs suffered from theft and vandalism and are the key reasons for the failure of many first-generation bicycle programs. To add some accountability, second-generation systems introduced a locking mechanism and required a checkout deposit payable at pickup and returned at drop-off. An example of this system is the

Copenhagen Bycyklen ("City Bikes"), founded in 1995, which required a coin deposit to release the bicycle for use.<sup>3</sup> However, the minimal deposit was not enough to significantly reduce theft. The main problem with first and second-generation bike sharing was a lack of accountability, resulting in the development of third generation bike share systems, which are characterized by credit card transactions and RFID chips (radio-frequency identification). Vélo à la Carte in Rennes, France, was the first city-scale bike-share program to use magnetic-stripe cards and RFID technology. The system was a partnership between the City of Rennes and Clear Channel, the mass media company, which developed and operated the new "Smart Bike" technology. This program was offered by the city free of charge and included 200 bikes at 25 stations when it was initially launched.



Figure 3 - Eckerd College alumni ride "Yellow Bikes" at the 2013 Reunion Weekend. Source: Flickr

"Fourth-generation" systems are modular systems that do not require fixed locations because they use solar power and wireless communication, as opposed to hardwired installation. In this way, the stations can be moved, relocated, expanded, or reduced to meet demand. Bike share installations in Denver, Minneapolis, Miami Beach, Washington D.C., and Boston utilize fourth-generation technology.

<sup>3</sup> Paul DeMaio, "Bike-sharing: Its History, Models of Provision, and Future," in Velo-City Conference (Brussels, 2009).

<sup>&</sup>lt;sup>2</sup> Susan Shaheen, Stacey Guzman and Hua Zhang, "Bikesharing in Europe, the Americas, and Asia: Past, Present, and Future," in Transportation Research Board Annual Meeting (Washington, D.C., 2010).

Table 1: Historic Development of Bike Sharing Technology

Generation	Years	Features	Pros/Cons
1 <sup>st</sup> Generation (free bikes)	1960's	Distinguishing looking bikes (i.e. certain paint color)	Subject to theft and poor organization
2 <sup>nd</sup> Generation (coin deposit system)	1990's	Locking mechanism and check-out deposit	Minimal deposit not enough to significantly reduce theft
3 <sup>rd</sup> Generation (IT- based system)	2005	Credit card transactions and radio- frequency identification chips	Allow user identification and a security deposit to ensure accountability against theft and vandalism
4 <sup>th</sup> Generation (demand responsive)	2008	Solar power and wireless communication	Allows for modular systems that do not require a fixed location

#### 2.2 System Elements

The components of a modern bike share system include a network of stations, a fleet of bicycles, software and maintenance/redistribution teams that operate the system. These elements are described in further detail below.

## **Bicycles**

Bicycle share fleets typically consist of upright bicycles, with step through frames and adjustable seats to allow use by persons of any height. Most models feature a chainguard and 3-speed internal hub gearing, which protects the most vulnerable mechanical parts of the bicycle from exterior wear. Bicycles can be equipped with additional gears if steep topography is a consideration (a 7-speed internal hub is increasingly common). Most bicycles also have built in safety features such as pedal-powered lights, thick tires, a bell, and reflectors. Some models also include a rack or basket for holding small items, and GPS units that are used to track bicycle locations for system monitoring (operations) and planning. The numerous accessories and rugged construction for durability makes the bicycles heavier than most consumer models, often weighing 40-50 pounds. The weight and upright riding position of the bicycles encourages users to travel at moderate speeds. Although electric-assist bicycles have been explored as part of several bike share systems, the higher capital and maintenance costs typically exclude such bikes from being feasible for financially-constrained systems.



Figure 2 - Typical smart bike with tracking system mounted on rear. Source: Zagster Bike Share

#### **Stations**

Bicycle share stations have two main elements: the kiosk provides the interface where users initiate a transaction to rent a bicycle, and a number of docks that securely hold bicycles waiting to be checked out and accept returns. A typical bicycle share station consists of a single kiosk and anywhere from 5-10 to several dozen docks, depending on local demand and available space. Minimum station size by number of docks varies among equipment vendors.

#### **Kiosks**

The kiosk, or pay station, provides the interface where users complete a transaction to rent a bicycle, which can include purchasing a single ride, a weekly pass, or annual system membership. A credit card or system membership card is usually required to complete the transaction. Fourth-generation bicycle share kiosks are solar-powered, which differs from third-generation systems that are hard-wired to local utilities.

#### **Docks**

Once a transaction at the station kiosk is complete, the kiosk will direct the user to a dock where the user can unlock a bike, typically through use of a temporary PIN code or membership card swipe. When the user has completed their trip, they can return the bicycle to any empty dock at a station to complete their rental. The dock that accepts the bike will then lock the bike in place until it is needed for another rental. Fourth generation bike share docks are modular, coming in plates of several docks each, allowing station size to be expanded or reduced adjusted if warranted by user demand.



Figure 4 - Typical bike share station. Source: Greenbike, Salt Lake City's Bike Share Program

#### **Flexible Station Placement**

A key advantage of fourth-generation bicycle share technology over hard-wired systems is the ability to relocate stations as necessary to serve demand. This can include relocating stations if they are underperforming at current locations, or adjusting station size or availability based on its seasonal demand profile. In the latter scenario, for example, a tourist-oriented station that requires active management for balancing may not be worth the cost to operate during the off-season when demand is lower. By removing and storing the station for several months, the program may help limit unnecessary operating costs. Fourth-generation station designs thus help limit risk associated with choosing either the 'wrong' station location or a highly seasonal location. Such limited impacts to existing infrastructure and flexibility in station placement may also limit the need for an extensive development review process.

#### **Operations**

Operating costs include those required for operating and maintaining the system and include hiring employees for operational tasks such as maintaining the stations, bikes, and other infrastructure, rebalancing the system, providing customer service, etc. Generally, the operating parameters of the system are agreed upon during contract negotiations and documented in a 'Service Level Agreement'. These represent the contractual obligation of the operator and balance user experience and cost to provide the service.

#### Rebalancing

For larger systems, a dispatch center will work to alleviate usage pressures on the system, including the following considerations:

- Full stations: The highest priority goal of operators is to empty full stations as soon as possible, as this is the top frustration from members;
- Empty stations: A close secondary goal is to supply empty stations with bicycles;

- Station clusters: Stations located near each other may be analyzed to determine the level of
  urgency of redistributing bikes. For example, if locations closest to a problematic station are
  empty or full when that station is empty or full, it may be less urgent to attend to that station,
  because users can easily access a different station within one or two minutes; and
- Predictive modeling tools: For the first two to four months of operation, vendor/operator will
  rely on best estimates for optimal bike numbers for each station at any given period, especially
  peak periods. Predictive model mapping allows operators to "right size" bicycle fleets at all
  stations during critical demand periods, especially at those stations with extreme high/low
  demands at specific times and for special events.

#### **Data Tracking**

Back-end software and computer hardware provide on-the-ground operators with tools for real-time management of the docking system in order to facilitate maintenance, repair, and redistribution. The system allows monitoring of the following conditions:

- Number of empty docking points and bicycles available at any site;
- Functional status of bicycles;
- Traffic and usage patterns of docking stations and bicycles;
- Real-time locating of any bicycle at any docking station in the system; and
- Other usage data that the back-end software and computer hardware generates includes:
  - o Bicycle miles travelled (from GPS or estimates of average trip length)
  - Number of trips and their duration
  - Number of subscribers with each type of subscription
  - Number of uses
  - o Number of uses per subscriber per day, week or month
  - Average number of miles biked per subscriber (based on average trip length estimates)

#### Maintenance

Most bike share programs have established maintenance programs for system components, including bicycles, docks, and terminals. Utilizing wireless technology, bike share stations are able to be monitored remotely in real time, so they do not require regular on-street checking. Any issues that cannot be addressed remotely are addressed by station technicians in the field. Bike share bicycles and stations are regularly inspected and serviced to ensure proper safety, functionality, and cleanliness. Broken bicycles can be reported with the push of a button on the dock, which allows the control center to "lock" that bike and prevent it from being taken out by another user. Some vendors/operators utilize existing bike shops in order to provide maintenance services for the system.

#### **Marketing & Customer Service**

*Call Center* - The call center represents an important interface with the customer to deal with inquiries ranging from membership, fee structure, billing and payment, incident or breakdown reporting, full or empty station reports, troubleshooting, complaints, etc. The call center can be established locally, or merged with an existing system, although an intimate knowledge of the technology and the specifics of

the system are critical. Call volumes tend to be high during the first few months of operations and during peak visitor seasons.

*Promotions* - For the most part, existing bike share systems have operated with small marketing budgets relying on word-of-mouth and visibility of the bikes themselves for promotion of the system. That said, targeted campaigns particularly using social media are effective in targeting early adopters and high-use demographics. Bike sharing should be rolled into existing bicycling media such as trail maps, visitor guides, etc. Promotional events also help to increase the profile of the system. Examples from other cities include: system launch party, photo and mileage contests, "cycling season" promotions, targeted marketing of annual memberships around the holiday season, and membership offers through discount services such as Groupon and Living Social.

Website and Mobile Applications - Engaging and interactive websites and increasingly, applications for mobile devices are essential to attract and serve bike share members, and for reporting on system functionality and other data. The latter can include real-time display of full/empty stations, special event locations, and personalized summaries of trips taken, distance traveled, calories burned, and other measures.

#### **Insurance and Liability**

In most systems, the vendor/operator obtains an insurance policy that covers almost all liability (e.g. general liability, workers compensation, automobile, etc.) except that theft and vandalism of the bikes, which is covered by the replacement fund (note: insurance can be obtained to cover bikes while they are in stations or in storage). The vendor/operator typically indemnifies related agencies, private property owners who host a station, and other partners. Although not included in most contracts or agreements, insurance that protects against force majeure (i.e. "chance occurrence, unavoidable accident") is strongly recommended.

In terms of personal risk, similar to car rental and other common rental transactions, any risk involved with operating a bike share bike is assumed by the customer. Bicycle share customers are required to consent to this arrangement by signing a user agreement that specifies the terms of bicycle share membership.

#### **Emerging Models and Other Considerations**

Station-less Systems - As a constantly evolving transportation sector, there are emerging concepts and strategies that may offer an alternative to (or options within) the station-based "fourth generation" systems that have come to represent modern bicycle sharing in the United States. One such example is the station-less bicycle share model, which attempts to utilize improved technology and communications to solve issues that plagued older "second generation" systems. Similar to fourth generation systems, station-less models can employ sophisticated locking solutions and Global Positioning System (GPS) tracking to deter theft and vandalism, and generally improve accountability. Instead of formal custom stations with kiosks, however, each bicycle has its own independent locking "unit" and bicycles can be parked anywhere within a certain designated zone or zones. The point of sale

interface is handled via computer or smart phone, which is also how users are able to locate and reserve bicycles in advance.

Although less capital intensive (and thus less expensive), there are several potential drawbacks to the stationless model. First, the system is less visible and accessible to the public, which inhibits demand particularly for spontaneous trips. Second, the reliance on individual smart phones and computers can be a barrier to entry for many lower income communities. More information on two examples of station-less systems can be found at <a href="https://www.socialbicycles.com">www.socialbicycles.com</a> and <a href="https://www.viacycle.com">www.viacycle.com</a>.

## 3 Benefits of Bike Sharing

This section provides a summary of some of the financial, health, environmental, and transportation / mobility benefits of bike sharing.

#### 3.1 Financial Benefits

Bike sharing is less expensive and is a more easily implemented urban transportation option when compared to most other transportation modes. For example, the initial 1,100 bike launch of Capital Bikeshare in Washington, D.C. cost approximately \$6.2 million, several orders of magnitude less than the cost of constructing a mile of urban freeway and was operational in a matter of months.

Data suggests that bike share systems are able to cover most operating costs with user-generated revenues, such that ongoing public subsidies may not be needed. Whether these revenues provide full "farebox recovery" (i.e. the percentage of operating cost recovered by user revenues) or simply cover a majority of operating costs is a major difference between this mode and traditional rail and bus transit systems. Typical bike sharing systems operate with farebox recovery ratios of between 25% and 50%. In comparison, in FY 2010/2011 the Pinellas Suncoast Transit Authority (PSTA) reported a farebox recovery ratio of 25.3%. Figure 5 identifies the share of Arlington Regional Transit and Capital Bikeshare total operating expenses that were covered by revenue generated from system users.

To completely cover operating costs through user revenues may or may not be possible in Pinellas County; however where user fees do not cover the cost of operating the system, other communities have been able to pick up the shortfalls through other sources including private-sector contributions/sponsorships, local public funding, etc.

<sup>&</sup>lt;sup>4</sup> Web-based, informal bicycle sharing models are also emerging in several cities. A recent summary of such efforts can be found here: http://www.nytimes.com/2012/08/19/nyregion/spinlister-and-social-bicycles-develop-bike-sharing-alternatives.html

<sup>&</sup>lt;sup>5</sup> Pinellas Suncoast Transit Authority Transit Development Plan Progress Report FY 2013 – FY 2022

70% 64% 63% 59% 60% 53% 50% 40% 31.1% 28% 26.5% 30% 20% 18.2% 14.2% 20% 13% 10% 0% 2006 2007 2008 2009 2010 2011 2012 2013 2014 Arlington Local Transit Operations
 Capital Bikeshare (Arlington Only)

Figure 5 - Arlington Transit Service Cost Recovery, FY2006-FY2014

Source: Arlington Transit Bureau data and Arlington Capital Bikeshare Annual Report FY2014

Bicycling, and in particular bike sharing, is an affordable form of transportation. Transportation is second to housing as a percentage of household budgets, and is a top expense for many low income families. The cost of using a bike share bicycle for a year can be as low as the annual membership fee, typically between \$50 and \$100 per year, compared to \$7,800 for operating a car over the same time period.<sup>6</sup>

The implementation of a bike share program also has the potential to bring economic development and increased economic activity to the surrounding area. Studies indicate that there has been increased economic activity associated with Nice Ride bike sharing stations in Minneapolis and increased accessibility to business transactions. Positive attitudes towards bike sharing by local businesses have also been observed, as there has been an increase of economic activity in businesses located in close proximity to bike sharing stations. This same phenomenon has been present in Miami Beach, where around 80% of bike share system users were more likely to patronize a business with a bike share station close-by.

Bike sharing systems can also:

- Create "green" jobs with on-going positions for managing and operating the system;
- Provide existing businesses an additional way to get customers to their front door or to provide employees with an inexpensive transportation option for commuting to work and running

<sup>&</sup>lt;sup>6</sup> Pedestrian and Bicycle Information Center. (2010). Economic Benefits: Money Facts. (http://bit.ly/h35uvG)

<sup>&</sup>lt;sup>7</sup> Capital Bikeshare becoming an economic development tool. Accessed from http://washingtonexaminer.com/capital-bikeshare-becoming-an-economic-development-tool/article/2531458?custom click=rss on June 10, 2013.

<sup>&</sup>lt;sup>8</sup> Schoner, Jessica E.; Harrison, Andrew; Wang, Xize; Lindsey, Greg. Sharing to Grow: Economic Activity Associated with Nice Ride Bike Share Stations. Technical Report 7 September 2012

<sup>&</sup>lt;sup>9</sup> Colby Reese. Deco Bike president. ProWalk ProBike 2012 presentation.

- errands during the day (bike sharing could form part of a developer's Transportation Management Plan);
- Provide businesses of all sizes an opportunity for brand development through station and/or bike sponsorship;
- Bike sharing also represents a positive "community amenity" contribution for many companies and real estate developers; and
- Help household budgets. Bike sharing can reduce transportation costs, and in some cases –
  often coupled with transit could eliminate the need for an extra vehicle.

#### 3.2 Health Benefits

The health benefits of bicycling are well documented and include the potential to reduce obesity, heart disease, and other sedentary lifestyle diseases. The potential synergies between bike sharing programs and health have attracted considerable interest from the health care industry, with several examples where health care providers have become major sponsors of bike sharing systems. This relationship between bicycling and health has resulted in Blue Cross and Blue Shield of Minnesota sponsoring the bike share system in Minneapolis and Kaiser Permanente sponsoring the bike share system in Denver. This potential exists with the number of major medical providers in Pinellas County such as Florida Hospital and Morton Plant Mease.

Healthy, active lifestyles are well-promoted and represented within Pinellas County but more remains to be done. For example, the 2012 Behavioral Risk Factor Surveillance System (BRFSS) survey conducted by the Centers for Disease Control and Prevention yielded that 22.4% of Pinellas County adults did not participate in leisure-time physical activity. Furthermore, Pinellas County residents have a higher prevalence of being overweight and obese; suffer from a stroke, heart disease, and/or diabetes than the general population in Florida or the United States.

Over the past 2 years, the Pinellas County MPO has partnered with the Florida Department of Health in Pinellas County to mitigate the risk factors for chronic diseases resulting from limited access to physical activity opportunities. This effort is through the framework of the Partnerships to Improve Community Health (PICH) grant program whose goal is to promote greater levels of physical activity by making improvements to parks and trails that support walking and biking. This existing partnership should be further explored to determine if bike sharing could be considered an eligible project under this grant program.

## 3.3 Environmental Benefits

Bike sharing is practically carbon neutral. Stations can be solar powered and environmentally friendly facilities and equipment can be chosen for operations (such as cargo bikes or electric vehicles) for system rebalancing.

Bike sharing reduces the environmental footprint of a region's transportation system in many ways. Some bike sharing trips directly replace vehicle trips, reducing vehicle miles traveled (VMT) and vehicle

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<sup>&</sup>lt;sup>10</sup> http://www.cdc.gov/brfss/annual\_data/annual\_2012.html

emissions. When bike share stations are located at transit stops, bike sharing can also increase the feasibility and accessibility of transit, indirectly increasing the likelihood of replacing vehicle trips in the region with bike-transit trips. Bike sharing also indirectly increases the number of people in the community riding private bicycles by introducing new users to bicycling without the upfront expense of purchasing a bicycle. Many American bike sharing systems have found that a common reason for discontinued memberships is that the member had recently purchased a private bicycle.

#### 3.4 Transportation/Mobility Benefits

There is general consensus on the mobility benefits that can be realized from bike sharing programs. These benefits can be categorized as benefitting user and/or area as follows:

- Extends the reach of transit by providing a first- and last-mile transportation solution or
  providing service to under-served areas or areas that do not justify the cost of other transit
  options;
- Reduce reliance on the private automobile;
- Requires less infrastructure investment than other modes;
- Encourages more bicycling;
- Introduces people to cycling that do not typically ride;
- More bicycles on the road increases the safety of other cyclists;
- Makes a community more livable and neighborly; and
- Reduces barriers to cycling as there is no need to own or store a private bicycle or to worry about locking your bike and having it stolen.

A portion of new bike share users will likely substitute bike share trips for trips they would have otherwise made on foot or by bus. Ideally, however, people will recognize that between bike share and local/regional transit, many car trips can be replaced by these alternative and sustainable modes of travel.

## 4 Business Models

#### 4.1 Business Models

American bike share systems operate under many different business models. In fact, each existing system has a governance and organizational structure that fits the needs of the local market, municipal procurement regulations, and the funding source or sources. An overview of a sampling of American bike share business models is included in Table 2.

**Table 2: Selected American Bike Share Systems Business Models** 

Name	Stations / Bikes	Operations	Ownership of Capital
BICI Bike Share (Albuquerque, N.M.)	10/50	Completely private system, privately owned and operated, lease agreement only.	Zagster (private company)
Boston New Balance Hubway	155/1,500	Public-private partnership; operator direct contract with the City of Boston, other municipalities to contract directly with operator (RFP issued by the regional planning agency).	City of Boston (government agency) City of Cambridge (government agency) City of Somerville (government agency) Town of Brookline (government agency)
Broward B-Cycle	26/275	Completely private system, privately owned and operated, concession agreement only.	Broward B-Cycle (non-profit)
Capital Bikeshare	337/2,500	Operator direct contract with both Washington, D.C. and Arlington County	DDOT and Arlington County (government agencies)
Chattanooga Bicycle Transit System	30/300	Public-private partnership; operator direct contract with local transit agency (which received federal funding).	Outdoor Chattanooga (government agency)
Chicago Divvy Bikeshare	500/5,000	Completely private system, privately owned and operated, concession agreement only.	Bike N Roll (private company)
Citi Bike Miami/Miami Beach	100/1,000	Completely private system, privately owned and operated, concession agreement only.	DecoBike (private company)
Cleveland Bike Share	14/70	Completely private system, privately owned and operated, lease agreement only.	Zagster (private company)
Coast Bike Share (Tampa)	30/300	Completely private system, privately owned and operated, concession agreement only.	Private Company
Denver B-Cycle	84/700	Non-profit set up by the city.	Denver Bike Sharing (non-profit)
Nice Ride Minnesota	145/1,500	Non-profit set up by the city.	Nice Ride Minnesota (non-profit)
San Antonio B-Cycle	53/450	Governed by a non-profit set up by the city - operated by a bike rental company through tender.	San Antonio B-Cycle (non-profit)

Based on the data contained in Table 2 and other industry examples, the core business models include:

- Operating non-profit (either pre-existing or established specifically) owns and operates the system;
- Administrative non-profit (either pre-existing or established specifically) owns and administers the system; operated by a private contractor;
- Privately owned and operated;
- Publicly owned; operated by a private contractor;
- Publicly owned and operated (no United States examples);
- Owned and operated as part of a street-furniture advertising contract; and
- Transit agency owned and operated.

More detailed descriptions of common models and liability considerations are provided below.

## **Operating Non-Profit**

Similar to Nice Ride Minnesota and Denver B-Cycle, this model assumes a Non-Profit Organization (NPO) is formed whose mission is to create a bike sharing system. The NPO undertakes all aspects of creating the system, including funding it, establishing regional guidelines, procuring and establishing the equipment, procuring operations facilities, and providing expertise for operations. In other cities where an operating NPO has been established, there has not been an operating contract between the jurisdiction(s) and the NPO to define required service levels, reporting and other operational metrics, giving less control to the jurisdictions.

### **Administrative Non-Profit with Private Operating Contractor**

Under this model, an NPO is formed whose mission is to create a bike sharing system. The non-profit undertakes funding the system, establishing guidelines, procuring the equipment, and choosing an operator. In this scenario the NPO hires a private contractor to implement and operate the system, acting as the client to the contractor. The non-profit could also undertake marketing functions for the system or outsource these services to a third party.

#### **Privately Owned and Operated**

Similar to Tampa's Coast Bike Share, Miami Beach Citi Bike, Chicago's Divvy, and New York City Citi Bike, municipalities contract with an operator for street space only using a concession agreement. The operator provides all funding for equipment and operations. Although this structure requires no public funding for capital or operations (a positive for the municipalities), it gives less control and transparency to the contracting jurisdictions, and there could be significant risk that such systems might fail due to the unknown long-term feasibility of completely privately funded and supported systems.

#### **Direct Contract with Operator**

Similar to Capital Bikeshare (Washington D.C.) and Hubway (Boston), municipalities within the same region contract directly with the operator using the overarching umbrella of a regional planning organization to establish similar standards across jurisdictions. There is no official board of directors,

although there is typically an ad hoc committee that forms consensus, and each jurisdiction acts as a separate client to the operator. Each jurisdiction can have a different source of funding and different revenue sharing arrangements with the operator. The jurisdiction(s) assume responsibility for initial and ongoing funding for the system.

## **5** Funding Options

It is a goal of this study to understand the types of user-generated revenues, government funds, corporate sponsorship and advertising opportunities, and other sources that could capitalize and sustain the operation of a program serving Pinellas County. It is important to acknowledge and understand the opportunities and challenges which will influence the funding of the capital and operating costs for a bike share program. For example, as a general rule, most Federal funding sources can be used to fund capital purchases but not pay for operational expenses.

#### Opportunities include:

- the presence of colleges campuses within the area that may be willing participants and possible sponsors for bike share;
- possible corporate sponsors for the program among the county's major employers, particularly health care providers; and
- a very active and socially conscious population, possibly making crowdfunding an option.

#### Challenges include:

- constrained municipal budgets;
- constrained availability of federal transportation funds due to competing projects;
- the lack of large private foundations or donors; and
- user revenues may be less than in larger cities, due to lack of high density population or employment centers.

### 5.1 Public Funding

Most U.S. systems have launched using a combination of public and private funding. However, the use of local public funding (versus federal or state public funding) has been limited to in-kind services such as staff time, right-of-way use, on-street parking revenues, etc. Sources of capital funds for systems that have utilized public funding include:

- Federal Highway Administration (FHWA) including the Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Centers for Disease Control and Prevention (CDC)
- Federal Transit Administration (FTA)
- Department of Energy (DOE)
- State grants

- County transit oriented development funding tied to project areas around high frequency bus lines (e.g., Nice Ride Minnesota)
- Transportation enhancements associated with transit oriented development around new and existing bus routes

Table 3 provides details for various funding sources used in selected U.S. bike share systems.

**Table 3: Selected American Bike Share Systems Funding Sources** 

System	Approx. Service Area	Launch Date	Total Capital Funding	Public Funding Amount	Private Funding Amount
Boston New Balance Hubway	8 sq. mi.	2011	\$4 million	\$3 million (75%, CDC CPPW, CMAQ, FTA, State grants)	\$1 million (25%, multiple local sponsors and a naming sponsor)
Broward B- Cycle	25 sq. mi.	2011	\$1.1 million	\$300,000 (27%, FDOT funds)	\$800,000 (63%, sponsorship/advertising)
Chattanooga Bicycle Transit System	3 sq. mi.	2011	\$2 million	\$2 million (100% CMAQ)	\$0 (future sponsorships may be sought)
Denver B-Cycle	5 sq. mi.	2010	\$1.5 million	\$210,000 (16%, ARRA federal Energy Efficiency and Conservation Block Grant program)	\$1.3 million (84% Kaiser Permanente as "presenting sponsor", Denver DNC Host Committee, foundations, multiple station sponsors)
Nice Ride Minnesota (Phase 1)	12 sq. mi.	2010	\$3 million	\$1.75 million (58%, Bike Walk Twin Cities/FHWA) \$250,000 (8%, City Convention Center Fund)	\$1 million (33%, Blue Cross Blue Shield tobacco settlement funds)
San Antonio B- Cycle	3 sq. mi.	2011	\$840,000	\$840,000 (100% U.S. Dept. of Energy's Energy Efficient and Conservation Block Grant program, CDC)	\$0

Note: All numbers in this table are round numbers from various publicly available sources.

Public funding could potentially come from local sources such as parking revenues, special taxes, etc. Promotion and marketing of the system could also be funded and/or coordinated through established local government revenues and serve as their financial contribution to the system.

### 5.2 Advertising and Sponsorship

Selling advertising space, either on bicycle fenders or on information panels located on station kiosks, can generate revenue that supplements other funding sources. Advertising revenue is dependent on the number of people who will see the advertisement, and for this reason denser, larger cities will realize the most revenue. Sales of advertising space can be managed by a municipality, a non-profit owner and manager, or private contractor.

The sale of advertising space is significantly affected by local ordinances that regulate signage and advertising. Most Pinellas County municipalities have restrictions against off-site signage. Because of

these regulations, the potential for using advertising revenue to support a bike share program is reduced, though current land development regulations could be amended to exempt commercial signage displayed on bikes and/or bike share stations.

Sponsorships are another strategy for raising funds from businesses, who often see sponsorship as a great opportunity for public recognition. For example, the New Balance shoe company entered into a partnership with the City of Boston to sponsor the entire system for its first three years, a contract which has since been renewed. Businesses can also sponsor individual, nearby stations in order to encourage people to visit their store. Sponsorship can come in a variety of forms, as shown below:

- Title sponsorship: where a company pays for full and exclusive sponsorship rights to the system and its components. The sponsor's name is included in referring to the system, e.g., Citi Bike in New York City;
- Presenting sponsor: receives recognition in mention of the system, e.g. "Denver Bikeshare
  presented by Kaiser Permanente". In most cases (e.g., Toronto, Boston, Denver), presenting
  sponsorship includes branding some of the stations and bikes, however presenting sponsors do
  not have exclusive rights to the system and share sponsorship with other organizations. A
  detailed valuation of presenting sponsorship would need to be conducted and negotiated with
  any potential sponsor(s);
- Station and bike fleet sponsorship: generally presentation of the sponsor's logo and/or a simple message, e.g., "this station is sponsored by company X" placed on the map frame, kiosk, and / or the docking points at a station or logos placed on the bicycle frames, baskets, or fenders. The value of station and bike sponsorship depends on the market and uptake is variable; and
- Other: webpage, back of receipt, membership keys, helmets, mobile applications, etc.

#### 5.3 User Fees

Revenue from customers can be generated through memberships and usage fees. Current bike share systems have a variety of membership types, including annual, monthly, weekly, or daily. While prices vary, ranges are between \$40 to \$85 for annual memberships; \$15 to \$60 for a monthly pass; \$15 to \$30 for a three-day or weekly pass, and \$5 to \$8 for daily memberships. Annual and monthly memberships are usually targeted towards residents and shorter-term memberships are intended for tourists or visitors.

In addition to membership costs, bike share systems can charge a separate user fee for each time a bicycle is rented. Many larger systems are designed for short rental periods, in order to promote bicycle turnover and availability, and this is promoted through their price structure. For example, the first 30 or 60 minutes of every ride will be free, after which time an incremental fee is charged for every additional half hour. Smaller systems, which have fewer stations and may be less convenient for users to dock their bicycles, generally have longer rental periods of up to three or four hours.

## 6 Demand Analysis

The objective of the demand analysis is to provide a quantitative evaluation of demographic and geographic variables that contribute to a successful bike share system. By incorporating best practices from recent bike share feasibility studies around the United States, this methodology is designed to identify areas where bike sharing has the highest potential for success. To determine where bike sharing would be most attractive, a weighted sum raster analysis was conducted by Pinellas County's Enterprise Geographic Information System (eGIS) Bureau to identify areas for potential bike share implementation. The demand analysis utilized the following steps:

- 1. Identify eight indicators favorable to bike share use;
- 2. Convert the indicators into GIS raster data to ensure an "apples to apples" comparison;
- 3. Aggregate the indicators into a composite bike share value by using a weighted sum raster analysis; and
- 4. Map the composite score data to identify contiguous, high-scoring areas.

#### 6.1 Indicators

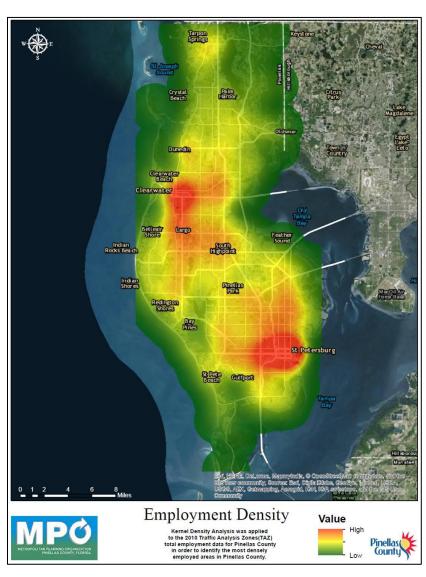
The eight indicators measure the suitability of an area for supporting bike sharing. Each indicator relates to particular characteristics associated with successful bike sharing programs and are discussed in further detail in Table 4 and the next section below.

**Table 4: Demand Analysis Indicators** 

Indicator	Scale	Metric	Buffer	Data Source
Employment Density	TAZ	Jobs per acre	n/a	InfoGroup national employer database
Population Density	Census Block	Population per acre	n/a	2010 Census Data
Attractions	Kernel	Point density	¼ mile - ½ mile	Pinellas County eGIS (attractions layer)
Colleges	Kernel	Point density	¼ mile - ½ mile	Pinellas County eGIS (university and college layer)
Bicycle Modeshare	Census Block	Point density	n/a	2010 Census Data
Transit Stops Density	Kernel	Point density	¼ mile	Pinellas County eGIS (transit stops layer)
Existing Bicycle Infrastructure	Kernel	Proximity distance	n/a	Pinellas County eGIS (bicycle facilities layer)
Equity (Minority/Poverty)	Census Block	% minority population greater than 50%/poverty level for Pinellas County	n/a	2010 Census Data

#### **Employment Density**

At a basic level, employment density identifies concentrations of jobs which serve as major trip attractors and also informs commuting patterns. As with most transportation infrastructure, higher density yields greater efficiency in service provision. Employment density measures the intensity of morning commute attractors and midday trip origins. 11 Previous research has indicated that employment density is one of the primary predictors of bicycle use. For example, Frank and Pivo found that job density has a greater impact on commute mode choice than residential density, particularly when workplace density reaches 50 to 75 employees per acre. 12

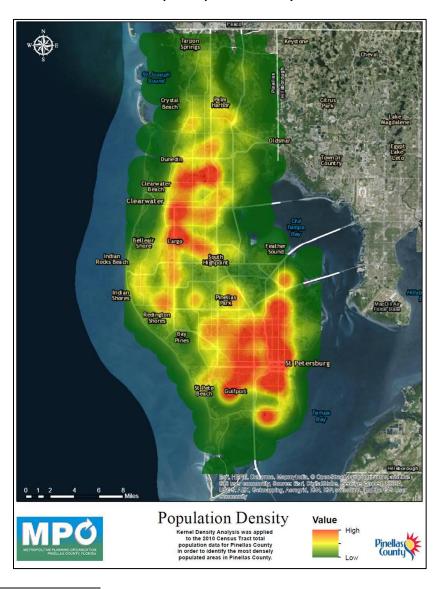


Map 1 - Employment Density

<sup>&</sup>lt;sup>11</sup> Tyler Benson, "Public Use Bike Share Feasibility Study: Volume Two: Demand Analysis," 2009, p. 2.18. <sup>12</sup> Benson, p. 2.103.

#### **Residential Population Density**

Residential density supports bike share demand by providing a pool of potential users. Even the simplest bike share analyses have included this indicator. Higher density improves accessibility, which reduces travel distances and makes non-motorized travel more feasible.<sup>13</sup> Residential density also indicates the number of off-peak trips that might be taken. In particular, personal business and social/recreational trips can be estimated on the basis of residential population density. Off-peak use increases demand for a bike share system throughout the day, with the added benefit of helping to balance bicycle inventories across an area. Higher population densities also correlate with less automobile dependence and higher use of alternative transportation choices.<sup>14</sup>



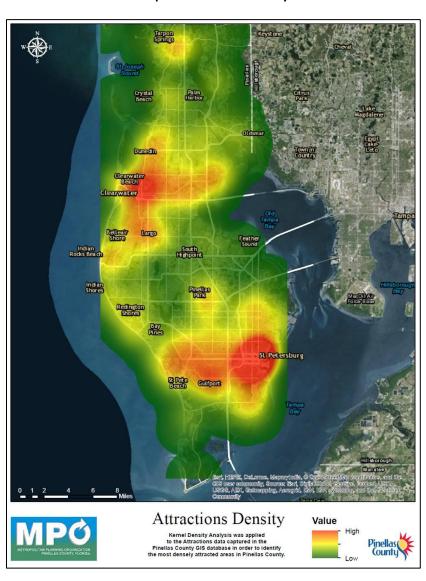
Map 2 - Population Density

14 Ibid.

<sup>&</sup>lt;sup>13</sup> Litman, T., & Steele, R. (2008). Land Use Impacts on Transport: How Land Use Factors Affect Travel Behavior. Vancouver, British Columbia: Victoria Transport Policy Institute.

#### **Attractions**

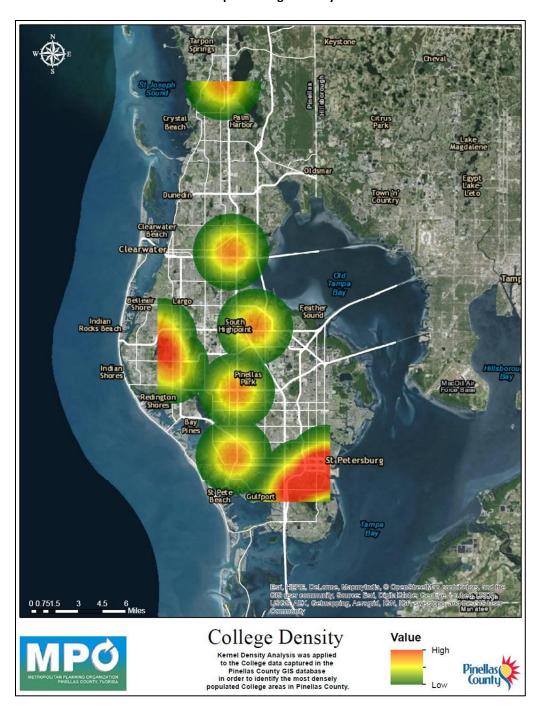
Tourist attractions are destinations for bike share users. The degree to which the presence of a tourist attraction affects bike share ridership will vary on the basis of whether the business model allows short-term memberships. Most successful systems are specifically designed and priced to support tourist travel by allowing the purchase of daily and weekly memberships in addition to annual memberships. This analysis assumes that a Pinellas County system would include membership options for tourists. Many tourist attractions are dispersed throughout the county and tourists using bike share could access these attractions without contributing to the congestion and parking pressures found in the more popular areas. In addition to enticing short-term members, the tourist attractions included in this study could also generate trips for Pinellas County resident bike-share users, as community amenities such as museums and libraries were included in the attraction category.



Map 3 - Attractions Density

## **Colleges**

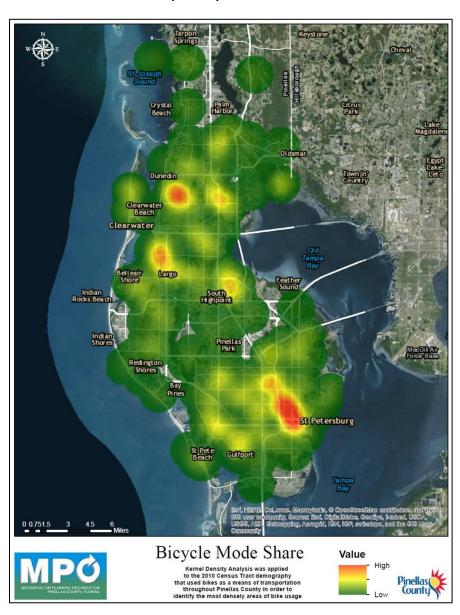
Marketing to young and urban populations is relatively easy and inexpensive, since they often respond strongly to social media and word-of-mouth outreach. Bike share can connect students to nearby downtowns and other popular destinations such as shopping and entertainment districts.



Map 4 - College Density

#### **Bicycle Mode Share**

Bicycle mode share is an important tool in determining mode choice and travel patterns of an area. Since 2000, American Community Survey (ACS) data has shown a 62% increase in bicycle commuting which designates bicycle commuting as the fastest growing commuting mode in the last decade. Furthermore, in 2014 Clearwater was identified as a "Top 20 City" for bicycle commuting in the south region League of American Bicyclists with approximately 1.8% of population using a bicycle for work trips.<sup>15</sup>

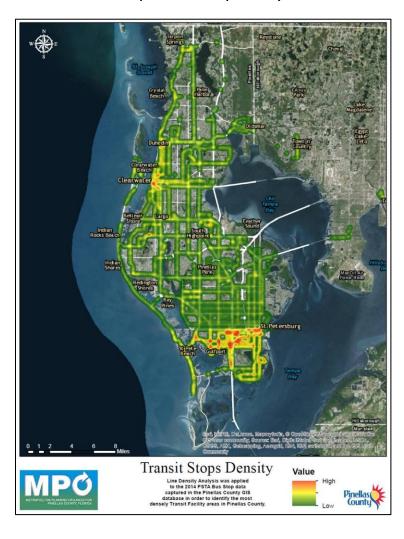


Map 5 - Bicycle Mode Share

 $<sup>^{15}</sup>$  The League of American Bicyclists. (2014). Where We Ride: An Analysis of Bicycle Commuting in American Cities.

#### **Transit Stops Density**

Transit stops were selected as an indicator because they provide a ready population of people traveling to destinations. Bike sharing can provide on-demand "last mile" transportation for these transit customers, creating a seamless transportation experience. Some local bus trips have the potential to be complemented by bike sharing on both the origin and destination sides of the trip. Studies have shown that the wait time between buses or during transfers are perceived to be two to three times longer than the actual time. Any reduction in perceived wait times will help attract riders. <sup>16</sup> It is likely that bike sharing will become a part of the variety of choices available to commuters. In other cities, once bike sharing has been implemented, many bike share trips are trips diverted from transit. However, research has shown that these are likely just segments of a trip partially completed on transit, where bike share serves as one more travel choice. In rare cases, local transit trips may be replaced entirely by bike-sharing if the trip is short enough.

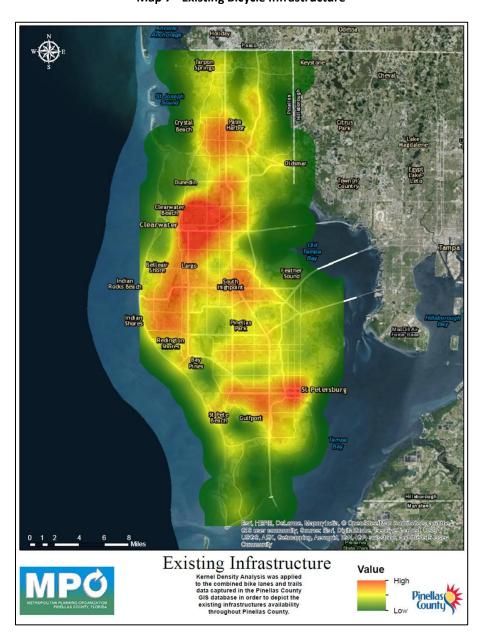


Map 6 - Transit Stops Density

<sup>&</sup>lt;sup>16</sup> Institute of Transportation Engineers. (1997). A Toolbox for alleviating traffic congestion and enhancing mobility.

## **Existing Bicycle Infrastructure**

A study of travel behavior of bicyclists in Portland, Oregon concluded that a supportive bicycle environment is necessary to encourage bicycling for everyday travel. Pinellas County is well-positioned with a network of different types of bicycle lanes, shared-use lanes, and multi-use trails that serve the existing bicycling community and are necessary to attract new people to bicycling. Research also shows that the areas where the highest levels of bicycling occur also have a well-connected street grid and mix of land uses.<sup>17</sup>

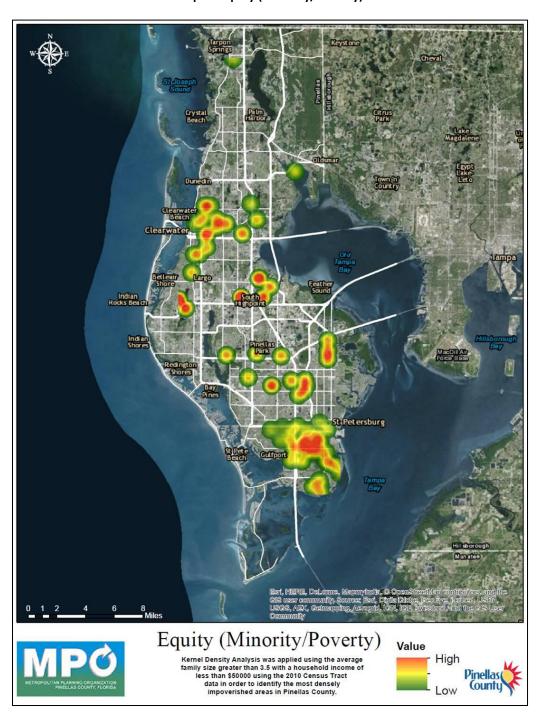


Map 7 - Existing Bicycle Infrastructure

 $<sup>^{17}</sup>$  Dill, J. (2009). Bicycling for Transportation and Health: The Role of Infrastructure. Journal of Public Health Policy, 30 (S1), S95-S110.

## **Equity**

As a form of public transit, it is important that Pinellas County's bike share program serve all residents of the region equally, regardless of their age, race, income, or ethnicity. In many ways, low-income residents have the most to benefit from a bike share program, since it offers an inexpensive transportation alternative that complements existing public transit.



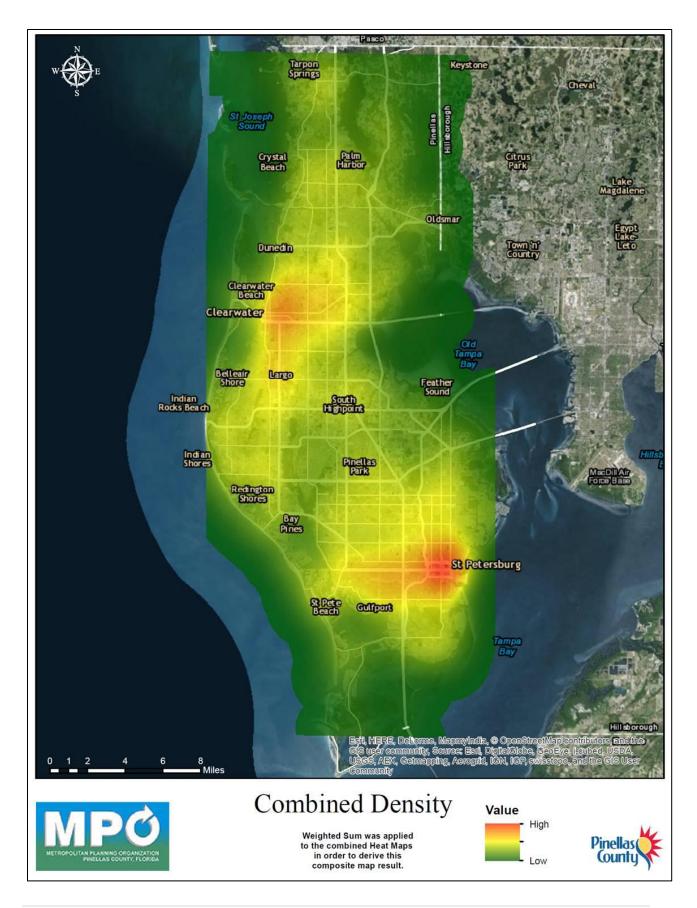
Map 8 - Equity (Minority/Poverty)

#### 6.2 Heat Map Demand Analysis

Areas with high potential demand for bike share were identified through a heat mapping exercise that allocated "weighted points" to where people live, work, shop, play, and take transit as discussed in Section 6.1. Launching a system initially in the highest demand areas will provide the most visibility and maximize the probability of a successful launch. The composite heat map shown on the next page is an aggregation of the eight indicator maps and confirms that downtown St. Petersburg as well as areas in and around downtown Clearwater have the highest demand potential and therefore would make the most logical first phase of a bike sharing program. Other notable areas that did not score well but have the potential for successful bike share due to their high level of accessibility, mixed-use downtown districts, tourist orientation and concentration of popular destinations include the Gulf Boulevard corridor, certain segments of the Pinellas Trail, and the downtown areas of some of the northern Pinellas County communities (i.e., Tarpon Springs, Safety Harbor, Oldsmar, etc.). These areas could serve as the next logical extension to St. Petersburg's system however; the decision to expand bike sharing into other communities will most likely depend on the success of the St. Petersburg program.

The fact that high demand areas in the greater mid-county area (i.e. Clearwater, Largo and Dunedin) are not contiguous and are somewhat spread out from one another represents a challenge to determining a clearly-defined bike share system with a geographic center of demand. On the other hand, the number of active downtowns, large employers, and transit transfer centers is a condition where demand for intra-city travel and "last mile" transit connections could be assisted through a bike share system.

When developing the bike share system, it is important to address the specific needs of users and market segments prior to and after deployment. For example, through the public survey conducted as part of this study, 81 percent of the respondents supported the idea of establishing a bike sharing program in Pinellas County. Popular noted destinations identified by respondents include downtown areas, bus stops, bike paths, college campuses, and municipal parks. Tailoring system components and station locations with the assistance of an experienced vendor/operator will encourage bike share use by casual users, which will be imperative for the system's long-term economic viability. A summary of the survey responses is included in the appendix of this study.



#### 6.3 General Parameters for Service Areas and Station Locations

Any potential service area must consider the extent, size, and phasing of a potential bike share system within each of the participating municipalities. General parameters for system design such as the spacing of stations and the number of bikes per station can be found in various resources including; *The Bike Share Planning Guide* developed by the Institute for Transportation & Development Policy and *Bike Sharing in the United States: State of the Practice and Guide to Implementation* prepared by the Toole Design Group and the Pedestrian and Bicycle Information Center. While this study does not include specific locations for stations and the like, there is value in using the information collected from the public survey, heat map analysis, Pinellas County MPO staff, and the Bike Share Subcommittee to guide the work of the selected expert vendor/operator who would be selected through a RFI or RFP process. The aforementioned resources identified the following genera locations for bike share stations:

- Tourist attractions, landmarks, civic facilities
- Higher density housing and employment centers
- Key transit stops
- Neighborhood and commercial centers
- Colleges and hospital campuses

#### **Minimum System Size**

A system that is too small limits its effectiveness. A system of five to ten stations is considered the absolute minimum to provide an effective mix of trip origins and destinations and to justify the cost of operations. However, larger geographic areas like Pinellas County may not fit this approach, meaning stations may be placed further apart in order to serve key destinations throughout the region. An illustration of this point is within the City of Clearwater where the Pinellas County Courthouse Complex, the Harborview Center, Coachman Park, Clearwater Marine Aquarium, Morton Plant Mease Hospital and the Pinellas Suncoast Transit Authority's (PSTA) Park Street Transfer Terminal are all within a roughly four to five square mile area. In this example with such a lower level of density, a system of approximately seven to ten stations would be sufficient to serve an area of this size.

The following are key considerations for implementation of a bike share system:

- The coverage area at which bicycling becomes a more attractive option than walking. On average, the median walking trip is approximately five minutes, in which time a person can walk approximately ¼ of a mile, but can cycle approximately ¾ of a mile. A majority (56 percent) of the respondents that completed our survey said they would be willing to walk no more than ten minutes to the nearest bike share station which is approximately a one-half mile walk.
- The system must provide a variety of trip origins and destinations or there is no reason to use the bikes.
- Providing a reasonable station density so that users can easily access a station. Typical station
  densities are a station every 984 feet (300m) to 1,300 feet (400m). As station spacing is
  increased, at some point users will consider they have to walk too far to access a bike and will
  be inclined not to make the trip or to take a different mode. A station density of one station

every 1,300 feet (400 m) results in a minimum system size of 10 stations (0.2 square miles per station) but can mean up to a five minute walk to access a bicycle when a walk of 15 minutes would get you from the extent of the system to the center of the system.

• The system needs to be a reasonable size to justify the cost to operate the system. There are some economies of scale in terms of system operations.

#### **Station Density**

The size of the system is a function of the coverage area and typically outlines the desired spacing of stations. Operators of U.S. bike share systems generally have found that bike sharing kiosks need to be located as close to public transit as possible - preferably adjacent to a bus stop. The size of the system is a function of the coverage area and the desired spacing of stations. Most existing U.S. systems include a range of 3.5 to 5 bike share stations per square mile of service area. This range provides access to a bike within a short walk of anywhere in the service area and provides a nearby alternative to return a bike if the destination station is full.

Placing stations close together (5-7 city blocks) allows flexibility in usage and thus increases the number of users. In all the case studies we analyzed, stations on the edge of the system, satellite stations and small pilot programs received significantly lower usage making the stations revenue negative. We recommend that all stations be placed in close proximity to destination districts and high density mixed-use and residential areas. By centrally locating all stations, the system will be more accessible, more profitable and therefore more successful.

The station density parameter is a guideline that may need to be adjusted based on conditions on the ground. In general, the following are guidelines for the location of bike share stations:

- On wide sidewalks (bike share stations should not impede pedestrian or vehicular traffic);
- Along existing or proposed bike facilities, whenever possible;
- Near PSTA transit stops or transfer points;
- Near major cultural and/or tourist attractions; and
- Adjacent to major public spaces and parks.

Once draft station locations have been identified, there needs to be a review conducted by area stakeholders. Engaging stakeholders in the station location process is a good way to build support for the project and gain an understanding of the demand for particular stations.

#### **Station Siting**

While most bike share stations are modular, there are certain minimum siting requirements. Figure 6 provides an overview of the appropriate dimensions for an 11 dock bike share station which requires an approximate space of 32 feet wide and 12 feet deep (these figures accommodate the station infrastructure as well as access space) depending on the type of technology employed. Additionally, stations with solar power require access to sunlight for a minimum portion of the day (around 4 hours),

and a vertical clearance of at least 11 feet. <sup>18</sup> Table 5 summarizes typical spacing requirements and typical weight of each station.

15' 30' 35'

0
2'
4'
6'
8'
4' access zone
10'

Figure 6 - Station Dimensions for an 11 dock station.

**Source: Pedestrian and Bicycle Information Center** 

(NOTE: 'K' indicates the location of the automated customer kiosk)

**Table 5: Typical Spacing and Weight Requirements** 

Docks	Width	Station Depth	Access Depth	Total Depth	Weight
11	31' to 32'	6' to 8'	4'	10' to 12'	3,000 to 5,000 lbs
15	40' to 42'	6' to 8'	4'	10' to 12'	4,500 to 5,500 lbs
19	50' to 52'	6' to 8'	4′	10' to 12'	5,500 lbs to 6,500 lbs

Source: Figures were obtained through a review of publicly available literature

#### 7 Additional Challenges

#### 7.1 Sign Code and Advertising Restrictions

All communities in Pinellas County have regulatory standards for signage and advertising that could impact the provision of sponsorship opportunities on the bikes, stations, and other infrastructure. Although it could be argued that bike share public service and informational signs are largely exempt from permitting obligations and restrictions, the fact remains that any sign that is intended to advertise or recognize a sponsor will have a variety of restrictions including sign placement, design parameters, and permitting. Most restrictions are designed to limit the number and size of off-premise advertisements, which are legally indistinguishable from billboards. The following is a summary of how

<sup>&</sup>lt;sup>18</sup> B-Cycle Station dimensions (2011) and Capital Bikeshare Public Meeting presentation. Expansion to Montgomery County. November 29, 2011.

the sign code may impact sponsorship and advertising opportunities and, in turn, reduce potential revenue for the system.

#### **Signage Type and Orientation**

Restrictions on signs vary depending on whether they offer public information, promote a system or station sponsor, or advertise a product. Any sign that advertises a product will trigger a range of restrictions on where they may be located and how large it can be. Advertising on bicycles may not be subject to the same restrictions because they (much like bus advertising) are not fixed and most sign codes do not address on-vehicle advertising. However, most communities have yet to determine whether docked bicycles could be interpreted as a stationary advertising sign and therefore are subject to the applicable advertising restrictions.

In addition, the nature of sponsor-adorned bike share equipment, whether determined to be a sign within a public infrastructure facility, a business premise sign (a sign that promotes a business site), or off-site advertising (i.e. billboards), can impact the type and intensity of advertising and sponsor recognition. If advertising or sponsor recognition at bike share stations is determined to be off-premise advertising, signs may only be installed if an existing advertising sign is relocated to a new location.

#### **Zoning and Special District Regulations**

Regulatory barriers also vary by zoning and special districts, and even along designated transportation corridors such as highways and streets that are intended to maintain visual access to scenic views or landscaping. Some street corridors, especially those identified as "scenic non-commercial corridors", may restrict the number and type of signs used for sponsor recognition and advertising.

A major concern stemming from the sign code's stringent restrictions is the possibility of applying inconsistent sponsorship signs throughout the system. This could create confusion and deter potential sponsors. Certain special districts such as a National Register or Local Historic District pose considerable challenges to station development with uniform advertisements and sponsor recognition. Furthermore, commercial signs are generally either not permitted or specifically authorized for certain uses (i.e. on-premise bed and breakfast signage) in residential zones. On the other hand, many commercial districts that would be slated for initial bike share deployment may have more flexible regulations on sponsor signs and advertising. Downtown zoning districts may present far less of a challenge in terms of the permitting process and the type of signs that may be used.

#### **Authority and Permitting Process**

Securing sign permits for a bike share system will require several layers of approval depending on where signs are located. Contingent on whether signs are located within or outside of the public right-of-way, within a historic or special district, or near a park or community center, the bike share operator must secure permits through the appropriate jurisdictional agency.

#### **Potential Solutions**

Several strategic actions should be made to ensure the optimal amount of sponsor revenue can be generated given the limiting circumstances presented by the sign code. These include:

- Making formal determinations with the help of City attorneys to clarify various legal grey areas including whether the map panel itself constitutes a sign;
- Ensuring any proposed administrative non-profit develops a strategic sign plan that integrates
  considerations from the various zonal sign code restrictions on sponsor recognition and
  advertisements. This will likely include focusing any advertising in zones amenable to offpremise advertising and sponsorship;
- Placing greater emphasis on sponsorship-oriented signs, rather than off-premise advertising to avoid onerous restrictions and delays in the permitting process; and
- Strategically focus station advertising in zones that are most amenable to advertising signs.

#### 7.2 Site Planning

All communities in Pinellas County have land development regulations that define how land can be used within their jurisdiction. Most land development regulations are silent to bike share systems because this form of transportation is still relatively new to most communities. In any case, local land development regulations would need to be amended to define what a bike share system is, outline where the stations and/or kiosks can be located and their maximum size and scale. Figure 7 is an example of the site plan considerations for a station located in downtown Seattle, Washington.

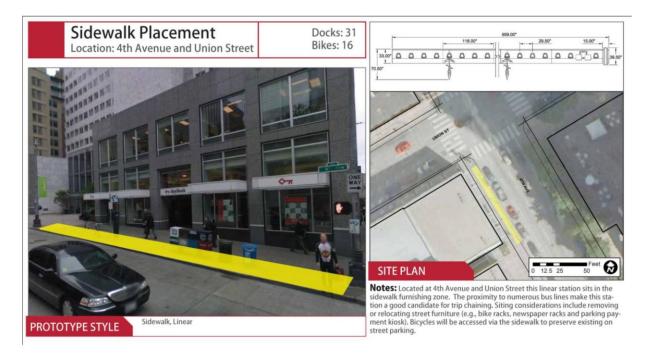


Figure 7 - Site Plan Example for Station Placement in downtown Seattle.

The City of Tampa amended their land development regulations in 2014 in advance of implementing their bike share system. Their land development code now provides a regulatory framework for bicycle sharing stations (Sec. 27-290.7.), bicycle kiosks within the rights-of-way and the display of advertising (Sec. 22-136.). It is recommended that the participating jurisdictions amend their land development

regulations so that bike sharing systems are designed for compatibility with the surrounding uses and structures.

#### 8 "Regional Umbrella" Business Model

Model

Privately-Owned and Operated

City-Managed

Non-Profit/Authority

A regional bike share program for Pinellas County will need to select a business model well suited to the region's unique needs, which include: a system serving distinct cities/towns; possible participation from St. Petersburg College; modest size, projected participation and budget; and no clear choices for corporate sponsorship.

There are 3 primary options for business models, summarized below:

Vendor/Operator

Ownership Operation Examples

City Vendor/Operator Capital Bikeshare (DC), Hubway (Boston)

NonProfit/Authority Profit/Authority Profit/Authority

Citi Bike (New York City)

**Table 5: Business Model Options** 

Based on our analysis of Pinellas County's bike share indicators, land use patterns, the Bike Share subcommittee's support for a seamless program that can be used in multiple jurisdictions, and best practices from other successful systems, strong consideration should be given to a regional bike share model for Pinellas County that is publicly owned by the cities, and operated by a private contractor. This business model is similar to Capital Bike Share in Washington D.C. and Hubway in Boston, can allow multiple municipalities to contract individually or collectively with a single operator, and allows for expansion to serve additional communities.

Vendor/Operator

The overarching umbrella of a regional planning organization such as the Pinellas County MPO can help to coordinate the establishment of a regional compact and committee to guide the regional program, establishment of regional guidelines, assistance in finding funding for capital costs, as well as participation in advanced feasibility analysis and contractor selection.

An intergovernmental compact (Memorandum of Agreement) should be prepared to guide the bike share system establishment and operation. Each community and also possibly St. Petersburg College should be asked to make a commitment to the program, and sign on to the MOA. The compact (MOA) should establish an advisory committee to help oversee the regional bike share program. Under this model, one municipality would be identified as the "lead" community and would be responsible for some of the administrative aspects of running the system, but not the operational aspects, which would be handled by a private contractor. Equipment for the system could be procured regionally to save costs, but owned locally by each participating community. Each jurisdiction would act as a separate client to the operator and can have a different source of funding and different revenue sharing

arrangements with the operator. In this model, the jurisdiction(s) will assume(s) responsibility for initial and ongoing funding for the system.

#### **Start-up Strategy**

First, the participating municipalities should identify a "lead" community to coordinate agreements and manage services. The lead municipality should have significant infrastructure and experience in different types of public and private funding, and would be willing and flexible enough to undertake this type of responsibility. Once a community has been identified as the lead, the other participating municipalities should enter into an intergovernmental compact with the lead community regarding management and oversight.

#### **Contract Management and Oversight**

Once agreements are signed, the lead, with guidance from the advisory committee, made up of members of each of the participating municipalities, would write and issue a Request for Proposals (RFP) to identify and select a vendor that will operate the system. The selected vendor will create its own contract with each of the communities.

#### Other Roles to be Defined

Within the writing of the RFP, particular operational roles should be decided upon. Roles that the lead will not play should be identified in the RFP as roles for the operator/vendor. Specific roles to be defined are:

- sponsorship acquisition
- site planning and permitting
- communications
- naming and branding
- pre-launch marketing (website design, events, special membership)
- system setup and launch
- ongoing operations
- ongoing marketing

These items above can be split and could be performed by the lead itself and/or the contractor. The exact staffing needed will be determined by what roles it chooses to undertake both for launch and ongoing operations.

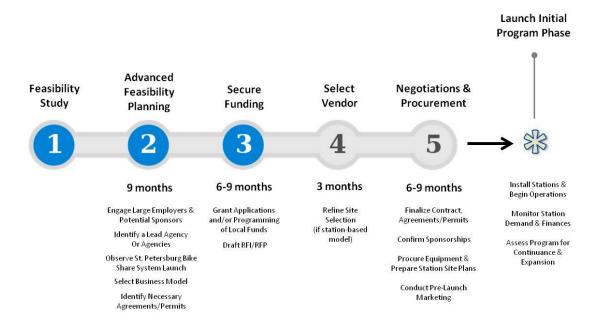
#### **Anticipated Staffing Needs - Public and Private**

The bike share program will require dedicated staff to manage, operate, and administer the new system. Understanding the limitations within municipal government, the recommend model proposes that the bike share system be privately operated with a vendor that will have staff that will perform operational functions of the program such as bicycle rebalancing, bicycle and station maintenance, station site planning, and handle customer service.

Each participating municipality, as the public owners of the system, will be responsible for overseeing the vendor's implementation and operations of the system. Other responsibilities of the participating communities in collaboration with the operator may include but is not limited to:

- overall management
- · financial planning and reporting
- initial station planning
- performance analysis
- expansion into other areas

Figure 8 - Potential Timeline for Planning and Implementation of a "Regional Umbrella" System



#### 9 Summary and Next Steps

Pinellas County has several of the characteristics required to make bike sharing successful, including emerging activity centers, relatively extensive public transit, large numbers of visitors, a supportive culture of bicycling and active living, and a policy environment that prioritizes the growth of sustainable transportation options. There are also characteristics that are less conducive to bicycle sharing demand: lower densities of housing and jobs; high car ownership; etc. Impacts from other factors, such as an older demographic and proximity to an anticipated bike share program in the St. Petersburg area, remain unclear. The Bike Share subcommittee urges further exploration of a business model of a fourthgeneration bike share system that is municipally-owned and privately operated deployed within the downtown areas of St. Petersburg and Clearwater. As with many other new transportation systems, a pilot program may be a logical first step if there is a low risk tolerance. Further, private sponsorship (title sponsorship and advertising on the stations and/or bikes) should be vigorously pursued as it will

most likely be necessary to help cover the ongoing operating costs, while one-time grant sources will be necessary for up-front capital purchases and installation.

Due in part for the need of up front capital funding, and also due to the uncertainty of demand for a larger system, a phased approach to implementation is recommended. Potential phases range from a pilot effort in a participating community of 30 bicycles and 4 stations with the potential to expand into a system of 100 or more bicycles. These phases should generally target transit centers, transit-dependent neighborhoods, city centers, and areas with major employment clusters.

A conservative estimate of 24-30 months is needed to plan, fund, and implement an initial bicycle share program in Pinellas County that is publicly-owned and privately operated. A smaller-scale pilot program could be deployed and operational in as little as 6 to 9 months. These estimates are subject to change, and assume continued interest and engagement by key stakeholders and success at procuring grant or local funding. Highlighted below are next steps to maintaining the 'critical path' for this timeline and helping build overall consensus to move forward with a program.

This report recommends the following options for consideration by the Pinellas County MPO to bring bicycle sharing to the residents and visitors of Pinellas County:

#### **Option A**

- Continue to monitor the City of St. Petersburg's Bike Sharing initiative;
- Engage local governments to determine their level of interest in implementing bike share; and
- Work with the interested local government(s) to develop a Request for Information (RFI) and/or Request for Proposals (RFP) to find an experienced operator for a privately owned and operated bike share system with a concession agreement. (This business model is similar to Coast Bike Share in Tampa and requires no funding for capital or operations.)

#### **Option B**

- Continue to monitor the City of St. Petersburg's Bike Sharing initiative;
- Engage local governments to determine their level of interest in implementing a pilot bike share program; (i.e., approximately \$9,000/year for a 2-year contract for one (1) 5 bicycle station)
- Engage local bike shops to determine their level of interest in providing maintenance services for the system;
- Work with the interested local government(s) to secure funding for an appropriately-sized pilot system; and
- Work with the interested local government(s) to develop a Request for Information (RFI) and/or Request for Proposals (RFP) to find an experienced operator for the pilot bike share system.

#### **Option C**

• Continue to monitor the City of St. Petersburg's Bike Sharing initiative;

- Develop a bike share system that builds upon the City of St. Petersburg's system (This system
  would be publicly owned by the cities, and operated by a private contractor. This business model
  is similar to Capital Bike Share in Washington D.C. and Hubway in Boston, allows multiple
  municipalities to contract individually or collectively with the St. Petersburg operator, and allows
  for expansion to serve additional communities.);
- Coordinate the establishment of a regional compact to guide the regional program, establish
  regional guidelines, assist in securing funding for capital costs, as well as completion of advanced
  feasibility analysis and contractor selection;
- Develop an intergovernmental compact (i.e., Memorandum of Agreement) to guide the bike share system's establishment and operation (Under this model, the City of St. Petersburg could serve as the "lead" community but the individual municipalities would be responsible for procuring and managing vendor services to operate the system and for marketing, and overall financial management. The lead community would be responsible for the administrative aspects of running the system, but not the operational aspects, which would be handled by a private contractor. Equipment for the system could be procured regionally to save costs, but owned locally by each participating community. Each jurisdiction would act as a separate client to the operator and can have a different source of funding and different revenue sharing arrangements with the operator. In this model, the jurisdiction(s) will assume(s) responsibility for initial and ongoing funding for the system.);
- Develop an implementation plan that includes strategies to:
- Secure capital and rolling stock funding;
- Build relationships with municipal agencies and transit authorities, gaining official support through tools such as a memorandum of understanding, city council action (an ordinance or resolution), and/or contract;
- Secure sponsorship commitments from private and public funders; and
- Develop a "sole source" justification to utilize St. Petersburg's operator and pricing structure;
- Begin implementing the plan;
- Identify a funding recipient for capital and rolling stock costs a municipal authority, nonprofit
  or municipality. (These could be the partner municipality, the Pinellas County MPO, the Pinellas
  Suncoast Transit Authority (PSTA), or nonprofit organization);
- Identify an entity or municipal agency to issue the operator contract; and
- Execute a contract with St. Petersburg's operator.

Based on our analysis of several bike share indicators, we believe that the City of St. Petersburg and portions of the greater Clearwater area are well-suited for bike share and should be the initial focus. By pursuing one of the options listed above, launching the first phase of a bike share system in 12-24 months is a not unreasonable. Upon the success of the first phase, future expansion could include sponsored stations or another capital campaign to expand into additional areas.

There are several key next steps that should be taken by interested jurisdictions including:

- ❖ Designate a Lead Community: The Committee should identify a lead community or lead communities to act on their behalf in advancing the project and grant applications. Meetings and detailed presentations may be needed to sell this concept.
- Commitments to Proceed: Communities that are ready to proceed with a Bike Share program should seek formal commitments from City Commission or Council to agree to be responsible for ownership and maintenance of the bike share equipment.
- ❖ Apply for Outside Funding: Identify and apply for the most viable funding option for the cost of initial capital costs for the Bike Share program. Several communities have used Congestion Mitigation and Air Quality (CMAQ) funds but, Pinellas County is not a recipient of this type of funding at this time.
- \* Explore Sponsorship Options: Actively seek to engage and secure one or more large corporate sponsors for the program.
- ❖ Develop an Intergovernmental Compact: The Pinellas County MPO and the participating communities should develop and approve an intergovernmental compact (Memorandum of Agreement) that clearly lays out the roles of each participant, including the roles of individual municipal departments.

## **Appendix**

# **2015 PINELLAS COUNTY MPO BIKE-SHARE INTEREST SURVEY**



**FEEL THAT BIKE-SHARING** IS A GOOD IDEA FOR **PINELLAS COUNTY** 

333 **SURVEYS** COMPLETED



25%

DO NOT HAVE ACCESS TO A WORKING BICYCLE

**WOULD LIKE TO SEE BIKE-**

SHARE STATIONS IN

THEIR DOWNTOWN



15%

**HAVE RENTED A BICYCLE FROM A BICYCLE SHOP OR VENDOR** 



33%

**BIKE-SHARE SYSTEM** 



**53%** 

ARE VERY LIKELY OR LIKELY TO USE A BIKE-**SHARE SYSTEM** 

## **SYSTEM STRUCTURE**



**WOULD PREFER TO PAY A** PER-TRIP FEE TO RENT A **BIKE-SHARE BICYCLE** 



**FEEL THAT A BIKE-SHARE** PROGRAM WOULD BE SUCCESSFUL ON THE **BEACHES** 





**SYSTEM USAGE** 

**RESPONDENTS HAVE STRONG OPINIONS ON LOCATION & ACCESSIBILITY** 

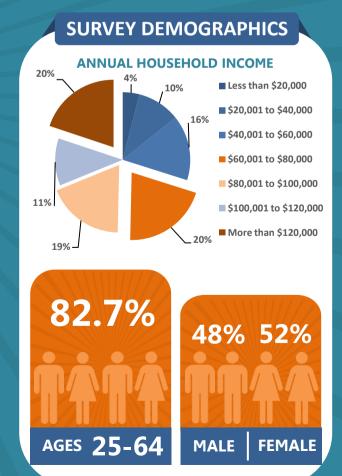


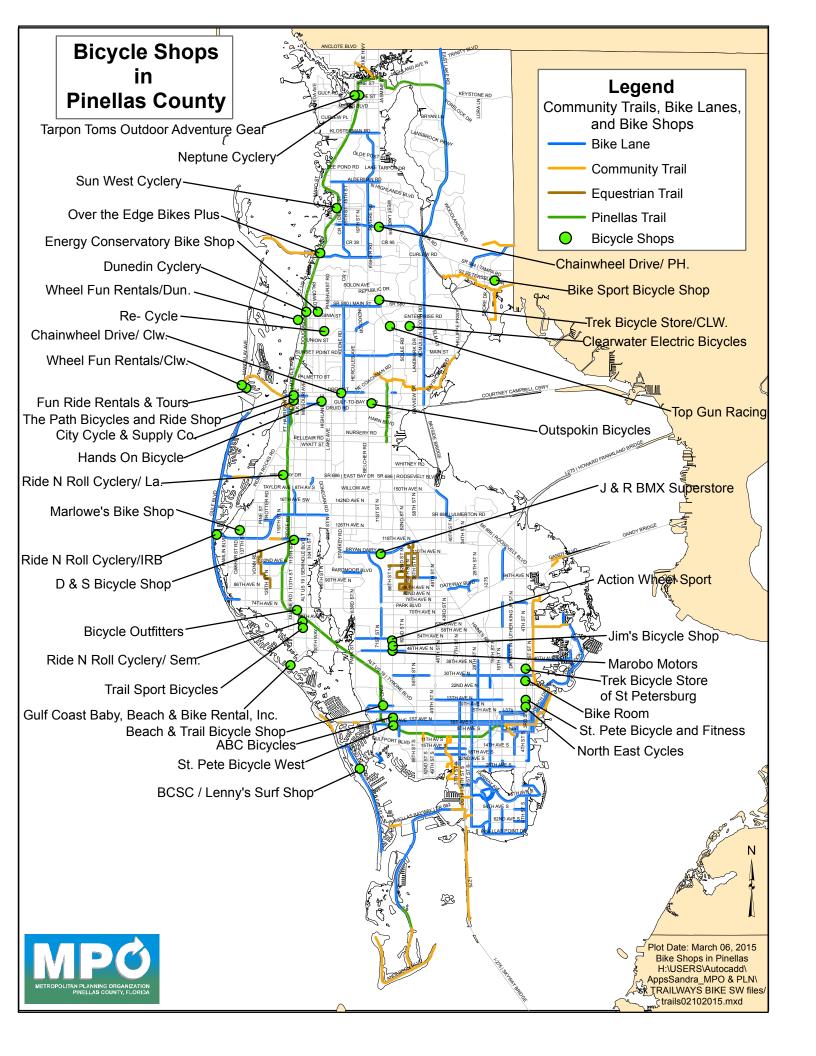
**WOULD FEEL MOST COMFORTABLE RIDING ON A MULTI-USE TRAIL** 



**FEEL THAT IT IS VERY IMPORTANT TO HAVE A SEAMLESS NETWORK OF** STATIONS THROUGHOUT **PINELLAS COUNTY** 

# SYSTEMS USED BY SURVEY RESPONDENTS





Sec. 27-290.7. - Transit shelters and bicycle share program stations.

A transit shelter and a bicycle share program station (with associated bicycle kiosk and bicycle rack) are typical improvements located on public right-of-way. At times there is insufficient space in the right-of-way to accommodate these facilities. When a municipal or other governmental agency acquires an easement on private property for the purpose of constructing one of these facilities, these improvements shall not be subject to minimum setback requirements. Placement of the facilities shall be subject to the provisions of section 27-283.5, visibility at intersections.

(Ord. No. 2014-40, § 3, 6-5-2014)

Sec. 22-136. - Bicycle kiosks within the rights-of-way; display of advertising.

- (a) The primary purpose of a bicycle kiosk is to provide the facilities to pay for the use of a bicycle, which is part of the bicycle share program, and will be physically integrated with a bicycle rack.
- (b) Bicycle kiosks are permitted in the rights-of-way of the City of Tampa, in accordance with applicable standards set forth in the City of Tampa Code of Ordinances and Florida Statutes. Such bicycle kiosks may contain advertising as provided for herein.
- (c) Bicycle kiosks containing advertising may be permitted within public right-of-way, lying adjacent to certain parcels of land that are located within specific designated areas, described as follows:
  - (1) Within designated areas set forth in (2) below, and adjacent to any parcel zoned for a multifamily residential, commercial, office, or industrial district, including a site plan district that allows such uses as principal uses of the land; and,
  - (2) Adjacent to lands described in (1) above, and located within the following designated areas:
    - The Central Business District, as described in Chapter 27, Article III, Division 2, Tampa Code of Ordinances;
    - b. The Ybor City Historic District, as described in Chapter 27, Article III, Division 2, Tampa Code of Ordinances:
    - c. The area commonly known as "Old Hyde Park Village," specifically within that segment of Swann Avenue between Rome Avenue and Oregon Avenue, and that segment of Dakota Avenue/Snow Avenue between Swann Avenue and Rome Avenue;
    - d. The area commonly known as "Davis Islands Village Center," specifically that segment of East Davis Boulevard between Barbados Avenue and Chesapeake Avenue.
- (d) No bicycle kiosk containing advertising shall be permitted adjacent to a parcel zoned for a single-family detached residential zoning district, including site plan districts that permit single-family detached residential use as the sole, principal use of the land.
- (e) Bicycle kiosks containing advertising shall only be constructed at bicycle share program stations, as approved by the transportation manager, with consultation of the zoning administrator as needed.
- (f) Bicycle kiosks containing advertising shall meet the following minimum design specifications:

Table 22.136a. Bicycle Kiosk Design Specifications								
Bicycle Kiosk Dimensions								
Description	Dimension							

Maximum height[1]:	9′								
Maximum depth:	2'								
Maximum width:	4′								
Bicycle Wall F	Panel and Advertising Standards								
Maximum wall panels on opposite side of each wall [2, 3]:	2								
Placement of advertising:	Only permitted on wall panel opposite of wall panel with non-advertising information								
Maximum advertising poster dimensions:	Area: 19 SF [4]								
Electronic message signs: Prohibited on Bicycle Kiosks									
Bicycle Kiosk	Advertising Lighting Standards								
Lighting of advertising within the bicycle kiosk:  Limited to back-lighting only [5]									
Bio	cycle Kiosk Materials								
	d to withstand vandalism and weathering, such as extruded m with anodized finish [6].								
	Note(s):								
[1] Refer to "height" as define	ed in Chapter 27 Zoning and Land Development.								
[2] A minimum of one (1) wall panel shall contain a display of transit information, a route map, and other information regarding the bicycle share program.									
	the wall panel opposite the wall panel that contains non-vertising information.								
[4] Advertising poster(s) shall not exceed	19 SF in area, or be greater than 5' in height and 4' in width.								

- [5] Shall comply with lighting standards set forth in section 27-289.12 for on-site signs.
  - [6] Alternative materials may be considered by the transportation manager.

(Ord. No. 2014-40, § 2, 6-5-14)

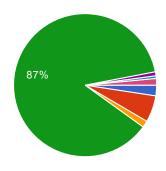
# 333 responses

View all responses

Publish analytics

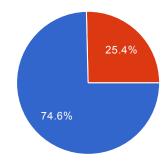
## **Summary**

## 1. What is your primary mode of transportation for trips within Pinellas County?



Walk	8	2.4%
Bike	20	6%
Transit	5	1.5%
Car/Truck	289	87%
Motorcycle	3	0.9%
Taxi	2	0.6%
Other	5	1.5%

#### 2. Do you currently have access to a working bicycle?

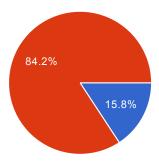


Yes **247** 74.6% No **84** 25.4%

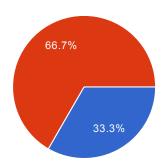
# 3. Have you ever rented a bicycle from a bike shop or other local vendor in Pinellas County?

Yes **52** 15.8%

No **278** 84.2%



#### 4. Have you had an opportunity to use an existing bike share system before?



Yes **110** 33.3% No **220** 66.7%

#### 5. If so, which system(s) have you used and where was it located?

NYC, Tampa, Duluth

Paris

Seville, Spain; Washington, DC; Boston, MA

Nice Ride - St. Paul, MN

Nashville, TN; Austin, TX; Ireland

USFSP's Bike Share Program

Work

I'm not sure the name of the program, but it was in Hollywood, FL. You paid a fee to unlock the bike. I don't remember how the program worked. I think it would be great for vacationers.

Washington, DC

Montreal, Canada

San Antonio, TX

Key West

Vélib Paris

D.C.

Tampa

Eckerd College. Cost tons of money, people stole, vandalized or broke bikes. Not what I would call a successful program.

Paris, Zurich, Copenhagen

**COAST** in Tampa

London

Bike Share, DC, Toronto, Coast Tampa

Ft Worth, Tx B-Cycle

Toronto

Tampa: Coast BikeShare, Denver, Portland

Divvi - Chicago

san francisco, ca

Washington

Amsterdam

Pittsburgh, PA

Paris France

USFSP, St. Petersburg, FL

Denver, CO

Paris, Vienna

washington dc

daily, Michigan, Ohio

**Eckerd College** 

Tampa, FL; Madison, WI; Washington, DC; London, UK

Montreal

Forget name, Amsterdam, Netherlands

Europe, downtown

**Boston** 

Wash DC, Montreal

Paris, New York

Pronto systems, Seattle, WA

Miami, Denver, Paris

Chicsgo, nyc, Hollywood fl

Barcelona, Spain

New York City

Washington, D.C.

Israel

New York & Boise

seattle

Divvy, Chicago

Chattanooga

Capitol Bike Share Washington, DC

Citi Bikes in NYC

Social Bicycles - Orlando

San Francisco & NYC

NYC, Tampa

NA

Coast Bike Share in Tampa

Capitol Bike Share in D.C. Took it from Union square and rode all around the National

Mall.

Tampa

Coast Bike Share Tampa

Indianapolis

Travelling, various cities

N/A

Miami beach

Madison, WI

Atlanta

DePauw University

NYC

Chicago, South Beach

Coast Bikes

ft lauderdale

South Beach

Chicago

NYC Bikeshare

Denver, CO and NYC

Deco Bike in Miami

new york

Vienna, Austria

Miami

Citibike NYC

Washington DC

London, Paris, Toronto

not sure, Washington, DC

Pittsburgh, New York, Tampa, Paris, London

Tampa Bikeshare

Austin B-cycle, Austin, TX

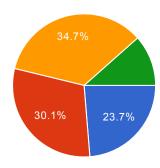
Yellow Bike Austin TX

Chattanooga, TN

Paris

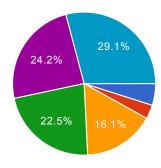
Tampa; Washington DC

#### 6. How likely would you be to use a bike-sharing program?



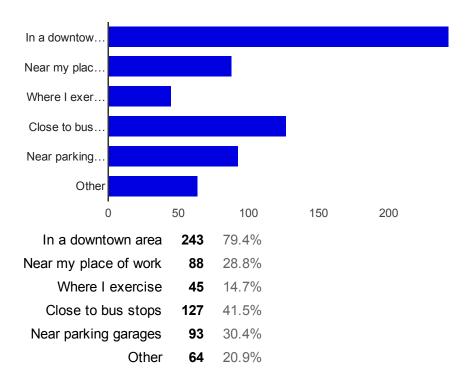
Very likely **78** 23.7% Likely **99** 30.1% Not likely **114** 34.7% Not sure/don't know **38** 11.6%

#### 7. How often would you ride a bike if there was a bike-sharing program?



Multiple times each day 4.9% 14 Once a day 9 3.2% 2-3 times per week 16.1% 46 Weekly 22.5% 64 Monthly 69 24.2% Quarterly 83 29.1%

#### 8. Where would you like to see bike-share stations located?

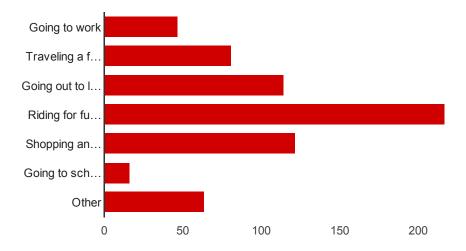


#### 9. How far would you walk to use a bike-share bicycle?

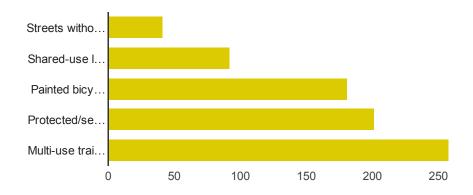


Outside my building (1-2 minutes) **58** 19.9% Across the street (3-5 minutes) **119** 40.9% A few blocks (5-10 minutes) **164** 56.4%

#### 10. What would you use the bike-sharing bicycle for?



## 11. Which of these bicycle facilities would you feel most comfortable riding bike-share on?



Streets without specific provisions for bicyclists

41 13.4%

Shared-use lanes designated by shared lane markings (also referred to as "sharrows")

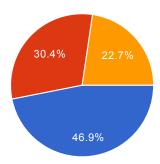
Painted bicycle lanes

Protected/separated on-street bicycle facilities (also referred to as "cycle tracks")

Multi-use trails such as the Pinellas Trail

258 84.6%

# 12. How important would it be for any potential program to provide a seamless network of bike-sharing stations throughout Pinellas County (i.e. St. Petersburg, Clearwater, Largo, Pinellas Park, etc.)?



Very important 151 46.9% Somewhat important 98 30.4% Not important 73 22.7%

#### 13. What areas do you think would support a successful bike-sharing program?

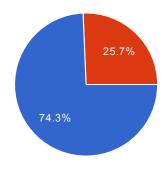


Downtown areas 267 85.3%

Beaches **234** 74.8%

Tourist districts 237 75.7%

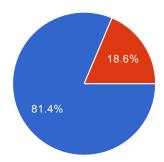
#### 14. What method would you prefer to rent a bike-share bicycle?



Per trip fee **220** 74.3%

Annual membership **76** 25.7%

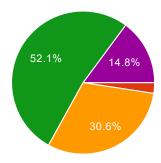
#### 15. Overall, do you think bike share is a good idea for Pinellas County?



Yes **262** 81.4%

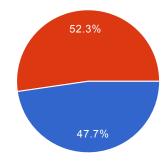
No **60** 18.6%

#### 16. What is your age?



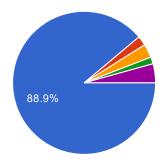
Under 18 years	0	0%
18 to 24 years	8	2.4%
25 to 44 years	101	30.6%
45 to 64 years	172	52.1%
65 years and over	49	14.8%

#### 17. What is your sex?



Male **156** 47.7% Female **171** 52.3%

#### 18. What is your ethnicity?



White or Caucasian	288	88.9%
Black or African American	7	2.2%
Hispanic or Latino	10	3.1%
Asian or Pacific Islander	5	1.5%
Other	14	4.3%

#### 19. How many people reside in your household?

1 plus cat

Two

1

2

3

4

5

6

One

two

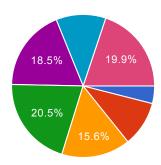
one

Only me

Two.

na

#### 20. What is your annual household income?



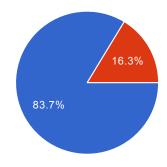
Less than \$20,000	12	4%
\$20,001 to \$40,000	31	10.3%
\$40,001 to \$60,000	47	15.6%
\$60,001 to \$80,000	62	20.5%
\$80,001 to \$100,000	56	18.5%
\$100,001 to \$120,000	34	11.3%
More than \$120,000	60	19.9%

#### 21. Please enter the 5-digit zip code for your home address

33776

33777

#### 22. Are you currently employed?



Yes **272** 83.7% No **53** 16.3%

#### 23. Are you currently enrolled in school?

7.1%

92 9%

23 302

Yes No

#### 24. Please let us know any other thoughts or ideas that you have for a bikeshare system in Pinellas County

We need safe bike lanes that connect St. Petersburg with the beaches - Pasadena just lost opportunity to connect trail to beach by re-striping narrow bike lanes when FDOT resurfaced road.

very

This survey was biased. It assumes that there is an interest in a bike share program and did not afford the respondent to indicate that they would not use a bike share program. Specifically questions 7 & 9 provided options that could only be identified as variations of approval.

if you charge no one will use.

Anti-theft, tracking devices on them.

Chery Stacks is my bikeshare hero:)

Work on better public Transit vs. Bike Sharing Programs

I like blue

Psyched! Let me know if I can help.

I am against the idea of bike share. The cost is usually passed on to local governments and bike thefts occur from the program. Not a good idea for the tax-payer, only the vendor benefits.

Do not begin with cheap rates hoping to attract, then keep regular users. Bikeshare is a valuable amenity and should be priced as such from the beginning. I believe bike stations along the Pinellas Trail in downtown areas and along trails like Safety Harbor's have potential. Beach routes to move from say Maderia to Clearwater Beach would work well too.

I'd start with downtown St Pete, as I think the beach areas would need a LOT of work to be safe and attractive for bikes.

Funding would be better spent on additional trail connections and sperate facillities

PLEASE don't use my tax dollars (local, state or federal) for this ridiculous nonsense!

It's important for it not to be credit card based for our area's poor. I volunteer at a family center and believe our clients would use it from time to time. Maybe you can buy a token at a station with either a credit card or cash?

Would need to accessible enough for people to access or would not get used. Downtown parking would benefit. People staying downtown would use for brewery tours, gallery / mural tours etc.

Tricycles! With gears!

Fabulous idea!

Used bikes, selling your old bike to the city to fix and use for the sharing, bikes at every bus station. Free for college students

Great idea

I could see a localized system for trips of 2-5 miles in areas like downtown St. Pete, downtown Clearwater, north / south beaches, Dunedin, north / south Pinellas Trail, Oldsmar, etc. and yet have all the systems under one umbrella to allow use and exploration for the whole county.

Very interested in Bike Share program for beach communities and several of the downtown areas.

Include Oldsmar

YES!!

Providing free bikes or reduced price bikes to low income residents to promote alternative ways of transportation and good health.

Many cities have a "30 minute free" ride incentive. The 30 minute ride - paid or not - is impractical. People need 1-2 hours, 4 hours or full day intervals. Tourist need gamf and full day. Commuters need 1-2 hours, but need to know that if they use a bike inbound to downtown, there needs to be an available outbound bike. Bikes stations should also be in neighborhoods; otherwise, we have to drive downtown, pay to park, and ride around which will deter use.

It should use the same system Tampa does so the whole region has one system.

Retired

Please do it, and don't half ass it.

More trails

Cost of rental would be a huge factor

Total waste of taxpayer money

You need to try and get business buy-in. The more businesses in the downtown and beach areas that can cater to bike traveling, the more likely high usage is.

I'd probably use it less than I'd like due to the infirmities of age, but I'm totally in favor of it.

Need more safe bikeways before this can be successful, It's dangerous on a bike around P County

Many other cities have implemented Bike Share programs with great results. It is time for us to do the same.

Try to service the employees and visitors on Clearwater Beach - employees can take bus and then finish trip to work, tourist can get around on Jolly Trolley, then use bikes to go to specific places at their decision.

I live in Tampa but could see myself using bike share as a local visitor to places like Downtown St. Pete, Dunedin, Clearwater, Pass-a-Grille, and Clearwater Beach.

Inclusion of Oldsmar with our 10-mile Trail; 5 hotels and more

Pinellas Park needs to provide bike lanes so more people can cycle. They are in the middle of the county and have the worst bike lanes

I think it would be great and would really help with our growth.

If there is a bike share program...locations to get bikes should be enough and spread around the area. I would not be willing to travel more than a mile to get to bike share location. I think long term this is a great opportunity to preserve our enviornment and lower the emissions of vehicles by driving less.

provide helmets

Bike shares are good in concentrated urban areas. No one is going to ride a bike from St. Pete to Clearwater. And who benefits from bike share? I see it more for tourists than locals. Let a commercial enterprise pay if there's going to be one.

I would like to see it be equally available throughout Pinellas - not focused on beaches and south county. Initiatives seem to forget the Palm Harbor/Oldsmar area.

Have ortho problems. Can't bike at all.

Bike share works. Install one bike-share station in the Grand Central District in St. Petersburg and one on Beach Drive in Downtown St. Pete and one at the corner of 1st ave SE and 1st Street SE in St. Pete (i.e. at the site of the Farmers Market and the terminus of the Pinellas Trail) and you will see these bikes being used. The sight of bike-share bikes becoming a regular part of the dynamic at downtown St. Pete will further enhance its image as an up and coming cultural center.

Need more bike infrastructer

Do it!

Usage should be free and underwritten by the developers who want to overpopulate our region.

When company comes to visit having an affordable bike for them would be most helpful. Thanks

Would work best on the beaches probably or Tarpon Springs, Safety Harbor and Dunedin Will bicycle helmets be required to ride these bikes?

I ride and am certified to train others to ridea 3 wheeled stand-up scooter with an electric assist motor made by Trikke. Greater personal fitness and transportation.

s

change this questionaire...you've structured the questions via many assumptions i.e. that'll it will be implemented but as a daily peddler I'd never use it

have stations at key nodes on Pinellas Trail.

Having a bike-sharing system for use from main bus arteries like U.S. 19 to the various St. Petersburg College campus locations seems like a great idea for our students!

I think this is a bad idea. We don't have ht urban population to support this and it will cost taxpayers money

Too dangerous on main roads to consider cummuting

Place in Dunedin

If you put them in the historic downtowns where a lot of people already ride, like Tarpon Springs, Dunedin, ans St.Pete, as well as the beaches, it should be a hit!

yay!! Definitely beaches and definitely downtown to edge. Great for a "brew tour" or a "beach bike bar crawl"...parking is so difficult on the beach and downtown...even if I drove to a bike share and then biked it would make a beach day/lunch easier!!

I am concerned that the bikes will be stolen. A good locking system will be required.

Would like to see a bike-share system near the Pinellas Trail and in downtown St Pete Although bike is my primary mode of transportation during the week (bike to work one mile), on the weekend it is a car to run errands, buy groceries, go to events in other cities. I would only feel comfortable riding on "Streets without specific provisions for bicyclists" if the speed limit was 25 mph, and it was only a two lane, two-way street. I only prefer an annual membership because I live here; I'm sure a per ride fee is much more logical for tourists.

Please make safer places to ride bikes. It is not a safe place to ride. I would ride to work by bike everyday if I thought I would arrive alive.

This would be a great asset for Pinellas County.

Bike Share Programs are money losers. It requires constant maintenance of bicycles, tracking and replacements. Would rather use the money to buy locks and lights and helmets for bike users and for education for motorists and bicyclists.

Bike share should be located at all major PSTA transfer facilities, as well as in each downtown district and selected beach access locations.

Our roads and our climate are dangerous. Climate change will make it worse. Who is responsible for the bikes and can the county or municipalities be sued if someone gets killed on one of the share bikes?

the survey should have a 'none of the above' choice. I doubt i would use the program since I have my own bike.

Senior discount

I ride my personal bicycle and would probably never utilize the bike-share system but I think it can be utilized by other citizens.

Should be demand in beach tourist areas.

It must be financial attractive for all income groups and all ages. Bicycle infrastructure is also important for everyone on a bicycle to feel safe riding. Separated bike lanes are

ideal.

I'd be more excited about a bike sharing program if we had a more robust transit system built around it. Bikes are good for short distance travel but getting to the locations that might have bikes requires a car (or a really lengthy bus ride). Fix that problem and bike sharing becomes a much more attractive prospect.

Probably best suited for tourist areas.

Question 8: put stations near Pinellas Trail. Question 10: I would rent for the day if my bike was being repaired.

pair with educational effort (drivers, bikers, law enforcement) about rules of the road. The focus of any bike sharing or bike promoting initiative must start with drastically slowing down the traffic on the streets of Pinellas County. Let's also look to coordinate lights and ticketing speeders. A bike sharing program will not be successful unless we can improve the safety of bicyclists.

do it!

The Bike-Share System could be another step closer to being eco-friendly and non-toxic.

Just Do It!

would work well in downtown St. Pete. do not recommend spread out locations throughout Pinellas

I'm retired and ride a bike, but the streets of St. pete just aren't safe enough to ride on. I own multiple bikess and ride on the trail, if there were separate bike lanes, I'd ride from my home to downtown - a 2 mile trip - Ridint east to coffee Pot and then to downtown is my usual ride, but the first 1 mile is scary, especially on 30th Ave,

coordination with other municipalities will be important as it would be great to have an integrated system that works anywhere in pinellas county. See DC for a great example of bike share - it goes in Virginia, Martyland and DC

pretty colored bicycles, please

high time!

Why not spend the money on libraries, improving roads, street drainage instead where the largest number of people would benefit from our tax dollars?!!!

I'm concerned that our county has one of the highest bike/auto accident rates in the country. I would ride in parks and other safe places. I think there should be adult trikes and tandem bikes too. Anything that will reduce auto traffic is a great idea! Good luck with your efforts.

Need to consider competition with existing local bike rentals including bike shops.

Don't undercut a new program by placing stations where they won't be used. Similarly, ensure pricing is consistent with the intent of the program (ie as transportation for students, blue-collar workers, it shouldn't be too expensive. If targeted to tourists, pricing may be different).

along pinellas trail, keystone rd trail, etc

Downtown Dunedin would be a great hub.

Great idea!

This is a stupid idea. It rains too often. Everything is too spread out to ride. It is too hot to ride anywhere where there are other because you will covered in sweat. Also, too dangerous to ride off a path, everyone is too busy looking at the phone. I know I ride recreationally 3 times a week.

Worth gathering information on it. Probably would be used mostly by tourists so a nice thing to offer them.

How to prevent thelf/damage

Might be good for some people

Finish the Pinellas Trail

Downtown St Pete and beaches

great idea, learn from others then do it

question 7 needs to allow you to enter "never" or at least give you a blank to enter a diff answer; also on q. 15 my answer depends on how teh program was structured and what it costs to operate.

I would love to see a bike share program in Pinellas, I hate driving and always walked/biked to work before moving to Pinellas County. But a tremendous effort is needed to improve bike and pedestrian facilities and driver education before encouraging more bicycle transportation. Existing bike lanes are used by vehicular traffic as texting buffers, turn lanes, etc., I will only bike on trail and sidewalks.

Spend the money working on a good north-south bike lane

Excellent idea, highly recommend

I would not use it

Please bring in a bike share program. Look into the one in NYC. It's great and they have bike racks everywhere! The average trip within downtown is less than 20 minutes and it would be perfect!

I am a commuter so this is coming from an average of 7k miles per year. Before you invest in a bike share, you MUST invest in Driver and Rider Education. Every road is available to bicyclists, but until drivers know that is the case, you will only increase accidents. Education is the cheapest most effective way to clear the path for the bike share.

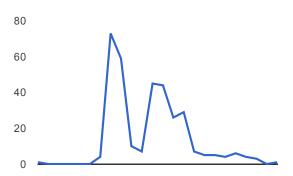
Bike-share system is a good idea as long as it is SAFE and NOT expensive to implement and use.

This is a waste of taxpayer money. The survey asks "how often would you ride a bike if there was a bike share program" There was no "never" option in the list of choices. I picked Quarterly, but I meant never. Stop wasting other peoples money. If you want something, you pay to implement it and stop stealing money from hardworking people.

Please be sure to look at female style models (without the center crossbar).

I love the idea of bike-share, but being 16 miles from work is not conducive to biking to work.

## Number of daily responses





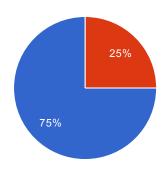
# 4 responses

View all responses

Publish analytics

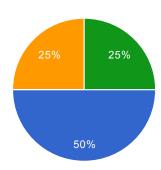
## **Summary**

1. Do you provide bicycle rentals for your customers?



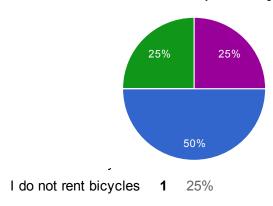
Yes **3** 75% No **1** 25%

2. What percentage of your annual business revenues are generated from bicycle rentals?



1%-5% **2** 50% 6%-10% **0** 0% Over 10% **1** 25% I do not rent bicycles **1** 25%

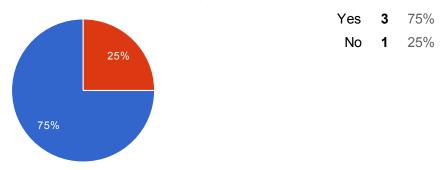
3. How many bicycles do you rent in an average month?



# 4. Would you object to a publicly or privately-funded bicycle sharing program in Pinellas County?



# 5. If a bicycle sharing program is established in Pinellas County, would you be interested in participating by providing bicycle maintenance, system rebalancing and/or other services for the system?

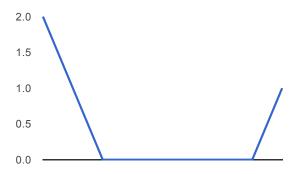


# 6. Please let us know any other thoughts or opinions you have on the potential business impacts of bicycle sharing and/or ways local bike shops can be part of a bicycle sharing program.

Little impact on us. In general, more people on bikes is good for all riders and shops. From what I've read about 'bike sharing' programs, they have more draw backs than benefits. After 6 months to a year, most reports are positive and everybody is happy, especially the providers. After that, things seem to fall apart. After having my own rental fleet for 35 years, it's clear to me, people don't take care of rental bikes like it was their own. Consequently the bike is left unlocked, stolen and abused. One report said many

were found in lakes and canals. The bikes need constant care from a safety and liability standpoint. If someone falls and breaks their neck, and you can't show, the bike was serviced by an established bike shop technician, you open the city up to a lawsuit. The person that rented the bike first may have damaged it and unbeknownst to the next rider, it may have become a safety hazard, and they could be hurt. If it's their own bike, the mechanical history is known and true fault can be determined. Though it may bring more bicycle awareness more to the forefront, and would be to my stores benefit, it still seems to risky to me. I don't like the cluttered look it gives to a city. The 'stations' where the bikes are kept are an eyesore and get worse with neglect and time.

#### Number of daily responses



# Pinellas County is exploring bike share options and wants your feedback

#### Tony Marrero, Times Staff Writer

The city of Tampa's has rolled past the 100,000-mile mark. St. Petersburg's will be up and running soon. Now Pinellas County officials want to get in on the bike share action.

The county's **Metropolitan Planning Organization** is studying the idea of bringing bike share to Pinellas and is seeking input from residents and officials in the county's cities. (To fill out a survey yourself, go here Deadline is Nov. 13.) The goal is to have a report to the MPO board by early next year that would outline some options to make it happen, said Rodney Chatman, the MPO's planning manager.

"We see our report as laying the foundation and if local governments are interested, then we'd lay out a road map to get them to establish their own programs," Chatman said. Or, he said, it could be a seamless countywide program.

The MPO had created a subcommittee of its Bicycle Pedestrian Advisory Committee to tackle the task and is currently working on GIS analyses to map out areas where bike share could work. Think dense population centers with good grid networks, such as downtown areas and college campuses, Chatman said.

Some examples include downtown Clearwater, Safety Harbor, Dunedin and Oldsmar, as well as the gulf beach cities. Another likely location: the 47-mile Pinellas Trail.

Bike share programs are exploding throughout the country and in several cities in Florida, and Chatman pointed south for a potential model for Pinellas. Broward County's B-Cycle launched in 2011 -- reportedly the first countywide bike share program in the country -- and now offers 275 bicycles at 22 stations in 6 cities, according to its website.

County Commissioner and MPO board member **Karen Seel**asked MPO staff earlier this year to look into a program for Pinellas. "I've used bike share across the U.S. and I just find it to be a really great tourism attraction and a fun way to get around," she said.

Seel said the effort should consider -- and perhaps work in conjunction with -- private vendors that already offer bike rentals throughout the county.

"Maybe we talk to companies and see if there are gaps and put together a coalition to publicize what we have and fill in those gaps," Seel said.

Members of Tampa's Coast Bicycle program logged nearly 106,000 miles in its first 10 months. St. Petersburg is expected to pick a winning bid from among two companies this week. The city has vowed to make sure its program is accessible to poorer residents.

[Last modified: Tuesday, November 3, 2015 3:52pm]

# Bicycle and Pedestrian Funding Opportunities US Department of Transportation, Federal Transit, and Federal Highway Funds

Revised October 1, 2015

This table indicates potential eligibility for pedestrian and bicycle projects under Federal Transit and Federal Highway programs. Specific program requirements must be met, and eligibility must be determined, on a case-by-case basis. For example: transit funds must provide access to transit; CMAQ must benefit air quality; HSIP projects must be consistent with the State Strategic Highway Safety Plan and address a highway safety problem; NHPP must benefit National Highway System (NHS) corridors; RTP must benefit trails; the Federal Lands and Tribal Transportation Programs (FLTTP) must provide access to or within Federal or tribal lands. See more information about Bikes and Transit and Eligibility of Pedestrian and Bicycle Improvements under Federal Transit Law.

	Bicycle and Pedestrian Funding Opportunities												
	US D	eparti	ment	of Trans								ay F	unds
Activity	TIGER see note below	FTA	ATI	CMAQ see note below	<b>HSIP</b>	NHPP NHS	STP	TAP TE	RTP	SRTS until expended	PLAN see note below	<u>402</u>	FLTTP
Access enhancements to public transportation (includes benches, bus pads)	\$	\$	\$	\$			\$	\$					\$
ADA/504 Self Evaluation / Transition Plan	\$plan						\$	\$	\$		\$		\$
Bicycle and/or pedestrian plans	\$plan	\$					\$	\$			\$		\$
Bicycle lanes on road	\$	\$	\$	\$	\$	\$	\$	\$		\$			\$
Bicycle parking	\$*	\$	\$	\$		\$	\$	\$	\$	\$			\$
Bike racks on transit	\$	\$	\$	\$			\$	\$					\$
Bicycle share (capital and equipment; not operations)	\$	\$	\$	\$		\$	\$	\$					\$
Bicycle storage or service centers	\$*	\$	\$	\$			\$	\$					\$
Bridges / overcrossings for bicyclists and/or pedestrians	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$			\$
Bus shelters and benches	\$	\$	\$	\$			\$	\$					\$
Coordinator positions (State or local)				\$ Limit 1 per State			\$	\$ as SRTS		\$			
Crosswalks (new or retrofit)	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$			\$
Curb cuts and ramps	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$			\$
Counting equipment	\$plan	\$	\$		\$	\$	\$	\$	\$	\$	\$*		\$
Data collection and monitoring for bicyclists and/or pedestrians	\$plan	\$	\$		\$	\$	\$	\$	\$	\$	\$*		\$
Helmet promotion (for bicyclists)							\$	\$ as SRTS		\$		\$	
Historic preservation (bicycle and pedestrian and transit facilities)	\$	\$	\$				\$	\$					\$
Landscaping, streetscaping (bicycle and/or pedestrian route; transit access); related amenities (benches, water fountains)	\$*	\$	\$				\$	\$					\$

	Bicycle and Pedestrian Funding Opportunities												
	US Department of Transportation, Federal Transit, and Federal Highway Funds												unds
Activity	TIGER see note below	<u>FTA</u>	ATI	cMAQ see note below	<b>HSIP</b>	NHPP NHS	<u>STP</u>	TAP TE	RTP	SRTS until expended	PLAN see note below	<u>402</u>	<u>FLTTP</u>
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	\$	\$	\$		\$	\$	\$	\$	\$	\$			\$
Maps (for bicyclists and/or pedestrians)		\$	\$	\$			\$	\$		\$	\$*		
Paved shoulders for bicyclist and/or pedestrian use	\$			\$*	\$	\$	\$	\$		\$			\$
Police patrols							\$ as SRTS	\$ as SRTS		\$		\$	
Recreational trails	\$*						\$	\$	\$				\$
Safety brochures, books							\$ as SRTS	\$ as SRTS		\$	\$*	\$	
Safety education positions							\$ as SRTS	\$ as SRTS		\$		\$	
Separated bicycle lanes*	\$	\$	\$	\$	\$	\$	\$	\$		\$			\$
Shared use paths / transportation trails	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$			\$
Sidewalks (new or retrofit)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$
Signs / signals / signal improvements	\$	\$	\$	\$	\$	\$	\$	\$		\$			\$
Signed bicycle or pedestrian routes	\$	\$	\$	\$		\$	\$	\$		\$			\$
Spot improvement programs	\$	\$			\$		\$	\$	\$	\$			\$
Stormwater impacts related to pedestrian and bicycle projects	\$	\$	\$		\$	\$	\$	\$	\$	\$			\$
Traffic calming	\$	\$			\$	\$	\$	\$		\$			\$
Trail bridges	\$			\$*	\$	\$	\$	\$	\$	\$			\$
Trail/highway intersections	\$			\$*	\$	\$	\$	\$	\$	\$			\$
Training				\$			\$	\$	\$	\$	\$*	\$	
Tunnels / undercrossings for bicyclists and/or pedestrians	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$			\$

#### **KEY: \$:** Funds may be used for this activity.

ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973

TIGER: Transportation Investment Generating Economic Recovery Discretionary Grant program

FTA: Federal Transit Administration Capital Funds

ATI: Associated Transit Improvement (1% set-aside of FTA)

CMAQ: Congestion Mitigation and Air Quality Improvement Program

HSIP: Highway Safety Improvement Program

NHPP/NHS: National Highway Performance Program/National Highway System

**STP**: Surface Transportation Program

TAP/TE: Transportation Alternatives Program / Transportation Enhancement Activities

RTP: Recreational Trails Program

SRTS: Safe Routes to School Program

PLAN: Statewide or Metropolitan Planning

402: State and Community Highway Safety Grant Program

FLTTP: Federal Lands and Tribal Transportation Programs (Federal Lands Access Program, Federal

Lands Transportation Program, Tribal Transportation Program)

<sup>\*</sup> TIGER: Subject to annual appropriations. \$plan = Eligible for TIGER planning funds. \$\* = Eligible, but not competitive unless part of a larger project.

<sup>\*</sup> CMAQ: See the CMAQ guidance at <a href="www.fhwa.dot.gov/environment/air\_quality/cmaq/">www.fhwa.dot.gov/environment/air\_quality/cmaq/</a> for a list of projects that may be eligible for CMAQ funds. Several activities may be eligible for CMAQ funds as part of a bicycle and pedestrian-related project, but not as a highway project. CMAQ funds may be used for shared use paths, but may not be used for trails that are primarily for recreational use.

<sup>\*</sup> STP and TAP: Activities marked "as SRTS" means the activity is eligible only as an SRTS project benefiting schools for kindergarten through 8th grade.

<sup>\*</sup> Planning funds must be for planning purposes: Maps: System maps and GIS; Safety brochures, books: As transportation safety planning; Training: bicycle and pedestrian system planning training.

<sup>\*</sup> Separated Bicycle Lanes, also known as protected bike lanes or cycle tracks.