

# Philadelphia Bike Share Strategic Business Plan

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## EXECUTIVE SUMMARY

### Executive Summary

Bike sharing is an innovative transportation program, whereby system subscribers have access to bicycles through self-service kiosk locations around the community. Bike share is ideal for short distance point-to-point trips providing subscribers access to bicycles at any self-serve bike station to use and return to any bike station within the system's service area. Typically, people can sign up for an annual or monthly registered membership online, or can become a short-term or "casual" member by swiping their credit card at an on-street kiosk.

Bike share stations are generally spaced in a dense grid pattern to create convenient origins and destinations for riders. Bike share is oriented to short-term, point-to-point use: most US operators record the average ride at 15 to 20 minutes and between one to three miles long. The bicycle can be returned to any number of self-serve bike sharing stations, including the original check out location. Generally, the bicycles are one style and easy to operate with simple components and adjustable seats. The rental transaction is fully automated and there is no need for on-site staff.

#### *Background*

Based on the findings of a 2009 bike share feasibility study, the City of Philadelphia has worked to build support and funding for a bike sharing system. The Bike Share Working Group was formed to evaluate business models and develop a feasible business plan. The Working Group includes the City of Philadelphia Mayor's Office of Transportation and Utilities (MOTU), Bicycle Coalition of Greater Philadelphia (BCGP), Delaware Valley Regional Planning Commission (DVRPC) and the Pennsylvania Environmental Council (PEC).

This business plan, funded through a grant from the William Penn Foundation, was commissioned with the following goals in mind:

- i. Create a recommendation on the optimal management structure and agency oversight for bike share in Philadelphia.
- ii. Provide strategies for approaching potential sponsors to help fund the system.
- iii. Produce a business plan that includes the following elements:
  - a. Business pro-forma complete with revenue, costs, staffing recommendations and structure recommendations
  - b. Detailed schedule for implementing the business plan recommendations
  - c. Five and ten year cost estimates for operating and capital expenditures

For many parts of the analysis performed in this report, the experiences of the following cities with bike share systems were used: Washington DC, Boston and Minneapolis.

### Goals and Objectives

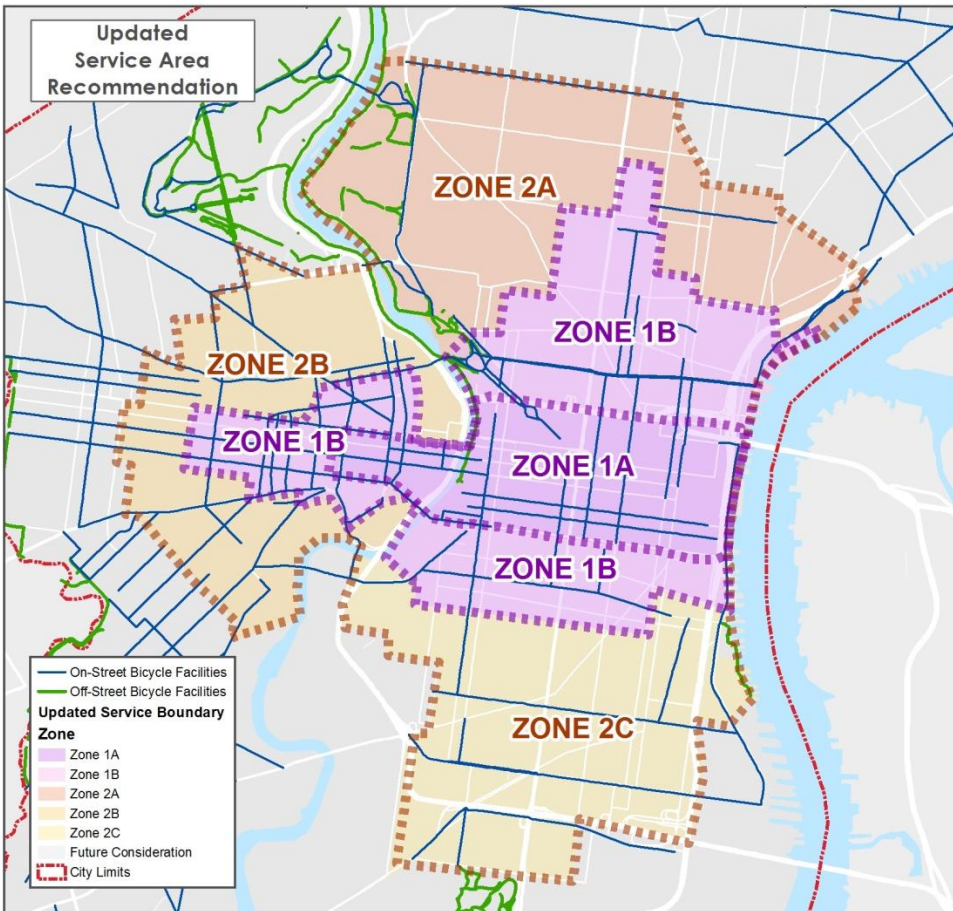
The following goals and objectives were established by the Working Group for the Philadelphia Bike Share system.

THEME	GOALS & OBJECTIVES
Personal Mobility	<p><b>Increase personal mobility in Philadelphia, providing people with better access to destinations throughout the City.</b></p> <ol style="list-style-type: none"><li>1. Maximize the number of destinations one can reach, providing enhanced connectivity to places that otherwise would be difficult to access.</li><li>2. Integrate bike share as an extension of Philadelphia’s public transit network.</li><li>3. Ensure that bike share is cost competitive for users as compared to other modes.</li></ol>
Livability & Economic Competitiveness	<p><b>Develop an innovative transportation system that improves Philadelphia’s livability and economic competitiveness.</b></p> <ol style="list-style-type: none"><li>1. Attract and retain talent for the City’s employers and raise the attractiveness of Philadelphia for business investment and tourism.</li><li>2. Reduce the environmental impact of transportation and help Philadelphia achieve its goal of being the “greenest city in America.”</li><li>3. Develop a system that serves users in minority and low-income communities and improves their access to key destinations, such as jobs and recreation.</li></ol>
Health & Safety	<p><b>Provide Philadelphians a safe mode of transportation that promotes active and healthy living.</b></p> <ol style="list-style-type: none"><li>1. Foster an active lifestyle by diverting a greater share of trips to bicycling.</li><li>2. Support other City health objectives such as improved access to fresh foods and access to green space.</li><li>3. Promote a culture of safety among bike share system users.</li></ol>
Finances & Transparency	<p><b>Create a system that is financially sustainable, transparently operated, and accountable to the public.</b></p> <ol style="list-style-type: none"><li>1. Cover all operating expenses without assistance from the City by utilizing a wide range of private, state and federal funding sources.</li><li>2. Plan for and ensure sustainable capital funding for system growth and ongoing equipment replacement.</li><li>3. Clearly communicate program performance and effectiveness to stakeholders and the public.</li></ol>

Performance measures were established based on these goals and objectives and are included in the full report.

### *Service Area*

The service area recommendations reflect a refinement of the boundaries first provided in the 2009 *Philadelphia Bikeshare Concept Study*. The service area has been broken into two phases and five zones as shown in the map below. The targeted average station density recommended is 13.3 stations per square mile in Zone 1 and 5.27 stations per square mile in Zone 2.



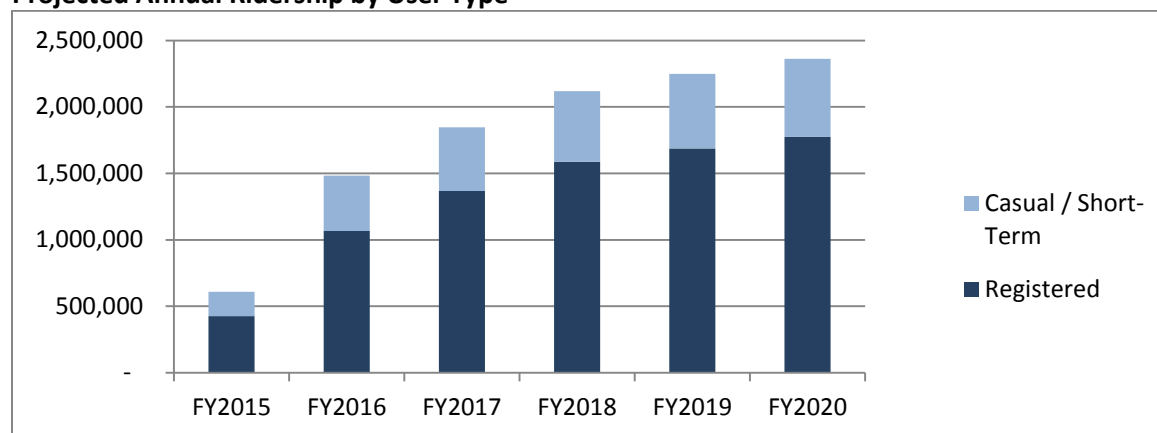
### *Recommended Business Model*

Taking into account several factors detailed in the report, the recommended business model calls for the City to identify the appropriate existing non-profit or authority to own the system and manage a contract with a private contractor for operating the system. This model maximizes funding flexibility, speed of implementation and regional expansion, while allowing City control over important aspects such as site planning and access in diverse communities.

### *Anticipated Ridership*

Ridership was estimated by phase based on existing trip rates per bike in peer North American cities. Over the first six years of operations, annual ridership is projected to grow from around 500,000 trips to nearly 2.5 million trips.

### Projected Annual Ridership by User Type



\*The City's fiscal year calendar runs July 1 through June 30<sup>th</sup>. For example FY2014 is July 1, 2013 to June 30, 2014.

### Financial Plan

The Philadelphia bike share system is planned to roll out across two phases and five deployments:

- Phase 1A: 50 stations; 550 bicycles in FY2015 (Summer 2014)
- Phase 1B: 60 stations; 600 Bicycles in FY2015 (Spring 2015)
- Phase 2A: 30 stations; 275 Bicycles in FY2016 (Fall 2015)
- Phase 2B: 25 stations; 225 Bicycles in FY2017 (Summer/Fall 2016)
- Phase 2C: 20 stations; 150 Bicycles in FY2018 (Summer/Fall 2017)

The deployment will require the purchase of stations, bicycles (at a rate of one bicycle per every two docks), and parts. Beyond purchasing costs, every new station will require site planning, permitting and installation.

The financial plan was developed to include system revenue as well as all costs: capital costs, operating costs, administrative costs, and State of Good Repair (SGR) maintenance estimates, to ensure upkeep of the system capital and long-term preparation for recapitalization of the system when the useful life of the system comes up.

Following are the estimate fundraising needs for the system, for both capital and ongoing operations, *excluding* the \$3 million committed by the City:

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Cost of New Capital	\$0	\$5,667,000	\$1,864,000	\$1,599,000	\$1,202,000	\$0	\$10,332,000
Operating	\$0	\$0	\$298,000	\$0	\$0	\$0	\$298,000
Maintenance	\$0	\$69,000	\$211,000	\$257,000	\$294,000	\$340,000	\$1,171,000
<b>Total Need</b>	<b>\$0</b>	<b>\$5,736,000</b>	<b>\$2,373,000</b>	<b>\$1,856,000</b>	<b>\$1,496,000</b>	<b>\$340,000</b>	<b>\$11,801,000</b>
<i>Including Future SGR</i>	\$0	\$6,454,000	\$3,251,000	\$2,883,000	\$2,641,000	\$1,440,000	\$16,669,000

### *Sponsorship Analysis*

A comparative valuation of sponsorship deals was undertaken as part of the business plan. It is recommended that the City should pursue several types of sponsors, including:

- Corporate Title Sponsor
- Non-Title System Sponsor
- Secondary Sponsor
- Station Capital Sponsor
- Station Operating Sponsor
- Bicycle Sponsor
- On-Station Advertising
- Corporate Memberships
- Non-Financial Sponsor

The City should recognize that typical sponsorships are multi-year deals, and some financing solution must be established to use such a sponsorship for front-loaded capital purchases.

### *Contract and Revenue Structure Development*

The City should carefully consider the contract and revenue structure to ensure that each aligns the operator's incentives with the goals of the system. Such considerations include an alternate pricing structure to the user, as well as payment structure to the contractor that yields higher contractor payments for higher ridership.

### *Marketing and Social Equity*

The business plan outlines various marketing strategies for the pre-launch and post-launch periods, including the development of promotional partnerships, collaboration with a title sponsor and direct marketing to individuals and businesses. Outreach to low-income and minority communities is especially critical, and will depend on garnering local support with community champions and key organizations. Finding the right partners is also crucial to help low-income users overcome barriers to use, such as the requirement of having a credit or debit card.

One objective of the Philadelphia Bike Share System is to become a leader among US bike sharing systems in garnering participation among low-income and minority users. To help accomplish this objective, the business plan earmarks significant funding to go toward marketing and community outreach to these communities.

## CHAPTER 1: INTRODUCTION

### State of Cycling in Philadelphia

#### **Cycling Trends**

Bicycling is the fastest growing mode of transportation in Philadelphia. According to the American Community Survey, the citywide bicycle commuting mode share for 2011 was 1.8%. Bicycle commuting increased 210% from 1990 to 2011, and this dramatic increase is confirmed by bicycle counts taken over the years by the Bicycle Coalition of Greater Philadelphia (BCGP). Additionally, in 2013, Philadelphia was upgraded to a Silver level Bicycle-Friendly Community (Bronze status awarded in 2009) by the League of American Bicyclists. Furthermore, Philadelphia was ranked 14th safest for bicycle safety by the 2012 Bicycling and Walking Benchmarking Report<sup>1</sup>, using an index that compares bicycle crash rates to bicycle commuting.

#### **Existing and Proposed Cycling Infrastructure**

Today, there are more than 400 miles of existing bike lanes throughout the City. The new bike lanes, together with the expansion of the Schuylkill River Trail, have helped to support a significant growth of bicycling in recent years. As a leader in addressing non-motorized transportation needs, the City is well positioned to make further strides in the coming years, and bike sharing represents a value added to the equation in promoting bicycling as a viable transportation mode throughout the City.

Philadelphia developed its first Bicycle Network Plan in 2000. Since the adoption of that plan, the City has begun to implement other on-road bicycle facilities, such as contra-flow lanes and marked shared lanes. In most cases, the bike lanes that have been added were included within the existing roadway by narrowing travel lanes, or using excess pavement. During this time, the city has also focused on improving the connectivity of the network by filling in the gaps, particularly in the parts of the city where growth in ridership has been strongest.

The City's 2012 Pedestrian and Bicycle Plan recommended a network of on-road and off-road facilities designed and designated for travel by bicycle. The recommended facilities include an additional 112 miles of bike lanes, 12 miles of climbing lanes, 200 miles of marked shared lanes among others.

#### **What is Bike Share?**

Bike sharing is an innovative transportation program, whereby system subscribers have access to bicycles through self-service kiosk locations around the community. The system is accessed through low-cost subscriptions ranging from a few dollars for one-day memberships to annual memberships that cost \$50 to \$100, generally less than a bicycle tune-up.

Bike share is ideal for short distance point-to-point trips providing subscribers access to bicycles at any self-serve bike station to use and return to any bike station within the system's service area. Most existing systems allow subscribers to make as many trips as often as they like without additional charge provided they return the bicycles to a system station within 30 to 60 minutes. Operators generally begin to charge gradually increasing fees after this free period to discourage users from holding onto the bicycles when they are not being used, encouraging turnover and ensuring that bicycles are readily available for other system subscribers. In cities across the US, bike sharing systems have proven very

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<sup>1</sup> Bicycling and Walking in the U.S.: 2012 Benchmarking Report Alliance for Bicycling and Walking



popular and successful by giving residents and visitors alike a fast, affordable, easy to use transportation option that can make getting around town fun.

### ***Characteristics of a Bike Share Program***

Bike share stations are generally spaced in a dense grid pattern to create convenient origins and destinations for riders. Bike share is oriented to short-term, point-to-point use: most US operators record the average ride at 15 to 20 minutes and between one to three miles long.<sup>2</sup> The bicycle can be returned to any number of self-serve bike sharing stations, including the original check out location. Generally, the bicycles are one style and easy to operate with simple components and adjustable seats. The rental transaction is fully automated and there is no need for on-site staff.

### ***Bike Sharing and Transportation***

Bike sharing is a relatively inexpensive and quick way to increase transportation access throughout a jurisdiction, compared to other transportation modes. Jurisdictions with existing programs have benefited from the flexibility of bicycle sharing programs as they can be installed and open for business in months rather than years.<sup>3</sup>

Bike sharing can reduce the personal cost of urban transportation by offering an affordable public transportation option.<sup>4</sup> With this regard, most current bike sharing pricing schemes offer the first 30-to-60 minutes of every ride for free, which encourages high turnover of the bikes and increases the probability that stations will have sufficient bicycles available to meet market demand.

Bike sharing provides an additional mobility option for short urban trips for residents and visitors. As expressed before, bike sharing programs have the potential to fill existing gaps between trips that are too far to walk and have lower transit connectivity than others. Additionally, bike sharing has been seen to:

- Introduce/reintroduce people to bicycling;
- Reduce reliance on the private automobile;
- Extend the reach of transit by providing a first- and last-mile transportation solution;
- Increase transit usage;
- Increase economic activity around bike share stations<sup>5</sup>; and
- Encourage and promote bicycling as a viable transportation mode.

## **Background of this Business Plan**

### ***Formation of Bike Share Working Group***

Since the 2009 study, the City has been garnering support and funding for the bike share system and formed the Bike Share Steering Committee as well as an additional Advisory Group to undertake this updated business plan. The Bike Share Steering Committee consisted of representatives from the City of Philadelphia Mayor's Office of Transportation and Utilities (MOTU), Bicycle Coalition of Greater Philadelphia (BCGP), DVRPC, and PEC. The Bike Sharing Advisory Group consisted of representatives

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<sup>2</sup> Bike Sharing in the United States: State of the Practice and Guide to Implementation. Federal Highway Administration - United States Department of Transportation. September 2012.

<sup>3</sup> Ibid

<sup>4</sup> Capital Bikeshare commuters share why they ride — and its drawbacks. [http://www.washingtonpost.com/local/capital-bike-share-commuters-share-why-they-ride--and-its-drawbacks/2012/01/26/gIQAQzdGjQ\\_story.html](http://www.washingtonpost.com/local/capital-bike-share-commuters-share-why-they-ride--and-its-drawbacks/2012/01/26/gIQAQzdGjQ_story.html). Washington Post online. Retrieved February 9 2012.

<sup>5</sup> Schoner, Jessica E.; Harrison, Andrew; Wang, Xize; Lindsey, Greg. Sharing to Grow: Economic Activity Associated with Nice Ride Bike Share Stations

from large potential stakeholder organizations including, Liberty Properties Trust, Comcast, Independence Blue Cross, Glaxo Smith Klein and the University of Pennsylvania.

After a review and analysis of the methodology used for the 2009 Study, the Bike Share Working Group found that the processes used to determine feasibility (i.e. heat map analysis, population analysis, review of existing conditions, etc.) were sound and that the methods utilized are the same as the ones being used in current feasibility studies. However, due to the lack of available US data on bike sharing programs back in 2009 (most modern programs are less than 3 years old), the study based some assumptions on equipment costs, projected revenues and expected ridership that were out of date.

### **Goals of this Business Plan**

This business plan was therefore commissioned with the following goals in mind:

- i. Create a recommendation on the optimal form of bike sharing management structure and agency
- ii. Provide strategies for approaching potential sponsors developed in collaboration with PEC, the Bicycle Coalition, and City of Philadelphia.
- iii. Produce a business plan including the following elements:
  - a. Business pro-forma complete with revenue, costs staffing recommendations and structure recommendations
  - b. Detailed schedule for implementing business plan
  - c. Five and ten year cost estimates for operating and capital expenditures

Based on these goals a scope of work was developed that includes a careful review and update of assumptions which are noted in Chapter 3 of this report. The development of this business plan included consideration of business models from bike share systems across the country. The plan research included a thorough investigation of all potential revenue sources including grants, local subsidy, user revenues, advertising, site and system sponsorship and other potential sources of revenue. Additionally, the planning process included an assessment of the strengths, weaknesses and opportunities presented by housing the bike share management entity within a governmental agency or within a separate nonprofit through examination of other systems around the country and the globe.

### **Major Peer Systems – Program Profiles**

Most of the major North American Systems started around 2010. Many of these systems began with the idea of offering an additional modal option for users in their corresponding jurisdiction. Five peer systems were identified from among the active systems based on similarities in both geographic size and program scale. The peer systems selected to profile for the updated system recommendations were the following:

- Capital Bikeshare - Washington, DC and Arlington, VA (1,600 bikes/191 stations)
- NiceRide Minnesota – Minneapolis, MN (1,300 bikes/145 stations)
- Deco Bikes – Miami Beach, FL (1,000 bikes/92 stations)
- Hubway – Boston, MA (1,000 bikes/105 stations)
- B-cycle – Denver, CO (530 bikes/53 stations)

The following is a matrix profiling a few comparable jurisdictions with existing programs:

**Table 1.1 – Program Profiles of Major Peer Bike Sharing Systems**

		Program Profile of Major Peer Bike Share Systems				
		DC/Arlington	Minneapolis	Miami Beach	Boston	Denver
General Information	System Name	Capital Bikeshare	Nice Ride	Deco Bike	Hubway	Denver B-Cycle
	Web Address	capitalbikeshare.com	niceridemn.org	decobike.com	thehubway.com	denver.bcycle.com
	Start Date	September 2010	June 2010	March 2011	July 2011	April 2010
Bikes and Stations	Number of Bikes	1600	1300	1,000	1,000	530
	Number of Stations	191	145	92	105	53
	Bikes per station	8.38	8.97	10.87	9.52	10.00
Area & Density	Service Area (Sq. Mi.)	42.3	34.3	6.3	21.91	12.57
	Station Density	4.52	4.23	14.60	4.79	4.22
Core Area & Density	Core Operating Area (Sq. Mi.)	4.06	2.55	2.43	2.30	8.85
	Core Operating Stations	32	25	64	17	42
	Core Station Density	7.89	9.82	26.31	7.40	4.74
2012 Ridership	Annual Subscriber Trips	1,534,916	170,197	2,500	349,690	131,176
	Annual Casual Trips	353,291	103,850	1,001,200	159,671	75,798
	Total Annual Trips	1,888,207	274,047	1,003,700	509,361	206,974
2012 Ridership Stats	Annual Trips per Bike	1,180	211	1,004	649	391
	Average Trips per Day	5,173	1,263	2,750	2,122	745
	Average Trips per Bike per Day	3.23	0.97	2.75	2.12	1.40
	Average Trips per Station per Day	27.08	8.71	29.89	26.5	14.05
Operations	Operating Practices	Year-Round	Seasonal	Year-round	Seasonal	Seasonal
		24 hrs a day	(Closed Nov-Mar)	24 hrs a day	(Closed Dec-Mar)	(Closed Dec-Mar)
		24 hrs a day	24 hrs a day	24 hrs a day	24hrs a day	5 am - Midnight
Climate	Days Operating in 2012	365	217	365	240	278
	Average Summer Temp	78° F	72° F	83° F	72° F	69° F
	Average Winter Temp	38° F	19° F	69° F	32° F	32° F
	Average Monthly Precipitation Summer	3.48	4.2	6.33	3.49	1.91
Ownership	Average Monthly Precipitation Winter	2.86	0.96	2.19	3.51	0.73
	Equipment ownership	Jurisdiction owned	Non-profit owned	Privately owned	Jurisdiction owned	Non-profit owned
	Business Model	Municipally Owned/ Managed	Non-Profit	For-Profit	Municipally owned with Advertising and Sponsorship Concession with profit sharing	Non-Profit
Safety & Loss	Reported Bike Share Thefts	14	0	0	0	7
	Reported Bike Share Crashes	64	2	0	0	1

Data obtained from the peer systems was analyzed for updating the 2009 study assumptions including ridership and revenue forecasts. The ridership forecast and the revenue projections are included in the cash pro-forma in Chapter 7. Additionally the peer systems provided valuable comparison of bike share station density for updating recommendations for system size and station density. This analysis is covered in Chapter 3.

## CHAPTER 2: GOALS AND OBJECTIVES

### Issues Related to Bike Share

In developing this Business Plan, the Working Group considered many issues surrounding the implementation, oversight, liability, profitability and marketing of a potential bike share program, including specifically:

- Degree of control and oversight
- Public liability for system operations
- Funding flexibility
- Potential for multi-jurisdictional growth
- Organizational structure
- System Profitability
- Equity and system accessibility

### Vision Statement

*Philadelphia's bike share system will establish a new form of public transportation for Philadelphia, one that is healthy and safe, is environmentally friendly, affordable for users, and financially sustainable to operate. Bike share will be an important part of the city's integrated public transportation network, connecting communities to more destinations across the city.*

### Themes, Goals and Objectives

The following is the summary of the themes, goals and objectives developed by the working group for the proposed bike share program for the City of Philadelphia:

**Table 2.1 - Themes, Goals and Objectives**

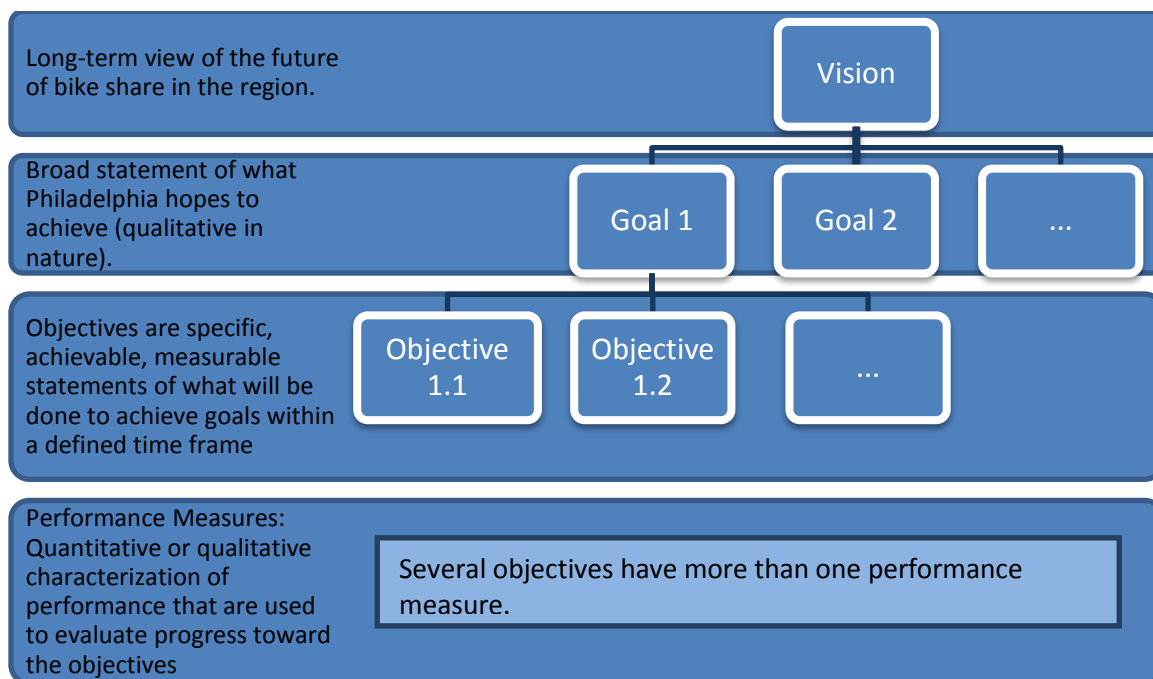
THEME	GOALS & OBJECTIVES
Personal Mobility	<p><b>Increase personal mobility in Philadelphia, providing people with better access to destinations throughout the City.</b></p> <ol style="list-style-type: none"><li>4. Maximize the number of destinations one can reach, providing enhanced connectivity to places that otherwise would be difficult to access.</li><li>5. Integrate bike share as an extension of Philadelphia's public transit network.</li><li>6. Ensure that bike share is cost competitive for users as compared to other modes.</li></ol>
Livability & Economic Competitiveness	<p><b>Develop an innovative transportation system that improves Philadelphia's livability and economic competitiveness.</b></p> <ol style="list-style-type: none"><li>4. Attract and retain talent for the City's employers and raise the attractiveness of Philadelphia for business investment and tourism.</li><li>5. Reduce the environmental impact of transportation and help Philadelphia achieve its goal of being the "greenest city in America."</li><li>6. Develop a system that serves users in minority and low-income communities and improves their access to key destinations, such as jobs and recreation.</li></ol>
Health & Safety	<p><b>Provide Philadelphians a safe mode of transportation that promotes active and healthy living.</b></p> <ol style="list-style-type: none"><li>4. Foster an active lifestyle by diverting a greater share of trips to bicycling.</li><li>5. Support other City health objectives such as improved access to fresh foods and access to green space.</li></ol>

	6. Promote a culture of safety among bike share system users.
<b>Finances &amp; Transparency</b>	<p><b>Create a system that is financially sustainable, transparently operated, and accountable to the public.</b></p> <p>4. Cover all operating expenses without assistance from the City by utilizing a wide range of private, state and federal funding sources.</p> <p>5. Plan for and ensure sustainable capital funding for system growth and ongoing equipment replacement.</p> <p>6. Clearly communicate program performance and effectiveness to stakeholders and the public.</p>

## Performance Measures

The purpose of performance measurements is to provide stakeholders and the public a clear and concise way to measure the effectiveness of the Philadelphia bike share program. A set of measures have been developed that fit within the overall framework of the program's vision, goals, and objectives. Each objective will have one or more performance measurements that can be tracked over time. The program's first year of operations will provide a baseline measurement, with future progress measured against past years.

**Figure 2.1- Relationship of Vision, Goals, Objectives, and Performance Measures**



Effective performance measurements must be able to say something meaningful about system performance, yet be simple enough to collect and report on a regular basis. The measurements proposed for Philadelphia can be developed using three different input sources: automatically generated system data, a proposed annual user survey, and figures that the program administrative and marketing staff can track internally over time. If any of the proposed performance measurements fall under the responsibility of an outside vendor, the vendor should be contractually required to track these

measurements. While many of these figures can be tracked in real-time, the full set of performance measurements should generally be reported on an annual basis by the managing agency.

**Table 2.2 – Goals, Objectives and Performance Measures**

THEME	GOALS AND OBJECTIVES	PERFORMANCE MEASURES
<b>Personal Mobility</b>	<b>Increase personal mobility in Philadelphia, providing people with better access to destinations throughout the City.</b>	
	1. Maximize the number of destinations one can reach, providing enhanced connectivity to places that otherwise would be difficult to access.	<ul style="list-style-type: none"> <li>Population and employment within a quarter mile of a bike share station</li> <li>Number of trips that otherwise would not have been made from annual user survey</li> </ul>
	2. Integrate bike share as an extension of Philadelphia’s public transit network.	<ul style="list-style-type: none"> <li>Percentage of bike share stations within a quarter mile of a subway, trolley, or regional rail station or within a block (170 meters) of a bus stop<sup>6</sup></li> <li>Number of trips origins and destinations at stations with direct proximity to transit stations and bus stops.</li> <li>User survey feedback about use of bike share to access transit</li> </ul>
	3. Ensure that bike share is cost competitive for users as compared to other modes.	<ul style="list-style-type: none"> <li>Average cost per trip per user.</li> <li>Average annual travel savings among bike share users.</li> </ul>
<b>Livability &amp; Economic Competitiveness</b>	<b>Develop an innovative transportation system that improves Philadelphia’s livability and economic competitiveness.</b>	
	1. Attract and retain talent for the City’s employers and raise the attractiveness of Philadelphia for business investment and tourism.	<ul style="list-style-type: none"> <li>Number of active corporate memberships.</li> <li>Proportion of surveyed bike share users who are visiting the city for leisure or business.</li> </ul>
	2. Reduce the environmental impact of transportation and help Philadelphia achieve its goal of being the “greenest city in America.”	<ul style="list-style-type: none"> <li>Total bike share miles per year.</li> <li>Automobile trips diverted to bike share (total number of bike share trips multiplied by the percentage of users who would drive if bike share was not available).</li> <li>Calculating average CO2 emissions for trips made by bike share</li> </ul>

<sup>6</sup> Center City has a typical block size of 0.10 miles, equal to just less than 170 meters.

	3. Develop a system that serves users in minority and low-income communities and improves their access to key destinations, such as jobs and recreation.	<ul style="list-style-type: none"> <li>• Bike share trips originating or ending in census tracts that qualify as FTA Title VI census tracts.<sup>7</sup></li> <li>• Tracking demographic user profiles through registration and user surveys for age, race, gender and income.</li> <li>• Track subsidized memberships and ridership for low income individuals through partnerships with social service organizations.</li> </ul>
<b>Health &amp; Safety</b>	<b>Provide Philadelphians a safe mode of transportation that promotes active and healthy living.</b>	
	1. Foster an active, pleasant lifestyle by diverting a greater share of trips to bicycling.	<ul style="list-style-type: none"> <li>• Total calories burned per year.</li> <li>• Reported changes in wellness from annual survey</li> </ul>
	2. Support other City health objectives such as improved access to fresh foods and access to green space.	<ul style="list-style-type: none"> <li>• Percentage of bike share stations within one block (~170 meters) of a park.</li> <li>• Percentage of bike share stations within one block (~170 meters) of a location that sells fresh food.<sup>8</sup></li> </ul>
	3. Promote a culture of safety among bike share system users.	<ul style="list-style-type: none"> <li>• Number of reported bike share crashes per 1,000,000 bike share trips.</li> <li>• Observing bike share user use of helmets during annual bicycle counts.</li> <li>• Survey users about use of helmets and other bicycling safety habits while using bike share</li> </ul>

<sup>7</sup> Transit agencies are required under FTA's Title VI requirements to insure resources are equitably distributed across the service area by race and income. Based on SEPTA's Title VI definitions, the bike share can measure its effectiveness at serving Title VI populations.

<sup>8</sup> Use City of Philadelphia-developed database of locations that sell fresh food in Philadelphia (2010).



Finances & Transparency	Create a system that is financially sustainable, transparently operated, and accountable to the public.	
	1. Cover all operating expenses without assistance from the City by utilizing a wide range of private, state and federal funding sources.	<ul style="list-style-type: none"> <li>Percentage of operations paid for through user fees, private sponsorships, and state and federal grants.</li> </ul>
	2. Plan for and ensure sustainable capital funding for system growth and ongoing equipment replacement.	<ul style="list-style-type: none"> <li>Number of reports per month of defective or damaged equipment.</li> <li>Percentage of estimated State of Good Repair needs covered with anticipated funding.</li> <li>Set and track aggressive fundraising goals for capital budget.</li> </ul>
	3. Clearly communicate program performance and effectiveness to stakeholders and the public.	<ul style="list-style-type: none"> <li>Number of visits to the bike share service's website per month.</li> <li>Annual reporting of the state of bike share that details to the members and public the progress on all bike share performance measures.</li> </ul>

## CHAPTER 3: MARKET ANALYSIS

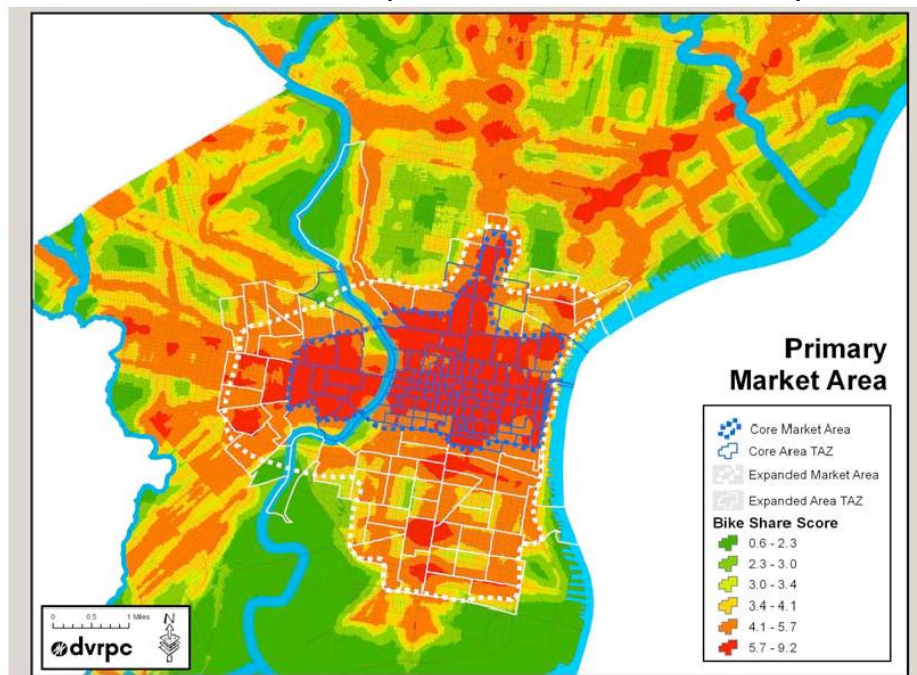
### Market Area and Phasing Strategy

#### **2009 Feasibility Study Core and Expanded Market Areas**

In 2009, the Delaware Valley Regional Planning Commission (DVRPC) commissioned a study for the feasibility of implementing a bike sharing program in the City of Philadelphia. The Philadelphia Bike Share Concept study published in February 2010 focused on providing a comprehensive planning-level analysis of bike sharing while evaluating its potential for success in Philadelphia.

The 2009 Feasibility Study developed recommendations for the initial market based on demand analysis using Geographic Information Systems (GIS) developed by staff at DVRPC. The methods and results are consistent with the more recent bicycle demand analysis that was developed for the 2012 update of the Philadelphia Bicycle Plan.

**Figure 3.1 – Bike Share Demand with Core and Expanded Market Area from 2009 Study**



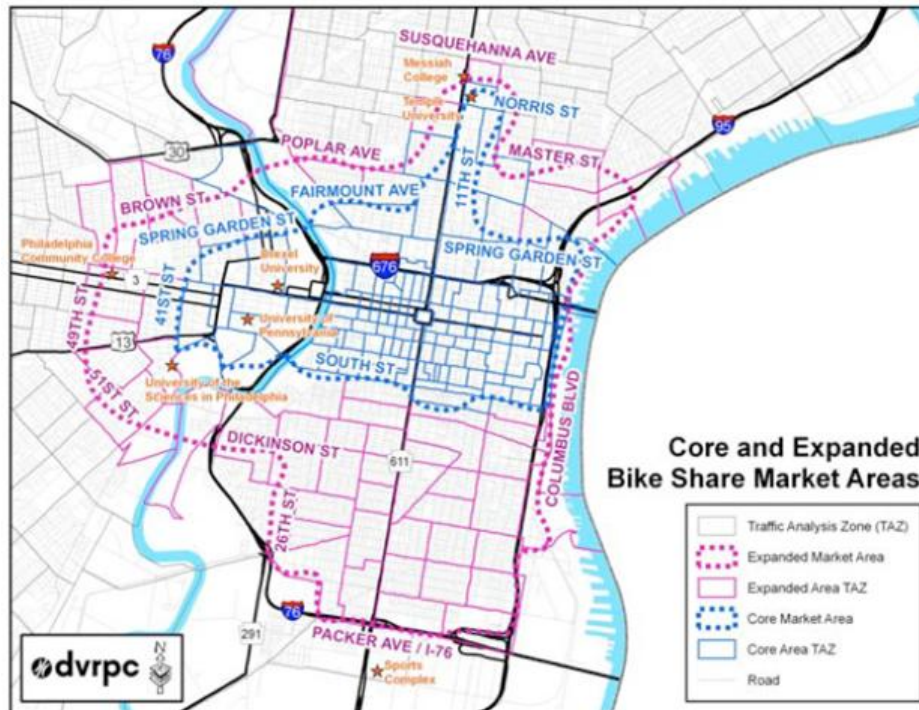
Through this study, which ultimately indicated the feasibility for implementing said program, the City was able to analyze and review various approaches to implementing a bike share system, their demand determinants, the local factors and key challenges as well as recommended an operational model and an analysis of potential costs for the city based on data available at the time.

2009 Study recommendations for the optimal form of a bike share program in Philadelphia:

- 110 to 210 bike share stations with 1,650 to 31,50 bicycles
- A station density of 20 - 40 stations per square mile in order to provide a reasonable level of service

- A phasing schedule beginning with a core market area of 5.3 square miles including Center City, University City and Temple University, followed by an expanded service area of 14.5 square miles, which includes South Philadelphia and further north and west
- Cost estimates of around \$1,000 to \$3,000 per bike (this total included bikes and stations)
- Projected ridership for the core market area of 6,000 to 18,000 rides per day (Based on 770 to 2,370 bikes for the core market area), and for the expanded, or full build out service area 7,500 to 23,000 rides per day (based on 980 to 3,030 bikes system-wide)<sup>9</sup>

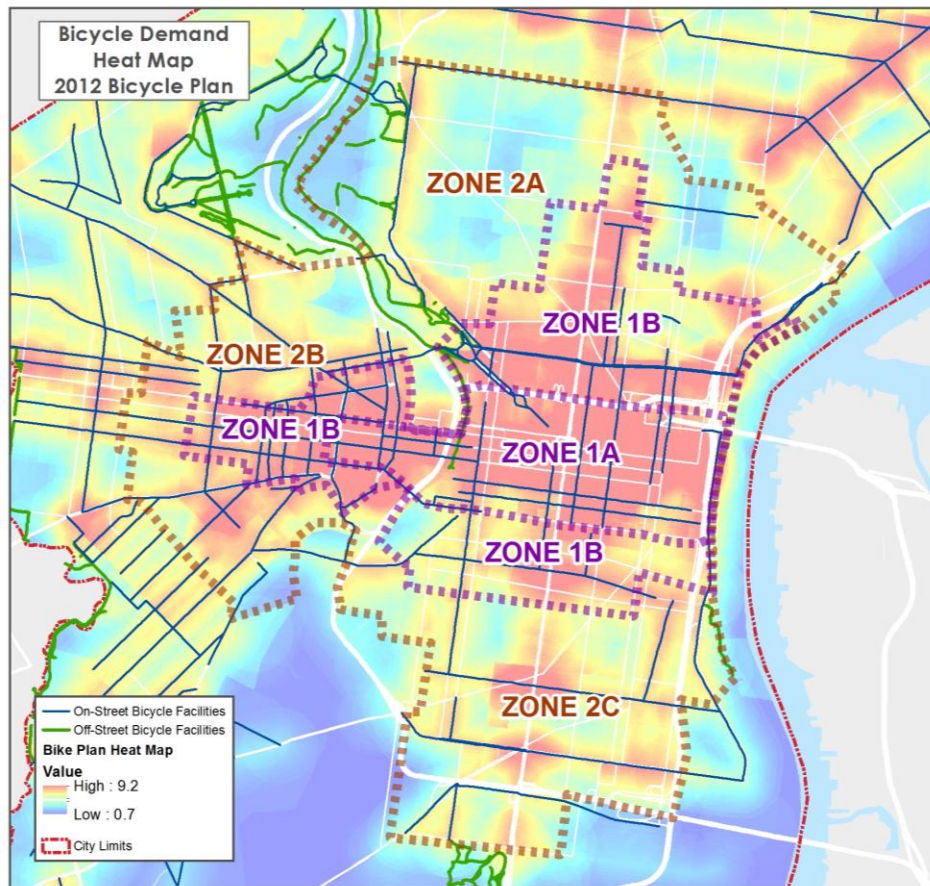
**Figure 1.1 Proposed Core and Expanded Market Areas from 2009 Study (courtesy DVRPC)**



Based on the similarity between the 2009 and 2012 results the initial assumptions about peak bike share demand have held relatively consistent since the study was completed. As a result the changes to the market area and phasing strategy were largely based on updating the system optimization assumptions based on the characteristics of the peer bike share systems that were not yet operational in 2009.

<sup>9</sup> This figure includes Low, Mid and High ridership scenarios for both the Core and Expanded Market Areas.

**Figure 3.2 – Bicycle Heat Map from 2012 Philadelphia Bicycle Master Plan with Revised Bike Share Service Area**



***Service Boundary and station density update***

Original recommendations were based largely in European systems where bike share systems in cities with significantly higher density than most U.S. cities. The 2009 study recommended bicycle and station quantities for the core and expanded system at bicycle and station density levels far greater than that of other current U.S. systems.

**Table3.1 – Calculated Station Density Based on 2009 Study Recommendations**

2009 Station Recommendations	Core Market Area	Expanded Market Area	Full System
Market Area (Sq. mi.)	5.29	14.25	19.54
<b>Low Scenario</b>			
Stations	110	180	290
Calculated Station Density	20.79	12.63	14.84
<b>High Scenario</b>			
Stations	210	370	580
Calculated Station Density	39.70	25.96	29.68

Table 3.1 shows the calculated station densities based on the recommended range of station deployment that was recommended for the core and expanded market area in the 2009 study. The range of stations recommended in the 2009 study would result in densities that range from 20-40 stations per square mile in the core market area and 13 – 26 stations per square mile in the expanded market area. The densities for the peer bike share systems that have come on line after the 2009 study are significantly lower than what was originally recommended.

Analysis of the peer systems show core market densities that range from 5 to 25 stations per square mile, with a five-system average of 9 stations per mile. The system-wide densities of the peer systems range from 4 to 15 stations per square mile, with a five-system average of 5 stations per square mile (Deco Bikes in Miami Beach is an outlier with a system-wide density of 15 bikes per square mile).

**Table3.2 - Core and Expanded Market Station Densities of Peer Bike Share Systems**

System	Core Market Area		Expanded Market Area	
DC/Arlington	7.88	Stations/Sq. mi.	4.52	Stations/Sq. mi.
Minneapolis	9.80	Stations/Sq. mi.	4.23	Stations/Sq. mi.
Miami Beach	26.34	Stations/Sq. mi.	14.60	Stations/Sq. mi.
Boston	7.39	Stations/Sq. mi.	4.79	Stations/Sq. mi.
Denver	4.75	Stations/Sq. mi.	4.22	Stations/Sq. mi.
5-system Average	8.92	Stations/Sq. mi.	4.99	Stations/Sq. mi.

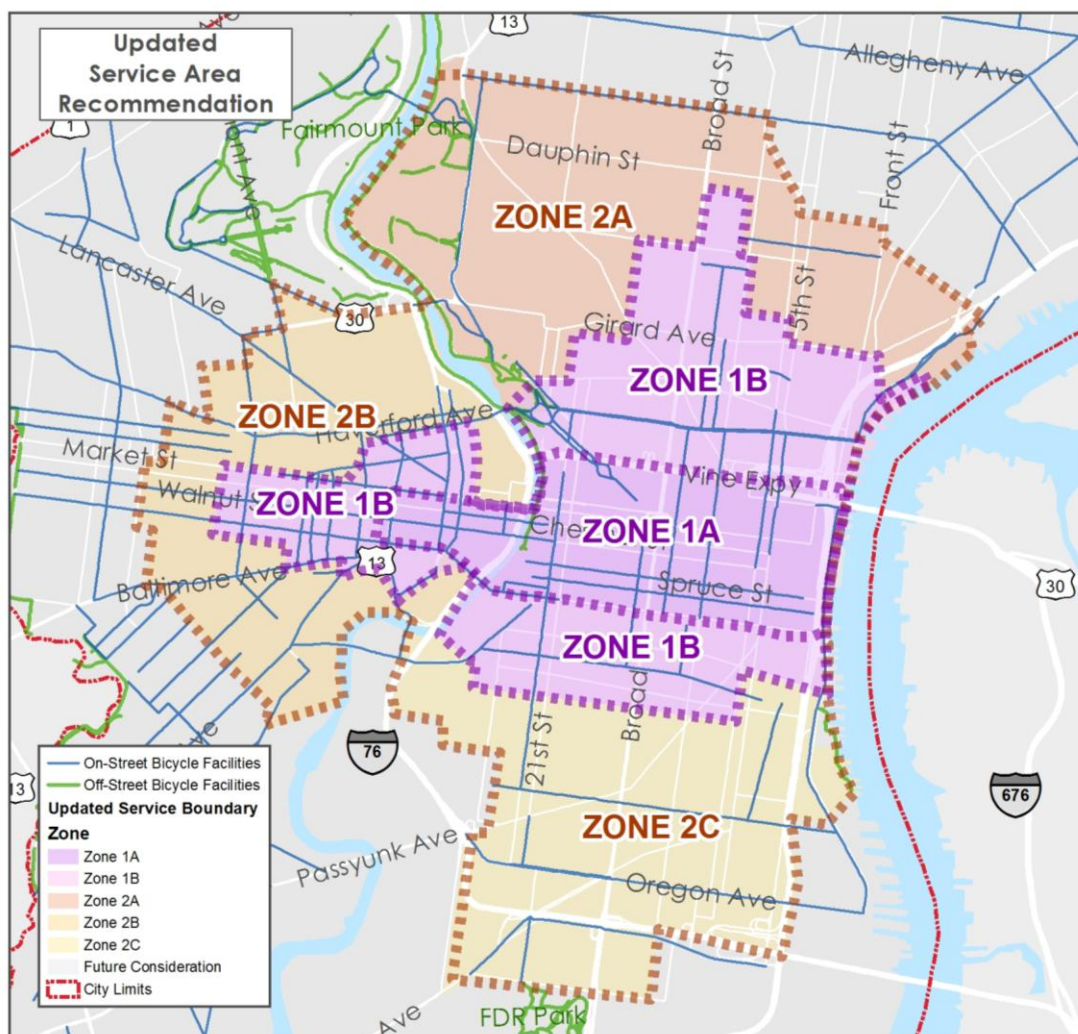


## Updated Service Area and System Size Recommendation

The revised system boundaries have been divided up into two large zones (1 and 2) and several deployment phases (shown as subzones) based on deployment beginning in the core market area and gradually expanding into the adjacent neighborhoods over five years.

The zones and the recommended phasing are based on conservative assumptions for assembling the capital to build out the planned system over a five year period beginning in 2014. The subzones have been developed based on market characteristics, geographical breaks and system operating characteristics, with recommendations for the optimal number of bikes and stations within each.

**Figure 3.3 – Updated Bike Service Area Recommendation**



**Table 3.3 – Recommended Service Area and System Characteristics**

	Proposed New Service Area	Stations	Bicycles	Station Density
<b>Zone 1</b>	8.28 Sq. Mi.	110	1,150	13.28
<b>Zone 2</b>	14.24 Sq. Mi.	75	650	5.27
<b>Total</b>	<b>22.52 Sq. Mi</b>	<b>185</b>	<b>1,800</b>	<b>8.21</b>

### **First Phase: Zone 1**

Zone 1 represents the core market area and first two years of deployment for the bike share system. Phase 1A represents the core of downtown from 42<sup>nd</sup> Street to the riverfront and has the highest market demand for bike sharing. At just over two and a half square miles, this area represents the heart of the system and is the smallest recommended geography and system size for a successful program launch. The addition of Phase 1B, expands the system to the north, south, and west of the initial launch extending the service area to cover the full core market, just over five and one half square miles.

The first phase (Zone 1) when completed will represent the highest density of stations and bring the system fleet to 1,150 bicycles and 110 stations. The station density of Zone 1 will range from 11 stations per mile in Zone 1B to near 20 stations per square mile in Zone 1A.

**Table 3.4 – Phase 1 Service Area**

Zone 1 Service Area		
Zone 1A	2.63	Sq. Mi.
Zone1B	5.66	Sq. Mi.
Zone 1 Total	8.28	Sq. Mi.

**Table 3.5 – Phase 1 Recommended System Size and Station Density**

Zone 1 System Characteristics			
Zone	Stations	Bicycles	Station Density
Zone 1A	50	550	19.04
Zone 1B	60	600	10.61
Zone 1 Total	110	1,150	13.28

### **Second Phase: Zone 2**

Zone 2 includes three phases (2A, 2B and 2C) to be implemented over years three, four, and five, respectively. When completed, Phase 2 will extend the system beyond the city center into the adjacent residential neighborhoods. The Zone 2 expansion will add an additional fourteen square miles of service area, bringing the system to just over 22 ½ square miles.

The implementation of Phase 2 will complete the initial system build out and add an additional 650 bicycles and 75 stations to the system, increasing the system total to 1,800 bicycles and 185 stations in year 5. The station density for the second phase will range from 4 to 6 stations per square mile. This is consistent with the system-wide densities occurring with most of the current U.S. bike share programs.

**Table 3.6 – Phase 2 Service Area**

ZONE 2 Service Area		
Zone 2A	5.46	Sq. Mi.
Zone 2B	3.86	Sq. Mi.
Zone 2C	4.92	Sq. Mi.
Zone 2 Total	14.24	Sq. Mi.

**Table 3.7 – Phase 2 Recommended System Size and Station Density**

Zone2 System Characteristics			
Zone	Stations	Bicycles	Station Density
Zone 2A	30	275	5.50
Zone 2B	25	225	6.47
Zone 2C	20	150	4.07
Zone 2 Total	75	650	5.27

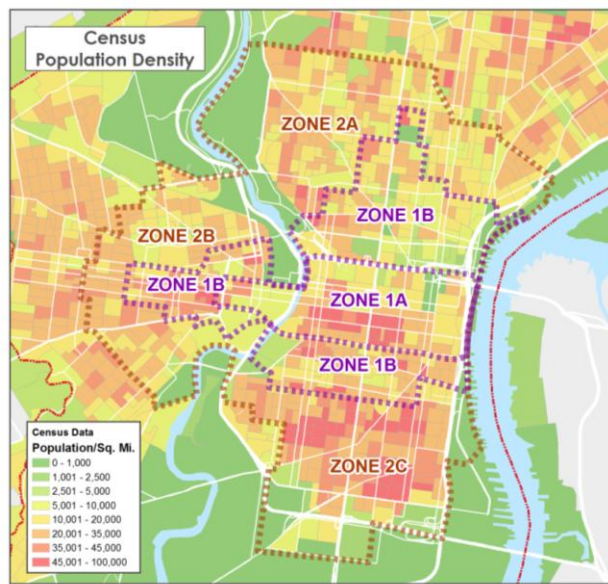
## Key Demographics of the Bike Share Service Area

**Table 3.8 – Select Demographics for System Phases**

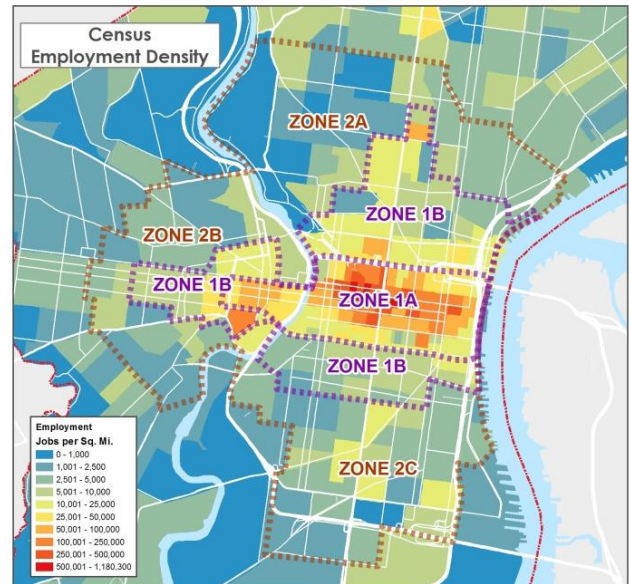
	Phase 1A	Phase 1B	Phase 2A	Phase 2B	Phase 2C
<b>Population</b>	63,000	113,000	83,000	58,000	116,000
<b>Employment</b>	277,000	71,000	17,000	17,000	21,000
<b>Income</b>					
Average Household Income	\$61,000	\$41,000	\$27,000	\$29,000	\$37,000
<b>Age</b>					
Median Age	33 Years	31 Years	32 Years	31 Years	36 Years
<b>Education</b>					
High School Degree or Higher	84%	82%	70%	75%	70%
College Degree or Higher	73%	48%	16%	25%	17%
<b>Race</b>					
Caucasian Population	80%	55%	28%	19%	55%
Minority Population	24%	48%	75%	82%	48%
<b>Poverty</b>					
Percentage below poverty line	16%	32%	40%	35%	22%

Overall the Philadelphia bike share system will serve an area with 432,000 residents and just over 400,000 jobs. The bike share service area represents a diverse cross section of central Philadelphia in terms of age, race, income, and education. The proposed two phases cover a compact and densely populated service area; at 19,000 people per square mile, the bike share service area has a greater population density than any other North American city with an existing or planned bike share system, with the exception of New York.





**Figure 3.4 – Proposed Zones vs. Population Density**



**Figure 3.5 – Proposed Zones vs. Employment Density**

### **Phase One**

Phase 1 of the bike share program focuses on Center City, University City, and adjacent neighborhoods. This location encompasses the densely populated urban core of the city and serves a highly educated and young population, with median household incomes greater than the citywide average. Over 73% of the population has a bachelor's degree or higher and 15 institutions of higher learning would be served by Phase 1, including Temple University, the University of Pennsylvania and Drexel University.

Nearly 350,000 jobs are located in the Phase 1 area, accounting for 87% of the employment served in both Phase 1A and 1B. Those 63,000 people living in the Phase 1A area have a median household income of \$61,000 annually and a median age of 33 (over 18,000 people between the ages of 25-34, a core bike share market in peer cities). Phase 1B reaches out to neighborhoods with a lower income profile; 32% of residents live below the poverty line and median household income is \$20,000 less per year than Phase 1A.

### **Phase Two**

The second phase of the bike share program is located outside of Center City in three different parts of the city: Inner North Philadelphia, West Philadelphia and South Philadelphia. The second phase covers a predominately residential part of the city with diverse characteristics. Phase 2A in North Philadelphia has the highest poverty rate of in the projected bike share service area at 40% and an average annual household income of \$27,000. This phase also has the largest Hispanic population in the service area, encompassing nearly nine percent of the population. Phase 2B has similar demographic characteristics to Phase 2A, with 82 percent minority population and poverty rate of 35 percent. Finally Phase 2C covers a diverse swath of South Philadelphia, with the greatest racial diversity of all phases, and serves the largest population of any of the five deployment areas.

## Accelerated Deployment and Service Area

Following map and figures represent an accelerated deployment plan through the proposed service area. Given the current funding expectations and early contacts at the Philadelphia Navy Yard, we believe that the following map represents a realistic approximation of the system roll out over 2014 and 2015. While of the recommendations for system size and density from the conservative estimate outlined above, an accelerated and expanded deployment schedule is desirable if sufficient capital funding can be secured early in the program.

**Figure 3.6 – Accelerated Bike Share Deployment Area**



**Table 3.9 – Recommended Service Area and System Characteristics**

	Proposed New Service Area	Stations	Bicycles	Station Density
<b>Zone 1</b>	8.28 Sq. Mi.	110	1,150	13.28
<b>Zone 2</b>	16.21 Sq. Mi.	80	680	4.93
<b>Total</b>	<b>24.49 Sq. Mi</b>	<b>185</b>	<b>1,830</b>	<b>7.55</b>

## CHAPTER 4: MARKETING BIKE SHARE

### Advertising Bike Share to Users

#### **Potential channels to advertise about the new bike share service**

Experience from other systems has demonstrated that to create “buzz” about the implementation of a program, social media presence and events should start around the time the first stations are placed on the street, prior to the system launch. Prior to the first station deployment, it is recommended that budgets are spent on development and preparation of materials promoting the launch.

With regards to the website, it is recommended that any program being implemented by the City begin promoting and accepting user registration via program’s website as the first stations begin deployment. The website should serve as the central place for information about sign up, benefits, and overall program information. To this end, prior to system launch all “buzz” created, should advertise and drive people to the website where people can sign up as long-term members for the system. The use of free PR (i.e. newspaper stories, TV stories, press releases, etc.) should also be considered to help focus attention on the deployment and impending system launch. Below are additional avenues to help promote a bike share program in the City of Philadelphia:

**Partnerships and Co-Promotions:** Creating partnerships and/or co-promotions with established organizations and institutions is a critical way to promote the new bike share service. Announcements of partnerships with different organizations by leaders in the city can bring positive associations from different groups. For example, a partnership for discounted memberships with the Philadelphia Housing Authority (PHA) can be used as a catalyst to begin signing up PHA residents.

Co-promotions with local sports teams have also been garnered significant attention. For example, in Washington DC, Capital Bikeshare bikes have been ridden several times during the nightly Presidents’ Race across the field while in Boston; Hubway’s 2013 season opening was coordinated with the Red Sox opening day, and Hubway discount passes were distributed with Red Sox tickets. This was undertaken in a partnership between Hubway and the Red Sox Foundation. For the City of Philadelphia, having the *Phillie Phanatic* regularly ride a bike share bike across the field could be a great boon for the system.

Co-promotions can also be with other companies, institutions or organizations, such as universities, hospitals, SEPTA, car-sharing companies or hospitals. These partnerships may offer incentives to these large and influential organizations to associate themselves with bike share and promote the bike share brand, at no cost to the system. An early discount for members of Bicycle Coalition of Greater Philadelphia can help spark that group to help spread the word to their members.

**Poster on Bike Share Stations:** For free outdoor advertising exposure for the system, depending on the contractual agreement with the sponsor(s), one or both sides of a poster on the bike share station can be used for advertising. In Washington, DC for example, Capital Bikeshare has a map on one side of the poster and advertising for the system on the other. In New York City, as stations have begun deployment, the posters during the launch period have a “Get ready to unlock New York with Citi Bike” advertisement. Other “Coming Soon” posters have been used in different systems prior to launch. Such exposure in the major downtown areas is very important to early adoption.

**Outdoor and Digital Paid Advertising:** Paid advertising has been used in a very limited fashion throughout existing U.S. systems because of small budgets and little need to date. One method of existing advertising is one from the District Department of Transportation (DDOT) in Washington DC which has used some of its own advertising assets to place outdoor signs for Capital Bikeshare.<sup>10</sup>

Sponsors may also have advertising channels available to them which can help boost the program early on, as has been the case with Citi Bike in NYC. Finally, the most cost-efficient and targeted means of online paid advertising would be through Facebook and remarketing banners like Google Adwords.

**Advertising for the Tourist Market:** Visitor and tourist usage is very important for the financial sustainability of bike share, as a large portion of revenue has been reported to come from the membership and usage fees for short-term use. Advertising to this market, however, has not yet been undertaken in a consistent manner in other systems due to the increasingly higher costs to reach out to this market. In jurisdictions with existing programs, many of the short-term users become aware of the program and its simplicity by walking past stations that are located in visitor-heavy areas. Some strategies to reach this sector of the population which can be effective in Philadelphia are focus on information and education, although co-promotions may play a big role:

- **Hotels:** The City should work with hotels located within the proposed service area to have brochures and educate their concierge desks about bike share and how the program works. Discount deals could be offered to hotels that purchase short-term membership gift certificates en masse.
- **Tourist Organizations:** Philadelphia should work with its tourist office Visit Philly and other tourist organizations to have promotional information on-hand regarding bike share.
- **Universities and Hospitals:** The City should provide promotional materials to universities and hospitals (ex. Penn, Temple, Drexel, HUP, Jefferson, Pennsylvania Hospital, University of the Arts) that could be distributed to families and campus visitors. This information should focus on the features of a bike share program and how it will be a viable transportation option for students and for them to get around the City while they are visiting.
- **Other institutions:** The City should work with other institutions frequented by visitors, such as the Constitution Center, Philadelphia Museum of Art, Franklin Institute, the Free Library and the Mutter Museum to ensure they have the appropriate information and education about bike share.

### ***Strategies for creating “buzz” for bike share***

Various strategies for creating a buzz about bike sharing have been undertaken through a combination of free PR, community events, and digital media (i.e. social media and blogs). Additionally, as stations begin to be deployed, the buzz around new stations located on different street corners throughout the city, have been shown as the best way to promote the brand and get the public talking about the program. Typically, program budgets have not allowed for the use of paid media. However, existing programs have found creative ways to increase the significance of free PR (i.e. newspaper stories, TV stories, press releases, etc.), which have made it possible for the program to create a buzz without utilizing traditional paid advertising such as television and radio commercials, newspaper advertising, traditional billboards, and transit advertising, among others. To this end, a high percentage of the

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<sup>10</sup> Through its advertising contracts with Clear Channel, DDOT has been able to promote the Capital Bikeshare brand throughout some of the existing advertising panels in various parts of the city.

marketing budgets for existing programs have been known to be spent on creating free PR. The following is a description of free PR strategies:

- **Website Launch Stunt:** It is important to gain members prior to launch so that people are there to ride the system on day one. An affordable way to drive free PR at this important time is to coordinate a “stunt” to garner social media attention and free PR. For example, at the launch of the Boston website, “Freedom Riders” rode Hubway bikes around the city. Press and blog outlets covered the story announcing the website launch, and dozens of pictures were posted on the Hubway Facebook page and Twitter feed, and the system was able to garner approximately 1,000 new members in the short two week timeframe prior to system launch.<sup>11</sup>
- **Micro-Local and Targeted Events:** Micro-local news and events can also create free advertising in the neighborhoods. Ribbon-cutting events for particular stations with local politicians are great ways to imbue ownership of the system on a very local level. Attendance at neighborhood events such as street fairs and farmers markets can also create local stories on outlets such as Patch and Newsworks. Attendance at targeted events such as the Puerto Rican Day Parade or Pride can create news in targeted media outlets.
- **Social Media:** Growth of social networks like Facebook, Twitter can help augment the word-of-mouth “buzz” about bike share. Other systems have shown large and committed social media followings which have helped promote the system. Social media can also help promote new discounts, contests and events related to bike share taking place throughout the jurisdiction. Partnerships and co-promotions discussed above will also help spread the word via their social media networks. In addition to the use of social media, creating and maintaining positive relationships with influential writers, columnists, bloggers and local media outlets is crucial to creating the right kind of buzz for bike share.
- **Contests:** Contests run by bike share systems garner both buzz on social media and free PR. For example, Capital Bikeshare ran a Winter Weather Warrior contest. The contest helped promote and increase usage of the system throughout the winter months (when ridership tends to be lower due to weather), while garnering coverage in the Washington Post and blogs, which consequentially helped increase the number of members and bike share use.
- **City PR Department:** The media attention relies heavily on the support of the PR departments of the City. No matter how good the contractor, sponsors and/or implementation team, the media is strongly attracted to actions and announcements by the City, far more than any private company. To this end, it is recommended that the City leverages existing PR assets throughout its different departments to help promote the program.

## Title Sponsor and Marketing

There are significant opportunities for a major or title sponsor to help spread the word about the program. However, the specific means will depend greatly on the sponsor, its means for communicating to its stakeholders as well as the resources it is willing to give, both intangible and financial, to help

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<sup>11</sup> Hubway riders in Boston. Retrieved from <http://transportationnation.org/2011/09/06/tn-moving-stories-boston-bike-share-booming-and-a-look-at-the-new-dc-metro-map/samsung/> on April 10, 2013.



activate the sponsorship. A title sponsor can bring the sophistication of a large company to a small business.

For example, Citi, the title sponsor for New York City's Citi Bike system, has demonstrated significant commitment to the bike share program. Citi has leveraged its large organization to support the small operations company that would not have had the resources to do something as big without the support of a larger entity. As part of the sponsorship package, Citi received a 2x4 feet advertising panel on each bike share station to promote Citi products. They are using their advertising panels during the first three months of the system to help advertise for Citi Bike. Citi will also be offering discounts to certain cardholders on bike share memberships. Additionally, they have discussed various means of helping spreading the word, including placing the Citi Bike branding at the bottom of credit card statements and on ATM machines. Furthermore, the financial organization has begun making available Citi Bike brochures at branches and has begun to internally communicate with branch employees about the program, as they will likely help increase awareness of the program with bank customers. To this end, Citi sees the Citi Bike opportunity as a way to augment the Citi brand.

As mentioned above, the exact means for a major or title sponsor to assist with marketing depends on the type of company. A media company could leverage its media assets to provide for in-kind advertising to the system. A real estate company could leverage its locations for ideal bike share locations and help to get the word out via employees of its tenants. A clothing company could create designs specific to the bike share system and market in retail outlets. Any company with clients that receive statements, either online or via paper, can include bike share messaging at the bottom of its statements.

In all cases, there are many roles that both major or title sponsors can play in getting the word out about the bike share system which can make a significant contribution to its success.

## Lessons from Peer Programs

The buzz created by bike sharing systems in the U.S. has been very positive overall. Each system has a different structure for the marketing and advertising and a different level of resources. In Washington DC's Capital Bikeshare, the public agencies (DDOT, Arlington County, City of Alexandria) provide for the marketing resources. The contractor simply carries out the technical aspects necessary. In Boston, the contractor undertakes the marketing for the system. In Denver, it is up to the non-profit organization to promote the program leveraging its partnerships with its funders and city government. The major lessons learned from the existing programs have to do with the marketing and advertising budget as well as the structure and incentives:

### **Budget**

Some of the programs launched have been undertaken on too small a marketing budget that have not taken into account the necessary personnel and other resources to get the word out as effectively as possible. As the City considers implementing a bike share program and receives proposals for operations, it should ensure that the budget covers at least one full-time employee, as well as several part-time seasonal employees for event staffing. In addition, there should be enough funding to provide for system collateral, such as t-shirts, brochures, key chains, events and giveaways, and budgets for events, such as vehicles, fuel, tents, signage and permits. It is possible that a second dedicated person should be included in the budget to cover social media, partnerships, coupons and/or any other education or outreach needed for the system. Such a role could potentially be covered by interns.

Nevertheless, it is recommended that the City specify in any request for proposal the dedicated staffing levels for promotion and marketing will be required for the bike share system to function properly.

### ***Contract Structure and Incentives***

Because the Philadelphia bike share program will be partially supported by public funding, and has the potential to use sponsorship funding, it is important that the contract structure for marketing with the operator is arranged to align the contractor's incentive to spend on marketing with the goals of the program. If the contract calls for a flat fee paid to the contractor for operations with a marketing budget included, they are likely to spend as little as possible because their incentive is to operate efficiently, not increase ridership. On the other hand, if the goals of the program are to increase ridership and membership, this can be achieved by offering deep discounts on memberships. However, a contractor is unlikely to want to give such deep discounts if it is only going to increase operating costs and yield few revenues.

A contract structure that the City should consider with any potential operator should propose a base budget for operations that includes a base level of marketing. Augmenting the base budget would help incentivize the potential contractor to promote high membership and ridership, and would also penalize it for low membership or ridership. The contract should also align incentives for increasing membership and ridership of minority and low-income users to create this program as a positive aspect, not just a cost, to the contractor. Such a structure should therefore help align the objectives of the City to the incentives of the potential contractor/operator. Please note that such incentive structures have not yet been used in existing bike share contracts, but experience in other cities do make the case for recommending improved contractual structures that can have a significant impact on reaching the goals for the program.

### **Social Equity Strategy**

Bike sharing represents a great opportunity for the City to provide an affordable transportation option for lower income and minority communities which historically have been marked by low automobile ownership rates and high transit dependency. Additionally the advent of implementing a bike share program in Philadelphia may bring additional connectivity to underserved communities that will benefit from additional investment in transportation options. While bike share systems have typically launched in high demand and revenue generating areas of existing cities geographic and social equity have become important considerations. The following section identifies the different strategies for achieving social and geographic equity of a bike share program in Philadelphia.

#### ***Outreach to minority and low income communities***

The uptake of bike share in both minority and low-income communities has not been significant to date. Bike share programs continue to face challenges reaching these populations, despite a number of innovative approaches. There are several reasons for this:

**Location and surrounding bicycle friendly infrastructure:** In most systems, bike sharing stations have been located in high demand and revenue generating locations such as downtown and in more affluent neighborhoods. Low income neighborhoods, typically located on the outskirts of the system, have only experienced the installation of very few and sparsely situated stations. The stations tend to be located far away from other stations and in areas that do not include good bike infrastructure. Therefore, potential trips from these stations do not have convenient origins or destinations and the trip is not

necessarily a pleasant one. It will be important for the City of Philadelphia to strongly consider how the phasing of the system will affect the location and density of stations in low income and minority communities. This in turn will help the City achieve its goal of social and geographical equity.

**Digital Divide:** As described earlier, much of the marketing for bike share programs is done online. This represents a challenge for the jurisdictions who find it difficult to reach communities that are not regularly online with the limited budgets typical of bike share programs. There are, however, very promising strategies such as the one in Washington DC where the city is utilizing its existing outdoor advertising contract to promote the Capital Bikeshare brands in different places and advertising boards around the city.

**System access and verification:** Third generation bike share is possible because of the accountability created by the credit card system. However, many people in lower-income communities do not possess credit cards. The City should therefore consider leveraging partnerships with local banks, health organizations and non-profits in the area to help promote access to the system by lower income communities. There are also growing opportunities to expand the range of payment and user verification options by allowing for various open source debit cards including possible integration with SEPTA's new transit fare system that is being developed over the next two years. More about this is included later in this chapter under Promoting Bike Share vis-à-vis Other Modes in the section on transit integration.

**Cultural issues:** Bike share is becoming the mark for sustainable, technology-inspired, forward-thinking cities, and is now familiar to well-traveled middle- to upper-class communities. There continue to be many communities within bike share cities that have not yet adopted bicycling as part of their everyday lives, do not know what bike share is, or do not understand it. In many low-income communities, cars are seen as a sign of success, and bicycles may be viewed as signs of poverty. Education and outreach campaigns should be considered to help overcome this obstacle. In this realm, the City should consider the importance of coordinating work with the Bicycle Coalition of Greater Philadelphia as it undertakes the implementation of the project.

**Cost barrier to entry and communication:** Most bike share systems have an annual one-time fee paid at the beginning of the year. Although it is an extremely affordable way to get around the city, the one-time fee can represent the largest barrier to using the system for a low-income person. The proposed program in Philadelphia should therefore focus on offering alternative payment plans such as a monthly option that amortizes the cost of an annual membership into easy access lower monthly payments.

**Financial sustainability and incentives:** As previously discussed, the financial incentives for the operator have traditionally not been focused on reaching out to low-income or minority communities. Because they typically have access only to low budgets, they tend to focus their outreach resources on early-adopter, downtown and tourist markets which can generate enough revenue to cover the costs of implementation. Outreach programs to low-income and minority communities have typically been high demand and high resource consuming programs which can take a big toll in the total marketing expenditures. The City should consider how the proper alignment of City goals with the incentives offered to a potential operator can help with the marketing and promotion of the system throughout these communities.



**Strategies for community outreach strategy.**

There are two key aspects that are important to provide a successful community outreach strategy to help reach both minority and low-income communities: finding local individual champions and partnering with key existing organization(s).

**Local champions:** A key aspect of the community outreach strategy that has not yet been tried specifically by bike share systems in other cities is to find individuals in targeted communities to adopt bike share and spread the word in the specific communication means in their communities. These folks could be political figures, community organizers, or even committed individuals with a proven means to influence their local communities. They can also advise the operator on the best messaging and means to communicate to their communities. The City should consider implementing this strategy as part of increasing the knowledge and presence of bike share in different communities.

**Community organizations:** Experience from existing programs has found that it is not difficult to find community organizations that want to partner with bike share systems. However, there are some key items to consider, to help make these partnerships useful and fruitful.

- *Limit the number of partnerships:* The City should select only a few key influential community partners. Each partnership takes time and resources to develop for both the bike share operator and the organization. Should there be a financial relationship, contracts need to be well developed and managed. These should also delineate different responsibilities and benefits for the parties at play. From a public perspective, the message should be clean and simple, allowing for a small number of “official” partners.
- *Establish partnership early:* The earlier that the community organization(s) is(are) brought into the discussion on bike share, the more ownership and positive investment it will have over success of the program. If the City has specific organizations they envision playing a role in the system, they should establish that relationship and not wait for a potential operator to do so.
- *Clearly define the role of the organization:* The role of the organization could be for example, to assist in a program to help unbanked people get memberships, or could be to help with outreach to local communities. However, most community organizations have limited resources, and therefore it is important to clearly define and codify the relationship, which will in turn help make the make a smooth and fruitful partnership. The partnership should also be geared at the specific strengths of the proposed partner. Should there be specific responsibilities, an appropriate budget will need to be provided to the organization to ensure its role is fulfilled and it is not simply a partner in name only.

**Making bike share accessible to unbanked households**

As previously mentioned, third generation bike share programs are facilitated by the use and accountability created by the credit cards to access the system. However, many people in lower-income communities do not possess credit cards. This issue has been a difficult one to overcome in existing bike sharing systems. Bank on DC is the only program in existence that tackles this issue. This local non-profit focuses on helping get unbanked people bank accounts. Through a partnership between the District Department of Transportation and Bank on DC, if a new customer signs up for the Bank on DC program,

they can receive a debit card which can be associated with their bike share membership. To cover any losses the program may incur in, DDOT, Arlington County and local banks have created a small escrow account. It is important to note that, although the program was well thought-out (it took over a year of negotiations to establish), there has not been great enrollment in it, potentially because of its complexities.

Finding the right partner for this program is integral for its success. A potential partner would ideally have contacts in local communities, be willing to undertake a vetting process of individuals looking to join bike share, and ultimately associate its credit card with memberships for unbanked people in their communities.

Another option is to create an anonymous pre-paid card for the bike share program that requires certain minimum funds on the card to use the bike share program. The amount of the minimum funding would be determined based on the organization taking the risk on potential losses from such cards.

## Promoting Bike Share vis-à-vis Other Modes

Bike share performs best as a component of an integrated, multi-modal transit system. Among peer bike share systems, some of the busiest stations are located at major transit hubs such as Washington DC's Union Station and Boston's North and South Stations. Bike share will complement the existing bus, subway and rail network in Philadelphia by providing improved last mile connections and overall accessibility for users. To have the greatest impact, bike share should be used as one of the tools to reduce single occupancy vehicle trips, parking demands, and to extend the reach of transit; to achieve this, close cooperation with SEPTA and PATCO and integration with existing transportation demand management (TDM) strategies is important.

### ***Bike Share and TDM***

Transportation demand management is an umbrella term for a range of policies and programs used to reduce single occupancy vehicle (SOV) use and promote alternative modes such as walking, biking, carpooling and transit. TDM strategies perform best in places with already strong transit and pedestrian resources. Philadelphia has an existing large transit network, pedestrian-oriented urban fabric, and growing network of bicycle facilities.

Bike share can build off of existing TDM programs in two important ways: through the site plan review process and as a component of TDM marketing. A growing number of communities are encouraging developers to sponsor and locate bike share stations on their properties as part of the site plan review process for new development. In Arlington, Virginia, developers can sponsor stations as a way to mitigate the traffic impacts of new development and even reduce development parking requirements.

Marketing is another major focus of TDM. Bike share can be incorporated into existing materials promoting alternative modes and potentially reach a wider audience than through traditional marketing channels. Philadelphia bike share does not have the benefit of a dedicated city or regional TDM agency to support marketing and outreach, but the system can coordinate with existing partners involved in TDM, such as the City of Philadelphia, the Delaware Valley Regional Planning Commission (DVRPC), and local Business Improvement Districts (BIDs).



**Figure 4.1 – Capital Bikeshare features prominently in materials developed by Arlington County Commuter Services, Arlington County, Virginia’s TDM Agency (photo: Arlington County, 2012)**

### ***Bike Share and Transit***

Bike share can be an important addition to the city’s public transportation network. In cities with established bike share networks, bike share acts as a complement to existing transit and provides expanded access and service levels for transit riders; with bike share stations at major bus terminals and rail stations, the effective range of the transit system can be significantly increased. Programs like Capital Bikeshare achieve annual trips comparable to the ridership of a mid-size transit system.



**Figure 4.2 – Boston’s North Station features what may be North America’s largest bike share station, with over 50 docking points (photo: Anubis Abbys, Flickr.com, 2013)**

Philadelphia’s bike share program should coordinate closely with SEPTA (Southeastern Pennsylvania Transportation Authority) and PATCO (Port Authority Transit Corporation) to locate stations at major transit hubs. At the time of this plan completion, SEPTA is currently undertaking a major overhaul of their fare system. The SEPTA fare project is an open system that follows the ISO/IEC 14443 for contactless standard for smart cards. Once this system is up and running it will allow for any bank card (credit/debit) or non-bank issued card that complies with the contactless standard to be eligible for use on the system. In addition the new system we will still allow and use read-only magnetic tickets.

Currently the third generation bike share systems already operate with credit/debit card subscription and verification service. Specifying that the Philadelphia system be able to accommodate the standards consistent with the SEPTA fare project may provide an avenue to pilot an integrated fare system for transit and bike share users. In order to ensure accountability by users of the bike share system, the SEPTA fare system must allow a person to have an account and credit card associated with the fare card, as opposed to an anonymous fare card.

Coordination can begin by working with SEPTA to locate bike share stations on SEPTA property such as subway stations, regional rail stations, and bus loops, to provide strategic transit connections for the system, and staying closely engaged with SEPTA as the fare project moves forward to develop a strategy for fare integration as bike share moves forward.

## CHAPTER 5: BUSINESS MODEL

As The City of Philadelphia seeks a business model for a bike share system that is simultaneously robust, financially stable and minimized risk for successful implementation, the model should provide the flexibility to maximize potential for different sources of funding and geographic expansion, while being nimble, with the ability to implement a system quickly for a 2013 RFP process and a 2014 system implementation. Because Philadelphia has had the opportunity to analyze many different “first shots” at both successful and challenging business models, the City is in the position to choose the model that fits its needs best, as well as to responsibly consider variations on models that have not yet been implemented to create an international best-in-class business model for a bike share system.

The following table lists the different potential business models on the vertical axis and outlines the characteristics desired by the City on the horizontal axis. With the circles, it ranks the business models for each of these characteristics. Following the table, based on the rankings, we describe the recommended business model and outline some specifics of its implementation.

**TABLE 5.1 –Potential business models vs. desired characteristics by the City of Philadelphia**

Model	Ownership and Capital and Ops Funding	Operations	Potential Funding Sources	City Control over Site Planning and Non-Financial Goals	Potential for Regional Expansion and Stakeholder Input	Speed / Nimbleness in Implementation	Examples	Other Notes
City-Managed	City	Contractor	<ul style="list-style-type: none"> <li>City, state, federal, private; however it may be more difficult to access some of these funds in a nimble manner</li> </ul>	<ul style="list-style-type: none"> <li>Maximum control because direct city contract and funding</li> </ul>	Contractual relationships and revenue / expense sharing can be difficult; no official means for stakeholder input	<ul style="list-style-type: none"> <li>Fastest because no agreements / contracts required</li> </ul>	Capital Bikeshare (Washington DC); Hubway (Boston) <sup>12</sup>	Fastest and simplest; however, does not plan for future structural and funding needs
Existing Nonprofit / Authority	Nonprofit / Authority	TBD <sup>13</sup>	<ul style="list-style-type: none"> <li>City, state, federal, private, foundations, bonds (if authority); existing infrastructure makes it most capable of accessing many different types of funds</li> </ul>	<ul style="list-style-type: none"> <li>Because of other stakeholders and existing board, medium – high control</li> </ul>	<ul style="list-style-type: none"> <li>Can leverage existing regional relationships and contract structures for regional expansion; create “Management Committee” for stakeholder input<sup>14</sup></li> </ul>	<ul style="list-style-type: none"> <li>Speed depends on identifying the correct organization</li> </ul>	None	Must identify the right organization that has the support and capability to undertake this high-profile project
New Nonprofit / Authority	Nonprofit / Authority	Nonprofit / Authority <sup>15</sup>	<ul style="list-style-type: none"> <li>City, state, federal, private, foundations, bonds (if authority); new infrastructure creates less financial stability</li> </ul>	<ul style="list-style-type: none"> <li>Because of other stakeholders, medium – high control</li> </ul>	<ul style="list-style-type: none"> <li>Create new contractual relationships for expansion; stakeholders would have board seats</li> </ul>	<ul style="list-style-type: none"> <li>Slowest because new infrastructure and capacity must be built</li> </ul>	Nice Ride Minnesota (Minneapolis); Denver Bike sharing	New infrastructure must be established
Privately Owned and Operated	Contractor	Contractor	Private	<ul style="list-style-type: none"> <li>Minimum control because overriding goal must be financial sustainability of system</li> </ul>	<ul style="list-style-type: none"> <li>Create new contractual relationships for expansion; no official means for stakeholder input</li> </ul>	<ul style="list-style-type: none"> <li>Speed depends on availability of funding by contractor</li> </ul>	DecoBike (Miami); Citi Bike (NYC)	If sponsorship is relied upon for capital, loan financing required

<sup>12</sup> In Boston’s Hubway, contractor is responsible for 50% of operating costs through system revenues. City has profit-sharing arrangement with Contractor

<sup>13</sup> There are no systems of significant size that operate under an existing organization. Operations could be contracted out or performed by that organization.

<sup>14</sup> Stakeholders could include City, major sponsors, institutions and regional partners.

<sup>15</sup> In many existing models, such as Nice Ride Minnesota and Denver Bikesharing, the nonprofit operates. However, Seattle has created an “Administrative Nonprofit” which has issued an RFP to operate so that the nonprofit simply fundraises and manages the contract.

## Recommended business model

Taking into account the important factors above, the recommended business model is for the City to identify the appropriate existing non-profit or authority to own the system and manage the contract with a private contractor. This model maximizes funding flexibility, speed to implementation and regional expansion while allowing City control over important issues such as site planning and other non-financial goals such as access by low-income communities.

### Outline of selected model

#### *Start-up Strategy*

First, the City must identify the appropriate existing non-profit or authority as a partner. The organization should have significant infrastructure and experience in different types of public and private funding, have an existing relationship with the City and be willing and flexible enough to undertake the procurement process and contract management required for this high-profile project.

Then, the City will enter into an agreement with this organization regarding management for the bike share project. The City and the organization will write and issue the Request for Proposals. All funding for the bike share project, city, state, federal, private or foundation shall be funneled through the organization.

#### *Contract Management and Oversight*

Once the contract is signed, the organization will be responsible, either through its own employees or via consulting services, for contract management and oversight to ensure a successful system launch and enforcement of service levels and other contractual requirements.

#### *Other Roles to be Defined*

While writing the RFP, the identified organization will have to decide on the particular operational role which it would like to play. Roles that the organization will not play should be identified in the RFP as roles for the vendor. Specific roles to be defined are:

- Sponsorship acquisition
- Site planning and permitting
- Public relations
- Naming and branding
- Pre-launch marketing (website design, events, special membership )
- System setup and launch
- Ongoing operations
- Ongoing marketing

All of the above items can be split out and could be performed by the organization itself, or one or more contractors or consultants. The exact staffing need by the organization will be determined by what roles it chooses to undertake both for launch and ongoing operations.

## Anticipated Staffing Needs

The Philadelphia bike share system will require a dedicated staff to operate and administer the new system. Operating staff will perform functions such as bicycle rebalancing, bicycle and station maintenance, station site planning, and direct customer service. Operations staff can be either directly employed by the entity responsible for Philadelphia's bike share system or by a third party vendor. The cost of such staff is included in the general operating costs for the system and will grow proportionally to the system size.<sup>16</sup>

Other aspects of the bike share system will need to be managed by the public authority or organization overseeing the bike share vendor's implementation and operations of the system. This public organization will be responsible for the overall management, public relations, financial planning and reporting, initial station planning, performance analysis, and planning for the future of Philadelphia's bike share system.

At the outset of the bike share system, at least three positions will be required to staff Philadelphia's Bike Share system: a *General Manager*, a *Financial and Grants Manager*, and a *System Planning Fellow*. After the first system launch, the operator will assume all station planning responsibilities. The roles and responsibilities envisioned for these three positions are outlined in the table below.

Table 5.2 – Staffing Positions

Position	Responsibilities
General Manager	Overall system management and public relations. Serves as the public spokesperson for the system. Works with the entity governing the system's operation, produces press releases, and presents on the bike share system to interested audiences and at public outreach events. Works with the bike share vendor and Financial and Grants Manager to ensure the system's financial stability. Responsible for the maintenance and reporting of all system performance data. Leads the development of the Annual Report and other analytical and reporting activities as needed. Financial and Grants Manager and the System Planner report directly to and work collaboratively with the General Manager. Oversees the work of any contractors.
Financial and Grants Manager	Maintains financial records for the system, including the development of annual budgets. Works with vendor and other stakeholders to identify potential sponsors and maintain sponsor relationships. Identifies and applies for federal, state, and local grants that may fund the bike share system, and completes all reporting requirements related to grants. Responsible for the reporting and analysis of financial information for the bike share system, including monthly data on farebox recovery and the financial performance of the system and assisting with the development of the Annual Report.
System Planning Fellow	Plans initial station locations and obtains permits and other necessary approvals for installation of stations in coordination with the bike share operator (if outside vendor is used). Works with the public through a variety of public outreach activities to identify specific station locations. After the first system launch, the operator would assume all station planning responsibilities.

The General Manager would be a higher mid-level to senior-level position, the Financial and Grants Manager is a mid-level position, while the System Planner is envisioned as an entry-level fellowship. The General Manager should have a background in non-profit or public sector management; experience in

<sup>16</sup> The financial model in Chapter 7 assumes that the operating staff will be employees of a contracted vendor.



transportation system management may be preferred. The salary range for this position is estimated at \$70,000 to \$80,000.<sup>17</sup> The Financial and Grants Manager should be an individual with experience in public sector financial management and preferably experience or exposure to public sector/transit grants management. The salary range for this position is estimated to be in the \$55,000 to \$65,000 range. The System Planner should be able to work with a variety of stakeholders, including the general public, private land owners, and public sector stakeholders, to plan for and site the bike share stations. The salary range for this position is estimated to be in the \$45,000 to \$55,000 range. All salaries are inclusive of benefits.

In addition to these three core staff positions, there is also a need to fund the public outreach associated with the planning and launch of bike share. Public outreach can be conducted by a third party contractor, or directly by the City of Philadelphia. Another possible use of an outside contractor may be for an annual user survey, however, the bike share system staff may choose to take some aspects of the survey administration and analysis as staff capacity allows.

Philadelphia's bike share system will have an estimated administrative cost of \$300,000 in its first year of operation, and \$170,000 every year thereafter (in constant dollars). Administrative costs are expected to remain constant over the first five years (growing only at inflation) and the initial staff should be sufficient to accommodate the first two phases of growth. The following is a breakdown of estimated administrative costs for the system:

Salary Type / Expense	First 12 months	Subsequent Years*
General Manager	\$80,000	\$80,000
Financial and Grants Manager	\$65,000	\$65,000
System Planning Fellow	\$55,000	-
Consulting / Contracting Fees	\$25,000	-
Public Outreach	\$50,000	-
Annual Survey Costs	\$25,000	\$25,000
<b>TOTAL</b>	<b>\$300,000</b>	<b>\$170,00</b>

\* Costs shown for subsequent years are in constant dollars.

## Marketing

Separate from the administrative costs of the system will be a \$200,000 (FY2013 Dollars) budget for marketing of the system. This money will go toward promoting bike share among the general population, targeted outreach to specific groups, and coordinated marketing toward tourists. See Chapter 5 for an in-depth discussion of marketing strategies.

## Recommendations for Bike Share Operator Reporting and Accounting Requirements

Maintaining accurate system and financial data will be an integral part of ensuring that Philadelphia's bike share system functions well and is financial sustainable. Accurate data collection and reporting is

<sup>17</sup> All salaries shown are comprised of 80% wages and 20% benefits, e.g., the General Manager position would be a \$66,667 salary and \$13,333 worth of benefits.

needed both to inform the system's administrators how the system is performing and to comply with accepted accounting and transit financial planning practices.

### **System Data**

Any contract with the system operator needs to stipulate what data will be provided to the bike share system management on a monthly basis. The contractor should provide the data both in a raw format as a database and in a formatted report that includes graphs and tables showing both monthly and annual (when applicable) performance. It is important to note that the contracting agency should mandate that it *owns* all trip data generated by the system. In addition, the agency should have access to raw data for data auditing rights for operations and maintenance measures, although it is not crucial that it owns such data. Finally, the agency should have direct real-time access to membership and ridership information, and the ability to download any historical membership and ridership information without requesting the system vendor.

The types of data that must be reported on a monthly basis should cover *at a minimum* the following topics:

- Membership
  - Annual Members (New, Expired, and Renewed)
  - Casual Members
  - Member residency information
- Ridership and Usage
  - Daily ridership (by member type)
  - System-wide or total ridership (by member type)
  - Station-level ridership (origin and termination) (by member type)
  - Ridership by day by average daily temperature
  - Trips per bicycle
- Financial information
  - Monthly revenue (by revenue type, including annual members, casual members, corporate members, gift certificates and usage fees)
  - Refunds or chargebacks
- Marketing information
  - New memberships
  - Renewals
  - Events
  - Social media
  - Discounts / offers and analysis of their success
- Operations and Maintenance
  - Number and type of employees
  - Rebalancing activity
  - Instances (and length of time) of full and empty stations
  - Any service disruptions or suspensions
  - Number of bicycles in fleet and in service
  - Crash summary
  - Bicycle and station repairs
  - Theft and vandalism
  - Customer service metrics
  - New station installations

Within these data topics, the vendor may propose or the bike share administrative staff can dictate a number of more specific desired measures. This raw data can be used by the system's administrative staff to run a number of more complex analyses to be included in a system evaluation or similar analysis to help inform decision making. Some of this data may also be made available to the public for their use through the use of an online dashboard or data release as other bike share systems have done.

In addition to the data provided directly by the bike share vendor, other data will be required to complete the system performance measures described in Chapter 2. An annual system ridership survey is needed to capture information such as member demographics and socio-economic profiles, trip purpose, frequency of use, economic development impacts, and the impact of bike share upon reducing the use of car travel. This survey must consist of two aspects: the online membership survey and a walk-up intercept survey to capture information from casual users and ride-by-ride information from all users. Geographic Information Systems (GIS) analyses and financial data maintained by the system administrator will also be required to report on some of the proposed performance measures. All of this analysis is useful for measuring system performance and helping to determine the most strategic approach for system growth and modification over time.

### **Financial Data**

Monthly financial statements on the performance of the Philadelphia bike share system should be prepared for internal use, and the Philadelphia bike share system should publish a publicly available annual financial performance summary each year. Financial data for the Philadelphia bike share system should be maintained in accordance with **generally accepted accounting principles** (GAAP) as the meaning specified in generally accepted auditing standards issued by the American Institute of Certified Public Accountants (AICPA). Annual audits of the bike share system, compliant with the principles of the **generally accepted government auditing standards** (GAGAS), as specified by in Government Auditing Standards (December 2011)<sup>18</sup>, are also recommended. It is likely that this audit may be performed as a part of the larger organizational audit should the administration of the Philadelphia bike share system be assumed by an existing public agency. By ensuring that the financial elements of the bike share system are transparent and follow sound business practices, the system will be in a better position to obtain future public funds and to be incorporated into the budgets of the public authority in which the system is expected to be administered from.

The financial data reported needs to clearly communicate the full expenses and revenues of the bike share system. The operating costs of the system should be broken down to include both the costs incurred by the operator or vendor of the bike share system and administrative costs (such as staff time for contract oversight). Capital expenses incurred can be reported at a summary level, but records maintained need to capture the date and type of expense, and reference the purchase order or receipt documenting the purchase made.

Revenues should be reported by source, including federal, state, and local grants, private grants, station and/or system sponsorships, advertising, membership fees, usage fee, and other sources. The financial documentation maintained by the Philadelphia bike share system should allow administrators to quickly understand system expenses funded by each individual revenue source.

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<sup>18</sup> The Government Auditing Standards are also known as "The Yellow Book," published by the U.S. Government Accountability Office (GAO).

In addition to a complete reporting of operating and capital expenses and revenues of the Philadelphia bike share system, there are several measures of financial performance that need to be included in both the monthly and annual financial statements. The **farebox recovery ratio**, a typical measure of financial performance used in transit, measures the percentage of operating costs covered by fares. In a bike share system the fares include both the membership (annual and short-term) and usage fees. It is important to include the entire operating costs (the system operator's fees and the administrative expenses) when calculating the farebox recovery so as not to overstate this measure. The **average cost per trip per user** and the **operating cost per trip** can both be derived from the data provided on a monthly basis, and the former is a performance measure (see Chapter 2 / Performance Measurements) that should be tracked regularly as an indicator of financial success. **Total revenue generated by trips over 30 minutes** is also a performance measure that relies upon the system's financial data, as is the **percentage of operations paid for through user fees and private sponsorships**.

## CHAPTER 6: DEVELOPING CONTRACT, REVENUE AND SPONSORSHIP MODEL

### User Fee Model

#### Overview of existing pricing structures among peers

Most existing systems allow subscribers to make as many trips as often as they like without additional charge provided they return the bicycles to a system station within 30 to 60 minutes. Operators generally begin to charge gradually increasing fees after this free period to discourage users from keeping the bicycles when they are not being used, encouraging turnover and ensuring that bicycles are readily available for other system subscribers.

Typically bike sharing programs have a two-tier fee schedule which, in some instances, has generated enough revenue to offset the cost to operate the system. This user generated revenue consists of:

- **Access fees:** Fees that the user pays up front to gain access to the system. Regularly referred to as membership fees, these are offered for a variety of time periods ranging from a one day subscription to an annual membership. The costs of these vary from \$5 up to \$75 depending on the type of subscription (see table below).
- **Usage fees:** Pay-to-ride fees are charged based on how long the user utilizes the system. As expressed before, most existing U.S. system offer a “free ride” period which ranges between 30 to 60 minutes and where the user incurs in no additional costs if the bike is returned within that time period. After that initial “grace period” is completed ridership fees are charged on a graduated scale which tends to vary from city to city. In some cities, the free ride period and the graduated rate scale can be different for annual members (typically residents) and casual users (typically visitors).

Some factors taken into account when establishing the pricing system include competition with existing bike rental vendors, comparison with existing transit trip fees, need to encourage short trips and bicycle turnover, and maintain membership fees attractive to different types of users and aligned with the affordability goals of the system. The following table contains a review of existing programs in comparable jurisdictions:

**Table 6.1 – Peer Systems’ Fare Structure**

	LARGE SCALE SYSTEMS			MEDIUM-SCALE SYSTEMS	
	DC/Arlington	Minneapolis	Miami Beach	Boston	Denver
<i>Annual Membership</i>	\$75.00	\$60.00	N/A	\$85.00	\$65.00
<i>30 Day Membership</i>	\$25.00	\$30.00	\$15 - \$35	N/A	\$30.00
<i>Weekly Membership</i>	N/A	N/A	N/A	N/A	\$20.00
<i>3 Day Membership</i>	\$15.00	N/A	N/A	\$12.00	N/A
<i>Daily Casual</i>	\$7.00	\$5.00	\$24.00	\$5.00	\$6.00
<i>First Half-Hour (member)</i>	\$0.00	\$0.00	N/A	\$0.00	\$0.00
<i>Second Half-Hour (member)</i>	\$1.50	\$1.50	N/A	\$1.50	\$1.00
<i>Third Half-Hour (member)</i>	\$4.50	\$4.50	N/A	\$4.50	\$4.00

### *Reliance on Casual Users to Generate Revenue*

Existing systems have noted that farebox recovery for a bike share system can vary widely by month depending on the number of rides, number of active members (i.e. monthly, annual members), as well as the number of casual users (i.e. daily, weekly, 3-day passes). While local subscribers generate higher ridership as evidenced the experience in Capital Bikeshare<sup>19</sup>, Denver B-cycle<sup>20</sup> and Nice Ride<sup>21</sup>, it is the casual user who tends to generate a substantially higher revenue stream when compared to local subscribers. To this end, casual users seem to provide greater economic benefit to the overall system while generating less operational costs.

Casual usage in areas with close proximity to tourist and recreation attraction has also helped drive revenue in existing programs. The 2012 Arlington County Capital Bikeshare Transportation Development Plan, demonstrated that casual ridership, especially around stations with close proximity to tourist and recreation areas (ex. close proximity to the National Mall), made up an important portion of the total users' revenue for the program. Furthermore, the data showed that those stations located in high tourist areas were more likely to generate more revenue than any other comparable station outside tourist areas, and consequentially help subsidize other portions of the system.<sup>22</sup> The City of Philadelphia should consider the importance of casual users in helping drive revenues and could potentially be reinvested into the maintenance and potential expansion of the proposed system.

## **Evaluating Existing System Fee Structure**

Although it is crucially important to review pricing structures in comparable cities, it is also important to not only turn a critical eye to those pricing structures, but understand their background and analyze how the fee structure can be optimized to achieve the goals of the Philadelphia system.

### **History**

JC Decaux, a French outdoor advertising company, launched the first large-scale third-generation system in Lyon with 5,000 bikes in 2005. In the summer of 2007, JC Decaux launched the massive Velib system in Paris with 20,000 bikes. These systems, which relied on no public funding, but were paired with large outdoor advertising contracts for the respective cities, introduced the pricing structure that has become typical for bike share across the world:

Membership fee (annual, weekly, daily) paid up-front  
30 minute free period  
Usage fees charged at increasing 30-minute increments

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<sup>19</sup> Arlington County Capital Bike Share Transportation Development Plan. November 2012. Accessed on April 9, 2013 from [http://www.bikearlington.com/tasks/sites/bike/assets/File/Arlington\\_County\\_Capital\\_Bike\\_Share\\_TDP\\_FY2013-2018\\_Nov2012.pdf](http://www.bikearlington.com/tasks/sites/bike/assets/File/Arlington_County_Capital_Bike_Share_TDP_FY2013-2018_Nov2012.pdf).

<sup>20</sup> 2011 Annual Report. Denver Bcycle. Accessed on April 9, 2013 from [http://www.denverbikesharing.org/files/DBS\\_2011\\_Annual\\_Report.pdf](http://www.denverbikesharing.org/files/DBS_2011_Annual_Report.pdf)

<sup>21</sup> Nice Ride Minnesota. System Optimization and Next Steps. Accessed on April 9, 2013 from [https://www.niceridemn.org/\\_asset/lps5db/ProjectReport-102212\\_toprint.pdf](https://www.niceridemn.org/_asset/lps5db/ProjectReport-102212_toprint.pdf).

<sup>22</sup> From the Arlington County Bike Share Transportation Development Plan: The station at Lake Calhoun Center (an "Attraction Point" station located relatively far from other stations) generates more revenue than any other station in the system (approximately \$17,800 per year). By comparison, the busiest "Network" station in the system, IDS Center, generates about \$7,000 per year.

The Montreal mayor, Gerald Tremblay, visited Paris, and subsequently launched Bixi, the first large-scale system in North America, in 2009. They used the same pricing model. Systems in the US started launching in 2010, simply using similar pricing models, as the other ones seem to have worked.

#### *Difficulties with Existing Pricing Model*

For many reasons, this model is very effective and interesting:

- Encourages high ridership
- Low-cost to the user
- Encourages short-term use for high bike turnover
- Allows bike rental to have a different share of the market from bike share

However, in our experience in the US, which has introduced many different business models different from the outdoor advertising model, the pricing structure, there are significant issues to this model, including:

- *The people using the system the most are barely supporting the system financially.* 67 – 80% of the rides are by members; however, only approximately 30% of the revenue comes from members.
- *The pricing structure of bike share encourages people to use the system at rush hour, exacerbating the problem of “dock-blocking”.* The worst experience for a bike share user is to come upon a full station. Capital Bikeshare members have coined this “dock-blocking” on social media. Almost all transit systems have peak and off-peak fees. This allows the operator to provide better service (for example, more trains) at rush hour. However, the free 30-minute period does nothing to either help pay for better service during rush hour or lower usage during rush hour.
- *The pricing structure does not give flexibility to offer dynamic pricing models to lower operating costs.* Many, many analysts have thought that introducing financial rewards via a pricing model that changes based on potentially moving a bike from a full station to an empty station could help significantly reduce dock-blocking, reduce the need for rebalancing (the largest operating cost) and therefore operating costs. There have been some experiments in rewards such as gift cards, etc., but these rewards have not been significant enough to create a meaningful change in rider behavior. The pricing structure, paid up front with a free 30-minute period, does not give the operator any options to create a per-ride credit for riders so that they may earn a free membership.
- *The pricing structure is confusing.* The number one complaint about bike share is that many people do not understand the pricing structure. They believe that the 24-hour membership fee allows a person to check out a bike for the full 24 hours, rather than giving unlimited 30 minute rides for a 24-hour period. This leads to people being unknowingly charged significant fees when they check a bike out for longer than 30 minutes, and then angry customer service calls. Each system has attempted to communicate to the rider in different ways, but none have been very successful, including a widespread confusion in the media in NYC when it was introduced in May 2012.
- *The current pricing structure is significantly out of line with comparable transit systems in the same city.* Typically, the annual bike share membership costs roughly equal to or less than the monthly subway pass. This is true for systems in Boston, DC and NYC.
- *The current pricing structure actually incentivizes the operator to discourage riding by annual members, which goes against the system goals.* For the operator, more rides that are taken by annual members create increased operating costs without increased revenue.



### **Optimizing Pricing Structure**

The City should carefully consider options that provide a range of cost structures that can provide for greater accessibility and lower cost for entry into the system. Optimizing the fare structure will expand user access to a wider range of users, as well as increase the overall cost recovery by use. It will also serve to make the fare structure more transparent to users, lowering complaints and increasing customer satisfaction, which is important to potential sponsors, to the City and to the operator.

Such options may include per-trip fares, including pre-paid trip bundles, and daily, weekly and monthly unlimited rides. All of these options must still establish usage fees after a certain time period, as the system must incentivize users to return bikes.

There are not data available to evaluate the possible impact of this pricing scheme on ridership and system use, so further analysis, focus groups or pilot testing of alternate price schemes should measure how new fare structure meet program goals and objectives. .

### **Sponsorship Valuation**

Sponsorships are a critical component to raising the necessary funds to launch and operate Philadelphia's bike share system. Numerous bike share systems rely on sponsorship agreements for funding to various degrees. Some systems like Boston's Hubway, through a title sponsorship agreement with New Balance and individual corporate sponsorships for stations, are able to supplement public funding with private sponsorships to pay for capital and operating costs. Other systems, like New York's soon to be launched Citi Bike, forgo public funds entirely and rely on sponsorships to fund all system costs not covered by user-generated revenue.

As bike share is a relatively new mode of transportation, no best practice has been established for valuing and securing sponsorships. To date, every system has developed a distinctive sponsorship strategy, from large commercial title sponsorship agreements to funding arrangements with non-profit partners. To meet the program's fundraising targets, Philadelphia's bike share program will have to explore a mix of sponsorship strategies, from engaging the city's anchor non-profit institutions to bringing in corporate sponsors to help fund the system in exchange for branding rights.

Philadelphia's bike share system is a highly valuable sponsorship asset, similar in scale to sponsorships for event venues or sports stadiums. The system will be deployed across the region's core, with stations located in some of the highest traffic locations in Philadelphia. Thousands of bike share customers will interact with the service every day, representing a valuable demographic sponsors will directly connect to. Moreover, hundreds of thousands of employees, tourists, and residents will pass bike share stations daily, giving a title sponsor high profile exposure to a large audience.

Sponsorships extend beyond a large scale title sponsor, and many systems employ a mix of local sponsors along with a title sponsor; companies can sponsor stations to gain more local visibility or provide additional amenities to their employees; universities may fund stations to enhance the mobility of the student population; and non-profits could sponsor stations to extend the reach of the system to target populations.

## Comparable Sponsorship Figures

As bike share is a relatively new kind of sponsorship opportunity, there are few comparable sponsorship types. The “newness” of bike share may be an advantage, but can also be a drawback because the marketing value is not easily quantifiable.

There is no precise method for valuating a bike share sponsorship. In North America many of the early sponsorship agreements were between non-profit partners or the charitable arm of corporate sponsors and do not entirely reflect the true market value of a bike share sponsorship. New bike share systems have begun more aggressively pursuing significant corporate sponsorship agreements – in 2012 New York City secured a \$41 million title sponsorship with Citibank, representing the highest value sponsorship agreement to date for a bike share system in the United States, and the highest worldwide on an annualized basis; Barclays’ ten year sponsorship of bike share in London was secured at £50 million, about \$76 million US.

Along with looking at the comparable sponsorship values among peer bike share systems, sponsorships of other transportation infrastructure and sport venues provide valuable comparable figures. In addition, sponsorships of public transit assets are emerging as a common means to raise revenue for cash-strapped transit agencies. Stadium sponsorships have been common for decades and represent some of the most valuable types of sponsorships in existence.

## Bike Share Sponsorships

Bike share systems typically receive two types of sponsorships: station sponsorships for new stations and equipment, and title sponsorships that go toward the entire system. Among the major North American bike share systems, Minneapolis, Boston and New York City utilize a title sponsorship. In early bike share systems, title sponsors often funded bike share because of a shared mission or charitable goal. For example health insurer Blue Cross Blue Shield sponsors Minneapolis’s Nice Ride system through settlement proceeds from lawsuits against tobacco companies. New systems such as Barclay Cycle-Hire in London and Citi Bike in New York have received sponsorship deals that resemble more typical commercial sponsorship agreements. In these sponsorship agreements the title sponsor is clearly apparent in the system branding and naming. Title sponsorship deals are usually multi-year contracts, with the sponsorship funds distributed evenly over the contract’s length.

Station/bicycle sponsorships are another kind of frequent sponsorship used by peer systems. With a station sponsorship an organization funds part or all of the cost of installing, and sometimes operating, a new station. Most station sponsorships include the sponsoring organization’s logo on the station itself; Denver B-Cycle includes sponsor logos on the bicycles on a set number of bikes.

**Table 6.2- Select Bike Share Sponsorship Agreements**

Asset	Sponsor	Year	Value	Duration	Annual Value
<b>Bike Share Title Sponsors</b>					
New York Citi Bike	Citibank	2012	\$41 million	5 years	\$8.2 million
London Barclays Cycle-Hire	Barclays Bank	2010	£50 million (~\$76 million)	10 years	\$7.6 million
Boston Hubway	New Balance	2011	\$600,000	3 years	\$600,000
<b>Non-Title Sponsors</b>					

Boston Hubway	Multiple station sponsors	2011	\$150,000	3 years	\$50,000
Denver B-Cycle	Multiple Sponsors (\$20k-\$30k per sponsorship)	2012	\$603,000	1 year	\$603,000

### Transit Sponsorships

Station sponsorships on public transportation provide a valuable comparison for bike share, as transit stations also feature daily use by riders as well as a captive audience passing by the station. Presently there is only one transit sponsorship in Philadelphia, SEPTA's AT&T (formerly Pattison) Station located on the Broad Street Line. The five year, \$5 million sponsorship, includes naming rights to the station, and AT&T branding on all SEPTA system maps. The value of the station sponsorship is partially due to the station serving Philadelphia's three most popular sports venues.

Outside Philadelphia, a number of cities have experimented with transit station sponsorships, and sponsorship values differ widely among cities. Naming or advertising exclusivity seems to drive up the value of a sponsorship agreement. Boston's MBTA is currently selling naming rights to select stations for over \$1.5 million dollars each annually; while this program is just beginning anew, the agency has had station sponsorship in the past. CTA in Chicago signed a \$3.9 million, 10 year deal with Apple that grants the firm exclusive advertising rights within a station. In New York, the MTA received \$200,000 per year from Barclay Bank to rename Atlantic Yards Station as Barclay / Atlantic Yards, after the opening of the adjacent new Barclays Center, a performance and sports venue. This deal was likely less valuable compared to the other sponsorship agreements due to the station name simply being appended to include the sponsoring company.

**Table 6.3- Select Transit Sponsorship Agreements**

Station	Sponsor	Year	Value	Duration	Annual Value
SEPTA: Pattison Station	AT&T	2010	\$5,000,000	5 year	\$1 million
MBTA: Subway (T) Stations	None currently	Ongoing	\$1,560,000 - \$1,760,000 per station	Annual	\$1,560,000 – \$1,760,000
CTA: North/Clybourne Station	Apple Inc.	2009	\$3,900,000	10 year	\$390,000
NYCT: Barclay/Atlantic Yards	Barclay Bank	2010	\$4,000,000	20 year	\$200,000

### Stadium Sponsorships

Stadium naming rights are some of the most lucrative sponsorships available. Firms receive extensive market exposure with stadium sponsors through regular game broadcasts and the high foot traffic at stadiums during events. As with the other two types of sponsorships, the value of stadium sponsors

seems to vary considerably. Generally larger cities garner more valuable station sponsorships. Citibank's \$400 million sponsorship deal for the new Mets Stadium in Queens is the highest valued stadium sponsorship deal in the United States to date; smaller markets such as Pittsburgh garner only a fraction of the annual sponsorship revenue.

**Table 6.4 – Select Stadium Sponsorship Agreements**

Station	Sponsor	Year	Value	Duration	Annual Value
CitiField (Queens)	Citibank	2009	\$400 million	20 year	\$20 million
Lincoln Financial Field (Philadelphia)	Lincoln Financial Group	2003	\$140 million	20 year	\$7 million
Heinz Field (Pittsburgh)	Heinz	2001	\$57 million	20 year	\$2.9 million
PPL Park (Chester)	PPL EnergyPlus	2010	\$11 million	11 year	\$1 million

## Types of Sponsorships

There are numerous opportunities for organizations to sponsor bike share systems. As the sponsorship matrix (Table 6.5) shows, each option has its own inherent benefits and drawbacks. Philadelphia's goal with sponsorships should be two-fold: to raise the necessary revenue to see the system fully funded and to build relationships with outside partners to support and advocate for the system. Below are the suggested major sponsorship types the bike share program should try to pursue.

### Title Sponsor

An exclusive title sponsor will likely be the most valuable kind of sponsorship the program can receive. The sponsorship contract should last for multiple years, capturing the full value of brand exposure at program launch. A title sponsor will likely require a certain degree of branding exclusivity, with stations and bikes featuring a company logo or color scheme. A title sponsor may agree however, to a limited shared title sponsorship; in New York City though Citibank is the system sponsor, MasterCard also contributes sponsorship funds to be the official payment partner, and station payment consoles all feature the MasterCard logo.



**Figure 6.1 – In 2012 Citibank Committed \$41 million to be the title sponsor of New York’s bike share program  
(Source: *Business Insider*, 2012)**

### **Station Sponsorships**

The system should also provide opportunities for corporations and institutions to sponsor stations. Station sponsorships should be valued differently depending on location. High traffic locations will be more valuable for sponsors than other locations, as will stations in areas with higher income residents. Station sponsorship agreements should at a minimum try to reflect the costs of purchasing, operating, and maintaining the station for the lifetime of the agreement. A potential way to price station sponsorships is by phase. As Phase 1A stations are in some of the most valuable locations within the city, sponsorships in those areas should be more priced higher than stations in phases in largely residential neighborhoods with less foot traffic or use. Station sponsorships should have standardized locations for sponsor branding; this is typically limited to somewhere on the map panel of the station so not to clash with the title sponsor branding.



**Figure 6.2- Harvard University Sponsored Stations in the Hubway System**  
*(Source: Harvard Gazette, 2013)*

### **Non-Profit Sponsors**

The system should actively seek out non-profit and institutional partners to sponsor stations. Lower traffic stations in outlying neighborhoods will provide numerous public policy benefits, including expanding mobility and encouraging an active lifestyle, yet will likely fail to attract interest for major corporate sponsors. The program should seek out non-profit organizations with an interest in other kinds of partnerships.

The bike share program should allow organizations to be involved with the program beyond a financial sponsorship. For the program to succeed, it will depend on neighborhood partners for outreach and marketing, especially in lower-income and immigrant communities. Non-profits and community organizations can help get the word out about bike share and even help subsidize the cost of bike share membership for their constituents.



**Table 6.5 – Sponsorship Matrix**

<b>Sponsorship Type</b>	<b>Description</b>	<b>Examples</b>	<b>Pros</b>	<b>Cons</b>
<b>Corporate Title Sponsor</b>	Corporation commits to multi-year sponsorship agreement in exchange for naming rights and coordinated branding on the system	NYC Citi Bike, Boston New Balance Hubway	<ul style="list-style-type: none"> <li>• Highest value type of sponsorship</li> <li>• Steady flow of revenue over multiple years</li> </ul>	<ul style="list-style-type: none"> <li>• Exclusivity provisions by the title sponsor may place limitations on other sponsorship</li> <li>• Program branding will be linked with an outside organization</li> <li>• If sponsorship is not renewed at end of contract, system will require rebranding Requires contract negotiation and signing significantly before system launch</li> </ul>
<b>Non-Title System Sponsor</b>	As with a title sponsor, a system sponsor makes a large financial commitment to the system. The system sponsor's branding may be featured on equipment and marketing material, however the system will retain a distinct brand and name from the system sponsor.	Minneapolis Nice Ride MN	<ul style="list-style-type: none"> <li>• Allows bike share system to retain its own distinct branding</li> </ul>	<ul style="list-style-type: none"> <li>• Less financially lucrative than a title sponsorship</li> </ul>
<b>Secondary Sponsor</b>	Organization sponsors program alongside the title sponsor. In exchange for sponsoring the program, organizations may receive marketing opportunities, media exposure, or limited branding opportunities.	MasterCard is NYC Citi Bike's "preferred payment processor" and the MasterCard logo is displayed on payment kiosks.	<ul style="list-style-type: none"> <li>• Provides additional revenue</li> <li>• Can be negotiated alongside a title sponsorship agreement</li> </ul>	<ul style="list-style-type: none"> <li>• Some potential sponsors may be subject to title sponsor exclusions</li> <li>• Secondary sponsorships may dilute value of title sponsorship</li> </ul>



Sponsorship Type	Description	Examples	Pros	Cons
<b>Station Capital Sponsorship</b>	Organization will fund part or all of the costs of purchasing and installing a new station. Developers, major employers, and institutions will sometimes sponsor a station on their property to serve their residents, employees, students, or constituents. Limited branding opportunities available.	Washington DC Capital Bikeshare, Denver B-Cycle	<ul style="list-style-type: none"> <li>Allows interested organizations to invest in system expansion</li> <li>Covers costs for system in locations valuable to the sponsor</li> <li>Sponsorships costs can be scaled by desirability of location</li> </ul>	<ul style="list-style-type: none"> <li>Branding options usually limited to name and logo on station kiosk</li> <li>May be challenging to find sponsors for stations in less desirable locations</li> <li>One-time payment does not cover operating costs</li> </ul>
<b>Station Operating Sponsorship</b>	Organization partially or completely funds the operations of a station. Limited branding opportunities available.	Hubway, Capital Bikeshare, Denver B-Cycle	<ul style="list-style-type: none"> <li>Typically multi-year contracts</li> <li>Can be tied with capital sponsorship</li> <li>Sponsorship costs can be scaled by desirability of location</li> </ul>	<ul style="list-style-type: none"> <li>Limited branding opportunities for sponsor</li> <li>If sponsor backs out, operator must cover expenses</li> </ul>
<b>Bicycle Sponsorship</b>	Organization funds the cost of purchasing bicycles. Can be tied with the cost of a station sponsorship. Branding opportunities on the bicycle.	Denver B-Cycle, Aspen We-Cycle	<ul style="list-style-type: none"> <li>Opens up additional asset for sponsorship.</li> <li>May attract sponsors not interested in other sponsorship forms</li> </ul>	<ul style="list-style-type: none"> <li>Can muddle the impact of sponsorships</li> <li>Different logos on bikes can cause sponsorship crowding and user confusion</li> </ul>
<b>On-Station Advertising</b>	Company purchases the advertising rights on station panels, similar to a bus shelter advertising contract.	Hubway, Capital Bikeshare (in RFP stage)	<ul style="list-style-type: none"> <li>Brings in additional revenue</li> </ul>	<ul style="list-style-type: none"> <li>Other sponsors may restrict what can be advertised</li> <li>Will not bring as much revenue outside system core</li> </ul>
<b>Bicycle Advertising</b>	Advertising space on bicycles (usually rear fender or basket) is sold.	Miami Deco Bike	<ul style="list-style-type: none"> <li>Brings in additional revenue</li> </ul>	<ul style="list-style-type: none"> <li>Can lead to ad clutter</li> </ul>

Sponsorship Type	Description	Examples	Pros	Cons
<b>Corporate Membership</b>	Organization can pay a lump sum to provide free or discounted memberships for employees or constituents. Corporate memberships can be provided to other sponsors who make a financial commitment of a certain size or greater.	Capital Bikeshare, Hubway	<ul style="list-style-type: none"> <li>• Allows for predictable stream of membership revenue</li> <li>• May make other sponsorship deals more attractive</li> </ul>	<ul style="list-style-type: none"> <li>• Can be sold at too much a discount so as to dilute costs of membership and flood system with low-paying members</li> </ul>
<b>Non-Financial Sponsor</b>	Organization supports the bike share program through constituent outreach and coordinated marketing. Especially important in increasing bike share participation among groups under-represented as bike share users.	None	<ul style="list-style-type: none"> <li>• Allow community organizations and local partners to support the bike share system and reach a wider audience</li> </ul>	<ul style="list-style-type: none"> <li>• Organizations are unable to make a financial commitment</li> </ul>

## Obtaining Sponsors

To better understand what kinds of sponsorship agreements were most valuable to potential sponsors, the project team held a focus group on March 19<sup>th</sup>, 2013 with a mix of public agencies, private companies, and non-profit institutions. The focus group, along with additional research, yielded some valuable lessons about how to develop and formulate sponsorship agreements.

### Target Audience

Companies make sponsorship decisions based on the target audiences they are attempting to reach through marketing. Every company and industry has a different audience based on age, race, income, or gender. For example, financial investment firms will typically look for opportunities that reach an audience that is 40 years or older, while a fashion retailer may instead look at reaching a younger audience.

For a system like bike share, the audience is not limited to system users. A sponsorship may reach the target audience through media coverage and an on-street profile. The people walking past bike share stations are just as much part of the audience as those using the system every day.

### Sponsorship and Corporate Mission

The organizations most attracted to sponsoring bike share will have mission or image that is compatible with the bike share program. The shared mission between bike share and a corporate sponsor does not have to be as apparent as that between New Balance and Hubway, or Blue Cross Blue Shield and Nice Ride. A tech company may be attracted to bike share because of its cutting edge image, a pharmaceutical company due to a shared mission of improving health, and fashionable retailer due to shared lifestyle values. Sponsorships provide companies a venue to connect with their audience on an emotional level.

While national firms may be interested in sponsoring a Philadelphia's bike share system, a major sponsorship will likely be more valuable for a local firm with close community connections, awareness of local image and a desire to be aligned with the City in this high-profile project.

### Demonstrating Value

Companies will value their sponsorships based on case studies from other systems and data on the impacted audience. When looking for a potential sponsor, Philadelphia should communicate the impact bike share has had in other cities and illustrate the high-profile of peer system title sponsorships. Sponsors will be interested in knowing information about typical users, including their age, income, education, and spending habits. Firms will need to quantify the value of media exposure through bike share, i.e., what kind of media coverage and air-time will a firm get through sponsoring bike share? Potential sponsors will also want to understand how visible the sponsorship will be, how many people will see the stations, and the demographics of the people who use the system and who will pass by it on a daily basis.

## Appeal of Different Kinds of Sponsorships

While there are many different components of the bike share system that can be sponsored and branded, there is a high value attached with the exclusivity of a sponsorship deal. For an organization to be a naming sponsor, they will most likely require that they be the exclusive title sponsor for the program. Other sponsor branding on stations, bicycles and the system name may devalue the sponsorship and confuse the audience. While under a title sponsoring agreement, organizations can typically still sponsor individual stations, however station sponsorship will have limited branding opportunities.

A good sponsorship agreement should also be able to play well with the local community. SEPTA's AT&T station sponsorship has backfired partially because people already had strong associations with Pattison Station before the renaming. In sponsoring a program, a firm does not want to alienate its target audience.

Finally, both title and station sponsors will likely place some restrictions on what other organizations can sponsor or advertise on the system. Companies typically maintain a list of firms and products they will not advertise alongside. A sponsorship agreement will require that the bike share program has the authority to enforce these restrictions.

## Pricing of Station Sponsorships

Pricing should reflect the marketing value of a specific location. Advertisers typically value a location based on foot traffic, exposure, and demographics of the surrounding area.

## Securing a Sponsorship

Obtaining a major sponsor will require the bike share system to actively market to potential sponsors. Typically a major title sponsor will have to be secured before the system sees major commitments from smaller station sponsors. The buzz and media coverage gained by launching the system will be highly valuable for a title sponsor and a title sponsor agreement should strive to lock the sponsor into a multi-year contract (typically at a minimum of five years). A sponsor, even through a multi-year contract, will likely want to spread sponsorship payments over multiple years. Sponsors think of their financial commitment in annual dollars and would not want to front-load sponsorship payments.

Securing a major sponsorship will be a critical step in getting the system funded and launched. Participants at the focus group stated that obtaining a title sponsor is typically the first step in a sponsorship strategy, and will help frame the other sponsorship opportunities and make supporting the bike share program more attractive. The bike share program has three options for securing a major sponsor:

- **In-House Sponsor Search** – Using existing resources and staff the stakeholders in the bike share program can work to obtain a major sponsor. This strategy does not require an upfront financial commitment, yet existing staff may not be able to secure as lucrative sponsorship deal as a third party with expertise in this field.

- **Hire a Firm to Lead the Sponsorship Search** – The bike share program can hire a firm to lead the sponsorship search. A company that specializes in obtaining sponsorships can bring a wide range of contacts to the table and expand the search among potential sponsors. The hired firm can also help the city secure the best terms on its sponsorship deal.
- **Revenue Sharing Deal with Firm to Obtain Sponsorship** – An alternative to hiring a firm to obtain a sponsorship is to partner with a company to find a sponsor. SEPTA used this strategy to obtain its \$5 million deal with AT&T through a partnership with Titan Outdoors. Typically the partner firm is awarded a share of the sponsorship revenue. The benefit of this model is that the bike share program will not have to expend upfront funds for obtaining a sponsor and the partner has a strong incentive to obtain the best sponsorship agreement. An appropriate commission for the bike share deal should be between 5 and 10%, less than the typical 10-20%, as it will require involvement and contacts from City staff to close a deal for this unique opportunity.

### ***Sponsorship Contracts and Financing***

When dealing with large, multi-year sponsorship agreements, a key element to consider is how to obtain the necessary financial assistance to fund the capital purchase of the system. Sponsorship revenue is typically spread out over the lifetime of the sponsorship agreement, e.g., five years, while capital needs are greatest at system startup. Even if the sponsorship deal's value is large enough to cover total capital needs, some financing will need be secured initially that is tied to future sponsorship revenue. Securing financing for the system will typically involve additional work by the sponsor, in concert with the City, the operating agency or authority, and possibly even the bike share vendor to secure a startup loan, if the financing cannot be otherwise provided by the agency or authority. For example, Citibank helped negotiate for New York's bike share program a low-interest loan provided by the Urban Investment Group and Goldman Sachs. The loan will be paid back by revenue generated from Citibank's five-year sponsorship agreement.

In New York, Citi Bike is privately owned, and the financing for the program therefore had to be secured by NYC Bike Share LLC, a subsidiary of Alta Bicycle Share, the operator and equipment provider. Privately sourced financing, i.e., loans taken out by the bike share vendor or equipment owner, require that a loan is secured against equipment and held in the name of the equipment owner. Other programs funded extensively through sponsorships, like London's Barclay Cycle-Hire, used public financing backed by future sponsorship revenue, an option that allow the system to remain in public control without the public agency taking on the risk associated with private lending.

Finally, because of the significant brand equity and financial investment placed by major sponsors into the system, sponsorship revenue may be tied to system performance. As Philadelphia's bike share program will rely on a predictable and steady stream of sponsorship funds through the length of the contract, the sponsorship contract should be tied to stable performance measures. Contracts with penalties for not meeting ridership or membership targets will expose the program to greater risk as the operator is not fully in control of meeting these measures. For example, in London, Barclay this year reduced its contribution to the bike share program by £1.5 million because the system has failed to meet certain targets.

## CHAPTER 7: FINANCIAL PLAN

### Capital Costs and Revenue

Philadelphia's bike share system will require a large initial capital outlay to fund the start-up and equipment costs for the system. Once the system is established, there will be an ongoing capital need to pay for new parts, vandalized or damaged bikes, and bicycle and station replacements. These ongoing maintenance and replacement needs, known as State of Good Repair (SGR) costs, will initially be only a small share of the capital budget but will grow over time to become quite substantial. All capital costs outlined in this plan assume a fixed station system like those seen in all peer cities. There are emerging technologies (see box to the right) that allow for deployment of bike share system without fixed stations; as capital costs are significantly different for such systems, these costs were not incorporated into the final model. All costs are shown by the City of Philadelphia fiscal year, which starts on July 1<sup>st</sup>, and inflation is accounted for in final costs.

**Philadelphia's bike share system is being developed to be a financially self-sufficient system that will require neither operating subsidy nor additional capital funding from the City of Philadelphia. This financial plan reflects already committed funding and anticipated user-generated revenue. All capital and operating shortfalls here represent needs that must be met by private contributions, sponsorship agreements and state and federal grants.**

While fixed stations have come to define third generation bike share systems, some companies are exploring the development of equipment that does away with stations entirely. U.S.-based companies Social Bicycles and ViaCycle recently brought to the market a new station-free line of bike share equipment. Bicycles are tracked by GPS and can be locked up at the end of use anywhere within a pre-defined service area. As there is no need for stations, capital costs are significantly less than typical station-based systems. While Social Bicycles and ViaCycle have contracts in place with a few smaller cities, universities and businesses, they have yet to be deployed in a large scale bike share operation, so it remains an untested model for cities looking to adopt bike share.



### Start-Up Costs

Before the system can be launched, a number of start-up investments need to be made, including procurement of a maintenance and storage facility, purchase of equipment needed for maintenance, development of a website, and pre-launch marketing. These costs are fixed regardless of initial system size and are estimated to be roughly \$600,000. Not included in this cost is any capital equipment necessary for operations, such as vehicles rebalancing bicycles and installing stations. The current

business plan assumes these costs will be the responsibility of a third party vendor brought in to oversee and run portions of the bike share operations.

### **Equipment Costs**

The Philadelphia bike share system is planned to roll out across two phases and five deployments<sup>23</sup>:

- Phase 1A: 50 stations in FY2015 (July 2014) – \$2.9 million
- Phase 1B: 60 stations in FY2015 (March – June 2015) – \$3.3 million
- Phase 2A: 30 stations in FY2016 (September – November 2015) – \$1.6 million
- Phase 2B: 25 stations in FY2017 (July – October 2016) – \$1.4 million
- Phase 2C: 20 stations in FY2018 (July – October 2017) – \$1 million

The deployment will require the purchase of stations, bicycles (at a rate of one bicycle per every two docks), and parts. Beyond purchasing costs, every new station will require site planning, permitting, and installation. The most popular bike share equipment vendors in North America all provide stations that are easily removable and can be assembled off-site and placed in the desired location. While the system is anticipated to be predominately solar powered, the cost model assumes that up to 20% of stations may require hardwiring into the power grid. Additional costs may apply for stations placed on private property due to the various permitting needs.

As with all capital equipment, the bicycles and stations purchased will have a limited useful lifespan. Bikes are expected to last five years while stations are anticipated to last ten years. These assumptions are based on current manufacturer warranty for currently deployed systems; current performance of existing systems suggests equipment may last longer. In the initial planning horizon of FY2014 to FY2020, major bicycle replacements are expected to only begin in FY2020 and no station replacements will be required until after the planning horizon, however large funding needs should be planned for in advance. During the planning horizon, the system will require a constant replacement of bicycles that have been damaged due to theft, vandalism or accidents. The model assumes that 5% of the bicycle fleet will be replaced every year; this number is highly conservative as existing systems have seen much lower fleet replacement rates. Finally the cost of major maintenance will grow over time as the fleet ages, peaking in FY2020.

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<sup>23</sup> All costs are shown in year of expenditure dollars, i.e., adjusted for inflation. Total cost by phase will change if the phasing schedule changes.



Table 7.1 - Projected Capital Costs (FY2014 – FY2020)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	Total
<b>New Equipment</b>								
Number of Stations	0	110	30	25	20	0	0	185
Number of Bicycles	0	1,150	275	225	150	0	0	1,800
Stations and Bicycles	\$0	\$5,410,000	\$1,366,000	\$1,173,000	\$854,000	\$0	\$0	\$8,803,000
Installation	\$0	\$787,000	\$221,000	\$190,000	\$156,000	\$0	\$0	\$1,354,000
Start-Up and Parts	\$600,000	\$209,000	\$55,000	\$46,000	\$35,000	\$0	\$0	\$945,000
<b>Replacement and Maintenance</b>								
Replacement Bicycles Needed	0	58	71	83	90	90	1,240*	1,631
Replacement Cost	\$0	\$69,000	\$88,000	\$105,000	\$118,000	\$122,000	\$1,867,000	\$2,369,000
Major Maintenance	\$0	\$0	\$122,000	\$151,000	\$176,000	\$218,000	\$266,000	\$933,000
<b>Total Capital Costs</b>	<b>\$600,000</b>	<b>\$6,475,000</b>	<b>\$1,852,000</b>	<b>\$1,665,000</b>	<b>\$1,339,000</b>	<b>\$340,000</b>	<b>\$2,133,000</b>	<b>\$14,404,000</b>

\* Replacement of bicycles at the end of their useful life.

### State of Good Repair (SGR) Costs

Bike share systems need to take into account the future costs of maintaining and replacing equipment when planning for growth. Bike share systems in North America are all less than five years old and have not yet had to account for significant maintenance and replacement costs. For Philadelphia's bike share system to ensure its long-term viability and a high-quality customer experience, the system must plan for future replacement needs during the startup phase. Fundraising goals and the cost of sponsorship should take into account the lifecycle costs of equipment. As Table 7.3 shows, SGR needs will escalate over time, peaking in FY2025 to FY2029.

Table 7.2 – State of Good Repair Costs over Time

	FY2015-FY2019	FY2020-FY2024	FY2025-FY2029
Bicycles Replaced	391	2,250	2,250
Stations Replaced	0	0	185
<b>Costs</b>			
Station Replacements	\$0	\$0	\$10,212,000
Bicycle Replacements	\$502,000	\$3,447,000	\$3,996,000
Parts and Maintenance	\$667,000	\$1,162,000	\$1,254,000
<b>Total</b>	<b>\$1,169,000</b>	<b>\$4,609,000</b>	<b>\$15,462,000</b>

Between FY2014 and FY2029, the total state of good repair needs for the system will exceed \$20 million.<sup>24</sup> Philadelphia bike share can account for these needs in two different ways. Presently most new systems focus on fundraising for new capital during their launch period. While this defers fundraising for long term SGR costs, it reduces the capital burden as a system ramps up for launch. The second option is to build in a constant annualized SGR rate into the operating costs of every station. This rate equals the amount of money needed to be saved annually to cover future costs. For Philadelphia to meet all SGR needs between today and 2030, the system would need to set aside \$7,800 per station every year in a SGR account. Philadelphia will probably have to balance the two approaches; station sponsorships and fundraising goals should try to set money aside at a constant rate for future needs, however in the initial years fundraising will naturally focus on raising funds for new capital.

## **Capital Revenue**

Capital costs will be paid for through a one-time contribution by the City of Philadelphia, state and federal grants, station sponsorships, a title sponsorship, and other grants. See the section below titled *Meeting the Program's Fundraising Needs* for a full breakdown of funding sources and fundraising goals.

## **Operating Revenues and Costs**

### **Revenue**

Bike share systems typically raise operating revenue through three means: memberships, usage fees, and station advertising. To project revenue from memberships and usage fees, a revenue model was created based on assumptions on the following:

- Ridership
- Proportion of members by type
- Number of trips taken by member (by member type)
- Average usage fees incurred by members (by member type)

The revenue model was based on a monthly schedule instead of an annual model since revenue is sensitive to the time of year new stations are installed, the number of days per month, and whether a month is considered a peak or off-peak month for operations. The model had two steps to estimate user revenue:

1. The model splits riders into two membership types with their own unique characteristics, registered users (those with an annual membership), and casual users (24 hour or 72 hour membership). Based on a pre-determined registered/casual user ratio, the number of trips by user type was calculated.
2. Once the ridership is split by these two membership types, the number of memberships purchased is calculating by dividing ridership by the number of average trips a casual or registered user is expected to take.<sup>25</sup>

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<sup>24</sup> Some SGR costs may be recouped through the selling of assets at the end of their useful life. The depreciated value of assets has not been included in this financial model but is anticipated to be equal only to the value of raw materials and components of the system.

<sup>25</sup> The ratio of registered to casual users was calculated by examining rates in peer cities such as Boston, Minneapolis, and Washington DC.

Each new membership brings in an annual member fee, and every trip incurs an additional average usage fee in the cost model; in reality, not every trip generates an additional use fee. Though casual users make up the minority of all trips, they are critical for the bottom line of the system by providing a disproportionate amount of usage and membership fees. Based on trip data from peers, it is estimated that the average casual trip brings in a usage fee of \$2.25, compared to only \$0.10 per registered user. The dramatic difference between registered and casual users is largely due to how these two groups use the system; registered users appear to be more time sensitive and use bike share for regular trips while casual users disproportionately will take the bicycles out for leisure or sightseeing.

Phases 1 and 2 of bike share station deployment are expected to have slightly different trip characteristics. The first phase will cover Center City and University City, reaching Philadelphia's primary employment centers, tourist attractions, and key student populations. In this first phase, ridership per bicycle is expected to be higher, and casual users are anticipated to form a larger share of total users. Phase 2 will reach into largely residential neighborhoods surrounding Center City and University City, and is expected to serve mostly regular registered users at a slightly lower trip rate.

The financial model assumes a membership fee and usage rate adjustment in FY2017 that tracks to inflation.

On-station advertising will help supplement the revenue generated by users. Advertising revenue is based on the existing minimum guaranteed revenue the City of Philadelphia receives from its contract with Titan Outdoors on bus shelter advertising. The final amount of advertising revenue may be greater based on a profit sharing agreement between the advertising firm and bike share operator.

Table 7.3 – Projected Operating Revenue (FY2014 – FY2020)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
<b>Ridership</b>							
Registered Users	-	427,000	1,068,000	1,367,000	1,588,000	1,689,000	1,773,000
Casual Users	-	183,000	415,000	480,000	530,000	561,000	589,000
<b>Total</b>	-	<b>610,000</b>	<b>1,483,000</b>	<b>1,847,000</b>	<b>2,118,000</b>	<b>2,250,000</b>	<b>2,362,000</b>
<b>Operating Revenue</b>							
Memberships	\$0	\$1,104,000	\$2,626,000	\$3,491,000	\$3,962,000	\$4,202,000	\$4,412,000
Usage Fees	\$0	\$455,000	\$1,042,000	\$1,329,000	\$1,478,000	\$1,564,000	\$1,642,000
Advertising	\$0	\$140,000	\$305,000	\$384,000	\$447,000	\$452,000	\$466,000
<b>Total</b>	<b>\$0</b>	<b>\$1,699,000</b>	<b>\$3,973,000</b>	<b>\$5,204,000</b>	<b>\$5,887,000</b>	<b>\$6,218,000</b>	<b>\$6,520,000</b>

### **Operating Costs**

Operating costs can be broken down into four general categories: system operations, administration, marketing and the utility costs associated with hardwired stations. System operation forms by far the largest share of these costs and will include functions such as: maintenance of all equipment,

rebalancing of bicycles, customer service operations, and website and IT support. The business model developed for the Philadelphia bike share system allows all of these functions to be contracted out to a private vendor, as many of the peer programs do, or operated in-house by a public authority. The system costs were estimated based as a per-dock cost and are expected to grow proportionally to system size.

Administrative costs form the second major component of the operating costs. Administrative costs are largely fixed, and represent the staffing necessary to oversee the launch and daily operations of the system. Administrative staff will be responsible for fundraising, accounting, system planning, and contract oversight for the bike share system.<sup>26</sup> In the first 12 months the system will require additional staff to conduct the planning and public outreach for the program.

As part of Philadelphia's commitment to making the program a leader in social equity and public outreach, the program will have a committed fixed marketing budget. Marketing activities will promote the system in general, with a special focus on reaching groups typically underrepresented among bike share users.

Finally, power utility costs will form a small portion of the system operating costs. Due to the lack of good sun exposure, some stations will require hardwiring. Hardwired stations will incur an additional utility cost.

Table 7.4 – Operating Costs (FY2014 – FY2020)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Operations	\$0	\$1,869,000	\$3,868,000	\$4,764,000	\$5,389,000	\$5,609,000	\$5,777,000
Administration	\$150,000	\$242,000	\$180,000	\$186,000	\$191,000	\$197,000	\$203,000
Marketing	\$100,000	\$206,000	\$212,000	\$219,000	\$225,000	\$232,000	\$239,000
Utility Fees	\$0	\$5,000	\$11,000	\$13,000	\$15,000	\$15,000	\$15,000
<b>Total</b>	<b>\$250,000</b>	<b>\$2,322,000</b>	<b>\$4,271,000</b>	<b>\$5,182,000</b>	<b>\$5,820,000</b>	<b>\$6,053,000</b>	<b>\$6,234,000</b>

### ***Operating Revenue and Expenses Balance***

Philadelphia's operating expenses in the first three years of the program will be greater than revenue from user fees and advertising. In FY2014 the operating costs are associated with administering the system startup, as the system itself will not become operational until FY2015. The system will see improved cost recovery due to ridership growth that exceeds inflation and a decreasing share of fixed administrative costs as compared to total costs. The boost in revenue in FY2017 is also due to a fee increase tracked to inflation that would occur that year.

This financial plan does not make any assumptions on how the operating surplus will be spent; for example, it can be put toward paying down future capital replacement obligations or expanding the system.

<sup>26</sup> Administrative costs represent staff necessary to oversee the system regardless of business model. Some administrative functions such as revenue collection and marketing are assumed in the operating costs as depending on the final business model may be assumed by an outside vendor.

Table 7.5 – Operating Costs Recovered Through User Revenue (FY2014 – FY2020)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Operating Balance	-\$250,000	-\$623,000	-\$298,000	\$22,000	\$66,000	\$165,000	\$286,000
Cost Recovery Ratio	0%	73%	93%	100%	101%	103%	105%
Fundraising Need for Ops.	\$250,000	\$623,000	\$298,000	None	None	None	None

## Meeting the Program's Fundraising Needs

Over the first five years of the program, Philadelphia's bike share system will cost \$14,538,000 to purchase, install, maintain and operate. To fund these costs, the bike share system will depend on three sources of revenue: public grants, surplus operating revenue, and most importantly, grants and private contributions in the form of sponsorships. Fundraising goals should at a minimum be developed for a five year time horizon; it is important to note that beginning in the program's sixth year, maintenance and replacement costs will begin to escalate. To account for the state of good repair (SGR) needs after FY2019, an annual rate of SGR savings was developed (*see State of Good Repair Costs*). To cover future SGR costs the system will need to raise additional funds starting at system launch.

## APPENDIX 1 – SPONSORSHIP DECK

### Corporate Title Sponsor

#### What is bike share?

Bike sharing is a non-motorized transportation service, typically structured to provide users point-to-point transportation for short distance trips (usually around 1/2 mile to 3 miles). It provides users the ability to pick up a bicycle at any self-serve bike station in the network and return it to any bike station located near their destination.

#### What is a title sponsorship?

A title sponsorship is an agreement that gives an organization exclusive naming and branding rights over the bike share system. Through this type of sponsorship, the title sponsor's brand name and color scheme is incorporated into the system's branding and identity, and displayed prominently on most of the components of the system, including stations, bicycles and the bike share system's marketing materials.

Securing a title sponsor is a key component to financing the start-up of Philadelphia's bike share system. A number of major bike share systems have secured title sponsorships, including Boston's New Balance Hubway, New York's CitiBike, and London's Barclay Cycle-Hire. These deals typically last for five years, and are valued in the millions of dollars.



**From Left to Right:** New Balance Hubway, CitiBike, and Barclay Cycle-Hire

#### Who will be using bike share?

##### A large user base of regular members and infrequent users

Sponsoring bike share will allow organizations to connect with a large base of bike share members and irregular casual users. By the system build out in 2018, the system is forecasted to serve over 6,000 riders a day and provide more than 2 million trips a year. The system is expected to have approximately 20,000 members who use the system regularly for everything from commuting to work to a fun evening out with friends. In addition, the program is expected to have over 200,000 casual users annually, riders who purchase short-term access to the system. Casual users typically use the system for leisure and will include a high percentage of out-of-town visitors.

##### A dynamic, young, and well-educated demographic

Bike share users in comparable cities tend to be young and well-educated. A 2012 study by the Mineta Transportation Institute of bike share systems in North America found that 48% of users surveyed were between 25 and 34 years old and a remarkable 46% of users held advanced degrees. Over a third of users reported having annual incomes of greater than \$100,000.

### Connect with users through multiple means

Title sponsors will have the opportunity to reach users through various means. Along with branding on the stations and bicycles, the title sponsor's branding will be featured on the system's website, mobile app, marketing materials and membership key fob.

**Multi-System Survey Results of Bike Share Users<sup>27</sup>**

Age		Income	
16-17	0%	Less than \$10k	4%
16-24	11%	\$10,000 to \$14,999	2%
25-34	48%	\$15,000 to \$24,999	4%
45-54	21%	\$25,000 to \$34,999	5%
55-65	10%	\$35,000 to \$49,999	13%
65+	1%	\$50,000 to \$74,999	19%
Education		\$75,000 to \$99,999	14%
Less than High School	0%	\$100,000 to \$149,999	14%
High School	2%	\$150,000 to \$199,999	12%
Associate Degree	9%	\$200,000 or more	7%
Bachelor Degree	42%		
Advanced Degree	46%		

### **What kind of impact will a title sponsor have?**

#### High-profile locations across the region's core

The initial system will be rolled out in two phases across Philadelphia and includes 185 stations in Center City, South Philadelphia, University City, West Philadelphia and North Philadelphia. The system spans the region's core, including major employment centers, retail and entertainment destinations, over 15 colleges and universities, tourist landmarks, and the Convention Center. The title sponsor's branding will achieve unparalleled exposure across the service area, including at key high traffic locations.

#### Build brand awareness among hundreds of thousands of residents and employees

The first two phases of the bike share system serve an area with 432,000 residents and 401,000 jobs. With an average population density greater than 19,000 people per square mile, the service area will have a greater population density than any city in the country bar New York. The bike share system's physical presence will reach a diverse population in terms of age, income, race, and education.

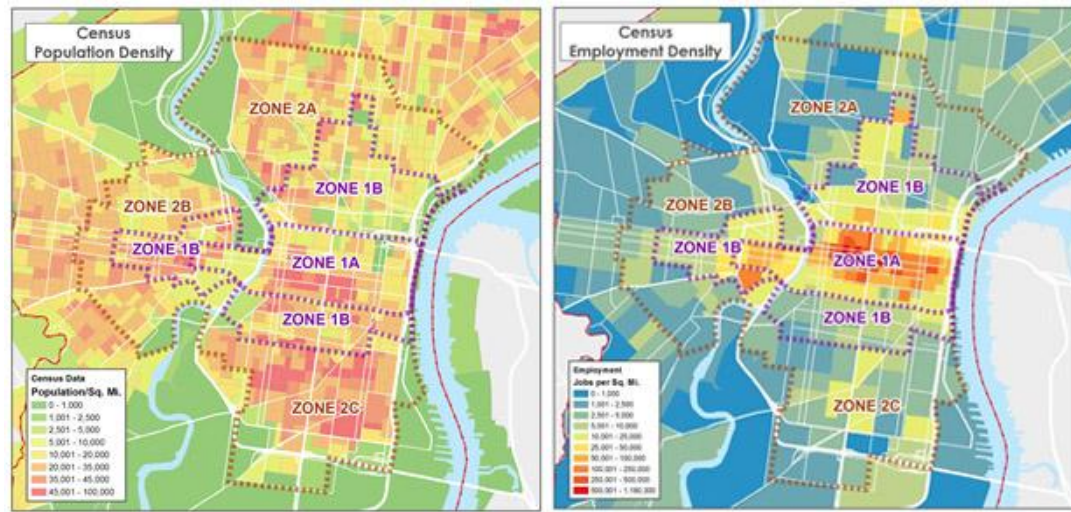
- Phase 1A (most of Center City and University City) will serve an affluent, young and highly educated population. Over 10,000 households make over \$100,000 a year, and 72% of adults hold a bachelors or graduate degree. The median age is 33. This first phase is home to one of the greatest concentration of jobs in the country, with an employment density of 106,000 jobs per square mile.
- The service area is disproportionately home to young adults; 135,000 residents are between 19 and 34 years of age.
- Bike share will serve one of the most diverse places in Greater Philadelphia and includes census tracts that are majority African-American, Asian, Caucasian, and Hispanic.

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<sup>27</sup> Public Bikeshare In North American: Early Operator and User Understanding, Mineta Transportation Institute, 2012, p66



## Population and Employment Densities



## Demographics by Phase

	2014	2015	2016	2017	2018
	Phase 1A	Phase 1B	Phase 2A	Phase 2B	Phase 2C
<b>Population</b>	63,000	113,000	83,000	58,000	116,000
<b>Employment</b>	277,000	71,000	17,000	17,000	21,000
<b>Income</b>					
Avg. Household Income	\$61,000	\$41,000	\$27,000	\$29,000	\$37,000
<b>Age</b>					
Median Age	33 Years	31 Years	32 Years	31 Years	36 Years
<b>Education</b>					
High School Degree or Higher	84%	82%	70%	75%	70%
College Degree or Higher	73%	48%	16%	25%	17%
<b>Race</b>					
Minority Population	24%	48%	75%	82%	48%

Be part of the buzz generated by the system

For a title sponsor, extensive local and national exposure will be gained by sponsoring the bike share system. Bike share remains a relatively new mode of transportation, and new systems get extensive media exposure; a Google search of news articles referencing New York's CitiBike, returns over 2,000 results. In regions where bike share systems are established, the systems have very high brand awareness. Existing systems have proven to be very popular, and title sponsors can leverage their name to take advantage of support for the system.

## How else can bike share support your corporate goals?

### Enhance mobility for employees and customers

Bike share has the ability to drastically change how Philadelphians get around. The first two phases of the system have been designed to extend the reach of Philadelphia's existing public transit system, providing people greater access to jobs, work, recreation, and entertainment. For a title sponsor with a large presence in Philadelphia, sponsoring the system will directly improve how even the title sponsor's employees and customers get around.

#### Make Philadelphia a more livable and globally competitive city

As bike share grows more common, it is increasingly becoming a key urban amenity for global cities. Philadelphia's peer cities already have or are in the process of launching bike share systems. By sponsoring bike share in Philadelphia, a title sponsor can play a prominent role in making the community more economically competitive and helping to attract and retain creative talent needed to sustain Philadelphia's reputation as a world class city.

#### Help create a healthier and more active community

Bike share can play a key role in improving public health by encouraging an active lifestyle. Bike share systems have been shown to reach audiences who otherwise may not cycle and provide a healthy option for exercise that is practical, affordable and fun. All peer systems have demonstrated to various degrees a shift from private cars to bike share, helping to ease congestion, reduce air pollution, while shifting people to burn more calories and less oil.

## Non-Profit and Charitable Sponsor

### What is bike share?

Bike sharing is a non-motorized transportation service, typically structured to provide users point-to-point transportation for short distance trips (usually around 1/2 mile to 3 miles). It provides users the ability to pick up a bicycle at any self-serve bike station in the network and return it to any bike station located near their destination.

### How can organizations support bike share?

#### Become a system sponsor

Philadelphia's bike share system will depend on private sources to fund capital and subsidize the system's operations. The program is currently searching for a title sponsor to make a major financial contribution in exchange for branding rights for the system. Along with the title sponsor, the bike share program will depend on secondary system sponsors to support everything from new stations to the cost of maintaining the equipment in years to come.

#### Sponsor a station

Many of Philadelphia's proposed 185 stations will depend on an individual station sponsorship for funding. While there is strong funding potential for sponsoring stations in and around the city core from private companies or major institutions, many stations, especially outside Center City, will not be able to rely on such sources. Station sponsorships can help cover the full capital cost of the station, operating and maintenance costs, or both.

#### Help subsidize memberships

Our goal is to make bike share affordable and accessible to a wide audience. While the program will strive to keep fees low, usage fees or even the requirement of having credit or debit card may prove too much of a burden for some members. Organizations can help reduce the barrier to use by helping subsidize memberships for qualifying individuals in the community.

#### Provide community outreach and support for the program

For bike share to succeed in Philadelphia, the program will need additional support, other than money. Neighborhood partners will be a critical component in public outreach and promotion of the system. Neighborhood groups, cultural associations, foundations and local institutions can all help bike share by better connecting the program with the communities they serve. Our goal is to have neighborhoods across the service area feel ownership over the system.



**From Left to Right:** Miami DecoBikes and Denver B-Cycle

## Why support bike share?

### Create a new mode of public transportation for Philadelphia

Bike share has the ability to drastically change how Philadelphians get around. The first two phases of the system have been designed to extend the reach of Philadelphia's existing public transit system, providing people greater access to jobs, work, recreation, and entertainment. New stations will be part of a network of 185 stations serving a residential population of 432,000 and a worker population of 401,000. Each station is anticipated to generate, on average, over 12,000 trips a year.

### Enhance mobility for a diverse population, regardless of race, income, or origin

The proposed bike share system will be an inclusive one, serving a diverse range of neighborhoods. 54 percent of residents that will be served by the program are non-white, and 29 percent fall below the poverty line. The program will serve areas that are majority African-American, Asian, Caucasian, and Hispanic, including major immigrant communities such as Chinatown and the Washington Avenue Corridor. One of the goals for the system is to be one of the most equitable bike share systems in the country. Since many of the neighborhoods have difficult transit connections, bike share can provide

**Demographics by Phase**

	2014	2015	2016	2017	2018
	Phase 1A	Phase 1B	Phase 2A	Phase 2B	Phase 2C
<b>Population</b>	63,000	113,000	83,000	58,000	116,000
<b>Employment</b>	277,000	71,000	17,000	17,000	21,000
<b>Income</b>					
Avg. Household Income	\$61,000	\$41,000	\$27,000	\$29,000	\$37,000
Pct. Pop. Below Poverty Line	16%	32%	40%	35%	22%
<b>Age</b>					
Median Age	33 Years	31 Years	32 Years	31 Years	36 Years
<b>Race</b>					
White	80%	54.90%	27.60%	18.80%	55%
White Non-Hispanic	76%	51.80%	24.90%	17.70%	52.20%
Black	9%	34.10%	69.90%	72.20%	25.70%
Hispanic (of Any Race)	5%	7.10%	8.70%	3.30%	8.30%
Asian	17%	10.10%	1.70%	6.30%	15.20%
American Indian	0.20%	0.34%	0.39%	4.20%	0.29%
Native Hawaiian	0.06%	0.05%	0.02%	0.06%	0.05%
(Other) More Than One	3%	3.10%	2.50%	2.80%	8.30%

### Enhance the health and vitality of the city

Philadelphia's public bike share system will promote the health and vitality of the city's neighborhoods. Bike share takes people out of passive modes of transportation into an active one, encouraging physical activity. Many bike share users are people who otherwise would not bike if the program were not available. Bike share has other benefits like reducing congestion, parking demands, and the air pollution attributed to driving. Finally, a world-class bike share system would help Philadelphia stand out among peers, and is one of the urban amenities that helps attract and retain residents and employees.

## Developer/Corporate Station sponsor

### What is bike share?

Bike sharing is a non-motorized transportation service, typically structured to provide users point-to-point transportation for short distance trips (usually around 1/2 mile to 3 miles). It provides users the ability to pick up a bicycle at any self-serve bike station in the network and return it to any bike station located near their destination.

### What is a station sponsorship?

Station sponsorships allow organizations to fund the placement of a station in the location of their choice. Station sponsorships vary in cost depending on location and size of station, but in general will equal the capital cost of the station itself along with the cost of subsidizing operations and future maintenance needs. Station sponsors will receive branding recognition on the station, typically alongside the station name or within the map panel.



**Boston Hubway Bike Share Station Sponsored by Harvard University**

### Why sponsor a station for bike sharing?

#### Connect to one of the country's largest planned bike sharing systems

Bike share has the ability to drastically change how Philadelphians get around. The first two phases of the system have been designed to extend the reach of Philadelphia's existing public transit system, providing people greater access to jobs, work, recreation, and entertainment. Sponsored stations will be able to connect into a network of 185 stations that serves a residential population of 432,000 and a worker population of 401,000. Each station is anticipated to generate, on average, over 12,000 trips a year.

#### Create an attractive amenity for employees, residents and visitors

In cities with existing bike share systems, on-site bike share stations have increasingly become an amenity used to attract and retain tenants and visitors. In peer cities, bike share users tend to be highly educated, young, and well-off. Systems help bring customers to your retail location, while providing enhanced mobility options for employees and residents.

#### Reduce parking demands on your site

A growing number of communities are encouraging developers to sponsor and locate bike share stations on their properties as part of their site plan review process for new development. Peer communities are utilizing bike share as a way to mitigate the traffic impacts of new development and even reduce development parking requirements. In a survey of four major North American bike share systems, 40% of respondents said they drive less since joining bike share.

#### Receive Brand Exposure and Join in the “Buzz”

Station sponsors will receive branding exposure on the stations themselves and can join in on the media buzz generated by the system launch.



## Small Business Station Sponsor

### What is bike share?

Bike sharing is a non-motorized transportation service, typically structured to provide users point-to-point transportation for short distance trips (usually around 1/2 mile to 3 miles). It provides users the ability to pick up a bicycle at any self-serve bike station in the network and return it to any bike station located near their destination.

### How can you support bike share?

#### Sponsor a station

Station sponsorships allow organizations to fund stations located in proximity to their business or high-visibility market locations. Station sponsorships vary in cost depending on location and size of station, but in general will cover the capital cost of the station itself along with the cost of subsidizing operations and future maintenance needs. Station sponsors will receive branding recognition on the station, typically alongside the station name or within the map panel.

#### Support a station

Your organization can support bike share by providing space on your property for a station, or supporting the installation of a station in front of your property on the street or sidewalk. Bike share stations are solar powered and removable.



Station Sponsored by Harvard University

### Why sponsor a station for bike sharing?

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#### Bring Customers to your business

Bike share can be a major win for your business. Each station is roughly the size of two parking spaces, yet will support dozens of trips each day. In Philadelphia, where the majority of trips are within easy biking distance, bike share will help connect your business with your customers. Survey results from other cities have found the average bike share user is young, well educated, and relatively affluent, representing a demographic with disposable income to spend. Furthermore, bike share is expected to be popular with out-of-town users, providing tourists a new way to explore and connect with Philadelphia.

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#### Receive Brand Exposure and Join in the “Buzz”

New bike share systems generate a lot of exposure in the media, and sponsoring bike share allows your organization to join in on the buzz.

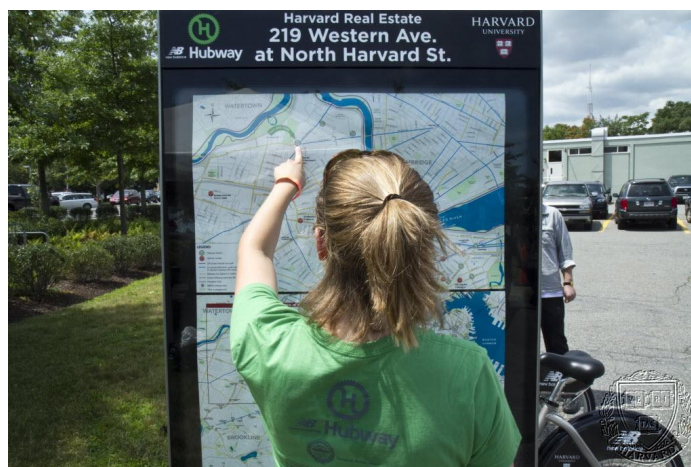
## Education and Healthcare Station Sponsor

### What is bike share?

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### What is a station sponsorship?

Station sponsorships allow organizations to fund the placement of a station in the location of their choice. Station sponsorships vary in cost depending on location and size of station, but in general will equal the capital cost of the station itself along with the cost of subsidizing operations and future maintenance needs. Station sponsors will receive branding recognition on the station, typically alongside the station name or within the map panel.



**Station Sponsored by Harvard University**

### What institutions will be served by bike share?

Bike share will reach 15 institutions of higher education and 6 major hospitals including:

Higher Education	Major Hospitals
<ul style="list-style-type: none"><li>• Temple University</li><li>• Drexel University</li><li>• University of Pennsylvania</li><li>• University of the Arts</li><li>• Thomas Jefferson University</li><li>• Philadelphia Community College</li><li>• Peirce College</li><li>• Pennsylvania Academy of Fine Arts</li><li>• Moore College of Art and Design</li><li>• Curtis Institute of Music</li><li>• The Art Institute of Philadelphia</li><li>• University of the Sciences</li></ul>	<ul style="list-style-type: none"><li>• University of Pennsylvania Hospital</li><li>• Jefferson University Hospital</li><li>• Hahnemann University Hospital</li><li>• Children's Hospital of Philadelphia</li><li>• Penn Presbyterian Hospital</li><li>• Pennsylvania Hospital</li></ul>

Higher Education	Major Hospitals
<ul style="list-style-type: none"> <li>• Temple School of Podiatric Medicine</li> <li>• The Restaurant School at Walnut Hill</li> <li>• Pennsylvania Institute of Technology</li> </ul>	

### **Why sponsor a station for bike sharing?**

#### Connect to one of the country's largest planned bike sharing systems

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#### Serve your student body

Bike share provides an attractive amenity that will serve your institution's students. Philadelphia bike share's first phase will encompass the city's largest institutions of higher learning. More than 65,000 students attend the colleges and universities located in Phase 1 of the bike share system. Overall the system will serve a young population; 135,000 residents between the ages of 19 and 34 are served by the initial first two phases of the bike share system with 52,000 of them under the age of 25. Bike share provides an affordable and convenient service to better enhance connections between an institutions campuses and the wider city.

#### Provide enhanced mobility for workers

Universities and hospitals are 24-hour destinations with significant travel during off-peak hours. As bike share is available 24/7 and on-demand, stations can serve employees coming and going when transit is unavailable or infrequent. The system's first two phases will include major residential areas in West Philadelphia, North Philadelphia and South Philadelphia without convenient rail, subway, or trolley access.

#### Invest in the health of the community

Philadelphia's bike share system will promote the health and vitality of the city's neighborhoods. Bike share takes people out of passive modes of transportation into an active one, encouraging physical activity. The service provides residents increased mobility options, and helps link them to existing transit, jobs, schools, shops, recreation, fresh foods, or wherever else they wish to travel. As institutions with a stake in the local community, investing in bike share can have an impact far beyond a single station.