

# Bike Share Feasibility Study

CITY OF ROCKFORD, ILLINOIS

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Prepared by RMAP  
for the City of Rockford

**ourmap**

Rockford Metropolitan Agency For Planning

This document was prepared by  
The Rockford Metropolitan Agency for Planning  
313 N. Main Street  
Rockford, IL 61101  
779-348-RMAP



Michael Dunn, Jr. – Executive Director  
Gary W. McIntyre – Metro Program Manager  
Jon Paul Diipala, (AICP) – Metro Program Manager  
Colin R. Belle – Metropolitan Planner  
Michael R. Hren – Metropolitan Planner  
Christina Washington – Office Manager  
Terrance Hall – Metropolitan Planner  
Sydney Turner – Research Associate

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# Executive Summary

## Purpose and Background of this Study

One of the City of Rockford’s primary goals is to make Rockford a more attractive place for both visitors and residents. One aspect of this goal is to continue to foster the growing bicycle culture in the region. Rockford is committed to becoming a more bicycle and pedestrian friendly community. The City of Rockford has asked the Rockford Metropolitan Agency of Planning to conduct a feasibility study to evaluate whether a bike share program is operationally feasible in Rockford.

## What is a Bike Share Program?

A bike share program is a network of shared bicycles available to individuals on a short-term basis. Generally, a system consists of stations, usually placed ¼-mile to ½-mile distance from each other, with a kiosk-style machine to rent the bikes. A user simply rents a bicycle, rides to a station near their target destination, and then safely docks the bicycle for someone else to use. Customers will range from one-time users, such as visitors, to long-term subscribers. Bike sharing systems differ from bike rental programs in that bike sharing emphasizes shorter trips from point “A” to point “B”, while bicycle rental programs emphasize casual rides over several hours.

## Benefits of Bike Sharing

A bike share program can bring major benefits to the City of Rockford. A bike share program can transform cities into a more desirable place for both residents and visitors due to the associated health, environmental, mobility, transportation, social, and safety benefits. Other bike share programs have positively contributed to the improved outlook, increased physical activity, and improvement in sociability of their communities. In mid-sized cities implementing bike share programs, up to 25 percent of bike share users have replaced vehicle trips with bike share trips. This has helped to reduce emissions, fuel use, and the need for automobile space on roads and parking areas in those cities. Additionally, bike sharing systems can increase accessibility to public transit.



Source: Rockford Mass Transit District

## Rockford’s Potential Strengths and Limitations

Rockford has some of the strengths seen in other successful bike share cities, including:

- High density development pattern, mixed-use zoning in Downtown.
- Well-connected, grid-like pattern of the downtown street network.
- High density of employees in downtown that is conducive to day-time bike share activity.
- High use of bicycle racks on the buses year-round shows potential for year-round operations.
- The revitalization of downtown could mean an increase of tourists and residents visiting the city’s urban core.
- Expansion of the off-road bicycle network.
- Growing bicycling culture with increasing popularity of bicycling clubs and organizations.

Rockford currently has some limitations that will affect the success of a bike share program, including:

- A low-density development pattern that will impact connectivity of bicycling routes on the east side of the city.
- Population densities throughout the city are relatively low, especially in the downtown area.
- The demographics of Rockford does not mirror the large proportions of young, high-income, and higher educational attainment populations that typically support bike share programs.
- A lack of a large student population in downtown Rockford.
- Large portion of single-occupant vehicles encouraged by abundant and inexpensive parking.
- A relatively small number of tourists to the downtown area.
- Lack of an extensive and well-connected bikeway network.
- Inadequate wayfinding and signage.

## Would Rockford Residents Use Bike Sharing?

Through the online bike share survey, 170 respondents gave feedback on how a bike share in Rockford would be used.

- A majority of these respondents (76 percent) live in Rockford, while 85 percent of respondents reported that they work in Rockford.
- Forty-one percent of respondents are likely to use the bike share, and 56 percent would rarely use it.
- Residents indicated that the top three ways they would use the bike share are for recreation, exercise/fitness, or to travel to cultural events.

## Recommendations and Assessment

After reviewing the benefits, business models, local context, demand analysis, and feedback, the Rockford Metropolitan Agency for Planning believes that a bike share program would be feasible for the City of Rockford in the near future after improvements are made to the existing bicycle infrastructure. Investments need to be in place to ensure that the implementation process leads to a sustainable program. According to “Bike Sharing in the United States: State of Practice and Guide to Implementation,” “While higher concentrations of jobs and population can enhance the ridership of a bike share system, early reports from existing small system managers indicate that bike share programs can be successfully implemented in jurisdictions with relatively modest density compared to their more urban counterparts.” (USDOT Federal Highway Administration, 2012, 8).

The Rockford Metropolitan Agency for Planning suggests that the following steps be taken before the City of Rockford implements a bike share program:

1. Form an advisory committee;
2. Increase investment in bicycle and pedestrian infrastructure;
3. Develop a unified regional Complete Streets policy, developed by the MPO through coordination with all MPO member organizations;
4. Focus on downtown Rockford for the initial implementation area; and
5. Secure funding for implementation and initial operations.



Source: Rockford Mass Transit District

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# Introduction

Rockford has recently been reinvesting in its urban core with the goal of making the city more attractive to both visitors and residents of the region. From major roadway improvements such as South Main and West State Street, Rockford City Market, the UW Health Sports Factory, and many other riverfront improvements; Rockford is poised to continue the positive momentum propelling downtown development and urban reinvestment. With a continued and growing bicycle culture in the region, Rockford is committed to becoming a more bicycle and pedestrian friendly community, a characteristic that fosters other great qualities and improves community health.

## The Objectives

The first step in this process is a comprehensive review of the current conditions in the City of Rockford to determine the potential for a bike share program. The information gathered in this study was analyzed through a multi-stage process that began with data gathering, current conditions and progressed into the following areas: Community Analysis, Demand Analysis, Public and Professional Engagement, Goal and Strategy Orienting, and the Feasibility Findings and Recommendations.

To facilitate this process, the Rockford Metropolitan Agency for Planning (RMAP) researched the feasibility of a bike share program for Rockford as part of the update to the RMAP Bike and Pedestrian Plan, a federally required document.

This report is organized into eight sections, as described below:

- *Section One* introduces the concept behind bike sharing and the elements behind a successful bike share program.
- *Section Two* summarizes benefits experienced in cities where successful bike share programs have been implemented.
- *Section Three* examines the three business models that are typically used for bike share programs in the United States.
- *Section Four* provides five examples of cities in the Midwest that have launched successful bike share programs.
- *Section Five* describes the current conditions in Rockford, such as physical environment, demographics, transportation, bicycle infrastructure, and tourism.
- *Section Six* presents the demand analysis to help the city identify areas with the most potential for a successful bike share program.
- *Section Seven* summarizes results of a questionnaire released to the general public to determine the support or opposition for a bike share program and the role a bike share program may ultimately play in Rockford.
- *Section Eight* concludes this report with a summary of findings, including potential strengths and limitations that might arise with the launch of a program, and recommendations for moving forward.



Figure 1: Feasibility Study Process

# Background

## What is Bike Sharing?

Bike share is still relatively young in the United States and implementation of programs have mostly been built on lessons learned from European and Canadian counterparts. The concept and function is close to that of a car-sharing program. Generally, a bike share consists of strategically distributed pay stations that contain a certain amount of bicycles at a kiosk style machine. Customers will range from one-time users to long-term users. For the purposes of this study the term “bike share” will differ from traditional bicycle rental services in that bike share is typically used for short duration trips that are often combined with public transit for a portion of the trip as well. Bike share users will “unlock” a bicycle with a credit card or smartcard, then ride to another station in the city or return to the start location where they can deposit the bike and conclude their trip. The bikes are made available by paying a subscription fee that ranges from a few dollars for one-day access to \$70-\$100 for an annual pass.



Source: B-Cycle

More recently a new style of bike sharing system has emerged. This “smart bike” system has incorporated the technology used in a traditional kiosk or docking station right into the design of the bicycle. Instead of using a large kiosk, the technology to rent, release, and lock the bicycles is now located in a “keypad lock” located on the back of

each bicycle. Included in the “keylock pad” is a real-time GPS, rear lighting, RFID/NFC reader, and LCD screen, all of which is solar-powered. The bicycles are now capable of accepting payments and releasing the bike-locking mechanism independently via a mobile phone. This also allows for a much more adaptable network in which users can track the locations of the system’s bikes using a smart phone or tablet.



Source: Social Bikes

Bike sharing is a very efficient mode of transportation for short point-to-point trips allowing subscribers to make spur-of-the-moment or planned trips. The system also lends itself very well to tourists and visitors to the area because a one-day use pass is inexpensive and easy to sign up for. Most bike share programs will allow a yearly subscriber to take unlimited trips during their membership period (usually the bicycle must be returned within 30-60 minutes to avoid additional fees). Most trips within

U.S. bike share programs are between 15 to 35 minutes in duration and around 1-3 miles long<sup>1</sup>.

<sup>1</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

## Elements of a Successful Bike Share Program

- Provide enough bicycles to meet demand, but not too many. Rental facilities should be approximately spaced at 2,000-foot intervals to maximize usage of the system.
- Designated bike routes should be on level ground, no more than a 5% slope, and easy enough for beginning cyclists to navigate with confidence.
- Develop a sustainable funding mechanism for implementation and successful future operations.
- Encourage local businesses to sponsor a rental kiosk and bikes through unique brand designs.
- Security devices to protect equipment from theft and vandalism, station cameras possibly.
- Bikes should be unique, highly visible, and easily noticeable as one of the rental fleet.
- Make sure they are easy to adjust so that a range of users can fit on the bike comfortably and safely, and that a suitable helmet policy is considered.
- Bicycles must be tough, durable, and comfortable to operate.
- Rental kiosks should be located strategically in areas that traditionally have high pedestrian use, such as multi-modal stations, business districts, tourist attractions, recreational trails, and city markets.
- Develop a maintenance and logistical strategy that includes appropriate staff to independently manage the system, preferably through a 501(c)(3).
- The area must have a safe network of connected bike routes, bikes lanes, and traffic-calmed streets.
- Institute a public education strategy expecting an increase in system use; this will increase the safety of riders through awareness.



Source: PlanPhilly

# Benefits of Bike Sharing

Bike share programs are relatively inexpensive and quick to implement. Bike sharing as a transportation option can offer a variety of mobility, health, safety, economic, and quality of life benefits. A bike share program combined with other modes of transportation can provide a systemic shift in the region into a more pedestrian- and bicycle-friendly community.

Bike share programs help to strengthen a city's core infrastructure by transforming it into a more desirable place to visit by both long and short-term residents and visitors. It creates a sense of place and a form of short-range transportation systems that is very efficient at moving people distances of 1-3 miles or less. This is important for the first and last mile of travel for someone dependent on public transportation. Bike share programs can also offer a form of recreation, entertainment, tourism, and exercise. They can help to attract young professionals to a region by enhancing the transportation network and livability of the city. Bike share is great for the environment and helps to improve the region's air quality and keeps the area in Attainment Area designation. Additionally, it allows individuals to experience the city in a more personal way than you could by car.

## Health Benefits

The benefits associated with living a healthier lifestyle are well documented. Bicycling as a means of transportation or for recreational purposes on a regular basis can help address preventable diseases such as obesity, heart disease, and diabetes. As such, a bike share can have a positive impact on both mental and physical health<sup>2</sup>.

First and foremost bike share programs are designed to get people where they need to go over relatively short distances where a car is not necessary. However, bike share has become a means for people to incorporate regular exercise into their daily or weekly routine. Integrating active transportation into daily travel plans helps to lower medical and health-care costs of individuals. Exercising for 30 minutes a day, such as using bike sharing to travel to and from work, can reduce the risk of heart disease by 82-percent and reduce the risk of diabetes by up to 58-percent<sup>3</sup>, along with a healthy diet.

Winnebago County is above the national and state three-year average for both physical inactivity and adult obesity rates<sup>4</sup>. Increased awareness and usage of bicycles in Rockford could help to reduce these numbers.

Bike share, and other forms of active transportation, can also have a positive impact on the mental health of individuals. Users in other cities have voiced their opinion that a bike share program had positively contributed to an improved outlook, increased physical activity, and improvement in sociability in the respective community.

## Environmental Benefits

Bicycling is a carbon neutral form of transportation and bike sharing is nearly neutral as well. Most rental stations and hubs are solar powered and use very little electricity to run and operate. The redistribution of bicycles to even the system out can be done with cargo bikes, golf carts, or small electric vehicles to further reduce emissions.

Bike sharing helps to reduce the environmental footprint of a region's transportation system in a few ways. Previous research in the US on bicycle share user behavior shows that up to 25-percent of bike share trips replace vehicle trips, thus reducing emissions, fuel use, and the need for automobile space on roads and in parking areas.

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<sup>2</sup> Lindström J. et al. The Finnish Diabetes Prevention Study (DPS): Lifestyle intervention and 3-year results on diet and physical activity. *Diabetes Care*. 2003 Dec;26(12):3230-6. PubMed website PMID: 14633807.

<sup>3</sup> Lindström J. et al. The Finnish Diabetes Prevention Study (DPS): Lifestyle intervention and 3-year results on diet and physical activity. *Diabetes Care*. 2003 Dec;26(12):3230-6. PubMed website PMID: 14633807.

<sup>4</sup> County Health Rankings & Roadmaps. Health Rankings. Winnebago, IL Health Factors 2013. <http://www.countyhealthrankings.org/>

In the first season of operation, Denver B-Cycle users took over 100,000 trips and rode more than 200,000 miles. A survey of members also showed that over 40% of trips replaced a vehicle trip, resulting in almost a 16,000 gallon savings in gasoline consumption and avoiding over 300,000 pounds of greenhouse gas emissions<sup>5</sup>.

Another added benefit to both the individuals and communities served by a bike share program is the ability for the users to login to an account and see or track information about trip distances, times, speeds and even greenhouse gas emissions that were avoided as the result of riding a bike rather than a motor vehicle. This environmentally conscious component also provides valuable data to the service provider that can be used to make informed decisions and modifications to the system to improve efficiency and to fulfill demand where it is most needed.

Additionally, when bike share stations are located at transit hubs, bike sharing can also increase the accessibility to public transit, therefore increasing the likelihood of replacing vehicle trips with bike transit trips. Introducing bike share also increases the number of people in the community riding private bicycles by introducing new users to bicycling without the upfront expense of purchasing a bicycle, a locking mechanism, and storage of a bicycle when not in use. This can eventually lead to a private purchase from the increased comfort level.

A Survey of Capital Bike Share members in Washington D.C. in 2011 showed that bike share trips had replaced approximately 4.4 million vehicle miles travel, representing a 4% decrease in the city's annual driving mileage. The same study showed that 30% of DC's bike share program users indicated that they already owned a personal bicycle. Additionally, many bike sharing systems in the nation have found that a common reason for discontinued memberships is that the member had recently purchased a bicycle themselves<sup>6</sup>. This can be seen as a good thing because they are still users of the infrastructure and now an advocate as well.

## Transportation and Mobility Benefits

Bike share program is effective at increasing the mobility and improving the connectivity of the regions they are implemented in. Bike share offers residents and visitors a chance to move freely, quickly, and efficiently throughout an urban environment. Users of bike sharing systems are more easily able to stop, shop, and continue on their journey to an intended destination. However, the option to be spontaneous allows for discovery of otherwise overlooked areas of an urban environment. Bike share programs can be a great way for longtime residents of the City of Rockford to explore and find new things to do, while offering visitors the freedom to move, interact, and to spend outside dollars in the local economy. Bike share trips on average tend to be between 15-35 minutes in duration and about 1-3 miles in length<sup>7</sup>.

A bike share program would provide a very important form of active transportation to a revitalized downtown.

For the most part it would service trips that are:

- Too far or take too long to walk;
- Too short to warrant waiting for public transportation or a passenger vehicle;
- Used for the first/last-mile problem often associated with accessing public transportation; and
- Used as a form of recreation, leisure, and exercise.

Often in cities where bike sharing systems have been implemented there has been an increase in ridership to the areas' public transportation systems. With a newly added transportation method, users often combine bike share memberships and public transportation options to further increase their mobility options and efficiency.

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<sup>5</sup> Denver Bikesharing Annual Report

<sup>6</sup> Marin County Bicycle Share Feasibility Study, Alta Planning + Design.

<sup>7</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

Some benefits include:

- Reduction in congestion;
- Increased access and exposure to storefronts in the downtown area;
- Additional investment in the city's core bicycle and pedestrian infrastructure, something that is also good for the local economy by making the downtown more attractive to tourists as well as residents who may not typically think of coming downtown for dinner, entertainment, etc.;
- Lowers barriers to mobility;
- Reduced reliance on automobiles by downtown residents;
- Extending the reach of transit and increased access to the city's core; and
- Portraying the city as a bicycle- and pedestrian -friendly place, thus attracting more people from outside the region to visit the waterfront and downtown business districts.

Bike share programs are often most successful when coupled with an increase in bicycle infrastructure investment. It is easy to recognize the correlation between bike share and increased investment in infrastructure, through improvements to on-street lanes, as well as increased awareness, safety, usability and efficiency of the entire network. In turn, this should help to facilitate an increase in ridership and memberships of public transportation, and increase usage of our sidewalks and shared-use paths.

## Social and Community Benefits

Many cities that have implemented a bike share program have found that the perception of the region has become more positive by residents and visitors. While this benefit may not be easy to attach a dollar amount to it, many studies have reported an increase in social and community benefits. One of the easiest ways to measure this metric is by survey or by observing how users interact with each other at a bike share location compared to when it did not exist.

## Safety Benefits

Often there is the perception that bike share programs are inherently dangerous for the rider. In fact the statistics show just the opposite.

According to the article "After 23 million rides, no deaths in U.S. bike share programs", as of May 2014, no fatalities have been logged in any U.S. public bike share program since the first integrated systems were introduced in the U.S. in 2007, even with a total of approximately 23 million rides<sup>8</sup>. The article stated that "The accident rate for New York City's bike share program is impressive, with about 10.5 crashes with or without an injury per 1 million trips." If these safety numbers are possible in one of the most densely populated and congested cities in the world, the program should fare well in the Rockford Region, especially if the system is developed with safety and education as a major component.

Even better was the statistics from Capital Bikeshare. As of 2014, there have been zero fatalities on the programs bikes since its launch in September 2010. In total, there have been 95 reported crashes in the system. Of these 95 crashes, over 50 percent of the accident reports indicated that they did not require a trip to the hospital and 16.8 percent of the accidents did not indicate whether or not they required a hospital visit or not<sup>9</sup>.

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<sup>8</sup> Goldberg, Barbara. "After 23 Million Rides, No Deaths in U.S. Bike Share Programs." Reuters. August 12, 2014. <http://www.reuters.com/article/us-usa-transportation-bikes-idUSKBN0GC10T20140812>.

<sup>9</sup> Stein, Perry. "There Have Been 95 Reported Crashes on Capital Bikeshare Since Its Launch." City Desk RSS. June 3, 2014. Accessed March 23, 2016. <http://www.washingtoncitypaper.com/blogs/citydesk/2014/06/03/there-have-been-95-reported-crashes-on-capital-bikeshare-since-its-launch-2/>.

## Important Safety Reminders

- All bicyclists should wear properly fitted bicycle helmets every time they ride. A helmet is the single most effective way to prevent head injury resulting from a bicycle crash.
- Bicyclists are considered vehicle operators; they are required to obey the same rules of the road as other vehicle operators, including obeying traffic signs, signals, and lane markings. When cycling in the street, cyclists must ride in the same direction as traffic.
- Drivers of motor vehicles need to share the road with bicyclists. Be courteous – allow at least three feet of clearance when passing bicyclists on the road, look for cyclists before opening a car door or pulling from a parking space, and yield to cyclists at intersections and as directed by signs and signals. Be especially watchful for cyclists when making turns, either left or right.
- Bicyclists should increase their visibility to drivers by wearing fluorescent or brightly colored clothing during the day, and at dawn and dusk. To be noticed when riding at night, use a front light and a red reflector or flashing rear light, and use retro-reflective tape or markings on equipment or clothing.

— NHTSA’s Office of Safety Programs

## Nationwide Pedalcyclist Statistics

In 2013, there were 743 pedalcyclists (persons on a vehicle that is powered solely by pedals) killed and an estimated 48,000 injured in motor vehicle traffic crashes. Pedalcyclist deaths accounted for two-percent of all motor vehicle traffic fatalities (Table 1) and injured pedalcyclists made up two-percent of the people injured in traffic crashes during the year.

The number of pedalcyclists killed in 2013 is 0.1 percent higher than the 734 pedalcyclists killed in 2012. The increase in 2013 is the third straight increase in pedalcyclist fatalities, a 19-percent increase since 2010<sup>11</sup>.

Table 2 shows information about the setting surrounding pedalcyclist fatalities in 2013 including setting, pedalcyclist location, and time of day.

- The majority of fatalities occurred in urban areas (68-percent) as opposed to rural areas (32-percent).
- Most occurred at non-intersections (57-percent); a decrease from the 60-percent at non-intersections in 2012.
- Over half (56-percent) occurred from 3 p.m. to 11:59 p.m.
- The fewest pedalcyclist fatalities occurred from midnight to 5:59 a.m. (five-percent in each time frame).

Year	Total Fatalities	Pedalcyclist Fatalities	Percentage of Total Fatalities
2004	42,836	727	1.7%
2005	43,510	786	1.8%
2006	42,708	772	1.8%
2007	41,259	701	1.7%
2008	37,423	718	1.9%
2009	33,883	628	1.9%
2010	32,999	623	1.9%
2011	32,479	682	2.1%
2012	33,782	734	2.2%
2013	32,719	743	2.3%

Table 1: Total Fatalities & Pedalcyclist Fatalities in Traffic Crashes<sup>10</sup>

Crash Setting Characteristics	Percentage of the Pedalcyclists Killed	
	2012	2013
<b>Land Use</b>		
Rural	31%	32%
Urban	69%	68%
<b>Pedalcyclist Location</b>		
Intersection	30%	34%
Non-Intersection	60%	57%
Other	10%	9%
<b>Time of Day</b>		
Midnight - 2:59 a.m.	6%	5%
3 a.m. - 5:59 a.m.	5%	5%
6 a.m. - 8:59 a.m.	12%	11%
9 a.m. - 11:59 a.m.	10%	11%
Noon - 2:59 a.m.	14%	11%
3 p.m. - 5:59 p.m.	13%	17%
6 p.m. - 8:59 a.m.	24%	22%
9 p.m. -11:59 p.m.	16%	17%

Table 2: Percentage of Pedalcyclist Fatalities in Relation to Setting, Pedalcyclist Location, and Time of Day<sup>12</sup>

<sup>10</sup> Fatality Analysis Reporting System (FARS) 2004-2012 Final File, 2013 Annual Report File (ARF).

<sup>11</sup> National Center for Statistics and Analysis. (2015, May). Bicyclists and other cyclists: 2013 data. (Traffic Safety Facts. Report No. DOT HS 812 151). Washington, DC: National Highway Traffic Safety Administration.

<sup>12</sup> Fatality Analysis Reporting System (FARS) 2012 Final File, 2013 Annual Report File (ARF).

## Business Models

Many cities in the United States are investing in bike share programs for the benefits previously outlined. The success of these systems has dramatically increased the visibility of bicycling activity and investment in their respective communities.

Each bike share program has identified a business model that fits the needs of the local market and the funding environment. There are three types of business models that are used by the majority of cities deploying a bike share program: publicly owned and operated, non-profit owned and operated, and privately owned and operated. Additionally, many cities have implemented programs that consist of a hybrid of the three business models.

The characteristics of the each model determines how the bike sharing system will be funded, who will undertake day-to-day operations, and what type of bicycle and kiosk hardware will be deployed. A description of the various business models are detailed below:

### Publicly Owned & Operated

The public agency, in this model, would pay for the upfront capital costs and would own the rental equipment and kiosks. This public agency can generally decide which other functions it takes on and which functions it should contract out to a third party. In the majority of cases, the agency partners with a private contractor to handle the operational functions.

As outlined by the Federal Highway Administration, the independent contractor would handle membership management, customer service, marketing, bicycle redistribution, data management, and equipment maintenance. The public agency would be responsible for the financial side of the program, while the private contractor is responsible for liability exposure. Working with a private contractor allows the operator to include advertising and sponsorship opportunities to fund the program and generate additional revenue to be shared between the jurisdiction and the private contractor.

In this model, all of the capital funding is provided by the public agency. However, the net revenues are reinvested into the system to fund program improvements and expansion of service. Since the bike share programs under this model are publicly owned, they can seek additional funds through federal, state, and local grants. Additional funding opportunities can be found through advertising and sponsorship opportunities, as well as revenues generated by membership and usage fees<sup>13</sup>.

### Non-Profit Owned & Operated

In this model, a non-profit organization, that has been created specifically for the bike share program or one that has added a bike share program to its services, manages operations and service. The non-profit organization is responsible for both fundraising and managing operational revenues and expenditures. In many cases, the non-profit has received some of the start-up costs from a local agency or the local agency has acted as a fiscal agent to request funds from Federal grants and passes funds to the non-profit, thus removing financial liability from the local agency.

Systems using this model use a variety of funding sources. These sources include private funding from foundations, local/national energy conservation and health grants, and local business sponsorship. Since the organization is a non-profit, net revenues generated by membership/usage fees and sponsorships, are reinvested into the system<sup>14</sup>.

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<sup>13</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

<sup>14</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

## Privately Owned & Operated

In this model, a private company provides, owns, and operates the service. A privately owned and operated system brings established skills and bike share experience to the community. However, it depends on the financial potential of the system to attract private investment. This model limits the local government oversight which may result in the reduced ability to ensure that the service meets the goals of the local government.

All capital cost and operating expenses are managed by the private company. The private company relies on a mix of revenues, such as private investment and the sales of advertising on bicycles and stations, as well as membership and usage fees. The funding options are limited to whatever the private sector interest is able to bring to the table<sup>15</sup>.

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<sup>15</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

## Case Studies

Several bike sharing systems have recently been started and have provided data for this study. Five cities have been selected from active systems based on their similarities in population density, transit infrastructure, regionalization, operational model, and their location in the Midwest. Characteristics of the following peer cities are summarized and discussed in more detail below:



Ann Arbor, Michigan



Cincinnati, Ohio



Des Moines, Iowa



Fargo, North Dakota



Madison, Wisconsin

# ArborBike

<b>Jurisdiction</b>	Ann Arbor, MI
<b>Opening Year</b>	2014
<b>Website</b>	<a href="http://arborbike.org/">http://arborbike.org/</a>
<b>Size<sup>16</sup></b>	
Bikes (Start/Current)	75/125
Stations (Start/Current)	6/14
Average Dock per Docking Station	-
<b>Operation</b>	Seasonal (Closed December Through March)
<b>Community Demographics</b>	
City Area	28.7 square miles
Population Density <sup>17</sup>	3,970 people per square mile
Housing + Transportation Costs <sup>18</sup>	52-percent of income
Median Household Income <sup>19</sup>	\$55,003
Cost of Living Index <sup>20</sup>	102.1
<b>Equipment Ownership</b>	Non-Profit
<b>Operator Name</b>	Clean Energy Coalition
<b>Equipment Provider</b>	B-Cycle
<b>Business Model</b>	Non-profit owned and operated
<b>Funding Sources</b>	Donations; membership and usage fees; program partners and community sponsors (employer partners, bike sponsor, station sponsor)
<b>Bicycle Friendly Community Denomination</b>	Silver
<b>Bike Facilities Characteristics<sup>21</sup></b>	26-50% of arterial street have dedicated bicycle facilities
<b>Membership and Usage Fees</b>	
Annual	\$65
Monthly (30-Day)	\$10
Daily (24-Hour)	\$6
Usage Fees	No fee for first 60 minutes \$4 for each additional half-hour \$28 max. per day



<sup>16</sup> Nicole Rupersburg. "Will Ann Arbor succeed with its bike sharing program?" *Michigan Radio*. October 10, 2014. <http://michiganradio.org/post/will-ann-arbor-succeed-its-bike-sharing-program#stream/0>

<sup>17</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

<sup>18</sup> Center for Neighborhood Technology. Housing and Transportation Affordability Index. Ann Arbor, MI H+T Fact Sheet 2015.

<sup>19</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP03 Selected Economic Characteristics.

<sup>20</sup> Council for Community and Economic Research. Cost of Living Index: 2013 Annual Average Data. January 2014.

<sup>21</sup> League of American Bicyclists. Ann Arbor Profile. Bicycle Friendly America. 2015.

## Cincy Red Bike

<b>Jurisdiction</b>	Cincinnati, OH
<b>Opening Year</b>	2014
<b>Website</b>	<a href="http://www.cincyredbike.org/">http://www.cincyredbike.org/</a>
<b>Size<sup>22</sup></b>	
Bikes (Start/Current)	260/260
Stations (Start/Current)	30/50
Average Dock per Docking Station	14
<b>Operation</b>	Year-Round
<b>Community Demographics</b>	
City Area	79.54 square miles
Population Density <sup>23</sup>	3,733 people per square mile
Housing + Transportation Costs <sup>24</sup>	41-percent of income
Median Household Income <sup>25</sup>	\$34,116
Cost of Living Index <sup>26</sup>	86.5
<b>Equipment Ownership</b>	Non-Profit
<b>Operator Name</b>	Red Bike
<b>Equipment Provider</b>	B-Cycle
<b>Business Model</b>	Non-profit owned and operated
<b>Funding Sources</b>	Corporate sponsorship; membership and usage fees
<b>Bicycle Friendly Community Denomination</b>	Bronze
<b>Bike Facilities Characteristics<sup>27</sup></b>	1-25% of arterial streets have dedicated bicycle facilities
<b>Membership and Usage Fees</b>	
Annual	\$80
Monthly (30-Day)	\$30
Daily (24-Hour)	\$8
Usage Fees	No fee for first 60 minutes \$4 for each additional half-hour \$28 max. per day



<sup>22</sup> Sarah Goodyear. "Cincinnati Bike Movement Skips Angry Drivers, Gets Right Down to Growing" *Next City*. November 10, 2014. <https://nextcity.org/daily/entry/cincinnati-bike-share-bicycling-numbers-grow>

<sup>23</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

<sup>24</sup> Center for Neighborhood Technology. Housing and Transportation Affordability Index. Cincinnati, OH H+T Fact Sheet 2015.

<sup>25</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP03 Selected Economic Characteristics.

<sup>26</sup> Council for Community and Economic Research. Cost of Living Index: 2013 Annual Average Data. January 2014.

<sup>27</sup> League of American Bicyclists. Cincinnati Profile. Bicycle Friendly America. 2015.

## Des Moines B-Cycle

<b>Jurisdiction</b>	Des Moines, IA
<b>Opening Year</b>	2010
<b>Website</b>	<a href="https://desmoines.bcycle.com/">https://desmoines.bcycle.com/</a>
<b>Size<sup>28</sup></b>	
Bikes (Start/Current)	18/62
Stations (Start/Current)	4/10
Average Dock per Docking Station	11
<b>Operation</b>	Seasonal (Closed December Through March)
<b>Community Demographics</b>	
City Area	82.6 square miles
Population Density <sup>29</sup>	2,463 people per square mile
Housing + Transportation Costs <sup>30</sup>	41-percent of income
Median Household Income <sup>31</sup>	\$45,836
Cost of Living Index <sup>32</sup>	90.3
<b>Equipment Ownership</b>	Non-Profit
<b>Operator Name</b>	Des Moines Bicycle Collective
<b>Equipment Provider</b>	B-Cycle
<b>Business Model</b>	Non-profit owned and operated
<b>Funding Sources</b>	Grants, direct system sponsorship; partners and station sponsorships, membership and usage fees
<b>Bicycle Friendly Community Denomination</b>	Bronze
<b>Bike Facilities Characteristics<sup>33</sup></b>	Approximately 15% of arterial streets have dedicated bike facilities
<b>Membership and Usage Fees</b>	
Annual	\$50/adult and \$40/student
Monthly (30-Day)	\$30/adult and \$20/student
Daily (24-Hour)	\$6
Usage Fees	No fee for first 60 minutes \$2.50 for each additional half-hour \$65 max. per day



<sup>28</sup> Pat Curtis. "Des Moines launches bicycle-sharing program" *Radio Iowa*. September 8, 2010. <http://www.radioiowa.com/2010/09/08/des-moines-launches-bicycle-sharing-program/>

<sup>29</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

<sup>30</sup> Center for Neighborhood Technology. Housing and Transportation Affordability Index. Des Moines, IA H+T Fact Sheet 2015.

<sup>31</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP03 Selected Economic Characteristics.

<sup>32</sup> Council for Community and Economic Research. Cost of Living Index: 2013 Annual Average Data. January 2014.

<sup>33</sup> League of American Bicyclists. Des Moines, IA Report Card. Bicycle Friendly America. Spring 2015.

## Great Rides Bike Share

<b>Jurisdiction</b>	Fargo, ND
<b>Opening Year</b>	2015
<b>Website</b>	<a href="http://greatrides.bcycle.com/">http://greatrides.bcycle.com/</a>
<b>Size<sup>34</sup></b>	
Bikes (Start/Current)	101/101
Stations (Start/Current)	11/11
Average Dock per Docking Station	16
<b>Operation</b>	Seasonal (Closed December Through March)
<b>Community Demographics</b>	
City Area	48.82 square miles
Population Density <sup>35</sup>	2,162 people per square mile
Housing + Transportation Costs <sup>36</sup>	44-percent of income
Median Household Income <sup>37</sup>	\$45,458
Cost of Living Index <sup>38</sup>	93.9
<b>Equipment Ownership</b>	Non-profit
<b>Operator Name</b>	Great Rides Fargo
<b>Equipment Provider</b>	B-Cycle
<b>Business Model</b>	Non-profit owned and operated
<b>Funding Sources</b>	Direct system sponsorship; partners and station sponsorships, membership and usage fees
<b>Bicycle Friendly Community Denomination</b>	Bronze
<b>Bike Facilities Characteristics<sup>39</sup></b>	41% of arterial streets have dedicated bicycle facilities
<b>Membership and Usage Fees</b>	
Annual	\$75
Monthly (30-Day)	\$15
Daily (24-Hour)	\$6
Usage Fees	No fee for first 30 minutes Additional \$1 for each ride 31-60 minutes \$2 for each additional 30-minute interval thereafter



<sup>34</sup> Lisa Marchand. "What's Awesome About Fargo's 1<sup>st</sup> Bike Share Program" *Fargo Monthly*. March 13, 2015. <https://www.fargomonthly.com/community/great-rides-bikes-share/>

<sup>35</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

<sup>36</sup> Center for Neighborhood Technology. Housing and Transportation Affordability Index. Fargo, ND H+T Fact Sheet. 2015

<sup>37</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP03 Selected Economic Characteristics.

<sup>38</sup> Council for Community and Economic Research. Cost of Living Index: 2013 Annual Average Data. January 2014.

<sup>39</sup> League of American Bicyclists. Fargo-Moorhead Metropolitan Area, ND Report Card. Bicycle Friendly America. Fall 2014.

## Madison B-Cycle

<b>Jurisdiction</b>	Madison, WI
<b>Opening Year</b>	2011
<b>Website</b>	<a href="https://madison.bcycle.com/">https://madison.bcycle.com/</a>
<b>Size</b> <sup>40</sup>	
Bikes (Start/Current)	225/350
Stations (Start/Current)	35/39
Average Dock per Docking Station	16
<b>Operation</b>	Year-Around (Limited Operations In Winter)
<b>Community Demographics</b>	
City Area	84.7 square miles
Population Density <sup>41</sup>	2,753 people per square mile
Housing + Transportation Costs <sup>42</sup>	45-percent of income
Median Household Income <sup>43</sup>	\$53,464
Cost of Living Index <sup>44</sup>	105.6
<b>Equipment Ownership</b>	Private
<b>Operator Name</b>	Trek
<b>Equipment Provider</b>	B-Cycle
<b>Business Model</b>	For-profit owned and operated
<b>Funding Sources</b>	Membership and usage fees; corporate sponsorships
<b>Bicycle Friendly Community Denomination</b>	Platinum
<b>Bike Facilities Characteristics</b> <sup>45</sup>	34% of arterial streets have dedicated bicycle facilities
<b>Membership and Usage Fees</b>	
Annual	\$65
Monthly (30-Day)	\$7.99
Daily (24-Hour)	\$5
Usage Fees	No fee for first 30 minutes Additional \$3 for each ride 31-60 minutes \$3 for each additional 30-minute interval thereafter \$75 max. charge per day



<sup>40</sup> Matt Christensen. "Bike Share Finds Success in Small Cities" *Momentum Mag*. September 23, 2013. <https://momentummag.com/bike-share-finds-success-in-small-cities/>

<sup>41</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

<sup>42</sup> Center for Neighborhood Technology. Housing and Transportation Affordability Index. Madison, WI H+T Fact Sheet 2015.

<sup>43</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP03 Selected Economic Characteristics.

<sup>44</sup> Council for Community and Economic Research. Cost of Living Index: 2013 Annual Average Data. January 2014.

<sup>45</sup> League of American Bicyclists. Madison, WI Report Card. Bicycle Friendly America. Fall 2015.

## Local Context

Understanding the local factors into which a bike share program would be introduced is important to determining whether a system will be successful. This section provides a review of the physical environment, demographics, bicycle infrastructure, and current tourism trends in Rockford.

### Geography & Climate

The City of Rockford is located in north central Illinois and is the seat of Winnebago County. Rockford is located 17 miles south of the Illinois-Wisconsin border and 90 miles northwest of downtown Chicago. Rockford is the third-largest city in Illinois encompassing approximately 64 square miles<sup>46</sup>. The metropolitan area includes Winnebago and Boone counties and encompasses a population of approximately 347,450 people.

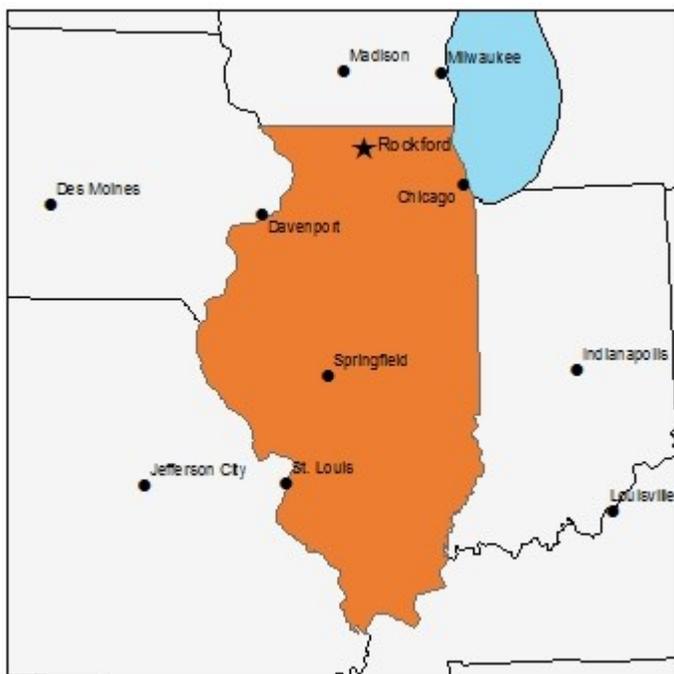


Figure 2: Location of Rockford

Rockford is situated along the Rock River with a central downtown. The downtown core and the area immediately surrounding downtown consists of high density development, mixed-use zoning. Like many other industrial cities, Rockford was built around a downtown grid pattern.

The City experienced a large expansion east through the second half of the 20<sup>th</sup> century. Beyond downtown, commercial development follows the major arterial corridors to the east, towards Interstate 90, surrounded by low-density development, single-family residential zoning. The development pattern of these areas are characterized by large arterial corridors connecting residential areas of circuitous streets and cul-de-sacs, typical of most suburban areas. The topography in downtown Rockford is relatively flat and is ideal for bicycling.

Due to its location in the Midwest, Rockford experiences four clearly defined seasons. Generally, the region experiences hot, humid summers, with highs in the low to

mid 80s, and cold winters with highs in the low 30s. The area averages 36 inches of rain annually, with higher monthly precipitation averages between May and August (See Figure 3). Rockford averages an annual snowfall of 37 inches<sup>47</sup>.

### Demographics

Bike share ridership is heavily influenced by the density and mix of land uses. Bike sharing systems work best where more people live, work, and play. For Rockford most of these areas are located within or in close proximity to downtown, which is undergoing a resurgence with many businesses and residents relocating there.

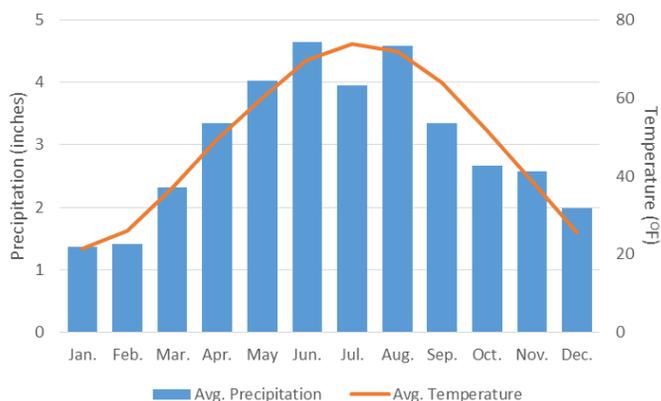


Figure 3: Monthly Average Temperature & Precipitation

<sup>46</sup> City of Rockford. *Comprehensive Annual Financial Report for the Fiscal Year Ended December 31, 2013*.

<sup>47</sup> National Oceanic and Atmospheric Administration. National Climatic Data Center. *Monthly Climate Normals, 1981 – 2010*.

## Population

Rockford's city-wide population and density is comparable to several Midwestern cities operating bike shares, as shown in Table 3 and summarized below:

- **Population:** The City of Rockford is the third most populous city in Illinois with a population of approximately 152,000 people and a regional population of over 340,000 people<sup>48</sup>. Rockford falls in the middle of the scale to other Midwestern cities that are operating bike share programs.
- **Population Density:** The city-wide population density is approximately 2,370 people per square mile. This is in the lower end of densities seen in other bike share cities, but compares with the city-wide density of Fargo, North Dakota. Figure 4 maps the population density in Rockford, which show high density surrounding Downtown.

	Population	Area (Miles <sup>2</sup> )	Density (Pop/Miles <sup>2</sup> )	Population Ages 25-34 (%)	Median Income
Cincinnati, OH	296,943	79.54	3,733	17%	\$34,116
Madison, WI	233,209	84.7	2,753	19%	\$53,464
Des Moines, IA	203,433	82.6	2,463	16%	\$45,836
<b>Rockford</b>	<b>152,138</b>	<b>64.23</b>	<b>2,369</b>	<b>14%</b>	<b>\$38,067</b>
Ann Arbor, MI	113,934	28.7	3,970	17%	\$55,003
Fargo, ND	105,549	48.82	2,162	18%	\$45,458

Table 3: City Characteristics Comparison<sup>49</sup>

According to other bike share study's, many cities have found that annual members of bike share programs were typically young populations with at least a Bachelors degree or higher and a higher income level. However, it is uncertain whether this is resulting from an over-representation of these populations in the locations in which bike share programs have been launched.

According to the 2013 American Community Survey:

- **Age:** The median age of Rockford's population is 36. Approximately 14 percent of the population is between the ages of 25 and 34<sup>50</sup>. This is lower than the average of other Midwestern bike share cities.
- **Income:** The median household income is just over \$38,000 which is lower than that state average of approximately \$57,000<sup>51</sup>. This is in the lower end of median household incomes seen in other bike share cities, but compares with the median income of Cincinnati, Ohio.
- **Poverty:** The percent of people living below the poverty line is 26 percent<sup>52</sup>.
- **Demographic Composition:** The demographic composition is 57 percent White, non-Hispanic; 21 percent African American, non-Hispanic; 3 percent Asian; 3 percent of Native Hawaiian, American Indian or other background; and 17 percent Hispanic/

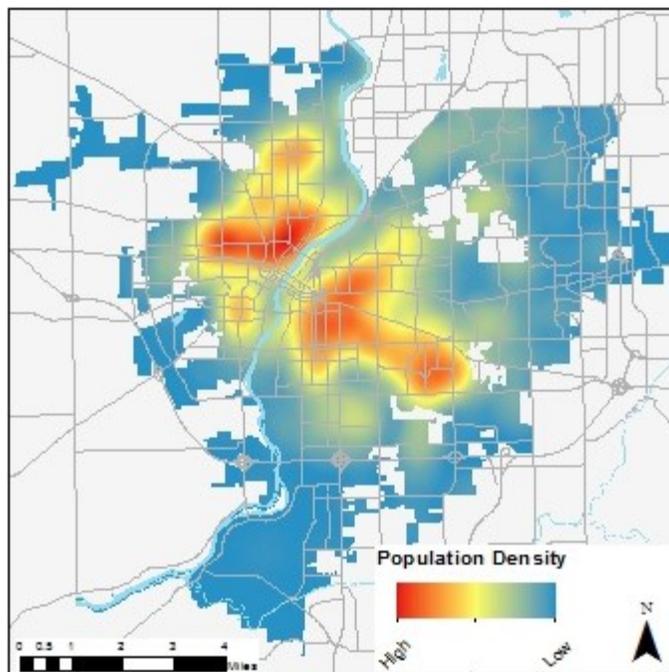


Figure 4: Population Density

<sup>48</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

<sup>49</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates.

<sup>50</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. B01001 Sex by Age.

<sup>51</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP03 Selected Economic Characteristics.

<sup>52</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. S1701 Poverty Status in the Past 12 Months.

<sup>53</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. DP05 Demographic and Housing Estimates.

## Employment & Education

The number of jobs also influences usage. Bike share programs expand transit options for local commuters and offer a convenient way to get around.

The City continues to expand and diversify its economic development and employment opportunities. The major industry clusters in the Rockford Metropolitan Area include advanced manufacturing; transportation, logistics and distribution; and healthcare. The major employers in the City of Rockford are listed in Table 4 and are primarily made up of healthcare, education, manufacturing, government, and transportation sectors<sup>54</sup>.

The concentration of employment, as shown in Figure 5, is located in downtown. Approximately 7,000 people work in Downtown Rockford. Other high employment areas include the EastRock Industrial Park and the East State Street corridor.

One of the City’s assets is the quality of higher education in and around the city. Rockford is home to several colleges and university campuses<sup>56</sup> (See Figure 6 for locations).

1. **Rock Valley College (RVC)** – a comprehensive two-year community college, offering more than 100 courses for transfer, career programs and certificates. RVC is the largest educational institution in Rockford with approximately 8,000 credit students and over 25,000 non-credit students annually.
2. **Rockford University** – a four-year, co-educational institution founded in 1847 offering undergraduate and graduate degrees in traditional liberal arts and professional fields.
3. **Northern Illinois University Rockford** – provides continuing education and accreditation classes in a variety of academic programs, as well as a cooperative effort with Rock Valley College to award bachelor degrees in nursing, manufacturing, and computer science.
4. **University of Illinois College of Medicine at Rockford** – provides the finest community-based medical training, and offers educational development of health professionals through health services to the Northern Illinois region.
5. **St. Anthony College of Nursing** – offers the last two years of a four-year bachelor of science in nursing degree and a Master of Science in Nursing, as well as a cooperative effort with several community colleges in the region.

Employer	Estimated Employees
Rockford School District 205	4,200
SwedishAmerican Health System	3,200
Rockford Health System	3,000
UTC Aerospace Systems	2,100
OSF Saint Anthony Medical Center	2,050
County of Winnebago	1,600
Packaging Coordinators, Inc.	1,500
UPS	900
Lowe’s Companies, Inc.	800
APAC Customer Services, Inc.	700

Table 4: Top Employers in Rockford<sup>55</sup>

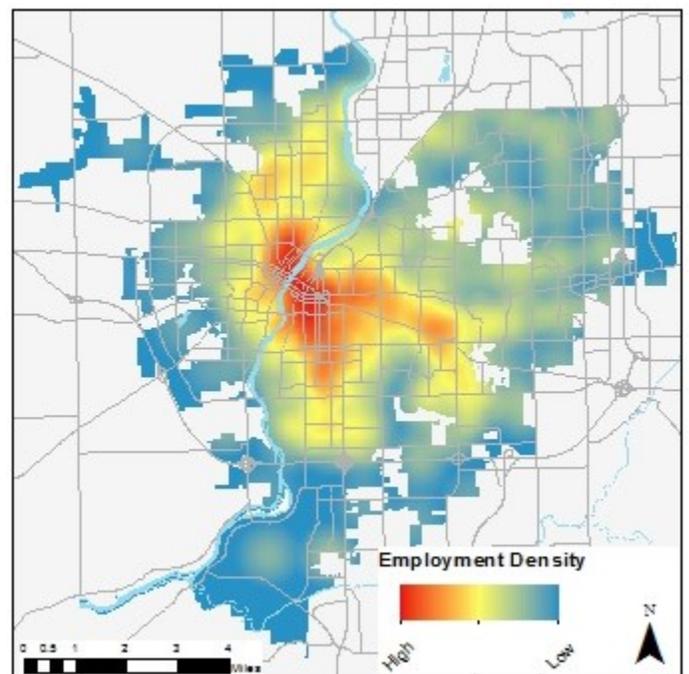


Figure 5: Employment Density

<sup>54</sup> Economic Development District of Northern Illinois. 2016-2020 Comprehensive Economic Development Strategy .

<sup>55</sup> Rockford Area Economic Development Council.

- 6. **Rockford Career College** – provides contemporary education in an independent flexible educational system by following the true-to-life requirements of the industries that employ their graduates.
- 7. **Rasmussen College Rockford** – a two year college that works in harmony with Rockford's business community and employer demands.

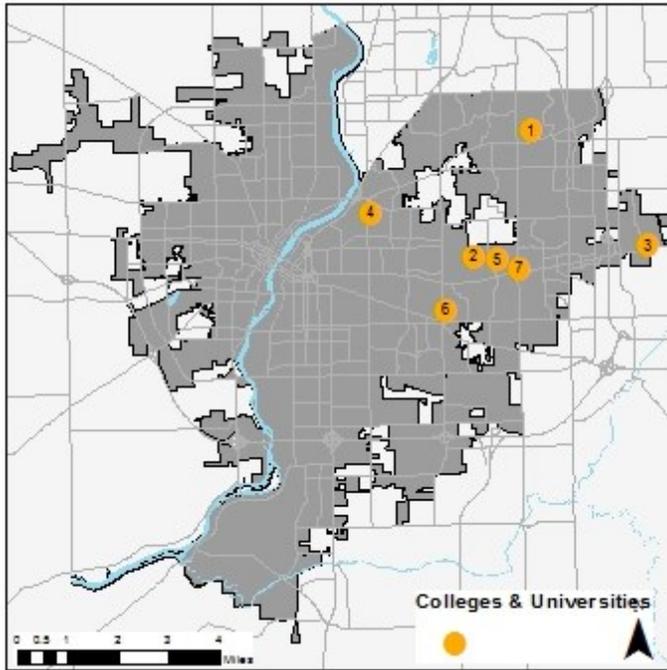


Figure 6: Rockford Colleges and Universities

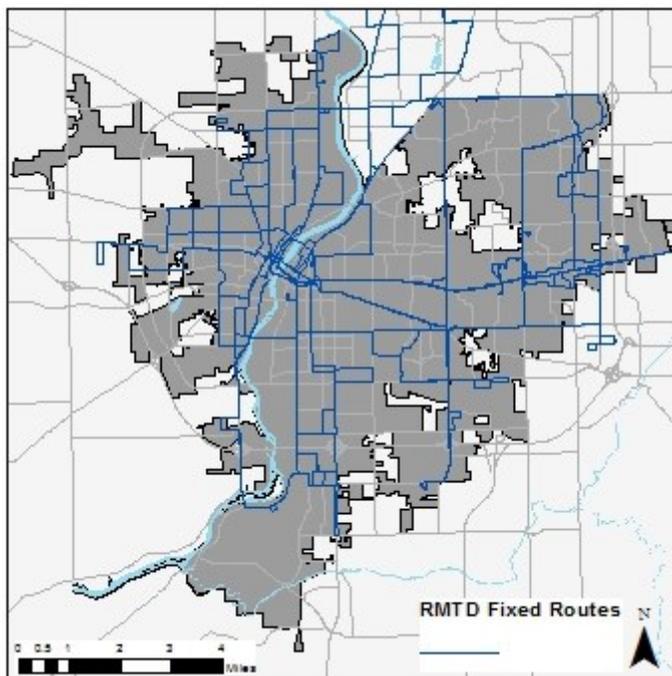


Figure 8: Transit Routes

## Transportation Mode Share

Bike share programs in other cities have been able to capture some of the single-occupant motor vehicle commuting trips with bike share trips.

- **Journey to Work:** Rockford is still a predominately auto-oriented city – single occupancy vehicle use represents 82-percent of all commuting trips<sup>57</sup> (See Figure 7). Only 0.4-percent of people bicycled to work and a further 15-percent carpooled, walked, or took public transportation. A bike share program would offer and additional transportation options in the downtown area during the day.

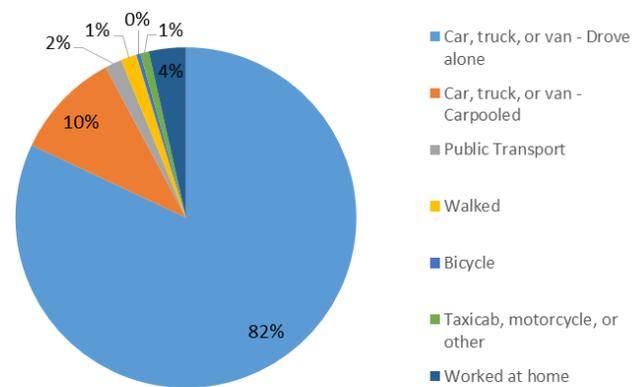


Figure 7: Transportation Mode Share

- **Parking:** Free on-street parking in downtown Rockford has encouraged personal vehicle travel, in addition to ample low-cost, off-street parking facilities. Downtown has nine public parking lots (one- to two-hour parking between 8 a.m. and 5 p.m., open nights and weekends) and 4 parking decks (hourly rate of approx. \$2.00/per hour).

Local public mass transit service in the City of Rockford is provided by Rockford Mass Transit District. The bulk of RMTD's service area is within the City of Rockford, as well as services to the City of Loves Park, Village of Cherry Valley, Village of Machesney Park, and City of Belvidere. RMTD provides routes connecting various parts of the City at relatively low prices (\$1.50 for a full one-way). RMTD operates

<sup>56</sup> City of Rockford. *Comprehensive Annual Financial Report for the Fiscal Year Ended December 31, 2013*.

<sup>57</sup> US Census Bureau. 2009-2013 American Community Survey 5-Year Estimates. S0802 Means of Transportation to Work by Selected Characteristics.

shown in Figure 8, and records approximately 1.5 million rides annually<sup>58</sup>. RMTD also offers bike racks on their buses to provide safe and convenient bicycle connections for transit passengers outside traditional walking distances. Use of the bicycle equipment located on the RMTD buses aligns with the seasonal climate in the region, with peak months of usage between April and November. Overall, the use of RMTD vehicle racks is very high, even during the off-season months. (see Figure 9).

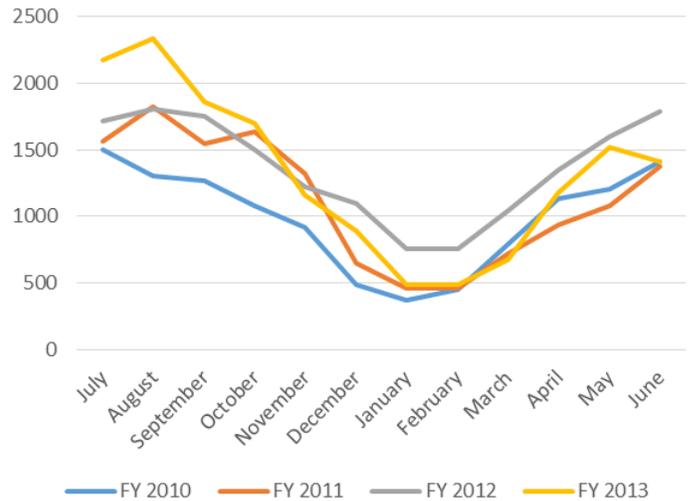


Figure 9: Monthly Bicycle Rack Usage

## Tourism

Two-thirds of user-generated revenues in bike sharing systems in comparable cities are from tourists, visitors, and other casual users. This may be because tourists and visitors are less cost sensitive and are willing to pay higher fees to keep the bicycles longer.

While Rockford is not regularly thought of as a major tourist destination like some other cities with bike sharing systems, it is home to several major tourist and visitor destinations. According to the Rockford Area Convention & Visitors Bureau, the Rockford Region attracted over 6.5 million visitors in 2013<sup>60</sup>. Over 300 sports tournaments and other events and conferences are hosted every year in the region.

Many of the visitors attended special events, shopping, and other attractions. Local attractions include Sportscore Complexes, BMO Harris Bank Center, Burpee Museum of Natural History, Riverfront Museum Park, Anderson Japanese Gardens, Coronado Performing Arts Center, and Nicholas Conservatory & Gardens. Local events include Rockford AirFest, Stroll on State, Fourth of July Celebrations, Festival of Lights, and Rockford City Market. Figure 10 shows that a high concentration of attractions are located in and around the Downtown area. With the UW Sports Factory opening soon and the possibility of a downtown hotel, demand will be even higher in the next few years.

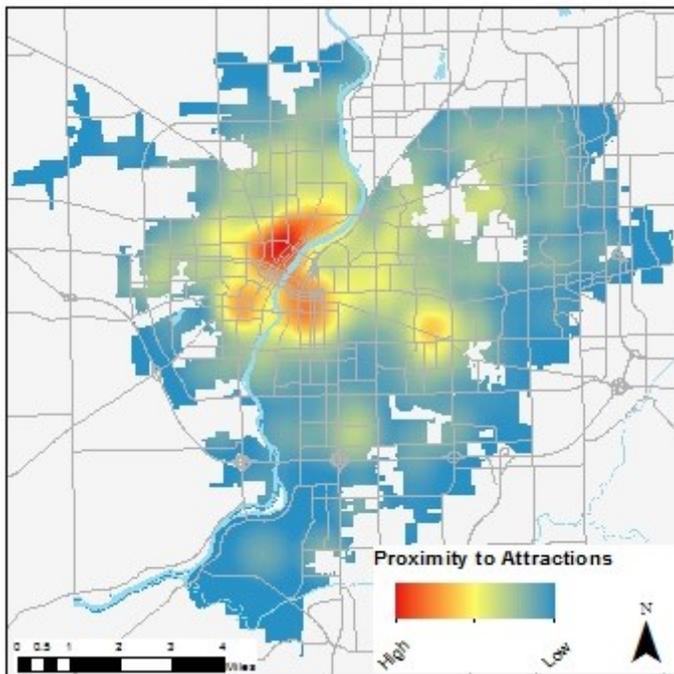


Figure 10: Proximity to Attractions

## Bicycle Infrastructure

While an extensive and connected existing bicycle network is preferred, a number of cities have been able to implement bike share programs while simultaneously making a commitment to expand bicycle infrastructure.

The City of Rockford has shown an increased commitment towards bicycling in recent years. The City, along with the Rockford Metropolitan Agency for Planning, has incorporated pathway planning into corridor planning and brownfield redevelopment. The City currently has over 25

<sup>58</sup> Rockford Metropolitan Agency for Planning. Long Range Transportation Plan for the Rockford Region.

<sup>59</sup> Rockford Mass Transit Authority.

<sup>60</sup> Rockford Area Convention & Visitors Bureau. 2013 Year in Review.

miles of separated greenway paths. A comparison of existing and proposed bicycle network mileage is included in Table 5.

The City of Rockford has chosen to create a separated pathway system. This has left the arterial street system unable to safely accommodate bicycle traffic<sup>61</sup>. A map of current bicycle facilities in Rockford is located in Figure 12.

Recently the Illinois Department of Transportation has incorporated shared-use paths into a few street reconstruction projects in the City of Rockford. For example, the South Main reconstruction project added 2.5 miles of new shared-use path along the project route from Blackhawk Springs Fire Department to Chiquita Food Mart. The path also splits off of South Main Street to provide access to South Park which is situated on the Rock River. Additionally the West State Street reconstruction project added approximately 0.8 miles.

Bicycle Facilities	Existing (Miles)	Planned/ Proposed (Miles)
On-Street Bike Lanes	2.7	0
Shared Lane Markings (Sharrows)	7.4	1.9
Bike Route (Signage Only)	23.1	10.2
Shared Use Paths (Bicycle & Pedestrian Trails)	25.3	57.4
<b>Total</b>	<b>58.5</b>	<b>69.5</b>

Table 5: Existing and Proposed Bicycle Facilities

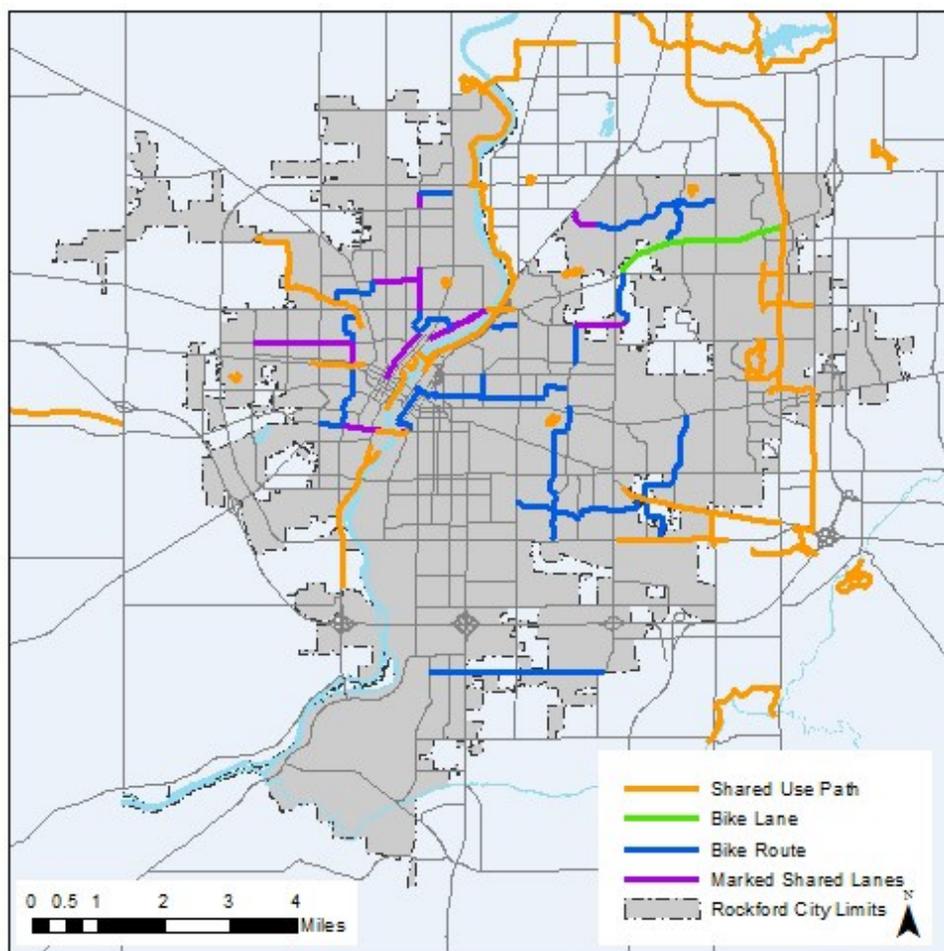


Figure 11: Existing Bicycle Network

<sup>61</sup> City of Rockford. *Rockford's 2020 Plan: Entering the 21st Century*. 2004.

## Demand Analysis

An important component in determining the feasibility of a bike share program is evaluating the typical factors that may play a role in the success of the bike share program. The experience of other bike share programs throughout the country suggests that higher use bike share stations tend to be located in higher density areas, such as population and employment, and with higher levels of pedestrian activity.

### Indicators

A demand analysis was performed by using GIS data provided by the Rockford Metropolitan Agency for Planning, Winnebago County Geographical Information System (WinGIS), the City of Rockford, Rockford Mass Transit District, Rockford Area Convention and Visitors Bureau, and the U.S. Census Bureau. The GIS data has been developed into a “heat map” to determine where the best area would be located to launch a bike share program in Rockford.

The following indicators<sup>62</sup> were used in the development of the demand analysis:

- **Population Density:** Higher population density areas tend to support higher bike share demand, especially since these areas tend to have reduced rates of automobile ownership.
- **Employment Density:** Areas with higher employment density yield greater access to potential bike share users. Higher employment density also helps to determine the commute partners that may affect the distribution of bike share rides throughout the service area.
- **Proximity to Colleges and Universities:** Many bike share programs are implemented in cities with a large student population, as students are likely users of the program because of their lower rate of car ownership.
- **Proximity to Community and Tourist Attractions:** A considerable source of revenue for bike sharing systems can come from tourists. A bike share program also increases the transportation choices for out-of-town guests and provides quicker access to recreational areas.
- **Proximity to Transit:** Bike share would offer a first- and last-mile connection to and from transit, and stations should be placed in close proximity to major transit stops and transportation hubs.
- **Existing Bicycle Infrastructure:** Bicycle lanes, shared-lane markings, and shared use paths provide the supporting infrastructure for bike share users.
- **Equity:** Bike sharing can serve as an affordable transportation option for low-income and minority populations.

### Methodology

The heat mapping methodology includes a point-scoring system where points are allocated to a U.S. Census block group based on its performance in each of the above indicators. Weights were assigned to each of the indicators based on its perceived impact on the potential for a bike share use (as determined by the experience of other bike share programs and the project team). The scores were then tallied to show the areas of the City with the most potential for a successful bike share. (Heat maps for each of the indicators above can be found in Appendix 1.) The weighting and methodology used for each indicator is described in Table 6.

The results of the heat map are shown in Figure 13. As expected, the major concentrations of activity are in downtown Rockford with isolated pockets along some of the commercial corridors.

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<sup>62</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

Indicator	Indicator Weight	Methodology
Population Density	20	Census block groups were categorized into percentile groups based on their population density. Census block groups were assigned points based on the percentile in which they fell, e.g. top percentile = 100/100, bottom percentile = 10/100. Points were then multiplied by the Indicator Weight to give a final score. Source: US Census American Community Survey
Employment Density	20	Census block groups were categorized into percentile groups based on their employment density. Census block groups were assigned points based on the percentile in which they fell, e.g. top percentile = 100/100, bottom percentile = 10/100. Points were then multiplied by the Indicator Weight to give a final score. Source: US Census Longitudinal Employer-Household Dynamics.
Colleges and Universities	5	Census block groups were assigned points that graduated from maximum points given to block groups within a ¼ mile radius from the college or university and decreasing points given to block groups within ½ mile radius from the college or university. Points were then multiplied by the Indicator Weight to give a final score. Source: WinGIS
Community and Tourist Attractions	20	<p>Attractions were categorized based on the type of attraction.</p> <ul style="list-style-type: none"> <li>• Major Arts, Cultural, and Tourist Attractions (20 points)</li> <li>• Sporting Venues (20 points)</li> <li>• Community Centers and Libraries (10 points)</li> <li>• Local Markets and Breweries (10 points)</li> <li>• Parks (5 points)</li> </ul> <p>Points graduated from maximum points given to block groups within a ¼ mile radius from the attraction location and decreasing points given to block groups within ½ mile radius from the attraction location. Census block groups were assigned a score based on the percentile in which they fell, e.g. top percentile = 100/100, bottom percentile = 10/100. Points were then multiplied by the Indicator Weight to give a final score. Source: WinGIS and Rockford Area Convention and Visitors Bureau</p>
Proximity to Transit	15	Transit routes were categorized based on ridership data. Points graduated from maximum points given to block groups within a ¼ mile radius from the transit routes and decreasing points given to block groups within ½ mile radius from transit routes. Census block groups were assigned a score based on the percentile in which they fell, e.g. top percentile = 100/100, bottom percentile = 10/100. Points were then multiplied by the Indicator Weight to give a final score. Source: RMAP
Existing Bicycle Infrastructure	15	<p>Bikeways were categorized based on type of infrastructure.</p> <ul style="list-style-type: none"> <li>• <i>On Road</i>: Bike Lanes (15 points)</li> <li>• <i>On Road</i>: Marked Shared Lanes (10 points)</li> <li>• <i>On Road</i>: Bike Route (5 points)</li> <li>• <i>Off Road</i>: Shared Use Path (15 points)</li> </ul> <p>Points graduated from maximum points given to block groups within a ¼ mile radius from the bikeway and decreasing points given to block groups within ½ mile radius from the bikeway. Census block groups were assigned a score based on the percentile in which they fell, e.g. top percentile = 100/100, bottom percentile = 10/100. Points were then multiplied by the Indicator Weight to give a final score. Source: City of Rockford</p>
Equity	5	Census block groups were assigned 50 points if their minority population was greater than 50% and 50 points if more than 50% of households were in poverty. Points were then multiplied by the Indicator Weight to give a final score. Source: US Census American Community Survey
<b>Total</b>	<b>100</b>	

Table 6: Heat Map Scoring and Methodology

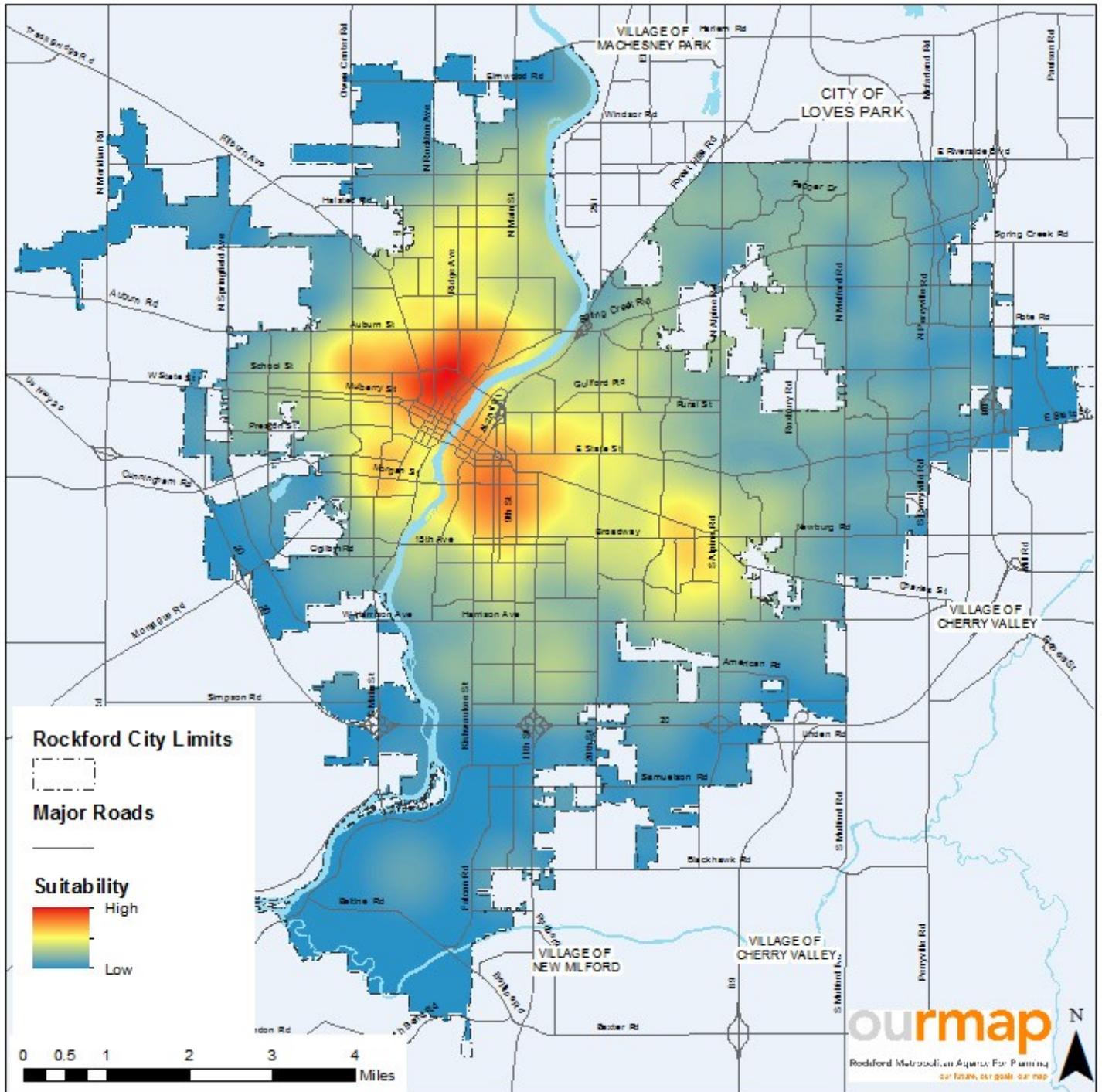


Figure 12: Bike Share Demand Analysis Results

# Public Input

The Rockford Metropolitan Agency for Planning (RMAP) prepared surveys that asked a range of questions concerning the opinions of the public regarding a potential bike share program in Rockford. The nineteen question survey was made available during January and February 2016 on RMAP’s website and was promoted through a variety of sources.

A total of 170 responses were collected, the results of which are analyzed in this section. The purpose of the survey was to solicit public input during the feasibility study process and to help the City identify potential actions or problem areas.

The survey results help to understand:

- What role a bike share could play in Rockford;
- What kind of support or opposition is there for a potential bike share program;
- How much people are willing to use and pay for the system; and
- If the survey respondents were representative of the demographics of the City of Rockford.

The following section provides a summary of the responses received. Complete survey results can be found in Appendix 2. It should be noted that there are some limitations to this survey and the results should not be considered a statistically valid sample. Many of the respondents are self-selecting individuals who either strongly support or strongly oppose bike share and may be more inclined to complete the survey, rather than a randomly selected survey.

## Online Survey Results

### Current Bicycle Use

Survey respondents were asked to provide a general summary of their bicycling usage. A significant majority (85.2 percent) of the respondents reported owning or having access to a bicycle. A large portion of the respondents reported that they ride a bicycle only a few times a month (31.4 percent) or only a few times a year (27.2 percent). Only ten percent of respondents specified that they rode a bike daily.

A majority of the respondents (72.2 percent) classified themselves as seasonal bicyclists and prefer to ride when the weather is nice. Most respondents tend to ride a bicycle for recreation (80.5 percent) or for exercise (70.4 percent).

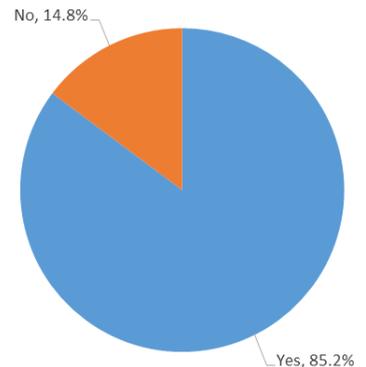


Figure 13: Do you currently own or have access to a bicycle?

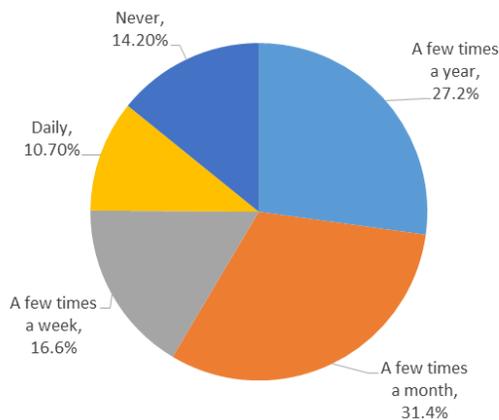


Figure 14: How often do you ride a bicycle?

An overwhelming majority (91.7 percent) of respondents used a personal vehicle for their primary mode of transportation for destinations in the City of Rockford. Only 4.2 percent of respondents reported that they used a bicycle as their primary mode of transportation around Rockford.

### Bike Share Interest

A majority of survey respondents (81.4 percent) support the idea of a bike share program in Rockford. Only 16 percent of respondents stated that it was very likely that they would personally use a bike

share program, approximately 25 percent were somewhat likely, 20 percent were neutral, approximately 12 percent were somewhat unlikely, and 27 percent stated it was very unlikely that they would personally use a bike share program.

The types of trips that most of the respondents would use the bike sharing system for are recreation (70.1 percent), fitness and/or exercise (57.8 percent), and to travel to cultural events (34.7 percent). Approximately 56-percent of respondents stated that they would use a bike sharing system rarely, while 35.8 percent reported that they would use a bike sharing system a few times a month.

A majority of the respondents (68.2 percent) reported that convenience would be a consideration for them to use the bike share program, followed by improved health and “it’s fun” (both 56.1 percent).

When asked about what prices participants would be willing to pay for annual, monthly, and daily memberships, 60.4 percent of respondents stated that would pay more than \$5 a day, 44.9 percent of respondents would not pay \$25 for a monthly pass, and 51.5 percent would pay more than \$60 for an annual pass.

### Demographic Information

Survey participants were asked to provide some optional demographic and employment information. The survey results showed that respondents tended to overrepresent a younger population than Rockford’s actual age distribution for the entire population.

The survey also asked participants to provide the zip code of their current residence and place of employment. The majority of respondents (28.1 percent) live in the 61107 zip code with 24.5 percent working in the 61104 zip code.

### Comments

In total, RMAP received 56 electronically submitted comments out of the 170 total completed surveys. The majority of the responses were positive and showed interest in the success of a bike share program in the City of Rockford. Only seven respondents felt that the idea was generally bad and that it would not be successful. It should be mentioned though that the main reasons listed for the lack of support was due to needed infrastructure and safety concerns. Along these same lines even supporters of the implementation of a bike share program say it would only be successful if major infrastructure and safety improvements were made, which would take investments in the current system in preparation for implementation in a few years. Investments in infrastructure directly improve the safety and usability of a bike sharing system and investment in one would directly impact the other. Other areas of minor concern were crime, vandalism of bicycles and equipment, and funding implications. A breakdown of types of comments collected can be found in Figure 16.

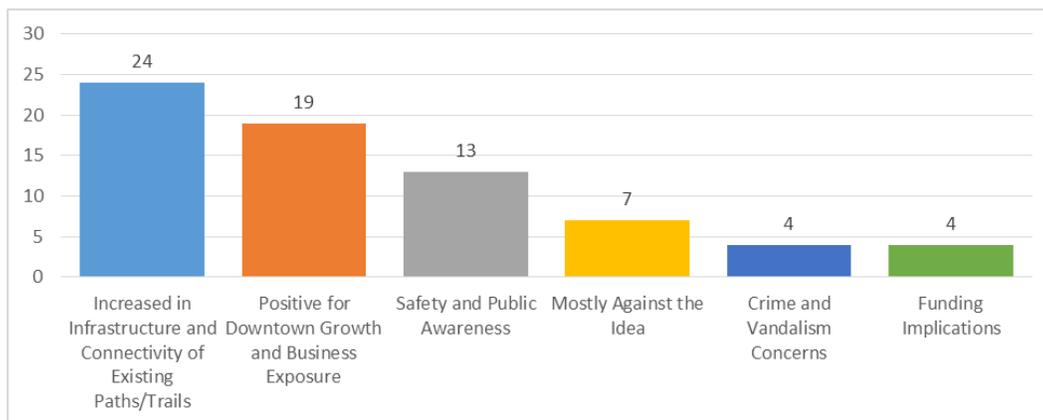


Figure 15: Breakdown of Comments Received via Online Survey

# Summary & Recommendations

The propose of this study is to assess the feasibility of a bike sharing system in Rockford and recommend further actions for the City of Rockford to further pursue.

## Summary

### Business Models

	Strengths	Limitations
Publicly Owned & Operated	Local public agency ownership allows for a greater control over the bike share station permitting process, station locations.	Risk and ongoing financial responsibility falls onto the agency.
	Revenues would be reinvested into the system for improvements and expansion.	Cost-sharing goals for the agency and the private contractor might not fully align and require additional financial management and negotiation.
	Independent contractor would be responsible for liability.	Gathering funding sources may require additional times.
	Strengths	Limitations
Non-Profit Owned & Operated	Better able to attract and co-mingle funds from various sources.	Delays in implementation or expansion of system may be delayed as the non-profit are reliant of intensive funding strategies.
	Profits are reinvested into the system.	Limited government oversight.
	Able to easily expand system across jurisdictional boundaries.	
	Risk and ongoing financial responsibility does not fall onto the public agency.	
	Strengths	Limitations
Privately Owned & Operated	Ongoing financial responsibility rests solely with the private company.	Profits are not necessarily reinvested into the system.
	Companies are able to respond more quickly market demands.	Involves limited local public agency control.
	Capital financing can be assembled quickly.	

Table 7: Business Model Strengths and Weaknesses

## Local Context Analysis

	Strengths	Limitations
Geography & Climate	Downtown Rockford and surrounding area offers a high-density, mixed-use zoning.	Outside of downtown Rockford, land use tends to be fairly low density and follows the major arterials and highways.
	The well-connected, grid-like pattern of downtown's street system encourages bicycling.	Development patterns in some areas of Rockford, especially to the east will impact the connectivity of bicycling routes.
	Generally flat topography.	Extreme temperatures (both hot and cold) will impact demands. Winter weather conditions could make operations difficult during certain months.
Demographics	Downtown Rockford has a high density of employment.	Population densities are low in many parts of Rockford, particularly in Downtown.
	The high-density, mixed-use zoning of downtown Rockford are conducive to bike share activity throughout the daytime.	Rockford is lacking the high proportions of young populations with a higher income level and have bachelors degree or higher that other bike share communities have.
		Outside of Rockford's downtown, commercial land use tends to be more spread out and follows the major arterials and highways.
		The main Rock Valley College campus is approximately 6 miles from Downtown Rockford and the campus relatively isolated.
Transportation Mode Share	Rockford Mass Transit District (RMTD) has a high use of bicycle racks on the buses year-round.	Single-occupant vehicles make up a high portion of commuting in Rockford, encouraged by generally abundant and low-cost parking downtown.
	RMTD provides routes connecting various parts of the City at a relatively low prices	A limited bicycling to work culture in Rockford.
Tourism	With Rockford's revitalization of Downtown, a bike share would offer an attractive means of transportation to and from the sports, arts, and cultural venues downtown.	Downtown Rockford attracts a relatively small number of tourists compared to other cities employing bike share programs.
	The Rockford Region's sports tournaments and other events bring in thousands of potential bike share users annually.	Additional marketing to the tourist population requires additional outreach than standard digital marketing, which will be more expensive.
Bicycle Infrastructure	Large, continually growing, off-road bicycle network.	Lacks an extensive bikeway network Downtown with most of the bicycle facilities growth located elsewhere.
	Expanding bicycling culture with an increasing number of residents joining bicycling clubs.	Incomplete and difficult to understand wayfinding and signage.

Table 8: Local Context Analysis

## Recommendations

After completing a thorough Bike Share Feasibility Study based on the local benefits, readily available business models, local context, demand analysis and feedback that we received from the public, the Rockford Metropolitan Agency for Planning (RMAP) believes that the City of Rockford has an adequate geographic and social-demographic density to support bike share in the near future. However, improvements must be made to the existing bicycle and pedestrian infrastructure in order to ensure that the implementation process leads to a successful and sustainable business model. With this fact, and the continued investment and development in downtown Rockford on both the east and west side of the river it would be best to implement a bike share program in a 3-5 year timeframe when the downtown is better poised for success of a bike share program.

### Form Advisory Committee

In order to meet an implementation timeframe of 3-5 years, the Rockford Metropolitan Agency for Planning suggests the City of Rockford, with help from the Metropolitan Planning Organization, form a planning and advisory group to maintain efforts in organizing and developing of a bike share program. This Bike Share Advisory Committee may also serve as a group to provide input for the current update to the regional RMAP Bicycle and Pedestrian Plan. It is recommended that the Bike Share Advisory Committee continue working on the efforts already set forth in this planning document by monitoring the region's outlined bike sharing strength while simultaneously working to improve the areas that are listed as limitations. This group should proactively research the availability of grants and state/federal funding options for program implementation.

### Increase Investment in Bicycle and Pedestrian Infrastructure

While there are plans in the works for future investment in bicycle and pedestrian infrastructure within the City of Rockford, a comprehensive network across the city, including a fully enclosed river loop trail is not yet in place. RMAP believes that increased investments in downtown bicycle and pedestrian infrastructure is key to a successful bike share program as well as for the future health of the downtown as a whole. More could be done to create a safe, enjoyable, walkable environment in the downtown urban core. According to a majority of respondents (46-percent), the lack of a unified vision for investment into bicycle infrastructure and path connectivity in the city is a limiting factor. Regardless of implementation of a bike share program, a more unified and coordinated development of bike and pedestrian infrastructure is a key component to the success of the downtown revitalization effort. In short if bike share is to succeed and grow, infrastructure improvements are a necessity first. Improvements should be prioritized, and categorized into phases, as recommended by the Bike Share Advisory Committee.

### Develop Unified Regional Complete Streets Policy

For many years, multi-modal streets have been treated as “special projects” requiring extra planning, coordination, funding, and effort. The Complete Streets approach should not be looked at in this manner. Its intent is to view all transportation improvements as opportunities to create safer, more accessible streets for all users, including pedestrians, cyclists, and public transportation users. With this thought process even smaller projects can have a significant and meaningful impact for a region.

A strong complete streets vision coupled with successful implementation policy can inspire a community and improve the overall livability of a region by creating a more substantial sense of “place”. Of course no two policies are alike, just as visions are not one-size-fits-all either. For example, in the small town of Decatur, GA, the Community Transportation Plan defines their vision as promoting health through physical activity and active transportation. Differing from this quite a bit is the City of Chicago. Here the Department of Transportation focuses efforts on creating streets that are safe for travel by even the most vulnerable users—children, older adults, and those with

disabilities<sup>63</sup>. A true Complete Streets policy must apply to everyone traveling along the length of a road. A sidewalk lacking curbs is difficult to navigate by someone in a wheelchair. A street with an awkwardly placed public transportation stop without safe crossings is dangerous to riders and motorists. An urban street with no safe place for cyclists to travel will discourage those who depend on a bicycle for transportation and exercise.

### Keep it Simple and Focus on Downtown Rockford

Successful Bike share programs throughout the Nation are always located in the areas of highest density in the region. These areas must also have a mixture of land uses that will encompass higher job densities, population densities, commercial activity, tourism, special events, cultural activities, large festivals and sporting events, etc. This will help to generate a variety of trip types throughout a given day. It is recommended that a phased approach be considered when implementing bike share program in the City of Rockford. After implementation and a year or two of success, a second phase of system expansion may be warranted. Along these same lines, any system irregularities or inefficiencies may also be adjusted for correction and improvement.

### Secure Funding for Implementation & Initial Operations

Very few bike share programs are successful if they are financially dependent on one source of revenue. Many program sponsors of the system should be sought after strategically and early on. Other bike share programs have been very successful at coordinating with local hospitals, park districts, visitors and tourism bureaus and health councils. These organizations should generally have a vested interest in such a program based on the health, wellness and community benefits associated with bike share. In addition to local funding, the table below shows potential funding sources for a bike share program, according to the Federal Highway Administration in 2012.

FEDERAL					STATE and LOCAL
U.S. Department of Transportation (USDOT)		Centers for Disease Control (CDC)	Department of Health and Human Services (HHS)	Department of Energy (DOE)	
Federal Highway Administration (FHWA)	Federal Transit Administration (FTA)				
Congestion Mitigation Air Quality (CMAQ) Surface Transportation Program: Transportation Enhancements (TE)	Job Access Reserve Commute (JARC)	Health and Obesity Prevention Grant	Communities Putting Prevention to Work	Energy Efficiency Conservation Block Grant	Public Health Grants
Transportation, Community, and System Preservation Program (TCSP)	Paul S. Sarbanes Transit in Parks Grant Program				Local Transportation Grants
Transportation Investment Generating Economic Recovery (TIGER) Grant					
Nonmotorized Transportation Pilot Program	Bus Livability Pilot Program				

Table 9: Sources of Funding Used by Bike Share Programs as of 2012<sup>64</sup>

<sup>63</sup> Active Transportation Alliance. *Complete Streets Complete Networks: A Manual for the Design of Active Transportation*. 2012.

<sup>64</sup> Federal Highway Administration. *Bike Sharing in the United States: State of the Practice and Guide to Implementation*. September 2012.

# APPENDICES

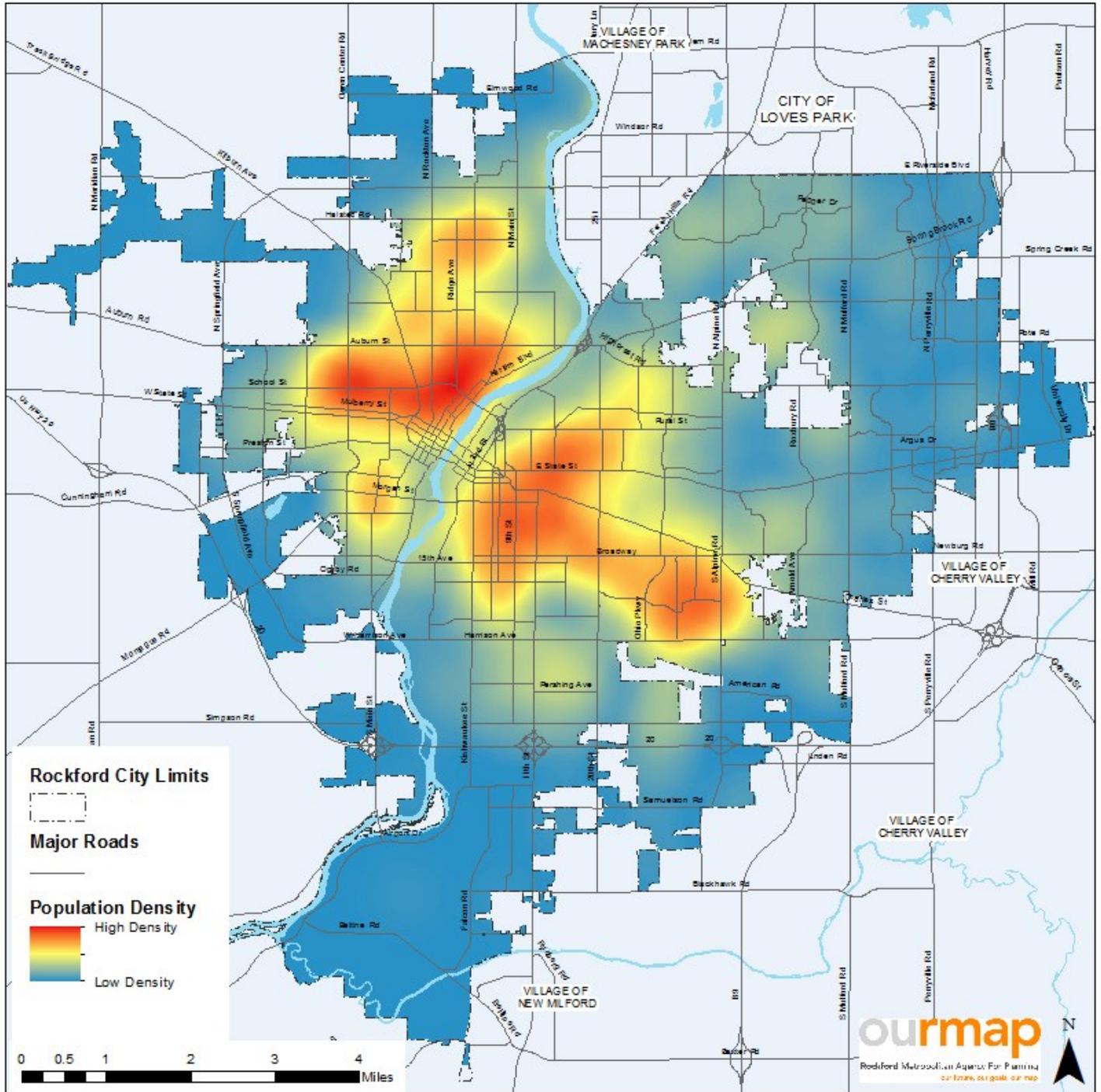
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The following products are for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

# Appendix A: Resulting Heat Maps

## Population Density





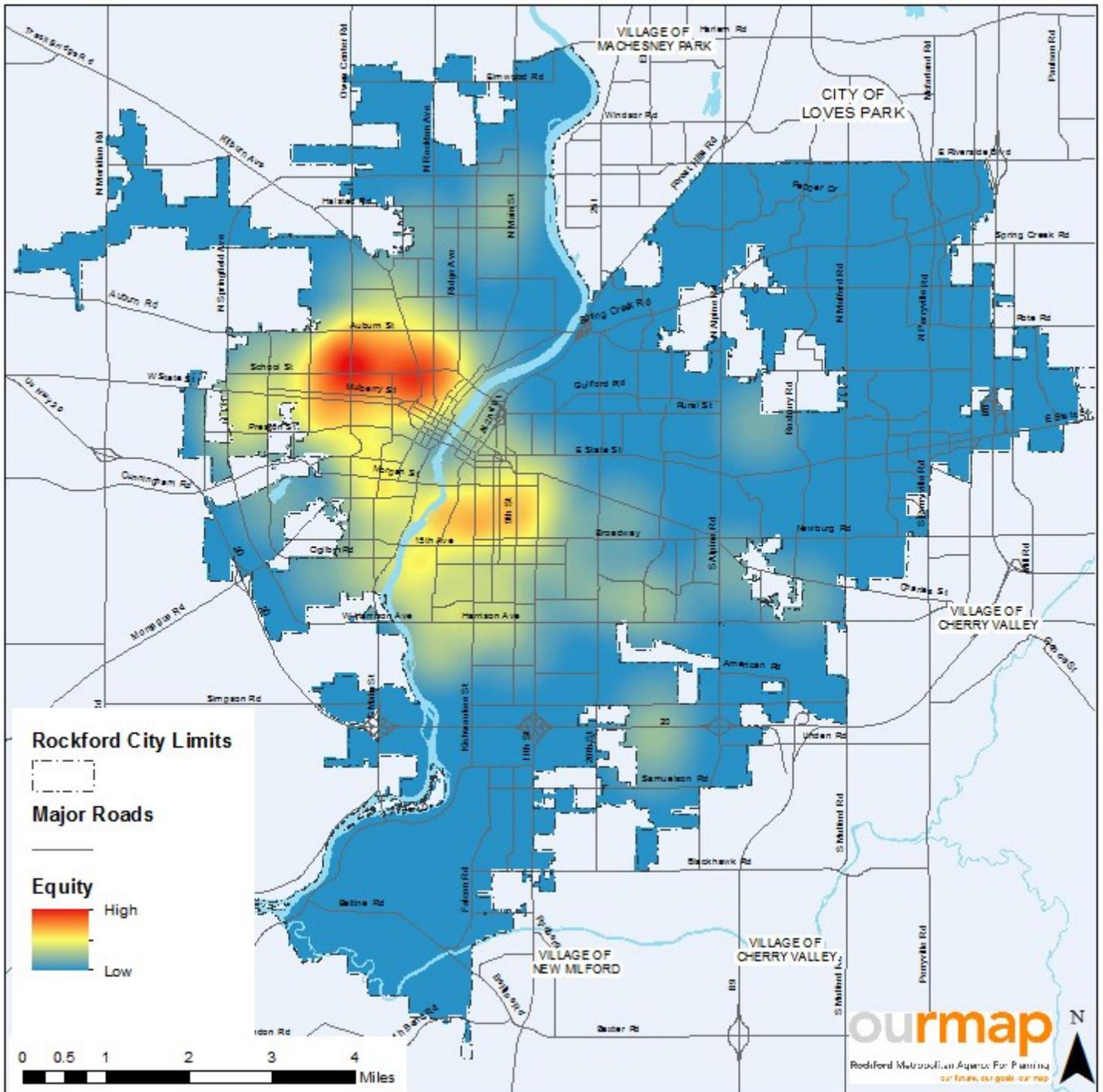




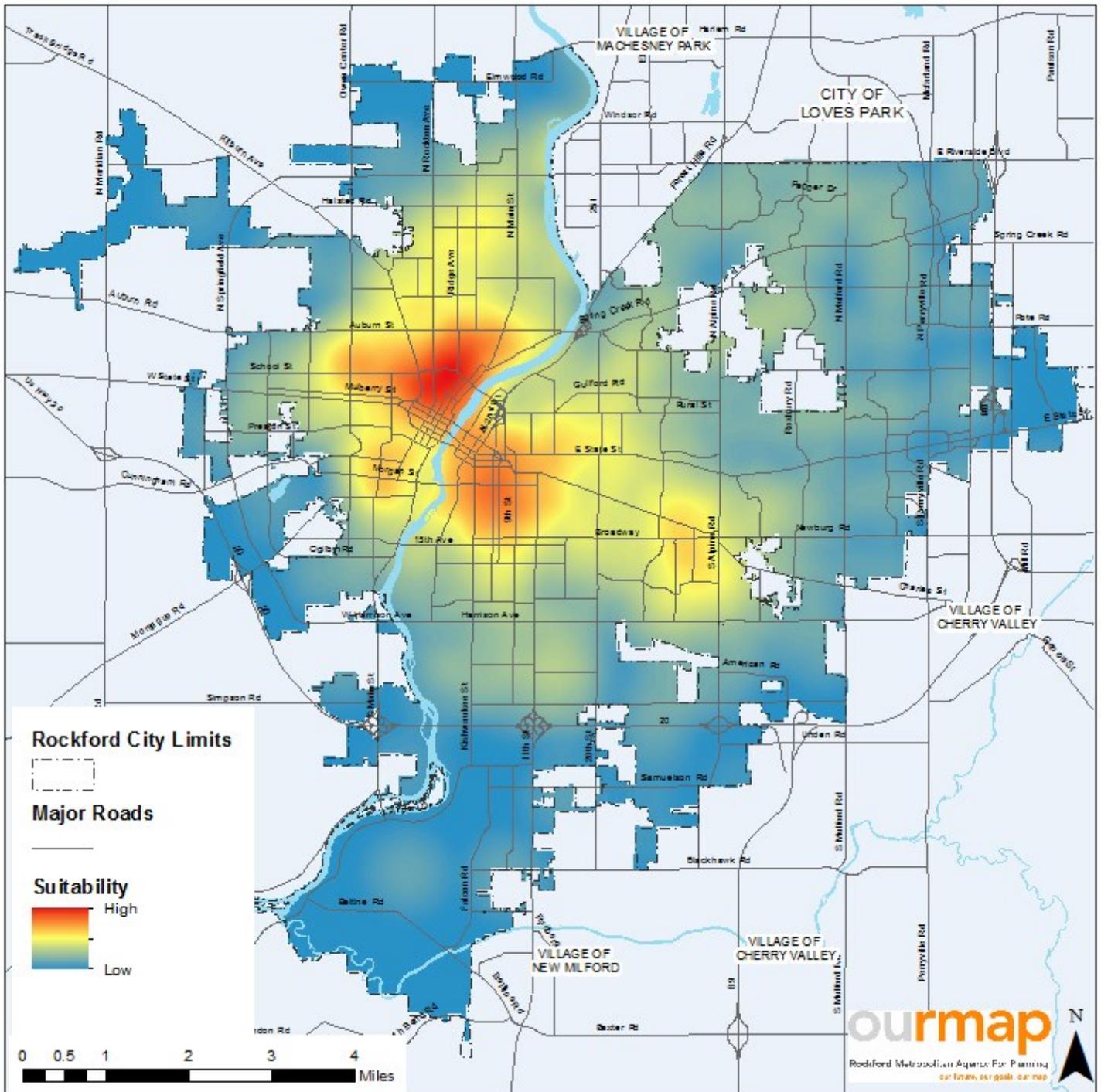




# Equity



# Resulting Heat Map: Potential Bike Share Demand Area

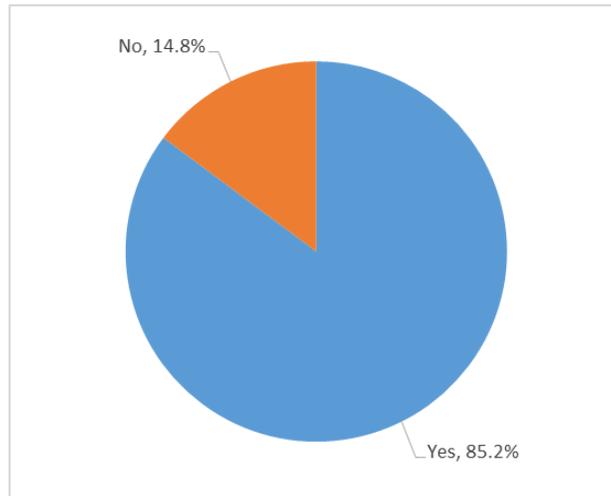


## Appendix B: Survey Results

Survey results are depicted on the following pages, showing the percentage of responses for each answer. For questions that did not provide a multiple choice answer, or that required an explanation, comments are included as they were entered on the survey itself and are not in any particular ranking order.

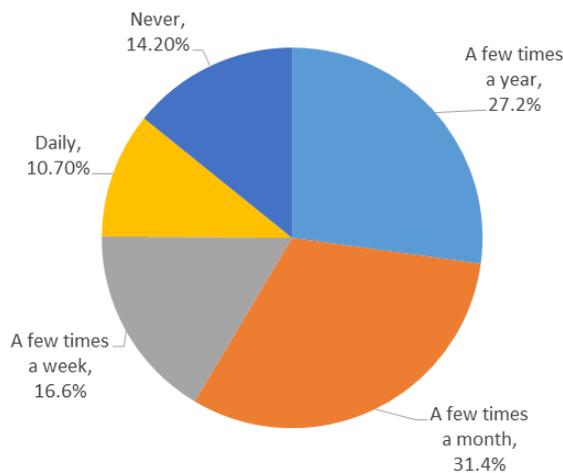
### Survey Results

1. Do you currently own or have access to a bicycle?



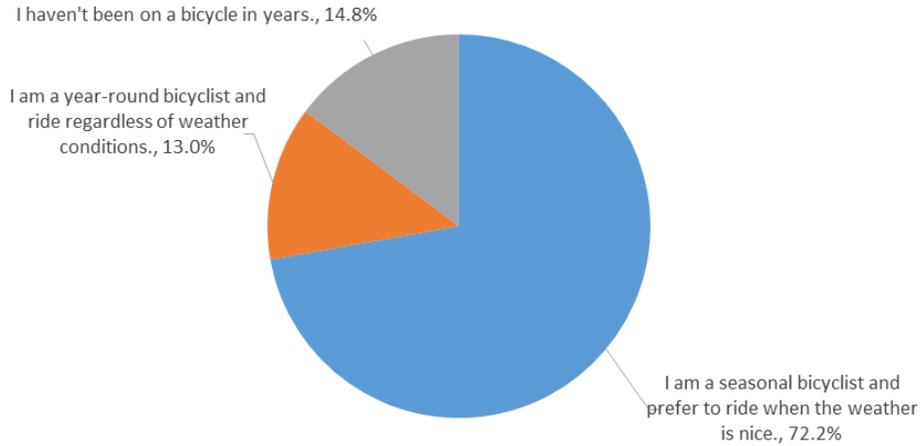
Value	Count	Percent	Statistics	
Yes	144	85.2%	Total Responses	169
No	25	14.8%		

2. How often do you ride a bicycle?



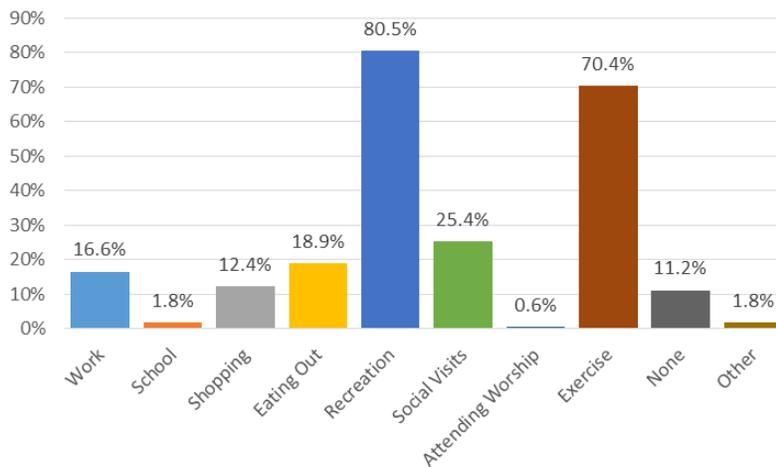
Value	Count	Percent	Statistics	
A few times a year	46	27.2%	Total Responses	169
A few times a month	53	31.4%		
A few times a week	28	16.6%		
Daily	18	10.7%		
Never	24	14.2%		

3. Which of the following best characterizes your bicycling behavior



Value	Count	Percent	Statistics	
I am a seasonal bicyclist and prefer to ride when the weather is nice.	122	72.2%	Total Responses	169
I am a year-round bicyclist and ride regardless	22	13.0%		
I haven't been on a bicycle in years.	25	14.8%		

4. What types of trips do you currently use a bicycle for?

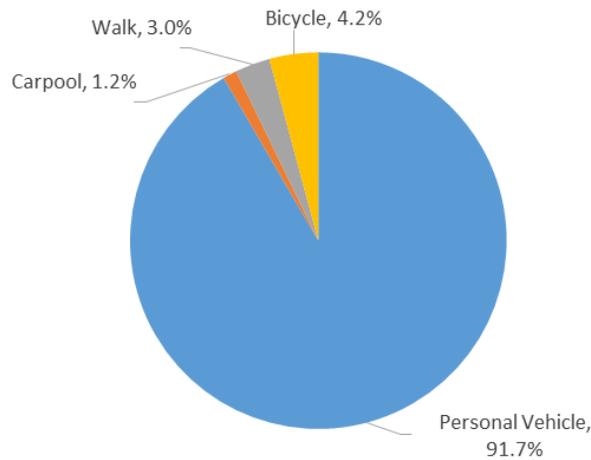


Value	Count	Percent
Work	28	16.6%
School	3	1.8%
Shopping	21	12.4%
Eating Out	32	18.9%
Recreation	136	80.5%
Social Visits	43	25.4%
Attending Worship	1	0.6%
Exercise	119	70.4%
None	19	11.2%
Other	3	1.8%

Statistics	
Total Responses	169

Write-In Responses
Family Time
With kids
Outdoor Events

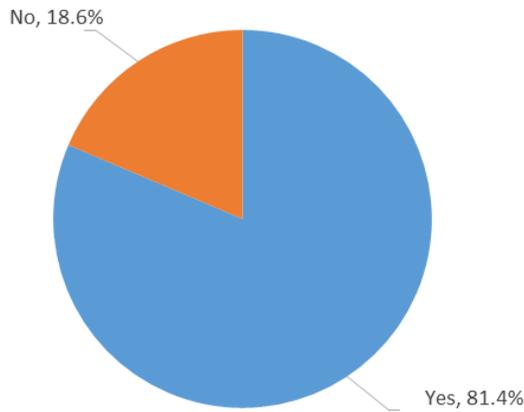
5. What is your primary mode of transportation for destinations in the City of Rockford?



Value	Count	Percent
Personal Vehicle	154	91.7%
Carpool	2	1.2%
Walk	5	3.0%
Bicycle	7	4.2%
City Bus (RMTD)	0	0.0%

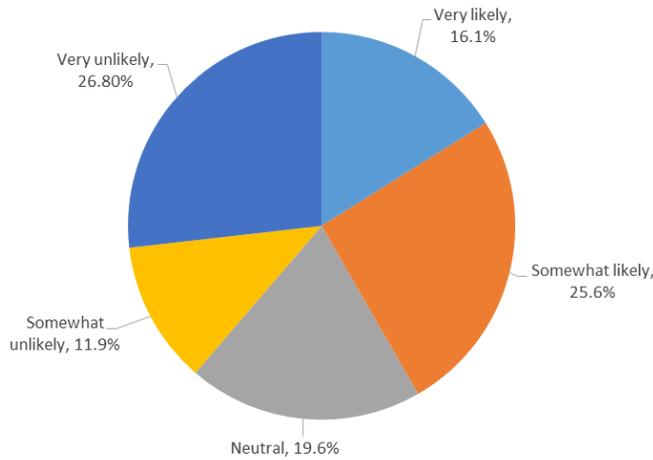
Statistics	
Total Responses	168

6. If a bike share system was implemented in Rockford, would it be something you support?



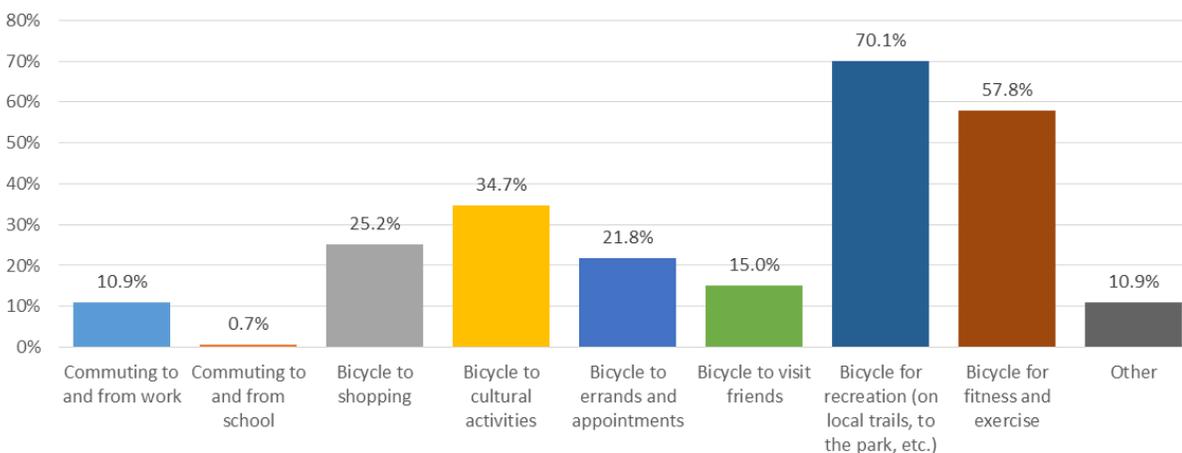
Value	Count	Percent	Statistics	
Yes	136	81.4%	Total Responses	167
No	31	18.6%		

7. How likely is it that you would personally use a bike share program?



Value	Count	Percent	Statistics	
Very likely	27	16.1%	Total Responses	168
Somewhat likely	43	25.6%		
Neutral	33	19.6%		
Somewhat unlikely	20	11.9%		
Very unlikely	45	26.8%		

8. Bike-share systems typically support 1-3 miles. What kind of trips might you use for the shared bicycles for? (Please check all that apply?)



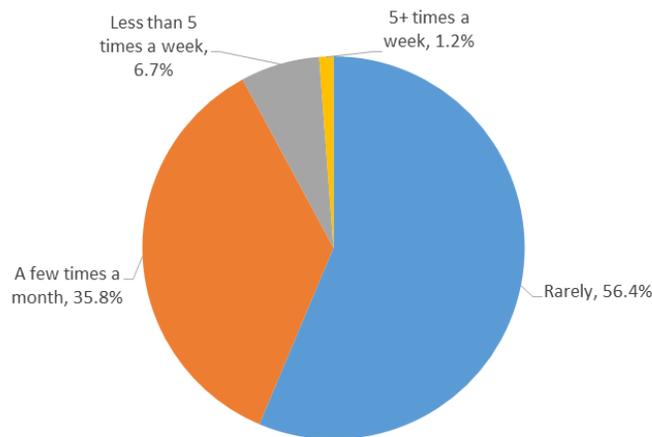
Value	Count	Percent
Commuting to and from work	16	10.9%
Commuting to and from school	1	0.7%
Bicycle to shopping	37	25.2%
Bicycle to cultural activities	51	34.7%
Bicycle to errands and appointments	32	21.8%
Bicycle to visit friends	22	15.0%
Bicycle for recreation (on local trails, to the park, etc.)	103	70.1%
Bicycle for fitness and exercise	85	57.8%
Other	16	10.9%

Statistics	
Total Responses	147
Write-In Responses	
Back and forth to meetings	
Biking to bars and restaurants	
Exploring downtown	
I wouldn't (8)	
I would use it to go from bus to work if stations were provided at both ends of the commute	
Single destination with alternative means to return home	
At work—going to meetings or	
Lunch downtown	

9. Excluding your home and work, please rank the locations in the order that you would likely visit the most in downtown Rockford?

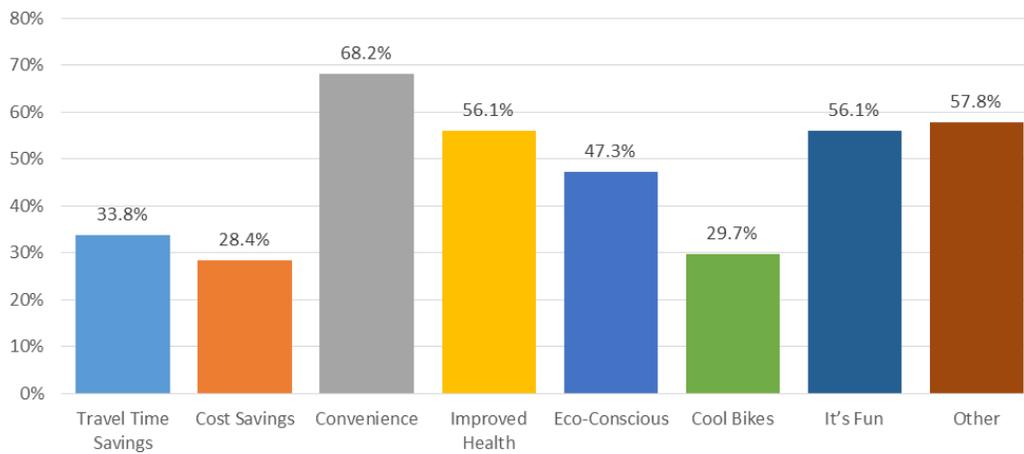
Value	Rank	Statistics	
Rockford City Hall/East State Street Restaurants	1	Total Responses	162
Rockford City Market	2		
Riverfront Museum Park/Discovery Center	3		
Prairie Street Brewery/Riverview Park	4		
BMO Harris Bank Center	5		
Davis Park	6		
Rockford Public Library	7		
UW Health Sports Factory	8		
YMCA	9		
Rockford Mass Transit District—Downtown Transfer Center	10		

10. How frequently would you use the bike share bikes?



Value	Count	Percent	Statistics	
Rarely	93	56.4%	Total Responses	165
A few times a month	59	35.8%		
Less than 5 times a week	11	6.7%		
5+ times a week	2	1.2%		

11. If you are interested in using a bike share service, which benefits would influence your decision to use it? (Please check all that apply.)

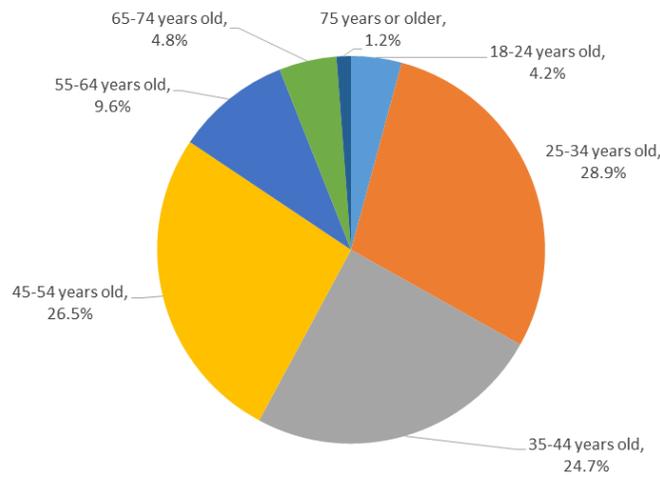


Value	Count	Percent	Statistics
Travel Time Saving – For many short trips within a service area, bike share trips are likely faster and more convenient than using a motor vehicle.	50	33.8%	Total Responses 157
Cost Savings – Using a bike share is less expensive than operating and owning a motor vehicle, or owning and maintaining your own bike.	42	28.4%	<b>Write-In Responses</b>
Convenience – Bike share bikes are easy to access and easier to park than a car.	101	68.2%	Ease and safety of using bike paths or bike lanes
Improved Health – Bike shares increase active transportation and exercise.	83	56.1%	How safe it was, path/road wise
Eco-Conscious – Bike share trips reduce your carbon footprint.	70	47.3%	I am not in favor of it.
Cool Bikes – High quality, state-of-the art bicycles are offered.	44	29.7%	None (2)
It's Fun – The city looks different by bicycle.	83	56.1%	Not interested (3)
Other - Write In (Required)	14	57.8%	The ability to transport kids with me.
			future recreational sites in downtown area
			safer, off street bike paths. I don't like the idea of cycling on the side of the street
			Destinations AWAY from downtown; plentiful bike availability; showers at work so I don't stink of sweat all day
			Promoting a more eco-friendly Rockford and spreading a positive message as to why Rockford should become more bike friendly.

12. In U.S. cities offering bike shares today, the average daily rate is \$5, a monthly rate of \$25, and an annual rate of \$60. Would you be willing to:

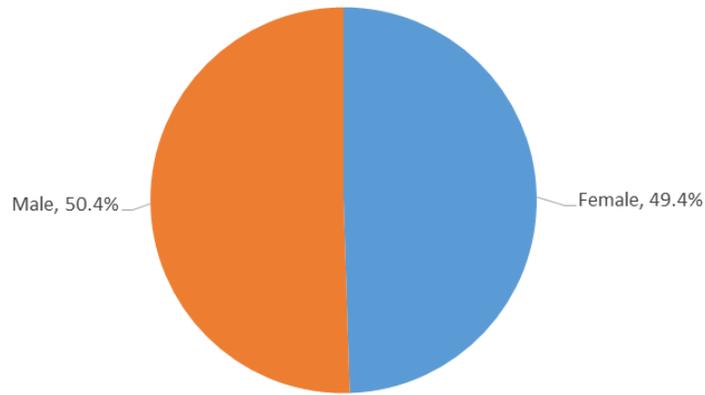
	Yes	Higher Amount	Lower Amount	No	Responses
Pay \$5 for a day pass?	99 60.4%	1 0.6%	30 18.3%	34 20.7%	164
Pay \$25 for a monthly pass?	51 32.3%	1 0.6%	35 22.2%	71 44.9%	158
Pay \$25 for an annual pass?	82 51.6%	3 1.9%	13 18.2%	61 38.4%	159

13. Age: What is your age?



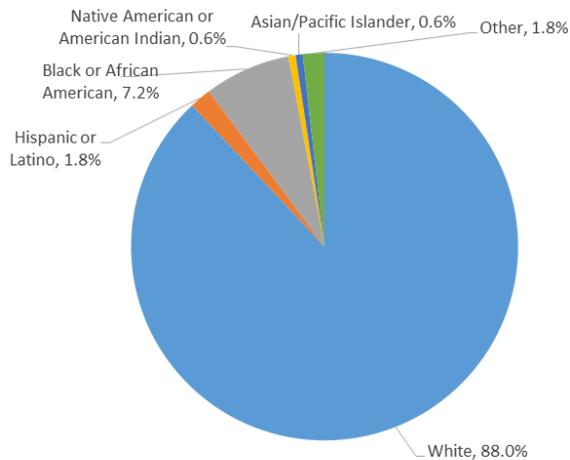
Value	Count	Percent	Statistics	
Under 12 years old	0	0%	Total Responses	166
12-17 years old	0	0%		
18-24 years old	7	4.2%		
25-34 years old	48	28.9%		
35-44 years old	41	24.7%		
45-54 years old	44	26.5%		
55-64 years old	16	9.6%		
65-74 years old	8	4.8%		
75 years or older	2	1.2%		

14. Gender: Please specify your gender.



Value	Count	Percent	Statistics	
Female	83	49.4%	Total Responses	168
Male	85	50.6%		

15. Ethnicity origin (or Race): Please specify your ethnicity.



Value	Count	Percent	Statistics	
White	147	88.0%	Total Responses	167
Hispanic or Latino	3	1.8%		
Black or African American	12	7.2%		
Native American or American Indian	1	0.6%		
Asian/Pacific Islander	1	0.6%		
Other	3	1.8%		

16. Home Zip Code

Response	Count
53590	1
58102	1
60732	1
61108	4
61010	1
61016	1
61032	1
61065	3
61072	2
61073	4
61080	1
61084	1
61088	3
6110	1
61101	7
61102	5
61103	23
61104	8
61105	1
61107	45
61108	9
61109	8
61111	5
61114	16
61115	11

17. Work Zip Code

Response	Count
53511	1
58102	1
59801	1
60641	1
60666	1
60732	1
61008	2
61010	1
61061	1
61084	1
61101	21
61102	15
61103	12
61104	36
61105	1
61107	17
61108	11
61109	4
61111	6
61114	9
61115	6
NA	1

18. Want to stay up-to-date on this project?

*Responses to this question have been intentionally left out for privacy reasons.*

19. Do you have any other comments or suggestions for us?

## Responses

Do it!!

Good idea, worth a try if budgetary conflicts can be minimized.

Great idea!

I am concerned about car traffic. A bike lane is needed downtown.

I hope this happens!

I think it would be a great idea. The Rockford Street will need to have better Bike access.

I would be very happy to have a bike share program and would support it to the fullest.

Improve area bike trails to get around the city as well. Infrastructure has to support this.

Install bike lanes or paths first

It would be foolish to spend money on this.

Make downtown more bike friendly. Bike lanes, less on street parking.

NOPE

No

PLEASE BRING THIS TO ROCKFORD!!

Rockford should place priority on safe, assessable, connected, dedicated bike lanes.

Share survey results with the Healthy Lifestyles Spoke of Transform Rockford

This would be an amazing thing for our city and would really increase visitor traffic!!

We need things like this in Rockford!!!!

What is your mugged and someone steal the bike? Likely scenario in Rockford.

We have some decent bike infrastructure but we need to do more to interconnect facilities so that one could safely get from the west side of Rockford to the East without using shared faculties with automobile traffic. More designated and striped bike lanes to raise awareness.

I already have a bike! I can see myself picking one up if I am hanging out downtown and want to get around faster, but that's about it. Getting from main and auburn to downtown via the whitman street bridge stinks, if you go the right way down church street, then it's tricky to get over to the path part of the bridge. It's the same for riding on state street and jefferson street bridges. Connectivity and safety in these areas are always a concern when i'm riding. The other option is to take the bike path from auburn down, but it is a longer ride and I feel less safe on the bike path at night (than on the street) because there are less people and a greater chance someone could be hiding (though I do appreciate that it is lit late into the night).

Rockford is way too spread out to support a bike sharing program. This will clearly be subsidized by taxpayer money. Rockford is in serious debt and has high taxes. Use the money to pay that down. Not on bikes.

I like the idea, and I'm a cyclist. But I have my own bikes so I wouldn't use it. And I've seen them in Madison, Chicago and Washington DC, but never have used them there. I do see they get a lot of use in Chicago.

Another concern I would have is making sure there were bicycle-safe routes between the destinations I would need to

## Responses

I believe that if bike share were to be implemented in Rockford it would be a fantastic way to not only promote recreation in our city, but also to aid in the revitalization of the downtown area. However, one should not fool themselves into thinking that this will be a highly used program by the many people who live in this city and are overly attached to their cars and readily available free parking. I think that this program will be best utilized and most important for low income residents of the city, those that highly utilize mass transit. Hopefully a bike share program in Rockford will not forget about this group of people and would make sure that bicycle stations are available far into the west side of the city. Additionally, many of these programs are cost prohibitive and require a credit card to be used. A highly subsidized program (that's free for the lowest income users) would have the best results in the city and be able to spark utilization. I love the idea of a bike share program but have not seen good implementation in other cities (having lived in Austin and Chicago). Rockford could set some amazing precedent in the way they implement this program, something that I find to be really exciting!

1: This needs to be a part of a strategic bicycling plan within the City and key stakeholders. Stations need to be deliberately placed at key locations, not far from each other. A connected network of bike lanes needs to be laid out, and part of broader discussions (sharrows, road diets, additional bike lanes, etc.) that will help encourage bike-sharing. 2: Would this be a private or publicly owned initiative? 3: For what it's worth, The RedBike program in Cincinnati is a great one to learn from.

Pleased that the RMAP is surveying community interest in this. If there is sufficient support for the Bike Share program, I would hope this would also result in additional bike paths and bike lanes - for safety reasons.

Make biking in Rockford safer. I would rather see better sidewalks or bike lanes over this bike rental system. More bike stands to lock up to. For my personal bikes. If you put up the rental stations put bike racks near them so it's easier to combine bicycle parking.

with the crime rate in RFD at this time I do not think it is a great idea. Also due to the number of people driving cars it would be a enormous challenge.

I suggest a cost to use the bike on a daily basis by hour. Lets say I wanted to ride from City Hall to a meeting at the River District and used the bike for 1.5 hours, I would pay \$2.00.

I'd like to learn more about the possible locations for these bike ride-shares. I live near SwedishAmerican hospital and would like for the bikes to be somewhat close to me because it wouldn't make sense to have to walk one mile+ to get access to them.

I have a small child, so I would definitely use this if it's possible for a toddler to be on the bike as well. Otherwise, I probably wouldn't use it, since he's with me very often.

Do not feel the downtown corridor is redeveloped enough to support this project at this point. Great idea, when we have a consistent amount of people downtown for recreation and entertainment.

While I appreciate the idea, I'd rather see the energy spent working with the area cycling community to build a feasible bike/ped infrastructure to get more people out riding safely. I could see a bike share working down the road if the new hotel etc is successful in further revitalizing downtown. I'd be interested to see more and possibly be involved with future bike/ped plans for the region.

Rockford residents are downright hostile towards cyclists. There is no bicycle infrastructure like sophisticated cities. Unless roads are completely redone, it will be a complete waste of money and lead to death/injuries of novice cyclists.

I would support if the program eventually (in a rather short period of time) supports itself financially and there is a way to ensure no one steals the bikes.

The City of Fargo just implemented a bike share program in 2015. I would be willing to share any insight you may need.

Rockford doesn't have the cycling infrastructure to necessitate a bike share program. We need to focus first on connecting the different sections of town via bike lanes/striped lanes. A PSA on proper bike riding / sharing the road would

## Responses

I live close enough to downtown that I don't have much need for a bike share personally. I already bike in downtown on a regular basis for work and recreation. I would like to see the city implement bike share and move parking to the edges of downtown so that current parking can be put to a more beneficial use. Increasing the cost of parking would also discourage people from driving into the heart of downtown. I don't think a bike share program will succeed without also implementing a better bike infrastructure. Most people are afraid of using bikes on city streets when they have to intermingle with car traffic. Without adding bike infrastructure and making other infrastructure changes that discourage auto use there will not be a successful bike share program. The most common use for it will be out of town visitors to the Sports Factory and new hotels. Creating linkages for those visitors to things like Sinnissippi, Anderson Gardens, and other attractions linked by the rec path will be important. Bike share stations at the Y, Nicholas, Anderson Gardens, Sports Factory, hotels (including Cliffbreakers if that is still open) and Sportscore 1 would work, but the lack of bicycle infrastructure really makes it difficult for me to see this working without significant changes. Sharrows (icons of bikes painted on the street) simply don't work for most people, but that's all we currently have. The cities that you reference as having bike share also have strong infrastructure to support biking. It would be interesting to see if there are any cities that have successful bike share without having bike infrastructure. I'd be surprised if that's the case. For those of us who currently bike downtown, more places to lock up would be REALLY nice. I currently lock up at City Hall or City Market when I'm on the east side and the library or the railing next to RAVCB office when on the west side. Occasionally I lock to a no parking sign if those locations aren't close enough.

I think just working on adding more funds to building better biking infrastructure is more realistic than the biking sharing program for Rockford. I just don't think it will work in Rockford, I mean look at the Bridge to Nowhere and the Bus Station to Nowhere too, that \$ could have been spent on extending bike paths or putting new ones in. I know quite a few coworkers who bike and they bike on sidewalks due to not having protected bike lanes and some places, they can't get to since there is no sidewalk on a lot of the streets here. I would like to bike to the movies on State street myself but there's a few miles on State St with no sidewalks so I end up having to use the bus. Or LongHorn Steakhouse has a bike rack but again, that's a stretch with no sidewalk, same w/ Forest Plaza ( I go there once a week but can't use their bike rack due to having to bus it there).

The people who would most likely use the program would probably not have the means to take part in this survey therefore I find it very unlikely that the people who would benefit from it would be able to input their opinion. I do believe keeping that in mind that the price should be much lower due to the fact that we have a large homeless population of homeless people with extremely little to no income in the downtown area and they need to get from place just like anyone else. If a program like this were to come into existence why not make it count for those who feel counted out and looked down upon. Let's focus on helping those who are truly in need of the transportation and would benefit from being able to get a ride while enjoying the view without walking.

I LOVE THIS IDEA! I USE THIS WHILE I VISIT MADISON QUITE OFTEN. WOULD LOVE TO SEE IT HERE IN ROCKFORD

Great idea! I have seen the bicycles in Madison and I am not sure how frequently I would use one. However, I would be willing to purchase an annual pass to help launch the program in Rockford, if the cost is reasonable.

I do not think this is an appropriate program for Rockford. Recently, Carpenters Place provided bikes for the homeless. I feel that this type of program is a better program for those individuals who are without transportation.

More bike paths or shared room on the streets for biking would be great. Then biking to work would really be convenient

Although this is a good though. I feel that Rockford first needs to get an ideal cycling infrastructure. Bike lanes, repainted designated areas in the lanes that we do have. Keep extending the paths so this idea can be put to better use. Rockford should look into "Bicycle benefits" cyclists with a sticker on their helmet receives discounts on local stores/ restaurants. This will encourage more people to ride bikes as well as wear their helmet.

Rockford needs more bike infrastructure to compliment a bike sharing program more paths and bike lanes.

Bike share won't work for me due to my home and work locations. Bike share would work better in areas with proper bike routes/paths. I'm curious to how riders will pick up and return the bikes?

## Responses

Rockford's infrastructure for safe cycling is horrible. I have ridden regularly in all major cities and Rockford is downright dangerous. The money needs to be spent on creating bike lanes, connecting existing isolated bike paths, and public awareness of laws and regulations. Our city doesn't support cycling, there is no reason to dump money into a system that would ultimately fail. Look at the service station that was donated by Tour De North End. It was vandalized and rendered useless very quickly. Rockford, as a whole, doesn't support cycling and I do not see a bikeshare program being in any way beneficial to our residents. The downtown area is so small that a bike trip from one end to the other would accomplish what? Plus, you would be putting people on the road who have limited cycling experience, most likely combined with alcohol, in an area that isn't even safe for regular, seasoned cyclists. Combine that with the fact that our residents can't respect or take care of public property, and I think it would go nowhere. I'm all for expanding cycling, and getting people out onto the roads safely, but money needs to be spent elsewhere first to create a safe and fun way to enjoy bicycles.

Some of the questions are hard. I'm in that place where I want to support this, but deep down I'm not sure if I'd use it that often. And if it's not self-sustaining financially, I wouldn't want a lot of taxpayer dollars going to it. So my yes to "would you support it" has a lot of caveats.

I own my own bike but there are times that I want to invite friends to join me on a bike ride...this is a great idea!

I think this program is a great step toward creating a more bike friendly city. I currently live in Missoula, Montana and it is a very bike friendly town, so I think it is possible to make Rockford a more bike-friendly and eco-conscious place.

If I lived more towards the downtown area I would likely use it more but I live in the country which with not be efficient for me.

Why the focus on downtown destinations in the list of 10? It is VERY shortsighted to have those, but not include the Courthouse (a major downtown magnet for people every day) and to include the brewery with City Market - this is a BADLY designed survey and badly thought-out with a strong "downtown" bias instead of a "Rockford" bias, and as such the program will be doomed to fail.

I think a Bike Share program would be wonderful for our city! Rockford has so much to offer and I would love to see us in a healthy direction! Personally, I think my family would use them to simply make a few stops for lunch and shopping. I look forward to seeing the positive direction our city is going and welcome the opportunity to support all things local!

This is wonderful option for those that live outside of the downtown area but don't want the hassle of parking and wish to enjoy the social and cultural activities within downtown.